

Office of the Revisor of Statutes

Administrative Rules



TITLE: Adopted Permanent Rules Relating to Water Use Classification

AGENCY: Pollution Control Agency

REVISOR ID: R-4335

MINNESOTA RULES: Chapters 7050 and 7053

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

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1.1 **Pollution Control Agency**

1.2 **Adopted Permanent Rules Relating to Water Use Classification**

1.3 **7050.0186 WETLAND STANDARDS AND MITIGATION.**

1.4 Subpart 1. **Policy and wetland beneficial uses.** It is the policy of the state to protect
1.5 wetlands and prevent significant adverse impacts on wetland beneficial uses caused by
1.6 chemical, physical, biological, or radiological changes. The quality of wetlands must be
1.7 maintained to permit propagation and maintenance of a healthy community of aquatic and
1.8 terrestrial species indigenous to wetlands; preserve wildlife habitat; support biological
1.9 diversity of the landscape; and be suitable for erosion control, groundwater recharge, low
1.10 flow augmentation, storm water retention, and stream sedimentation. In addition, these
1.11 waters must be suitable for boating and other forms of aquatic recreation as specified in
1.12 part 7050.0222, subpart 6; general industrial use as specified in part 7050.0223, subpart 2;
1.13 irrigation and use by wildlife and livestock, as specified in part 7050.0224, subparts 2 and
1.14 3; and aesthetic enjoyment as specified in part 7050.0225, subpart 2.

1.15 *[For text of subparts 1a to 6, see Minnesota Rules]*

1.16 **7050.0210 GENERAL STANDARDS FOR WATERS OF THE STATE.**

1.17 *[For text of subparts 1 to 6c, see Minnesota Rules]*

1.18 Subp. 7. **Minimum stream flow.** Point and nonpoint sources of water pollution shall
1.19 be controlled so that the water quality standards will be maintained at all stream flows that
1.20 are equal to or greater than the 7Q₁₀ for the critical month or months, unless another flow
1.21 condition is specifically stated as applicable in this chapter or chapter 7053.

1.22 *[For text of subparts 8 to 18, see Minnesota Rules]*

1.23 **7050.0218 FOR TOXIC POLLUTANTS: DEFINITIONS AND METHODS FOR**
1.24 **DETERMINATION OF HUMAN HEALTH-BASED NUMERIC STANDARDS AND**

2.1 **SITE-SPECIFIC NUMERIC CRITERIA FOR AQUATIC LIFE, HUMAN HEALTH,**
2.2 **AND FISH-EATING WILDLIFE.**

2.3 *[For text of subparts 1 to 3, see Minnesota Rules]*

2.4 Subp. 4. **Adoption of USEPA national criteria.** The USEPA establishes aquatic life
2.5 and human health-based criteria under section 304(a)(1) of the Clean Water Act, United
2.6 States Code, title 33, section 1314. The USEPA criteria, subject to modification as described
2.7 in this subpart, are applicable to class 2 waters of the state. The USEPA has described the
2.8 national methods for developing aquatic life criteria in "Guidelines for Deriving Numerical
2.9 National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses."

2.10 USEPA criteria that vary with an ambient water quality characteristic such as total
2.11 hardness or pH will be established for specific waters or reaches using data available to the
2.12 commissioner. Central values such as the means or medians for the characteristic will be
2.13 used unless there is evidence to support using different values. Values for water quality
2.14 characteristics can be estimated for specific waters or reaches that have no data by using
2.15 data from a nearby watershed with similar chemical properties.

2.16 A. The USEPA aquatic life criteria are adopted unchanged by the agency, unless
2.17 modified under item C, as the criteria applicable to designated class 2A waters in parts
2.18 7050.0420 and 7050.0470.

2.19 B. The USEPA criteria are adopted, subject to modification as described in this
2.20 item or item C, for application to cool and warm water habitats and wetlands. Cool and
2.21 warm water habitats (class 2Bd and 2B) are defined in part 7050.0415 or listed in part
2.22 7050.0470. Wetlands (class 2D) waters are defined in part 7050.0415 or listed in part
2.23 7050.0470.

2.24 *[For text of subitems (1) to (7), see Minnesota Rules]*

2.25 *[For text of item C, see Minnesota Rules]*

3.1 *[For text of subparts 5 to 10, see Minnesota Rules]*

3.2 **7050.0220 SPECIFIC WATER QUALITY STANDARDS BY ASSOCIATED USE**
3.3 **CLASSES.**

3.4 Subpart 1. **Purpose and scope.** The numeric and narrative water quality standards in
3.5 this chapter prescribe the qualities or properties of the waters of the state that are necessary
3.6 for the designated public uses and benefits. If the standards in this chapter are exceeded, it
3.7 is considered indicative of a polluted condition that is actually or potentially deleterious,
3.8 harmful, detrimental, or injurious with respect to designated uses or established classes of
3.9 the waters of the state.

