

State of Alaska

**DEPARTMENT OF
ENVIRONMENTAL CONSERVATION**

DIVISION OF WATER



18 AAC 70

Water Quality Standards

*Draft Proposed Amendments
Public Comment Version*

June 24, 2016

18 AAC 70.005 (a) is amended to read:

(a) Except as provided in (b) of this section **and where this chapter is specifically made applicable by 18 AAC 60, 18 AAC 75, or 18 AAC 78**, the provisions of this chapter [THAT] **as they** are applicable to groundwater do not apply to

(1) a site undergoing a response action approved by the department under 18 AAC 75 [A RESPONSE,];

(2) a site subject to the site cleanup rules under 18 AAC 75 [A CLEANUP,];

(3) a site subject to Article 2 (Corrective Action for Leaking Underground Storage Tanks) and Article 6 (Cleanup Levels) under 18 AAC 78 [OR A CORRECTIVE ACTION APPROVED BY];

(4) an inactive reserve pit undergoing a corrective action approved by the department under 18 AAC 60.440;

(5) a solid waste landfill undergoing assessment, monitoring, or corrective action approved by the department under 18 AAC 60.860 [THE DEPARTMENT UNDER 18 AAC 60.440, 18 AAC 60.860, 18 AAC 75, OR 18 AAC 78, EXCEPT AS THIS CHAPTER IS SPECIFICALLY MADE APPLICABLE BY 18 AAC 60, 18 AAC 75, OR 18 AAC 78; OR];

(6) a site undergoing a removal action or a remedial action [THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)] under 42 U.S.C. 9601 - 9675 (Comprehensive Environmental Response, Compensation, and Liability Act of 1980) if the cleanup meets, at a minimum, the site cleanup rules at 18 AAC 75.325 - 18 AAC 75.390; or

(7) a site undergoing a corrective action approved by the United States Environmental Protection Agency under [OR] 42 U.S.C. 6901-6992k (Solid Waste Disposal Act, as amended by the Resource Conservation Recovery Act), if the [RESPONSE, CLEANUP,

OR] corrective action meets, at a minimum, the site cleanup rules at 18 AAC 75.325 - 18 AAC 75.390.

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(Eff. 1/22/99, Register 149; am __/__/____, Register ____)

Authority:	AS 46.03.010	AS 46.03.070	AS 46.03.100
	AS 46.03.020	AS 46.03.080	AS 46.03.110
	AS 46.03.050	[AS 46.03.090]	AS 46.03.720

Below are conforming revisions to the [Recreational Water Quality Standards](#) regulations

18 AAC 70.020(b)(2) is amended to read:

Water Quality Standards for Designated Uses	
POLLUTANT & WATER USE	CRITERIA
<p>(2) [FECAL COLIFORM]</p> <p>BACTERIA [(FC)], FOR FRESH WATER USES (See note 1)</p>	
<p>(A) Water Supply</p> <p style="padding-left: 40px;">(i) drinking, culinary, and food processing</p>	<p>In a 30-day period, the geometric mean may not exceed 20 <u>fecal coliform</u> [FC]/100mL, and not more than 10% of the samples may exceed 40 <u>fecal coliform</u> [FC]/100mL. For groundwater, the <u>fecal coliform</u> [FC] concentration must be less than 1 <u>fecal coliform</u> [FC]/100mL, using the fecal coliform Membrane Filter Technique, or less than 3 <u>fecal coliform</u> [FC]/100mL, using the fecal coliform most probable number (MPN) technique.</p>
<p>(A) Water Supply</p> <p style="padding-left: 40px;">(ii) agriculture, including irrigation and stock watering</p>	<p>In a 30-day period, the geometric mean may not exceed [THE GEOMETRIC MEAN OF SAMPLES TAKEN IN A 30-DAY PERIOD] 200 <u>fecal coliform</u> [FC]/100mL, and not more than 10% of the irrigation and stock samples may exceed 400 <u>fecal coliform</u> [FC]/100mL. For products not normally cooked and for</p>

	dairy sanitation of unpasteurized products, the criteria for drinking water, (2)(A)(i), apply.
(A) Water Supply (iii) aquaculture	For products normally cooked, the geometric mean of samples taken in a 30-day period may not exceed 200 <u>fecal coliform</u> [FC]/100 mL, and not more than 10% of the samples may exceed 400 <u>fecal coliform</u> [FC]/100 mL. For products not normally cooked, the criteria for drinking water supply, (2)(A)(i), apply.
(A) Water Supply (iv) industrial	Where worker contact is present, the geometric mean of samples taken in a 30-day period may not exceed 200 <u>fecal coliform</u> [FC]/100 mL, and not more than 10% of the samples may exceed 400 <u>fecal coliform</u> [FC]/100 mL.
(B) Water Recreation (i) contact recreation	In a 30-day period, the geometric mean of samples may not exceed <u>126 E. coli cfu/100 mL</u> [100 FC/100 ML], and not more than one sample, or more than 10% of the samples if there are more than 10 samples, may exceed <u>a statistical threshold value of 410 E. coli cfu/100 mL</u> [200 FC/100ML].
(B) Water Recreation (ii) secondary recreation	In a 30-day period, the geometric mean of samples may not exceed 200 <u>fecal coliform</u> [FC]/100 mL, and not more than 10% of the total samples may exceed 400 <u>fecal coliform</u> [FC]/100 mL.

