

Primacy Revision Crosswalk

40 CFR 141

Ground Water Rule

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
PART 141 NATIONAL PRIMARY DRINKING WATER REGULATIONS			
SUBPART C MONITORING AND ANALYTICAL REQUIREMENTS			
40 CFR 141.21 COLIFORM SAMPLING.			
Sanitary surveys conducted by the State under the provisions of 40 CFR 142.16(o)(2) of this chapter may be used to meet the sanitary survey requirements of this section.	40 CFR 141.21(d)(3)	R.61-58.5.G(4)(C)	N
40 CFR 141.28 CERTIFIED LABORATORIES.			
For the purpose of determining compliance with 40 CFR 141.21 through 141.27, 141.30, 141.40, 141.74, 141.89 and 141.402, samples may be considered only if they have been analyzed by a laboratory certified by the State except that measurements of alkalinity, calcium, conductivity, disinfectant residual, orthophosphate, pH, silica, temperature and turbidity may be performed by any person acceptable to the State.	40 CFR 141.28	R.61-58.5.BB	N

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SUBPART O – CONSUMER CONFIDENCE REPORTS			
40 CFR 141.153 CONTENT OF THE REPORTS.			
<i>Systems required to comply with subpart S.</i> Any ground water system that receives notice from the State of a significant deficiency or notice from a laboratory of a fecal indicator-positive ground water source sample that is not invalidated by the State under 40 CFR 141.402(d) must inform its customers of any significant deficiency that is uncorrected at the time of the next report or of any fecal indicator-positive ground water source sample in the next report. The system must continue to inform the public annually until the State determines that particular significant deficiency is corrected or the fecal contamination in the ground water source is addressed under 40 CFR 141.403(a). Each report must include the following elements.	40 CFR 141.153 (h)(6)(i)	R.61-58.12.C(11)f(i)	N
The nature of the particular significant deficiency or the source of the fecal contamination (if the source is known) and the date the significant deficiency was identified by the State or the dates of the fecal indicator-positive ground water source samples;	40 CFR 141.153 (h)(6)(i)(A)	R.61-58.12.C(11)f(i)(A)	N
If the fecal contamination in the ground water source has been addressed under 40 CFR 141.403(a) and the date of such action;	40 CFR 141.153 (h)(6)(i)(B)	R.61-58.12.C(11)f(i)(B)	N
For each significant deficiency or fecal contamination in the ground water source that has not been addressed under 40 CFR 141.403(a), the State-approved plan and schedule for correction, including interim measures, progress to date, and any interim measures completed;	40 CFR 141.153 (h)(6)(i)(C)	R.61-58.12.C(11)f(i)(C)	N

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If the system receives notice of a fecal indicator-positive ground water source sample that is not invalidated by the State under 40 CFR 141.402(d), the potential health effects using the health effects language of Appendix A of subpart O.	40 CFR 141.153 (h)(6)(i)(D)	R.61-58.12.C(11)f(i)(D)	N			
If directed by the State, a system with significant deficiencies that have been corrected before the next report is issued must inform its customers of the significant deficiency, how the deficiency was corrected, and the date of correction under paragraph (h)(6)(i) of this section.	40 CFR 141.153 (h)(6)(ii)	R.61-58.12.C(11)f(i)(ii)	N			
APPENDIX A TO SUBPART O OF PART 141—REGULATING CONTAMINANTS.						
Appendix A to Subpart O is amended by adding a new entry “Fecal Indicators (enterococci or coliphage)” is added to read as follows:	Appendix A to Subpart O of Part 141	Appendix D to R.61-58.12	N			
Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Microbiological Contaminants:						
Fecal Indicators (enterococci or coliphage).	TT.....	TT.....	N/A....	Human and animal fecal waste.	Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term health effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
TT=Treatment Technique						

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SUBPART Q PUBLIC NOTIFICATION OF DRINKING WATER VIOLATIONS			
40 CFR 141.202 – TIER 1 PUBLIC NOTICE—FORM, MANNER, AND FREQUENCY OF NOTICE.			
<p>This entry is redesignated as entry (9), and a new paragraph (8) is added to read as follows:</p> <p>Detection of <i>E. coli</i>, enterococci, or coliphage in source water samples as specified in 40 CFR 141.402 (a) and 40 CFR 141.402 (b).</p>	40 CFR 141.202 (a) Table 1 (8)	R.61-58.6.E(2)(a) Table entries (8) & (9)	N
40 CFR 141.203 – TIER 2 PUBLIC NOTICE—FORM, MANNER, AND FREQUENCY OF NOTICE.			
<p>Failure to take corrective action or failure to maintain at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer under 40 CFR 141.403 (a).</p>	40 CFR 141.203 (a)(4)	R.61-58.6.E(3)(a) Table entry (4)	N

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APPENDIX A TO SUBPART Q OF PART 141—NPDWR VIOLATIONS AND OTHER SITUATIONS REQUIRING PUBLIC NOTICE¹				
Entry I.A.11 is added; entry IV.F is redesignated as entry IV.G; and a new entry IV.F is added in alphabetical order, as listed in the following table:	Appendix A to Subpart Q of Part 141 I.A.II, IV.F, and IV.G	Appendix A to R.61-58.6 I.A(11), IV.F, & IV.G	N	
Contaminant	MCL/MRDL/TT violations ²		Monitoring and testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
I. Violations of National Primary Drinking Water Regulations (NPDWR):³ A. Microbiological Contaminants				
11. Ground Water Rule violations	2	141.404 State Citation: R.61-58.16.G	3	141.402(h). 141.404(d). State Citations: R.61-58.16.E(8) R.61-58.16.F(4)
IV. Other Situations Requiring Public Notification				
F. Source Water Sample Positive for GWR Fecal indicators: <i>E. coli</i> , enterococci, or coliphage	1	141.402(g) State Citation: R.61-58.16.E(7)	N/A	N/A
<p>1. Violations and other situations not listed in this table (e.g., failure to prepare Consumer Confidence Reports) do not require notice, unless otherwise determined by the primacy agency. Primacy agencies may, at their option, also require a more stringent public notice tier (e.g., Tier 1 instead of Tier 2 or Tier 2 instead of Tier 3) for specific violations and situations listed in this Appendix, as authorized under 40 CFR 141.202(a) and 40 CFR 141.203(a).</p> <p>2. MCL—Maximum contaminant level, MRDL—Maximum residual disinfectant level, TT—Treatment technique.</p> <p>3. The term Violations of National Primary Drinking Water Regulations (NPDWR) is used here to include violations of MCL, MRDL, treatment technique, monitoring, and testing procedure requirements.</p>				

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APPENDIX B TO SUBPART Q OF PART 141—STANDARD HEALTH EFFECTS LANGUAGE FOR PUBLIC NOTIFICATION

Entries A.1.c and A.1.d are added in numerical order to read as follows:	Appendix B to Subpart Q of Part 141 A.1.c and A.1.d	Appendix B to R.61-58.6 A.1c(i – iii) & A.1d	N
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Contaminant	MCLG ¹ mg/L	MCL ² mg/L	Standard health effects language for public notification
National Primary Drinking Water Regulations (NPDWR)			
A. Microbiological Contaminants			
1c. Fecal indicators (GWR) i. <i>E. coli</i> ii. enterococci iii. coliphage	Zero None None	TT TT TT	Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term health effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
1d. Ground Water Rule (GWR) TT violations	None	TT	Inadequately treated or inadequately protected water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.

