

May 4, 2020

VIA EMAIL ONLY

Nancy Breems
Secretary of State, Elections Division
180 State Office Building
100 Rev Dr Martin Luther King Jr Blvd
St. Paul, Minnesota 55155-1299
official.documents@state.mn.us

**Re: Request for Comments on Planned Amendments to Rules Governing
Water Quality Standards - Use Class 2 and 7
OAH 65-9003-35561; Revisor R-4561**

Dear Ms. Breems:

Enclosed for filing is an electronic copy of the above-entitled adopted rules.

Please send the agency copy of the rules to:

Mary H. Lynn
Principal Planner
Minnesota Pollution Control Agency
520 Lafayette Rd N
Saint Paul, MN 55155

If you have any questions regarding this matter, please contact Denise Collins at (651) 361-7875, denise.collins@state.mn.us or via facsimile at (651) 539-0310.

Sincerely,



LISA ARMSTRONG
Legal Assistant

Enclosures

cc: Mary H. Lynn (via email)

Date Filed: May 4, 2020
Document Number: 203636
Office of the Minnesota Secretary of State,
Steve Simon

1.1 **Minnesota Pollution Control Agency**

1.2 **Adopted Permanent Rules Relating to Standards for Water Quality**

1.3 **7050.0219 HUMAN HEALTH-BASED CRITERIA AND STANDARDS.**

1.4 *[For text of subparts 1 to 11, see Minnesota Rules]*

1.5 Subp. 12. **Final state or site BAF by trophic level.** Calculate final state or site BAF
1.6 for TL₃ where applicable and TL₄ for use in developing human health-based chronic criteria
1.7 or standards.

1.8 A. For nonionic organic chemicals and ionic organic chemicals with no or
1.9 negligible ionization as defined under subpart 7, for each TL₃ and TL₄, calculate a state or
1.10 site BAF using the following equation:

$$\text{state or site BAF}_{(\text{TL } n)} = \left[(\text{final baseline BAF}_1^{\text{fd}})_{\text{TL } n} \times (f_l)_{\text{TL } n+1} \right] \times (f_{\text{fd}})$$

1.11 where: $(\text{final baseline BAF}_1^{\text{fd}})_{\text{TL } n}$ = final trophic-level-mean baseline BAF expressed on
1.12 a freely dissolved and lipid-normalized basis for trophic level "n" (L/kg)

1.13 $(f_l)_{\text{TL } n}$ = lipid fraction of aquatic species consumed at trophic level "n" by class 2
1.14 subclass: class 2A = 0.06; class 2Bd/2B/2D = 0.02 for TL₃ and 0.015 for TL₄

1.15 f_{fd} = fraction of the total chemical in water that is freely dissolved in ambient waters

1.16 The default DOC and POC values for the state ambient class 2 surface waters are 7.5 x
1.17 10⁻⁶ kg/L (7.5 mg/L) and 5 x 10⁻⁷ kg/L (0.5 mg/L), respectively. For a site BAF for use in
1.18 site-specific criteria development, the DOC and POC values are from the site monitoring
1.19 data, if available; in all other cases, the state defaults are used.

1.20 B. For inorganic and organometallic chemicals and ionic organic chemicals with
1.21 ionization in natural waters, the baseline BAF_T using total chemical concentrations or
1.22 bioavailable forms are directly applied as the state or site BAF:

$$\text{state BAF}_{(\text{TL } n)} \text{ or site BAF} = \text{final baseline BAF}_{(\text{TL } n)}$$

2.1 *[For text of subpart 13, see Minnesota Rules]*

2.2 Subp. 14. **Algorithm for class 2B or 2D surface waters.** This subpart describes
 2.3 human health-based criteria or standards for classes of surface waters designated for fish
 2.4 consumption and recreational use (nondrinking water use). To develop a final chronic criteria
 2.5 (CC_{fr}) or standard (CS_{fr}) applicable to surface waters designated class 2B or 2D, items A
 2.6 to C must be evaluated for use based on the pollutant's toxicological profile: noncarcinogen
 2.7 or nonlinear carcinogen (NLC) or linear carcinogen (C).