3.10 All surface waters are protected for multiple beneficial uses. Numeric water quality
3.11 standards are tabulated in this part for all uses applicable to four common categories of
3.12 surface waters, so that all applicable standards for each category are listed together in
3.13 subparts 3a to 6a. The four categories are:

3.14 A. cold water aquatic life and habitat, also protected for drinking water: classes
3.15 1B; 2A, 2Ae, or 2Ag; 3; 4A and 4B; and 5 (subpart 3a);

3.16 B. cool and warm water aquatic life and habitat, also protected for drinking water:
3.17 classes 1B or 1C; 2Bd, 2Bde, 2Bdg, or 2Bdm; 3; 4A and 4B; and 5 (subpart 4a);

3.18 C. cool and warm water aquatic life and habitat and wetlands: classes 2B, 2Be,
3.19 2Bg, 2Bm, or 2D; 3; 4A and 4B; and 5 (subpart 5a); and

3.20 D. limited resource value waters: classes 3; 4A and 4B; 5; and 7 (subpart 6a).

3.21 Subp. 2. **Explanation of tables.**

3.22 *[For text of items A to C, see Minnesota Rules]*

3.23 D. The tables of standards in subparts 3a to 6a include the following abbreviations
3.24 and acronyms:

- 4.1 AN means aesthetic enjoyment and navigation, class 5 waters
- 4.2 * an asterisk following the FAV and MS values or double dashes (--) means part
- 4.3 7050.0222, subpart 7, item G, applies
- 4.4 (c) means the chemical is assumed to be a human carcinogen
- 4.5 CS means chronic standard, defined in part 7050.0218, subpart 3
- 4.6 DC means domestic consumption (drinking water), class 1 waters
- 4.7 -- double dashes means there is no standard
- 4.8 exp. () means the natural antilogarithm (base e) of the expression in parenthesis
- 4.9 FAV means final acute value, defined in part 7050.0218, subpart 3
- 4.10 IR means agriculture irrigation use, class 4A waters
- 4.11 LS means agriculture livestock and wildlife use, class 4B waters
- 4.12 MS means maximum standard, defined in part 7050.0218, subpart 3
- 4.13 NA means not applicable
- 4.14 (S) means the associated value is a secondary drinking water standard
- 4.15 su means standard unit. It is the reporting unit for pH
- 4.16 TH means total hardness in mg/L, which is the sum of the calcium and magnesium
- 4.17 concentrations expressed as CaCO₃
- 4.18 TON means threshold odor number

4.19 *[For text of item E, see Minnesota Rules]*

4.20 F. When two or more use classes have standards for the same pollutant, the most

4.21 stringent standard applies. All surface waters are protected for classes 3 and 6, but these

4.22 classes have no numeric standards so they are not included in the tables.

4.23 G. Certain waters are protected for wild rice, and a numeric standard for sulfates

4.24 applies according to part 7050.0224, subpart 2.

4.25 *[For text of subpart 3, see Minnesota Rules]*

4.26 Subp. 3a. **Cold water aquatic life and habitat, drinking water, and associated use**

4.27 **classes.** Water quality standards applicable to use classes 1B; 2A, 2Ae, or 2Ag; 3; 4A and

4B; and 5 surface waters. The water quality standards in part 7050.0222, subpart 2, that apply to class 2A also apply to classes 2Ae and 2Ag. In addition to the water quality standards in part 7050.0222, subpart 2, the biological criteria defined in part 7050.0222, subpart 2d, apply to classes 2Ae and 2Ag.