1. MCLG – Maximum contaminant level goal
2. MCL – Maximum contaminant level

APPENDIX C TO SUBPART Q OF PART 141—LIST OF ACRONYMS USED IN PUBLIC NOTIFICATION REGULATIONS

GWR Ground Water Rule	Appendix C to Subpart Q of Part 141	Appendix C to R.61-58.6	N
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SUBPART S GROUND WATER RULE			
40 CFR 141.400 GENERAL REQUIREMENTS AND APPLICABILITY.			
<i>Scope of this subpart.</i> The requirements of this subpart S constitute National Primary Drinking Water Regulations.	40 CFR 141.400 (a)	R.61-58.16.B	N
<i>Applicability.</i> This subpart applies to all public water systems that use ground water except that it does not apply to public water systems that combine all of their ground water with surface water or with ground water under the direct influence of surface water prior to treatment under subpart H. For the purposes of this subpart, "ground water system" is defined as any public water system meeting this applicability statement, including consecutive systems receiving finished ground water.	40 CFR 141.400 (b)	R.61-58.16.A	N
<i>General Requirements.</i> Systems subject to this subpart must comply with the following requirements:	40 CFR 141.400 (c)	R.61-58.16.B	N
Sanitary survey information requirements for all ground water systems as described in 40 CFR 141.401.	40 CFR 141.400 (c)(1)	R.61-58.16.B(1)	N
Microbial source water monitoring requirements for ground water systems that do not treat all of their ground water to at least 99.99 percent (4-log) treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer as described in 40 CFR 141.402.	40 CFR 141.400 (c)(2)	R.61-58.16.B(2)	N

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<p>Treatment technique requirements, described in 40 CFR 141.403, that apply to ground water systems that have fecally contaminated source waters, as determined by source water monitoring conducted under 40 CFR 141.402, or that have significant deficiencies that are identified by the State or that are identified by EPA under SDWA section 1445. A ground water system with fecally contaminated source water or with significant deficiencies subject to the treatment technique requirements of this subpart must implement one or more of the following corrective action options: correct all significant deficiencies; provide an alternate source of water; eliminate the source of contamination; or provide treatment that reliably achieves at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer.</p>	40 CFR 141.400 (c)(3)	R.61-58.16.B(3)	N
<p>Ground water systems that provide at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer are required to conduct compliance monitoring to demonstrate treatment effectiveness, as described in 40 CFR 141.403(b).</p>	40 CFR 141.400 (c)(4)	R.61-58.16.B(4)	N
<p>If requested by the State, ground water systems must provide the State with any existing information that will enable the State to perform a hydrogeologic sensitivity assessment. For the purposes of this subpart, "hydrogeologic sensitivity assessment" is a determination of whether ground water systems obtain water from hydrogeologically sensitive settings.</p>	40 CFR 141.400 (c)(5)	R.61-58.16.B(5)	N

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<i>Compliance date.</i> Ground water systems must comply, unless otherwise noted, with the requirements of this subpart beginning December 1, 2009.	40 CFR 141.400 (d)	R.61-58.16.C	N
40 CFR 141.401 SANITARY SURVEYS FOR GROUND WATER SYSTEMS.			
Ground water systems must provide the State, at the State's request, any existing information that will enable the State to conduct a sanitary survey.	40 CFR 141.401 (a)	R.61-58.16.D(1)	N
For the purposes of this subpart, a "sanitary survey," as conducted by the State, includes but is not limited to, an onsite review of the water source(s) (identifying sources of contamination by using results of source water assessments or other relevant information where available), facilities, equipment, operation, maintenance, and monitoring compliance of a public water system to evaluate the adequacy of the system, its sources and operations and the distribution of safe drinking water.	40 CFR 141.401 (b)	R.61-58.16.D(2)	N
The sanitary survey must include an evaluation of the applicable components listed in paragraphs (c)(1) through (8) of this section:	40 CFR 141.401 (c)	R.61-58.16.D(3)	N
(1) Source,	40 CFR 141.401 (c)(1)	R.61-58.16.D(3)(a)	N
(2) Treatment,	40 CFR 141.401 (c)(2)	R.61-58.16.D(3)(b)	N
(3) Distribution system,	40 CFR 141.401 (c)(3)	R.61-58.16.D(3)(c)	N
(4) Finished water storage,	40 CFR 141.401 (c)(4)	R.61-58.16.D(3)(d)	N
(5) Pumps, pump facilities, and controls,	40 CFR 141.401 (c)(5)	R.61-58.16.D(3)(e)	N
(6) Monitoring, reporting, and data verification,	40 CFR 141.401 (c)(6)	R.61-58.16.D(3)(f)	N
(7) System management and operation, and	40 CFR 141.401 (c)(7)	R.61-58.16.D(3)(g)	N
(8) Operator compliance with State requirements.	40 CFR 141.401 (c)(8)	R.61-58.16.D(3)(h)	N

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40 CFR 141.402 GROUND WATER SOURCE MICROBIAL MONITORING AND ANALYTICAL METHODS.			
<i>Triggered source water monitoring.</i> —(1) General requirements. A ground water system must conduct triggered source water monitoring if the conditions identified in paragraphs (a)(1)(i) and (a)(1)(ii) of this section exist.	40 CFR 141.402 (a)	R.61-58.16.E(1)(a)	N
The system does not provide at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for each ground water source; and	40 CFR 141.402 (a)(1)(i)	R.61-58.16.E(1)(a)(i)	N
The system is notified that a sample collected under 40 CFR 141.21(a) is total coliform-positive and the sample is not invalidated under 40 CFR 141.21(c).	40 CFR 141.402 (a)(1)(ii)	R.61-58.16.E(1)(a)(ii)	N
<i>Sampling Requirements.</i> A ground water system must collect, within 24 hours of notification of the total coliform-positive sample, at least one ground water source sample from each ground water source in use at the time the total coliform-positive sample was collected under 40 CFR 141.21(a), except as provided in paragraph (a)(2)(ii) of this section.	40 CFR 141.402 (a)(2)	R.61-58.16.E(1)(b)	N
The State may extend the 24-hour time limit on a case-by-case basis if the system cannot collect the ground water source water sample within 24 hours due to circumstances beyond its control. In the case of an extension, the State must specify how much time the system has to collect the sample.	40 CFR 141.402 (a)(2)(i)	R.61-58.16.E(1)(b)(i)	N

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<p>If approved by the State, systems with more than one ground water source may meet the requirements of this paragraph (a)(2) by sampling a representative ground water source or sources. If directed by the State, systems must submit for State approval a triggered source water monitoring plan that identifies one or more ground water sources that are representative of each monitoring site in the system's sample siting plan under 40 CFR 141.21(a) and that the system intends to use for representative sampling under this paragraph.</p>	40 CFR 141.402 (a)(2)(ii)	R.61-58.16.E(1)(b)(ii)	N
<p>A ground water system serving 1,000 people or fewer may use a repeat sample collected from a ground water source to meet both the requirements of 40 CFR 141.21(b) and to satisfy the monitoring requirements of paragraph (a)(2) of this section for that ground water source only if the State approves the use of <i>E. coli</i> as a fecal indicator for source water monitoring under this paragraph (a). If the repeat sample collected from the ground water source is <i>E. coli</i> positive, the system must comply with paragraph (a)(3) of this section.</p>	40 CFR 141.402 (a)(2)(iii)	R.61-58.16.E(1)(b)(iii)	N
<p><i>Additional Requirements.</i> If the State does not require corrective action under 40 CFR 141.403(a)(2) for a fecal indicator-positive source water sample collected under paragraph (a)(2) of this section that is not invalidated under paragraph (d) of this section, the system must collect five additional source water samples from the same source within 24 hours of being notified of the fecal indicator-positive sample.</p>	40 CFR 141.402 (a)(3)	R.61-58.16.E(1)(c)	N

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<i>Consecutive and Wholesale Systems.</i> In addition to the other requirements of this paragraph (a), a consecutive ground water system that has a total coliform-positive sample collected under 40 CFR 141.21(a) must notify the wholesale system(s) within 24 hours of being notified of the total coliform-positive sample.	40 CFR 141.402 (a)(4)(i)	R.61-58.16.E(1)(d)(i)	N
In addition to the other requirements of this paragraph (a), a wholesale ground water system must comply with paragraphs (a)(4)(ii)(A) and (a)(4)(ii)(B) of this section.	40 CFR 141.402 (a)(4)(ii)	R.61-58.16.E(1)(d)(ii)	N
A wholesale ground water system that receives notice from a consecutive system it serves that a sample collected under 40 CFR 141.21(a) is total coliform-positive must, within 24 hours of being notified, collect a sample from its ground water source(s) under paragraph (a)(2) of this section and analyze it for a fecal indicator under paragraph (c) of this section.	40 CFR 141.402 (a)(4)(ii)(A)	R.61-58.16.E(1)(d)(ii)(A)	N
If the sample collected under paragraph (a)(4)(ii)(A) of this section is fecal indicator-positive, the wholesale ground water system must notify all consecutive systems served by that ground water source of the fecal indicator source water positive within 24 hours of being notified of the ground water source sample monitoring result and must meet the requirements of paragraph (a)(3) of this section.	40 CFR 141.402 (a)(4)(ii)(B)	R.61-58.16.E(1)(d)(ii)(B)	N
<i>Exceptions to the Triggered Source Water Monitoring Requirements.</i> A ground water system is not required to comply with the source water monitoring requirements of paragraph (a) of this section if either of the following conditions exists:	40 CFR 141.402 (a)(5)	R.61-58.16.E(1)(e)	N