2.8 A. Algorithm for noncarcinogenic or NLC chemicals applicable to class 2B or
 2.9 2D surface waters to calculate: CC_{fr} or CS_{fr} =

$$2.10 \quad \frac{RfD_{chronic} \text{ (mg/kg-d)} \times RSC \text{ (no units)} \times 1,000 \text{ } \mu\text{g/mg}}{2.11 \quad \{IWR_{chronic} \text{ (L/kg-d)} + FCR_{adult} \text{ (kg/kg-d)}[(0.24 \times BAF_{TL3} \text{ (L/kg)}) + (0.76 \times BAF_{TL4} \text{ (L/kg)})]\}}$$

2.13 where: CC_{fr} or CS_{fr} = fish consumption and recreation chronic criterion or standard in
 2.14 $\mu\text{g/L}$

2.15 $IWR_{chronic}$ = 0.0013 L/kg-d; assumed incidental water intake rate based on minimum
 2.16 chronic duration

2.17 Other variables as defined under subpart 13

2.18 B. Algorithm for linear carcinogenic chemicals with lifetime adjustment factors
 2.19 ($AF_{lifetime}$) applicable to surface waters designated class 2B or 2D to calculate: CC_{fr} or CS_{fr}

2.20 =

$$\frac{CR \text{ (1 x 10}^{-5}\text{)}}{CSF \text{ (mg/kg-d)}^{-1} \times AF_{lifetime}} \times \frac{1000 \text{ } \mu\text{g/mg}}{\{IWR_{chronic} \text{ (L/kg-d)} + FCR_{adult} \text{ (kg/kg-d)}[(0.24 \times BAF_{TL3} \text{ (L/kg)}) + (0.76 \times BAF_{TL4} \text{ (L/kg)})]\}}$$

2.21 where: CC_{fr} or CS_{fr} = fish consumption and recreation chronic criterion or standard in
 2.22 $\mu\text{g/L}$

2.23 Other variables as defined under item A and subpart 13

- 3.1 C. Algorithm for linear carcinogenic chemicals with age-dependent adjustment
 3.2 factors (ADAF) applicable to surface waters designated class 2B or 2D to calculate: CC_{fr}
 3.3 or CS_{fr} =

$$\frac{CR (1 \times 10^{-5}) \times 1000}{\left\{ \begin{aligned} &\left\{ CSF \times ADAF_{<2} \times D_{<2} \times [IWR + FCR_{<2} \times (0.24BAF_{TL3} + 0.76BAF_{TL4})] \right\} + \\ &\left\{ CSF \times ADAF_{2 \text{ to } <16} \times D_{2 \text{ to } <16} \times [IWR + FCR_{2 \text{ to } <16} \times (0.24BAF_{TL3} + 0.76BAF_{TL4})] \right\} + \\ &\left\{ CSF \times ADAF_{16 \text{ to } 70} \times D_{16 \text{ to } 70} \times [IWR + FCR_{Adult} \times (0.24BAF_{TL3} + 0.76BAF_{TL4})] \right\} \end{aligned} \right\} / 70 \text{ yrs}}$$

- 3.4 where: CC_{fr} or CS_{fr} = fish consumption and recreation chronic criterion or standard in
 3.5 $\mu\text{g/L}$

- 3.6 Other variables as defined under item A and subpart 13

- 3.7 *[For text of subpart 15, see Minnesota Rules]*

3.8 **7050.0420 COLD WATER HABITAT WATERS.**

- 3.9 A. Cold water habitat waters are listed under part 7050.0470.

- 3.10 B. Cold water habitat waters identified as class 2A, 2Ae, or 2Ag in part 7050.0470
 3.11 must reflect an existing beneficial use or a feasibly attainable beneficial use, according to
 3.12 Code of Federal Regulations, title 40, section 131.10, that permits propagating and
 3.13 maintaining a healthy community of cold water aquatic biota and their habitats. For purposes
 3.14 of this subpart, "existing beneficial use" means a beneficial use that was attained in a water
 3.15 body on or after November 28, 1975.

- 3.16 C. The commissioner must propose changes to part 7050.0470 when reliable
 3.17 scientific evidence supports adding or removing a water listed as class 2A, 2Ae, or 2Ag.
 3.18 Changes must be supported by data relevant to the biological community, habitat, thermal
 3.19 regime, or other features of a class 2A, 2Ae, or 2Ag habitat.

D. Unless otherwise listed in part 7050.0470, all class 2A, 2Ae, or 2Ag waters listed in part 7050.0470 are also classified as class 1B, 3B, 4A, 4B, 5, and 6 waters.