18 AAC 70.020(b)(14) is amended to read:

Water Quality Standards for Designated Uses	
POLLUTANT & WATER USE	CRITERIA
<p>(14) [FECAL COLIFORM] BACTERIA [(FC)], FOR MARINE WATER USES (See note 1)</p>	
<p>(A) Water Supply (i) aquaculture</p>	<p>For products normally cooked, the geometric mean of samples taken in a 30-day period may not exceed 200 <u>fecal coliform</u> [FC]/100 mL, and not more than 10% of the samples may exceed 400 <u>fecal coliform</u> [FC]/100 mL. For products not normally cooked, the geometric mean of samples taken in a 30-day period may not exceed 20 <u>fecal coliform</u> [FC]/100 mL, and not more than 10% of the samples may exceed 40 <u>fecal coliform</u> [FC]/100 mL.</p>
<p>(A) Water Supply (ii) seafood processing</p>	<p>In a 30-day period, the geometric mean of samples may not exceed 20 <u>fecal coliform</u> [FC]/100 mL, and not more than 10% of the samples may exceed 40 <u>fecal coliform</u> [FC]/100 mL.</p>

<p>(A) Water Supply</p> <p>(iii) industrial</p>	<p>Where worker contact is present, the geometric mean of samples taken in a 30-day period may not exceed 200 <u>fecal coliform</u> [FC]/100 mL, and not more than 10% of the samples may exceed 400 <u>fecal coliform</u> [FC]/100 mL.</p>
<p>(B) Water Recreation</p> <p>(i) contact recreation</p>	<p>In a 30-day period, the geometric mean of samples may not exceed <u>35 enterococci/100 mL</u> [100 FC/100 ML], and not more than one sample, or more than 10% of the samples if there are more than 10 samples, may exceed <u>a statistical threshold value of 130 enterococci/100 mL</u> [200 FC/100ML].</p>
<p>(B) Water Recreation</p> <p>(ii) secondary recreation</p>	<p>In a 30-day period, the geometric mean of samples may not exceed 200 <u>fecal coliform</u> [FC]/100 mL, and not more than 10% of the samples may exceed 400 <u>fecal coliform</u> [FC]/100 mL.</p>
<p>(D) Harvesting for Consumption of Raw Mollusks or Other Raw Aquatic Life</p>	<p>The geometric mean of samples may not exceed 14 <u>fecal coliform</u> [FC]/100mL; and not more than 10% of the samples may exceed;</p> <ul style="list-style-type: none"> - 43 MPN per 100mL for a five-tube decimal dilution test; - 49 MPN per 100mL for a three-tube decimal dilution test;

	<p>-28 MPN per 100 mL for a twelve-tube single dilution test;</p> <p>-31 cfu per 100 mL for a membrane filtration test (see note 14).</p>
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18 AAC 70.020(b) Water Quality Standards Table Note 1 is amended to read:

1. Wherever **bacteria** criteria [FOR FECAL COLIFORM BACTERIA] are provided in this section, [FECAL COLIFORM] bacteria enumeration must be determined by the membrane filter technique or most probable number procedure according to any edition of *Standard Methods for the Examination of Water and Wastewater*, adopted by reference in (c)(1) of this section, or in accordance with other standards approved by the department and the United States Environmental Protection Agency (EPA). **Bacteria** [FECAL COLIFORM] results reported as “too numerous to count” (TNTC) is considered an exceedance for comparison to water quality standards. Analysis and reporting of the method recommended dilution of the sample is required.

(Eff. 11/1/97, Register 143; am 4/29/99, Register 150; am 5/27/99, Register 150; am 6/22/2003, Register 166; am 6/13/2006, Register 178; am 9/1/2006, Register 179; am 9/19/2009, Register 191; am 5/26/2011, Register 198; am 2/19/2016, Register 217; am __/__/____, Register ____)

Authority: AS 46.03.020 AS 46.03.070 AS 46.03.080

AS 46.03.050

18 AAC 70.990 is amended by adding a new definition to read:

(73) **“Colony forming unit (cfu)” means a measurement for microbial growth reported as colony forming units per 100mL of water (cfu/100mL). A colony of bacteria refers to a mass of individual cell(s) of the same organism, growing together.** (Eff. 11/1/97,

Register 143; am 4/29/99, Register 150; am 6/22/2003, Register 166; am 6/13/2006, Register 178; am __/__/____, Register __)

Authority:	AS 46.03.010	AS 46.03.080	AS 46.03.110
	AS 46.03.020	[AS 46.03.090]	AS 46.03.710
	AS 46.03.050	AS 46.03.100	AS 46.03.720
	AS 46.03.070		