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The State determines, and documents in writing, that the total coliform-positive sample collected under 40 CFR 141.21(a) is caused by a distribution system deficiency; or	40 CFR 141.402 (a)(5)(i)	R.61-58.16.E(1)(e)(i)	N
The total coliform-positive sample collected under 40 CFR 141.21(a) is collected at a location that meets State criteria for distribution system conditions that will cause total coliform-positive samples.	40 CFR 141.402 (a)(5)(ii)	R.61-58.16.E(1)(e)(ii)	N
<i>Assessment Source Water Monitoring.</i> If directed by the State, ground water systems must conduct assessment source water monitoring that meets State-determined requirements for such monitoring. A ground water system conducting assessment source water monitoring may use a triggered source water sample collected under paragraph (a)(2) of this section to meet the requirements of paragraph (b) of this section. State-determined assessment source water monitoring requirements may include:	40 CFR 141.402 (b)	R.61-58.16.E(2)	N
Collection of a total of 12 ground water source samples that represent each month the system provides ground water to the public,	40 CFR 141.402 (b)(1)	R.61-58.16.E(2)(a)	N
Collection of samples from each well unless the system obtains written State approval to conduct monitoring at one or more wells within the ground water system that are representative of multiple wells used by that system and that draw water from the same hydrogeologic setting,	40 CFR 141.402 (b)(2)	R.61-58.16.E(2)(b)	N
Collection of a standard sample volume of at least 100 mL for fecal indicator analysis regardless of the fecal indicator or analytical method used,	40 CFR 141.402 (b)(3)	R.61-58.16.E(2)(c)	N

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Analysis of all ground water source samples using one of the analytical methods listed in the in paragraph (c)(2) of this section for the presence of <i>E. coli</i> , enterococci, or coliphage,	40 CFR 141.402 (b)(4)	R.61-58.16.E(2)(d)	N
Collection of ground water source samples at a location prior to any treatment of the ground water source unless the State approves a sampling location after treatment, and	40 CFR 141.402 (b)(5)	R.61-58.16.E(2)(e)	N
Collection of ground water source samples at the well itself unless the system's configuration does not allow for sampling at the well itself and the State approves an alternate sampling location that is representative of the water quality of that well.	40 CFR 141.402 (b)(6)	R.61-58.16.E(2)(f)	N
<i>Analytical methods.</i> A ground water system subject to the source water monitoring requirements of this paragraph of this section must collect a standard sample volume of at least 100 mL for fecal indicator analysis regardless of the fecal indicator or analytical method used.	40 CFR 141.402 (c)(1)	R.61-58.16.E(3)(a)	N
A ground water system must analyze all ground water source samples collected under paragraph (a) of this section using one of the analytical methods listed in the following table in paragraph (c)(2) of this section for the presence of <i>E. coli</i> , enterococci, or coliphage:	40 CFR 141.402 (c)(2)	R.61-58.16.E(3)(b)	N

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Analytical Methods for Source Water Monitoring			
Fecal Indicator ¹	Methodology	Method citation	
<i>E. coli</i>	Colilert ³ Colisure ³ Membrane Filter Method with MI Agar m-ColiBlue24 Test ⁵ E*Colite Test ⁶ EC-MUG ⁷ NA-MUG ⁷	9223 B. ² 9223 B. ² EPA Method 1604. ⁴ 9221 F. ² 9222 G. ²	
Enterococci	Multiple-Tube Technique Membrane Filter Technique Membrane Filter Technique Enterolert ⁹	9230B. ² 9230C. ² EPA Method 1600. ⁸	
Coliphage	Two-Step Enrichment Presence-Absence Procedure Single Agar Layer Procedure	EPA Method 1601. ¹⁰ EPA Method 1602. ¹¹	
<p>Analyses must be conducted in accordance with the documents listed below. The Director of the Federal Register approves the incorporation by reference of the documents listed in footnotes 2–11 in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the documents may be obtained from the sources listed below. Copies may be inspected at EPA’s Drinking Water Docket, EPA West, 1301 Constitution Avenue, NW., EPA West, Room B102, Washington DC 20460 (Telephone: 202–566–2426); or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.</p> <p>1 The time from sample collection to initiation of analysis may not exceed 30 hours. The ground water system is encouraged but is not required to hold samples below 10°C during transit.</p> <p>2 Methods are described in Standard Methods for the Examination of Water and Wastewater 20th edition (1998) and copies may be obtained from the American Public Health Association, 1015 Fifteenth Street, NW., Washington, DC 20005–2605.</p> <p>3 Medium is available through IDEXX Laboratories, Inc., One IDEXX Drive, Westbrook, Maine 04092.</p> <p>4 EPA Method 1604: Total Coliforms and <i>Escherichia coli</i> in Water by Membrane Filtration Using a Simultaneous Detection Technique (MI Medium); September 2002, EPA 821–R–02–024. Method is available at http://www.epa.gov/nrlcwww/1604sp02.pdf or from EPA’s Water Resource Center (RC–4100T), 1200 Pennsylvania Avenue, NW., Washington, DC 20460.</p> <p>5 A description of the m-ColiBlue24 Test, “Total Coliforms and <i>E. coli</i> Membrane Filtration Method with m-ColiBlue24® Broth,” Method No. 10029 Revision 2, August 17, 1999, is available from Hach Company, 100 Dayton Ave., Ames, IA 50010 or from EPA’s Water Resource Center (RC–4100T), 1200 Pennsylvania Avenue, NW., Washington, DC 20460.</p> <p>6 A description of the E*Colite Test, “Charm E*Colite Presence/Absence Test for Detection and Identification of Coliform Bacteria and <i>Escherichia coli</i> in Drinking Water, January 9, 1998, is available from Charm Sciences, Inc., 659 Andover St., Lawrence, MA 01843–1032 or from EPA’s Water Resource Center (RC–4100T), 1200 Pennsylvania Avenue, NW., Washington, DC 20460.</p> <p>7 EC–MUG (Method 9221F) or NA–MUG (Method 9222G) can be used for <i>E. coli</i> testing step as described in 40 CFR 141.21(f)(6)(i) or (ii) after use of Standard Methods 9221 B, 9221 D, 9222 B, or 9222 C.</p> <p>8 EPA Method 1600: Enterococci in Water by Membrane Filtration Using membrane-Enterococcus Indoxyl–b–D–Glucoside Agar (mEI) EPA 821–R–02–022 (September 2002) is an approved variation of Standard Method 9230C. The method is available at http://www.epa.gov/nrlcwww/1600sp02.pdf or from EPA’s Water Resource Center (RC–4100T), 1200 Pennsylvania Avenue, NW., Washington, DC 20460. The holding time and temperature for ground water samples are specified in footnote 1 above, rather than as specified in Section 8 of EPA Method 1600.</p> <p>9 Medium is available through IDEXX Laboratories, Inc., One IDEXX Drive, Westbrook, Maine 04092. Preparation and use of the medium is set forth in the article “Enumeration of Enterococci in Recreational Waters,” by Budnick, G.E., Howard, R.T., and Mayo, D.R., 1996, Applied and Environmental Microbiology, 62:3881–3884.</p> <p>10 EPA Method 1601: Male-specific (F+) and Somatic Coliphage in Water by Two-step Enrichment Procedure; April 2001, EPA 821–R–01–030. Method is available at http://www.epa.gov/nrlcwww/1601ap01.pdf or from EPA’s Water Resource Center (RC–4100T), 1200 Pennsylvania Avenue, NW., Washington, DC 20460.</p> <p>11 EPA Method 1602: Male-specific (F+) and Somatic Coliphage in Water by Single Agar Layer (SAL) Procedure; April 2001, EPA 821–R–01–029. Method is available at http://www.epa.gov/nrlcwww/1602ap01.pdf or from EPA’s Water Resource Center (RC–4100T), 1200 Pennsylvania Avenue, NW., Washington, DC 20460.</p>			