7050.0470 CLASSIFICATIONS FOR SURFACE WATERS IN MAJOR DRAINAGE BASINS.

Subpart 1. **Lake Superior basin.** The water-use classifications for the stream reaches within each of the major watersheds in the Lake Superior basin listed in item A are found in tables entitled "Beneficial Use Designations for Stream Reaches" published on the website of the Minnesota Pollution Control Agency at www.pca.state.mn.us/regulations/minnesota-rulemaking. The tables are incorporated by reference and are not subject to frequent change. The date after each watershed listed in item A is the publication date of the applicable table. The water-use classifications for the other listed waters in the Lake Superior basin are as identified in items B to D. See parts 7050.0425 and 7050.0430 for the classifications of waters not listed. Designated use information for water bodies can also be accessed through the agency's Environmental Data Access (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

[For text of item A, see Minnesota Rules]

B. Lakes:

[For text of subitems (1) to (24), see Minnesota Rules]

(25) Cedar Lake, 69-0431-00, (T.58, R.15W, S.20): 1B, 2Bd, 3B;

[For text of subitems (26) to (140), see Minnesota Rules]

(141) Twin Lake, lower, 69-0967-00, (T.50, R.14W, S.28, 33): 1B, 2A, 3B;

(142) Twin Lake, upper, 69-0967-01, (T.50, R.14W, S.28, 33): 1B, 2A, 3B;

(143) *Twin Lake, upper (Bear Lake), 38-0408-00, [3/7/88R] (T.56, R.8, S.25): 1B, 2A, 3B;

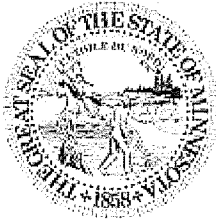
- 5.1 (144) unnamed lake, 16-0903-00, (T.63, R.3E, S.20, 21, 28, 29): 1B, 2A, 3B;
- 5.2 (145) unnamed lake, 16-0908-00, (T.63, R.1W, S.31): 1B, 2A, 3B;
- 5.3 (146) *unnamed lake, 16-0237-00, [11/5/84P] (T.63, R.1, S.19, 30; T.63,
- 5.4 R.2, S.24, 25): 1B, 2Bd, 3B;
- 5.5 (147) *Vale Lake, 16-0061-00, [11/5/84P] (T.64, R.2E, S.3): 1B, 2A, 3B;
- 5.6 (148) Vaseux Lake (East Lily), see Lily Lakes;
- 5.7 (149) *Vista Lake, 16-0224-00, [11/5/84P] (T.64, R.1): 1B, 2A, 3B;
- 5.8 (150) *Wanihigan Lake (Trap Lake), 16-0349-00, [11/5/84P] (T.63, 64, R.2,
- 5.9 3): 1B, 2A, 3B;
- 5.10 (151) *Wee Lake, 16-0183-00, [11/5/84P] (T.62, R.4W, S.13): 1B, 2A, 3B;
- 5.11 (152) *Wench Lake, 16-0398-00, [11/5/84P] (T.63, R.3W, S.7, 18): 1B, 2A,
- 5.12 3B;
- 5.13 (153) White Pine Lake, 16-0369-00, [WR] (T.61, R.3W, S.19, 20, 29, 30):
- 5.14 2B, 3B; and
- 5.15 (154) *Winchell Lake, 16-0354-00, [11/5/84P] (T.64, R.2, 3): 1B, 2A, 3B.

5.16 *[For text of items C and D, see Minnesota Rules]*

5.17 *[For text of subparts 2 to 9, see Minnesota Rules]*

Office of the Revisor of Statutes

Administrative Rules



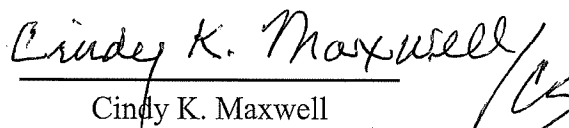
TITLE: Adopted Permanent Rules Relating to Standards for Water Quality

AGENCY: Minnesota Pollution Control Agency

REVISOR ID: R-4561

MINNESOTA RULES: Chapter 7050

The attached rules are approved for
filing with the Secretary of State


Cindy K. Maxwell
Assistant Deputy Revisor

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Office of the Minnesota Secretary of State,
Steve Simon