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
<i>Invalidation of a fecal indicator-positive ground water source sample.</i> A ground water system may obtain State invalidation of a fecal indicator-positive ground water source sample collected under paragraph (a) of this section only under the conditions specified in paragraphs (d)(1)(i) and (ii) of this section.	40 CFR 141.402 (d)(1)	R.61-58.16.E(4)(a)	N
The system provides the State with written notice from the laboratory that improper sample analysis occurred; or	40 CFR 141.402 (d)(1)(i)	R.61-58.16.E(4)(a)(i)	N
The State determines and documents in writing that there is substantial evidence that a fecal indicator-positive ground water source sample is not related to source water quality.	40 CFR 141.402 (d)(1)(ii)	R.61-58.16.E(4)(a)(ii)	N
If the State invalidates a fecal indicator-positive ground water source sample, the ground water system must collect another source water sample under paragraph (a) of this section within 24 hours of being notified by the State of its invalidation decision and have it analyzed for the same fecal indicator using the analytical methods in paragraph (c) of this section. The State may extend the 24-hour time limit on a case-by-case basis if the system cannot collect the source water sample within 24 hours due to circumstances beyond its control. In the case of an extension, the State must specify how much time the system has to collect the sample.	40 CFR 141.402 (d)(2)	R.61-58.16.E(4)(b)	N
<i>Sampling location.</i> Any ground water source sample required under paragraph (a) of this section must be collected at a location prior to any treatment of the ground water source unless the State approves a sampling location after treatment.	40 CFR 141.402 (e)(1)	R.61-58.16.E(5)(a)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
If the system's configuration does not allow for sampling at the well itself, the system may collect a sample at a State-approved location to meet the requirements of paragraph (a) of this section if the sample is representative of the water quality of that well.	40 CFR 141.402 (e)(2)	R.61-58.16.E(5)(b)	N
<i>New Sources.</i> If directed by the State, a ground water system that places a new ground water source into service after November 30, 2009, must conduct assessment source water monitoring under paragraph (b) of this section. If directed by the State, the system must begin monitoring before the ground water source is used to provide water to the public.	40 CFR 141.402 (f)	R.61-58.16.E(6)	N
<i>Public Notification.</i> A ground water system with a ground water source sample collected under paragraph (a) or (b) of this section that is fecal indicator-positive and that is not invalidated under paragraph (d) of this section, including consecutive systems served by the ground water source, must conduct public notification under 40 CFR 141.202.	40 CFR 141.402 (g)	R.61-58.16.E(7)	N
<i>Monitoring Violations.</i> Failure to meet the requirements of paragraphs (a)–(f) of this section is a monitoring violation and requires the ground water system to provide public notification under 40 CFR 141.204.	40 CFR 141.402 (h)	R.61-58.16.E(8)	N
40 CFR 141.403 TREATMENT TECHNIQUE REQUIREMENTS FOR GROUND WATER SYSTEMS.			
<i>Ground water systems with significant deficiencies or source water fecal contamination.</i> The treatment technique requirements of this section must be met by ground water systems when a significant deficiency is identified or when a ground water source sample collected under 40 CFR 141.402(a)(3) is fecal indicator-positive.	40 CFR 141.403 (a)(1)	R.61-58.16.F(1)(a)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
If directed by the State, a ground water system with a ground water source sample collected under 40 CFR 141.402(a)(2), 40 CFR 141.402(a)(4), or 40 CFR 141.402(b) that is fecal indicator-positive must comply with the treatment technique requirements of this section.	40 CFR 141.403 (a)(2)	R.61-58.16.F(1)(b)	N
When a significant deficiency is identified at a Subpart H public water system that uses both ground water and surface water or ground water under the direct influence of surface water, the system must comply with provisions of this paragraph except in cases where the State determines that the significant deficiency is in a portion of the distribution system that is served solely by surface water or ground water under the direct influence of surface water.	40 CFR 141.403 (a)(3)	R.61-58.16.F(1)(c)	N
Unless the State directs the ground water system to implement a specific corrective action, the ground water system must consult with the State regarding the appropriate corrective action within 30 days of receiving written notice from the State of a significant deficiency, written notice from a laboratory that a ground water source sample collected under 40 CFR 141.402(a)(3) was found to be fecal indicator-positive, or direction from the State that a fecal indicator-positive sample collected under 40 CFR 141.402(a)(2), 40 CFR 141.402(a)(4), or 40 CFR 141.402(b) requires corrective action. For the purposes of this subpart, significant deficiencies include, but are not limited to, defects in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that the State determines to be causing, or have potential for causing, the introduction of contamination into the water delivered to consumers.	40 CFR 141.403 (a)(4)	R.61-58.16.F(1)(d)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
Within 120 days (or earlier if directed by the State) of receiving written notification from the State of a significant deficiency, written notice from a laboratory that a ground water source sample collected under 40 CFR 141.402(a)(3) was found to be fecal indicator-positive, or direction from the State that a fecal indicator-positive sample collected under 40 CFR 141.402(a)(2), 40 CFR 141.402(a)(4), or 40 CFR 141.402(b) requires corrective action, the ground water system must either:	40 CFR 141.403 (a)(5)	R.61-58.16.F(1)(e)	N
Have completed corrective action in accordance with applicable State plan review processes or other State guidance or direction, if any, including State-specified interim measures; or	40 CFR 141.403 (a)(5)(i)	R.61-58.16.F(1)(e)(i)	N
Be in compliance with a State-approved corrective action plan and schedule subject to the conditions specified in paragraphs (a)(5)(ii)(A) and (a)(5)(ii)(B) of this section.	40 CFR 141.403 (a)(5)(ii)	R.61-58.16.F(1)(e)(ii)	N
Any subsequent modifications to a State-approved corrective action plan and schedule must also be approved by the State.	40 CFR 141.403 (a)(5)(ii)(A)	R.61-58.16.F(1)(e)(ii)(A)	N
If the State specifies interim measures for protection of the public health pending State approval of the corrective action plan and schedule or pending completion of the corrective action plan, the system must comply with these interim measures as well as with any schedule specified by the State.	40 CFR 141.403 (a)(5)(ii)(B)	R.61-58.16.F(1)(e)(ii)(B)	N
<i>Corrective Action Alternatives.</i> Ground water systems that meet the conditions of paragraph (a)(1) or (a)(2) of this section must implement one or more of the following corrective action alternatives:	40 CFR 141.403 (a)(6)	R.61-58.16.F(1)(f)	N
Correct all significant deficiencies;	40 CFR 141.403 (a)(6)(i)	R.61-58.16.F(1)(f)(i)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
Provide an alternate source of water;	40 CFR 141.403 (a)(6)(ii)	R.61-58.16.F(1)(f)(ii)	N
Eliminate the source of contamination; or	40 CFR 141.403 (a)(6)(iii)	R.61-58.16.F(1)(f)(iii)	N
Provide treatment that reliably achieves at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for the ground water source.	40 CFR 141.403 (a)(6)(iv)	R.61-58.16.F(1)(f)(iv)	N
<i>Special notice to the public of significant deficiencies or source water fecal contamination.</i> In addition to the applicable public notification requirements of 40 CFR 141.202, a community ground water system that receives notice from the State of a significant deficiency or notification of a fecal indicator-positive ground water source sample that is not invalidated by the State under 40 CFR 141.402(d) must inform the public served by the water system under 40 CFR 141.153(h)(6) of the fecal indicator-positive source sample or of any significant deficiency that has not been corrected. The system must continue to inform the public annually until the significant deficiency is corrected or the fecal contamination in the ground water source is determined by the State to be corrected under paragraph (a)(5) of this section.	40 CFR 141.403 (a)(7)(i)	R.61-58.16.F(1)(g)(i)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
In addition to the applicable public notification requirements of 40 CFR 141.202, a non-community ground water system that receives notice from the State of a significant deficiency must inform the public served by the water system in a manner approved by the State of any significant deficiency that has not been corrected within 12 months of being notified by the State, or earlier if directed by the State. The system must continue to inform the public annually until the significant deficiency is corrected. The information must include:	40 CFR 141.403 (a)(7)(ii)	R.61-58.16.F(1)(g)(ii)	N
The nature of the significant deficiency and the date the significant deficiency was identified by the State;	40 CFR 141.403 (a)(7)(ii)(A)	R.61-58.16.F(1)(g)(ii)(A)	N
The State-approved plan and schedule for correction of the significant deficiency, including interim measures, progress to date, and any interim measures completed; and	40 CFR 141.403 (a)(7)(ii)(B)	R.61-58.16.F(1)(g)(ii)(B)	N
For systems with a large proportion of non-English speaking consumers, as determined by the State, information in the appropriate language(s) regarding the importance of the notice or a telephone number or address where consumers may contact the system to obtain a translated copy of the notice or assistance in the appropriate language.	40 CFR 141.403 (a)(7)(ii)(C)	R.61-58.16.F(1)(g)(ii)(C)	N
If directed by the State, a non-community water system with significant deficiencies that have been corrected must inform its customers of the significant deficiencies, how the deficiencies were corrected, and the dates of correction under paragraph (a)(7)(ii) of this section.	40 CFR 141.403 (a)(7)(iii)	R.61-58.16.F(1)(g)(iii)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
<p><i>Compliance monitoring.</i> Existing ground water sources. A ground water system that is not required to meet the source water monitoring requirements of this subpart for any ground water source because it provides at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for any ground water source before December 1, 2009, must notify the State in writing that it provides at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for the specified ground water source and begin compliance monitoring in accordance with paragraph (b)(3) of this section by December 1, 2009. Notification to the State must include engineering, operational, or other information that the State requests to evaluate the submission. If the system subsequently discontinues 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for a ground water source, the system must conduct ground water source monitoring as required under 40 CFR 141.402.</p>	40 CFR 141.403 (b)(1)	R.61-58.16.F(2)(a)	N
<p><i>New ground water sources.</i> A ground water system that places a ground water source in service after November 30, 2009, that is not required to meet the source water monitoring requirements of this subpart because the system provides at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for the ground water source must comply with the requirements of paragraphs (b)(2)(i), (b)(2)(ii) and (b)(2)(iii) of this section.</p>	40 CFR 141.403 (b)(2)	R.61-58.16.F(2)(b)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
The system must notify the State in writing that it provides at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for the ground water source. Notification to the State must include engineering, operational, or other information that the State requests to evaluate the submission.	40 CFR 141.403 (b)(2)(i)	R.61-58.16.F(2)(b)(i)	N
The system must conduct compliance monitoring as required under 40 CFR 141.403(b)(3) of this subpart within 30 days of placing the source in service.	40 CFR 141.403 (b)(2)(ii)	R.61-58.16.F(2)(b)(ii)	N
The system must conduct ground water source monitoring under 40 CFR 141.402 if the system subsequently discontinues 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for the ground water source.	40 CFR 141.403 (b)(2)(iii)	R.61-58.16.F(2)(b)(iii)	N
<i>Monitoring requirements.</i> A ground water system subject to the requirements of paragraphs (a), (b)(1) or (b)(2) of this section must monitor the effectiveness and reliability of treatment for that ground water source before or at the first customer as follows:	40 CFR 141.403 (b)(3)	R.61-58.16.F(2)(c)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
<p><i>Chemical disinfection. Ground water systems serving greater than 3,300 people.</i> A ground water system that serves greater than 3,300 people must continuously monitor the residual disinfectant concentration using analytical methods specified in 40 CFR 141.74(a)(2) at a location approved by the State and must record the lowest residual disinfectant concentration each day that water from the ground water source is served to the public. The ground water system must maintain the State-determined residual disinfectant concentration every day the ground water system serves water from the ground water source to the public. If there is a failure in the continuous monitoring equipment, the ground water system must conduct grab sampling every four hours until the continuous monitoring equipment is returned to service. The system must resume continuous residual disinfectant monitoring within 14 days.</p>	40 CFR 141.403 (b)(3)(i)(A)	R.61-58.16.F(2)(c)(i)(A)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
<p><i>Ground water systems serving 3,300 or fewer people.</i> A ground water system that serves 3,300 or fewer people must monitor the residual disinfectant concentration using analytical methods specified in 40 CFR 141.74(a)(2) at a location approved by the State and record the residual disinfection concentration each day that water from the ground water source is served to the public. The ground water system must maintain the State-determined residual disinfectant concentration every day the ground water system serves water from the ground water source to the public. The ground water system must take a daily grab sample during the hour of peak flow or at another time specified by the State. If any daily grab sample measurement falls below the State-determined residual disinfectant concentration, the ground water system must take follow-up samples every four hours until the residual disinfectant concentration is restored to the State-determined level. Alternatively, a ground water system that serves 3,300 or fewer people may monitor continuously and meet the requirements of paragraph (b)(3)(i)(A) of this section.</p>	40 CFR 141.403 (b)(3)(i)(B)	R.61-58.16.F(2)(c)(i)(B)	N
<p><i>Membrane filtration.</i> A ground water system that uses membrane filtration to meet the requirements of this subpart must monitor the membrane filtration process in accordance with all State-specified monitoring requirements and must operate the membrane filtration in accordance with all State-specified compliance requirements. A ground water system that uses membrane filtration is in compliance with the requirement to achieve at least 4-log removal of viruses when:</p>	40 CFR 141.403 (b)(3)(ii)	R.61-58.16.F(2)(c)(ii)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
The membrane has an absolute molecular weight cut-off (MWCO), or an alternate parameter that describes the exclusion characteristics of the membrane, that can reliably achieve at least 4-log removal of viruses;	40 CFR 141.403 (b)(3)(ii)(A)	R.61-58.16.F(2)(c)(ii)(A)	N
The membrane process is operated in accordance with State-specified compliance requirements; and	40 CFR 141.403 (b)(3)(ii)(B)	R.61-58.16.F(2)(c)(ii)(B)	N
The integrity of the membrane is intact.	40 CFR 141.403 (b)(3)(ii)(C)	R.61-58.16.F(2)(c)(ii)(C)	N
<i>Alternative treatment.</i> A ground water system that uses a State-approved alternative treatment to meet the requirements of this subpart by providing at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer must:	40 CFR 141.403 (b)(3)(iii)	R.61-58.16.F(2)(c)(iii)	N
Monitor the alternative treatment in accordance with all State-specified monitoring requirements; and	40 CFR 141.403 (b)(3)(iii)(A)	R.61-58.16.F(2)(c)(iii)(A)	N
Operate the alternative treatment in accordance with all compliance requirements that the State determines to be necessary to achieve at least 4-log treatment of viruses.	40 CFR 141.403 (b)(3)(iii)(B)	R.61-58.16.F(2)(c)(iii)(B)	N
Discontinuing treatment. A ground water system may discontinue 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for a ground water source if the State determines and documents in writing that 4-log treatment of viruses is no longer necessary for that ground water source. A system that discontinues 4-log treatment of viruses is subject to the source water monitoring and analytical methods requirements of 40 CFR 141.402 of this subpart.	40 CFR 141.403 (c)	R.61-58.16.F(3)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
Failure to meet the monitoring requirements of paragraph (b) of this section is a monitoring violation and requires the ground water system to provide public notification under 40 CFR 141.204.	40 CFR 141.403 (d)	R.61-58.16.F(4)	N
40 CFR 141.404 TREATMENT TECHNIQUE VIOLATIONS FOR GROUND WATER SYSTEMS.			
A ground water system with a significant deficiency is in violation of the treatment technique requirement if, within 120 days (or earlier if directed by the State) of receiving written notice from the State of the significant deficiency, the system:	40 CFR 141.404 (a)	R.61-58.16.G(1)	N
Does not complete corrective action in accordance with any applicable State plan review processes or other State guidance and direction, including State specified interim actions and measures, or	40 CFR 141.404 (a)(1)	R.61-58.16.G(1)(a)	N
Is not in compliance with a State-approved corrective action plan and schedule.	40 CFR 141.404 (a)(2)	R.61-58.16.G(1)(b)	N
Unless the State invalidates a fecal indicator-positive ground water source sample under 40 CFR 141.402(d), a ground water system is in violation of the treatment technique requirement if, within 120 days (or earlier if directed by the State) of meeting the conditions of 40 CFR 141.403(a)(1) or 40 CFR 141.403(a)(2), the system:	40 CFR 141.404 (b)	R.61-58.16.G(2)	N
Does not complete corrective action in accordance with any applicable State plan review processes or other State guidance and direction, including State-specified interim measures, or	40 CFR 141.404 (b)(1)	R.61-58.16.G(2)(a)	N
Is not in compliance with a State-approved corrective action plan and schedule.	40 CFR 141.404 (b)(2)	R.61-58.16.G(2)(b)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
A ground water system subject to the requirements of 40 CFR 141.403(b)(3) that fails to maintain at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for a ground water source is in violation of the treatment technique requirement if the failure is not corrected within four hours of determining the system is not maintaining at least 4-log treatment of viruses before or at the first customer.	40 CFR 141.404 (c)	R.61-58.16.G(3)	N
Ground water system must give public notification under 40 CFR 141.203 for the treatment technique violations specified in paragraphs (a), (b) and (c) of this section.	40 CFR 141.404 (d)	R.61-58.16.G(4)	N
40 CFR 141.405 REPORTING AND RECORDKEEPING FOR GROUND WATER SYSTEMS.			
<i>Reporting.</i> In addition to the requirements of 40 CFR 141.31, a ground water system regulated under this subpart must provide the following information to the State:	40 CFR 141.405 (a)	R.61-58.16.H(1)	N
A ground water system conducting compliance monitoring under 40 CFR 141.403(b) must notify the State any time the system fails to meet any State-specified requirements including, but not limited to, minimum residual disinfectant concentration, membrane operating criteria or membrane integrity, and alternative treatment operating criteria, if operation in accordance with the criteria or requirements is not restored within four hours. The ground water system must notify the State as soon as possible, but in no case later than the end of the next business day.	40 CFR 141.405 (a)(1)	R.61-58.16.H(1)(a)	N
After completing any corrective action under 40 CFR 141.403(a), a ground water system must notify the State within 30 days of completion of the corrective action.	40 CFR 141.405 (a)(2)	R.61-58.16.H(1)(b)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
If a ground water system subject to the requirements of 40 CFR 141.402(a) does not conduct source water monitoring under 40 CFR 141.402(a)(5)(ii), the system must provide documentation to the State within 30 days of the total coliform positive sample that it met the State criteria.	40 CFR 141.405 (a)(3)	R.61-58.16.H(1)(c)	N
<i>Recordkeeping.</i> In addition to the requirements of 40 CFR 141.33, a ground water system regulated under this subpart must maintain the following information in its records:	40 CFR 141.405 (b)	R.61-58.16.H(2)	N
Documentation of corrective actions. Documentation shall be kept for a period of not less than ten years.	40 CFR 141.405 (b)(1)	R.61-58.16.H(2)(a)	N
Documentation of notice to the public as required under 40 CFR 141.403(a)(7). Documentation shall be kept for a period of not less than three years.	40 CFR 141.405 (b)(2)	R.61-58.16.H(2)(b)	N
Records of decisions under 40 CFR 141.402(a)(5)(ii) and records of invalidation of fecal indicator-positive ground water source samples under 40 CFR 141.402(d). Documentation shall be kept for a period of not less than five years.	40 CFR 141.405 (b)(3)	R.61-58.16.H(2)(c)	N
For consecutive systems, documentation of notification to the wholesale system(s) of total-coliform positive samples that are not invalidated under 40 CFR 141.21(c). Documentation shall be kept for a period of not less than five years.	40 CFR 141.405 (b)(4)	R.61-58.16.H(2)(d)	N
For systems, including wholesale systems, that are required to perform compliance monitoring under 40 CFR 141.403(b):	40 CFR 141.405 (b)(5)	R.61-58.16.H(2)(e)	N
Records of the State-specified minimum disinfectant residual. Documentation shall be kept for a period of not less than ten years.	40 CFR 141.405 (b)(5)(i)	R.61-58.16.H(2)(e)(i)	N

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	STATE CITATION (DOCUMENT TITLE, PAGE NUMBER, SECTION/PARAGRAPH)	DIFFERENT FROM FEDERAL REQUIREMENT?
Records of the lowest daily residual disinfectant concentration and records of the date and duration of any failure to maintain the State-prescribed minimum residual disinfectant concentration for a period of more than four hours. Documentation shall be kept for a period of not less than five years.	40 CFR 141.405 (b)(5)(ii)	R.61-58.16.H(2)(e)(ii)	N
Records of State-specified compliance requirements for membrane filtration and of parameters specified by the State for State-approved alternative treatment and records of the date and duration of any failure to meet the membrane operating, membrane integrity, or alternative treatment operating requirements for more than four hours. Documentation shall be kept for a period of not less than five years.	40 CFR 141.405 (b)(5)(iii)	R.61-58.16.H(2)(e)(iii)	N

Reporting, Recordkeeping, & Special Primacy Requirements

Crosswalk

40 CFR 142 Parts 14, 15, & 16

Ground Water Rule

Section IV – 40 CFR 142 Parts 14, 15, & 16

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	EXPLANATION OF STATE POLICIES AND PROCEDURES
PART 142 NATIONAL PRIMARY DRINKING WATER REGULATIONS IMPLEMENTATION		
SUBPART B PRIMARY ENFORCEMENT RESPONSIBILITY		
40 CFR 142.14 RECORDS KEPT BY STATES.		
Records of the currently applicable or most recent State determination, including all supporting information and an explanation of the technical basis of each decision, made under the following provisions of 40 CFR part 141, subpart S and 40 CFR part 142.	40 CFR 142.14 (d)(17)	Decisions pertaining to Subpart S, Ground Water Rule, and Primacy requirements will be kept according to the Department's Record Retention Schedule. (See Appendix A.)
40 CFR 142.16(o)(2)(v). Records of written notices of significant deficiencies.	40 CFR 142.14 (d)(17)(i)	Records of written notices of significant deficiencies will be kept according to the Department's record retention schedule.
40 CFR 141.403(a)(5)(ii) of this chapter. Records of corrective action plans, schedule approvals, and State-specified interim measures.	40 CFR 142.14 (d)(17)(ii)	Records of corrective action plans, plan schedules, plan approvals, and any additional information will be kept according to the Department's record retention schedule.
40 CFR 142.16(o)(4). Records of confirmations under 40 CFR 141.403(a) of this chapter that a significant deficiency has been corrected or the fecal contamination in the ground water source has been addressed.	40 CFR 142.14 (d)(17)(iii)	Records of significant deficiency correction and records of addressing fecal contamination in the ground water source will be kept according to the Department's record retention schedule.
40 CFR 141.402(a)(5) of this chapter. Records of State determinations and records of ground water system's documentation for not conducting triggered source water monitoring.	40 CFR 142.14 (d)(17)(iv)	Records of Department determinations and conditions for not conducting triggered source monitoring will be kept according to the Department's record retention schedule.

SUMMARY OF FEDERAL REQUIREMENT	FEDERAL CITATION	EXPLANATION OF STATE POLICIES AND PROCEDURES
40 CFR 141.402(d) of this chapter. Records of invalidations of fecal indicator-positive ground water source samples.	40 CFR 142.14 (d)(17)(v)	Records of invalidations of fecal indicator positive ground water source samples will be kept according to the Department's record retention schedule.
40 CFR 141.402(a)(2)(ii) of this chapter. Records of State approvals of source water monitoring plans.	40 CFR 142.14 (d)(17)(vi)	Records of Department approvals of source water monitoring plans will be kept according to the Department's record retention schedule.
40 CFR 142.16(o)(4)(ii). Records of notices of the minimum residual disinfection concentration (when using chemical disinfection) needed to achieve at least 4-log virus inactivation before or at the first customer.	40 CFR 142.14 (d)(17)(vii)	Records of Department required minimum residual disinfection along with all other parameters needed to determine 4-log virus inactivation will be kept according to the Department's record retention schedule.
40 CFR 142.16(o)(4)(iv) and 142.16(o)(4)(v) Records of notices of the State-specified monitoring and compliance requirements (when using membrane filtration or alternative treatment) needed to achieve at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log inactivation and removal) before or at the first customer.	40 CFR 142.14 (d)(17)(viii)	Records of Department specified monitoring and compliance requirements for membrane filtration or other technologies needed to achieve 4-log virus inactivation or removal will be kept according to the Department's record retention schedule.
40 CFR 141.403(b)(1) and 141.403(b)(2) of this chapter. Records of written notices from the ground water system that it provides at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for a ground water source.	40 CFR 142.14 (d)(17)(ix)	Records of written notices of ground water systems providing 4-log virus inactivation or treatment will be kept according to the Department's record retention schedule.
40 CFR 142.16(o)(4)(vi). Records of written determinations that the ground water system may discontinue 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log inactivation and removal).	40 CFR 142.14 (d)(17)(x)	Records of written determinations that a ground water system may discontinue 4-log virus inactivation or treatment will be kept according to the Department's record retention schedule.

40 CFR 142.15 RECORDS BY STATES.		
<i>Ground water rule. Sanitary surveys.</i> The month and year in which the most recent sanitary survey was completed or, for a State that uses a phased review process, the date the last element of the applicable eight elements was evaluated under 40 CFR 142.16(o)(2) for each ground water system.	40 CFR 142.15 (c)(7)(i)	The Department is a SDWIS user and will regularly update and maintain the database for accuracy. Written documentation can also be provided upon request.
<i>Corrective action requirements.</i> For any corrective action under 40 CFR 141.403(a) of this chapter, the date the ground water system completed corrective action.	40 CFR 142.15 (c)(7)(ii)	The Department is a SDWIS user and will regularly update and maintain the database for accuracy. Written documentation can also be provided upon request.
<i>Compliance monitoring.</i> All ground water systems providing at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for any ground water source(s).	40 CFR 142.15 (c)(7)(iii)	The Department will maintain this compliance monitoring information, when required, in the same manner as surface water monthly operation reports. These records are kept for three years, then discarded. Written documentation can also be provided upon request.

40 CFR 142.16 SPECIAL PRIMACY REQUIREMENTS.		
<i>Table 1 of 40 CFR 141.202(a) (Items (5), (6), and (9))</i> —To require public water systems to give a Tier 1 public notice (rather than a Tier 2 or Tier 3 notice) for violations or situations listed in Appendix A of Subpart Q of Part 141 of this chapter;	40 CFR 142.16 (a)(2)(iii)	The State Primary Drinking Water Regulations, R.61-58, are included with this primacy application. The public notice requirements are found in R.61-58 Appendix A.
<i>Requirements for States to adopt 40 CFR part 141, subpart S.</i> In addition to the general primacy requirements specified elsewhere in this part, including the requirement that State regulations are no less stringent than the Federal requirements, an application for approval of a State program revision that adopts 40 CFR part 141, subpart S, must contain the information specified in this paragraph (o).	40 CFR 142.16 (o)	The information included within this package constitutes the primacy application and includes all appropriate documentation.
<i>Legal authority.</i> The application for primacy must demonstrate the State has:	40 CFR 142.16 (o)(1)	Included with this primacy application is a letter from the Department's General Counsel outlining the Department's legal authority to implement and enforce the Ground Water Rule.
The authority contained in statute or regulation to ensure that ground water systems conduct source water monitoring under 40 CFR 141.402(a)(2), 40 CFR 141.402(a)(3) and 40 CFR 141.402(a)(4)(ii)(A) of this chapter.	40 CFR 142.16 (o)(1)(i)	The authority to ensure that ground water systems conduct source water monitoring can be found in the State Safe Drinking Water Act 44-55-30, 44-55-80, and the State Primary Drinking Water Regulation R.61-58.16.
The authority contained in statute or regulation to ensure that ground water systems take the appropriate corrective actions including interim measures, if necessary, needed to address significant deficiencies.	40 CFR 142.16 (o)(1)(ii)	The authority to ensure that ground water systems take appropriate corrective actions to address significant deficiencies can be found in the State Safe Drinking Water Act 44-55-30, 44-55-80, and the State Primary Drinking Water Regulation R.61-58.16.

<p>The authority contained in statute or regulation to ensure that ground water systems take the appropriate corrective actions, including interim measures if necessary, to address any source water fecal contamination identified during source water monitoring under 40 CFR 141.402 of this chapter.</p>	<p>40 CFR 142.16 (o)(1)(iii)</p>	<p>The authority to ensure that ground water systems take appropriate corrective actions to address source water fecal contamination can be found in the State Safe Drinking Water Act 44-55-30, 44-55-80, and the State Primary Drinking Water Regulation R.61-58.16.</p>
<p>The authority contained in statute or regulation to ensure that ground water systems consult with the State regarding corrective action(s).</p>	<p>40 CFR 142.16 (o)(1)(iv)</p>	<p>The authority to ensure that ground water systems consult with the Department can be found in the State Safe Drinking Water Act 44-55-30, 44-55-80, and the State Primary Drinking Water Regulation R.61-58.16.</p>
<p><i>State practices or procedures for sanitary surveys.</i> In addition to the general requirements for sanitary surveys contained in 40 CFR 142.10(b)(2), a primacy application must describe how the State will implement a sanitary survey program that meets the requirements of paragraph (o)(2)(i) of this section. A “sanitary survey,” as conducted by the State, includes but is not limited to, an onsite review of the water source(s) (identifying sources of contamination by using results of source water assessments or other relevant information where available), facilities, equipment, operation, maintenance, and monitoring compliance of a public water system to evaluate the adequacy of the system, its sources and operations and the distribution of safe drinking water.</p>	<p>40 CFR 142.16 (o)(2)</p>	<p>The Department sanitary survey program currently evaluates all eight of the required elements. The evaluation form is attached to this primacy application as Appendix B.</p> <p>The Department is in the process of revising our sanitary survey guidance manual to more closely reflect the eight elements and how to determine and document significant deficiencies. A copy of this guidance will be forwarded to EPA Region 4 when complete.</p>
<p>The State must conduct sanitary surveys that address the eight sanitary survey components listed in this section no less frequently than every three years for community water systems, except as provided in paragraph (o)(2)(iii) of this section, and every five years for non-community water systems. The State may conduct more frequent sanitary surveys for any system. The initial sanitary survey for each community water system must be conducted by December 31, 2012, unless the system meets the requirements of paragraph (o)(2)(iii) of this section. The initial sanitary survey for each community water system that meets the requirements of paragraph (o)(2)(iii) of this section and for each non-community water system must be conducted by December 31, 2014. The sanitary survey must include an evaluation of each of the following elements as applicable:</p>	<p>40 CFR 142.16 (o)(2)(i)</p>	<p>The Department conducts sanitary surveys that address the eight identified elements. For community water systems the frequency will be not less than every three years. For non-community water systems, the frequency will be not less than every five years. In addition, the Department implements a State wide <u>goal</u> of conducting surveys annually for all community water systems.</p>
<p>Source,</p>	<p>40 CFR 142.16 (o)(2)(i)(A)</p>	<p>The Department’s sanitary survey program includes an evaluation of the source.</p>

Treatment,	40 CFR 142.16 (o)(2)(i)(B)	The Department's sanitary survey program includes an evaluation of the treatment.
Distribution system,	40 CFR 142.16 (o)(2)(i)(C)	The Department's sanitary survey program includes an evaluation of the distribution system.
Finished water storage,	40 CFR 142.16 (o)(2)(i)(D)	The Department's sanitary survey program includes an evaluation of the finished water storage.
Pumps, pump facilities, and controls,	40 CFR 142.16 (o)(2)(i)(E)	The Department's sanitary survey program includes an evaluation of the pumps, pump facilities, and controls.
Monitoring, reporting, and data verification,	40 CFR 142.16 (o)(2)(i)(F)	The Department's sanitary survey program includes an evaluation of the monitoring, reporting, and data verification records.
System management and operation, and	40 CFR 142.16 (o)(2)(i)(G)	The Department's sanitary survey program includes an evaluation of the system management and operation.
Operator compliance with State requirements.	40 CFR 142.16 (o)(2)(i)(H)	The Department's sanitary survey program includes an evaluation of the operator compliance with state requirements.
The State may use a phased review process to meet the requirements of (o)(2)(i) of this section if all the applicable elements of paragraphs (o)(2)(i)(A) through (o)(2)(i)(H) of this section are evaluated within the required interval.	40 CFR 142.16 (o)(2)(ii)	The Department is not planning on implementing a phased approach. All eight of the elements are evaluated and documented during the sanitary survey.
The State may conduct sanitary surveys once every five years for community water systems if the system either provides at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log inactivation and removal) before or at the first customer for all its ground water sources, or if it has an outstanding performance record, as determined by the State and documented in previous sanitary surveys and has no history of total coliform MCL or monitoring violations under 40 CFR 141.21 of this chapter since the last sanitary survey. In its primacy application, the State must describe how it will determine whether a community water system has an outstanding performance record.	40 CFR 142.16 (o)(2)(iii)	The Department does not plan on reducing the frequency of sanitary surveys to less than three years for community water systems.

<p>The State must define and describe in its primacy application at least one specific significant deficiency in each of the eight sanitary survey elements in paragraphs (o)(2)(i)(A) through (o)(2)(i)(H) of this section. Significant deficiencies include, but are not limited to, defects in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that the State determines to be causing, or have potential for causing, the introduction of contamination into the water delivered to consumers.</p>	<p>40 CFR 142.16 (o)(2)(iv)</p>	<p>The Department has identified at least one significant deficiency for each of the eight required elements. This list is attached as Appendix C.</p>
<p>As a condition of primacy, the State must provide ground water systems with written notice describing any significant deficiencies no later than 30 days after the State identifies the significant deficiency. The notice may specify corrective actions and deadlines for completion of corrective actions. The State may provide the written notice at the time of the sanitary survey.</p>	<p>40 CFR 142.16 (o)(2)(v)</p>	<p>The Department will provide the required written notice of significant deficiencies within 30 days. This information will be tracked through the Department's enforcement section.</p>
<p><i>State practices or procedures for source water microbial monitoring.</i> The State's primacy application must include a description of the following:</p>	<p>40 CFR 142.16 (o)(3)</p>	<p>This primacy application includes the required information as described below.</p>
<p>The criteria the State will use under 40 CFR 141.402(a)(2)(i) and 141.402(d)(2) of this chapter for extending the 24-hour time limit for a system to collect a ground water source sample to comply with the source water monitoring requirements.</p>	<p>40 CFR 142.16 (o)(3)(i)</p>	<p>These extensions will be evaluated on a case-by-case basis with consideration given to the following: lab availability & closures (weekends), mail service, extreme danger to the sample collector, or unavoidable delays.</p>
<p>The criteria the State will use under 40 CFR 141.402(a)(5)(i) and 141.402(a)(5)(ii) of this chapter to determine whether the cause of the total coliform-positive sample taken under 40 CFR 141.21(a) of this chapter is directly related to the distribution system.</p>	<p>40 CFR 142.16 (o)(3)(ii)</p>	<p>The Department will use several criteria, including, but not limited to: low disinfectant residual in an area being sampled (for systems that add disinfection), a recent line break and repair in proximity to the sample, a documented backflow event in the distribution system, or a documented leak in the distribution system.</p>
<p>The criteria the State will use for determining whether to invalidate a fecal indicator-positive ground water source sample under 40 CFR 141.402(d)(1)(ii) of this chapter.</p>	<p>40 CFR 142.16 (o)(3)(iii)</p>	<p>Each request will be evaluated on a case-by-case basis and will only be invalidated where compelling evidence exists that indicates that the sample was contaminated during collection or transport. Where available and appropriate, EPA guidance will be followed.</p>

<p>The criteria the State will use to allow source water microbial monitoring at a location after treatment under 40 CFR 141.402(e)(1) of this chapter.</p>	<p>40 CFR 142.16 (o)(3)(iv)</p>	<p>Each request will be evaluated on a case-by-case basis. The Department anticipates only allowing monitoring after treatment where it is not possible or practical to collect sample before treatment and where the treatment is not expected to significantly impact water quality.</p>
<p><i>State practices or procedures for treatment technique requirements.</i> As a condition of primacy, the State must verify that significant deficiencies or source water fecal contamination have been addressed. The State must verify within 30 days after the ground water system has reported to the State that it has completed corrective action. The State must verify either through written confirmation from the ground water system or a site visit by the State. Written notice from the ground water system under 40 CFR 141.405(a)(2) of this chapter may serve as this verification. The State's primacy application must include the following:</p>	<p>40 CFR 142.16 (o)(4)</p>	<p>After the Department receives a written notice of correction from a water system, the Department will verify corrections within 30 days by visiting the site(s).</p>
<p>The process the State will use to determine that a ground water system achieves at least a 4-log treatment of viruses (using inactivation, removal, or a combination of inactivation and removal) before or at the first customer for a ground water source for systems that are not subject to the source water monitoring requirements of 40 CFR 141.402(a) of this chapter because the ground water system has informed the State that it provides at least 4-log treatment of viruses.</p>	<p>40 CFR 142.16 (o)(4)(i)</p>	<p>Systems that intend to provide 4-log virus inactivation or removal must submit to the Department a detailed plan on the treatment.</p> <p>EPA guidance on removal credit and/or inactivation ratios will be followed as appropriate.</p>
<p>The process the State will use to determine the minimum residual disinfectant concentration the system must provide prior to the first customer for systems using chemical disinfection.</p>	<p>40 CFR 142.16 (o)(4)(ii)</p>	<p>Minimum residual disinfectant concentrations will be evaluated and set on a case-by-case basis based on CT tables, any removal provided, and other appropriate factors. The Department will evaluate and set the minimum residual disinfectant level based on worst expected case water quality parameters (temperature & pH) and assign the minimum level to ensure that 4-log treatment is provided under the full range of expected operating conditions.</p>

<p>The State-approved alternative technologies that ground water systems may use alone or in combination with other approved technologies to achieve at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log inactivation and removal) before or at the first customer for a ground water source.</p>	<p>40 CFR 142.16 (o)(4)(iii)</p>	<p>The Department will follow available scientific data to include ETV verifications where appropriate.</p>
<p>The monitoring and compliance requirements the State will require for ground water systems treating to at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of inactivation and removal) before or at the first customer for State-approved alternative treatment technologies.</p>	<p>40 CFR 142.16 (o)(4)(iv)</p>	<p>Monitoring and compliance requirements will be established based on the type of treatment being provided. The Department will use available guidance and monitoring protocols to ensure minimum 4-log treatment is provided under the full range of expected operating conditions.</p>
<p>The monitoring, compliance and membrane integrity testing requirements the State will require to demonstrate virus removal for ground water systems using membrane filtration technologies.</p>	<p>40 CFR 142.16 (o)(4)(v)</p>	<p>The Department will follow manufacturers recommendations to establish membrane integrity testing requirements. ETV verifications will also used where available and appropriate.</p>
<p>The criteria, including public health-based considerations and incorporating on-site investigations and source water monitoring results the State will use to determine if a ground water system may discontinue 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of inactivation and removal) before or at the first customer.</p>	<p>40 CFR 142.16 (o)(4)(vi)</p>	<p>The Department will only allow a system to discontinue treatment where it can be satisfactorily demonstrated that the source is not subject to fecal contamination and no significant deficiencies are evident that would adversely affect source water quality.</p>