A. MISCELLANEOUS SUBSTANCE, CHARACTERISTIC, OR POLLUTANT

2A CS	2A MS	2A FAV	1B DC	4A IR	4B LS	5 AN
----------	----------	-----------	----------	----------	----------	---------

(1) Ammonia, un-ionized as N, µg/L

16	--	--	--	--	--	--
----	----	----	----	----	----	----

(2) Asbestos, >10 µm (c), fibers/L

--	--	--	7.0e+06	--	--	--
----	----	----	---------	----	----	----

(3) Bromate, µg/L

--	--	--	10	--	--	--
----	----	----	----	----	----	----

(4) Chloride, mg/L

230	860	1,720	250(S)	--	--	--
-----	-----	-------	--------	----	----	----

2A CS	2A MS	2A FAV	1B DC	4A IR	4B LS	5 AN
----------	----------	-----------	----------	----------	----------	---------

(5) Chlorine, total residual, µg/L

11	19	38	--	--	--	--
----	----	----	----	----	----	----

(6) Chlorite, µg/L

--	--	--	1,000	--	--	--
----	----	----	-------	----	----	----

6.1 (7) Color, Pt-Co

6.2	30	--	--	15(S)	--	--	--
-----	----	----	----	-------	----	----	----

6.3 (8) Cyanide, free, µg/L

6.4	5.2	22	45	200	--	--	--
-----	-----	----	----	-----	----	----	----

6.5 (9) *Escherichia (E.) coli* bacteria, organisms/100 mL

6.6	See	--	--	--	--	--	--
6.7	item D						

6.8	2A	2A	2A	1B	4A	4B	5
6.9	CS	MS	FAV	DC	IR	LS	AN

6.10

6.11 (10) Eutrophication standards for lakes and reservoirs (phosphorus, total, µg/L; chlorophyll-a,
6.12 µg/L; Secchi disk transparency, meters)

6.13	See part	--	--	--	--	--	--
6.14	7050.0222,						
6.15	subparts 2						
6.16	and 2a						

6.17 (11) Eutrophication standards for rivers, streams, and navigational pools (phosphorus, total
6.18 µg/L; chlorophyll-a (seston), µg/L; five-day biochemical oxygen demand (BOD₅), mg/L;
6.19 diel dissolved oxygen flux, mg/L; chlorophyll-a (periphyton), mg/m²)

6.20	See part	--	--	--	--	--	--
6.21	7050.0222,						
6.22	subparts 2						
6.23	and 2b						

6.24 (12) Fluoride, mg/L

6.25	--	--	--	4	--	--	--
------	----	----	----	---	----	----	----

6.26 (13) Fluoride, mg/L

6.27	--	--	--	2(S)	--	--	--
------	----	----	----	------	----	----	----

7.1 (14) Foaming agents, µg/L

7.2	--	--	--	500(S)	--	--	--
-----	----	----	----	--------	----	----	----

7.3	2A	2A	2A	1B	4A	4B	5
7.4	CS	MS	FAV	DC	IR	LS	AN

7.6 (15) Hydrogen sulfide, mg/L

7.7	--	--	--	--	--	--	0.02
-----	----	----	----	----	----	----	------

7.8 (16) Nitrate as N, mg/L

7.9	--	--	--	10	--	--	--
-----	----	----	----	----	----	----	----

7.10 (17) Nitrite as N, mg/L

7.11	--	--	--	1	--	--	--
------	----	----	----	---	----	----	----

7.12 (18) Nitrate + Nitrite as N, mg/L

7.13	--	--	--	10	--	100	--
------	----	----	----	----	----	-----	----

7.14 (19) Odor, TON

7.15	--	--	--	3(S)	--	--	--
------	----	----	----	------	----	----	----

7.16	2A	2A	2A	1B	4A	4B	5
7.17	CS	MS	FAV	DC	IR	LS	AN

7.19 (20) Oil, µg/L

7.20	500	5,000	10,000	--	--	--	--
------	-----	-------	--------	----	----	----	----

7.21 (21) Oxygen, dissolved, mg/L

8.1	7, as a	--	--	--	--	--	--
8.2	daily						
8.3	minimum						
8.4	(22) pH minimum, su						
8.5	6.5	--	--	6.5(S)		6.0	6.0
8.6	(23) pH maximum, su						
8.7	8.5	--	--	8.5(S)		9.0	9.0
8.8	(24) Radioactive materials						
8.9	See	--	--	See	See	See	--
8.10	item E			item E	item E	item E	
8.11	2A	2A	2A	1B	4A	4B	5
8.12	CS	MS	FAV	DC	IR	LS	AN
8.13							
8.14					--		
8.15	(25) Sulfate, mg/L						
8.16	--	--	--	250(S)	--	600	--
8.17	(26) Sulfates, wild rice present, mg/L						
8.18	--	--	--	--	10	--	--
8.19	2A	2A	2A	1B	4A	4B	5
8.20	CS	MS	FAV	DC	IR	LS	AN
8.21							
8.22	(27) Temperature, °F						
8.23	No material	--	--	--	--	--	--
8.24	increase						

9.1 (28) Total dissolved solids, mg/L

9.2 -- -- -- 500(S) -- 3,000 --

9.3 (29) Total suspended solids (TSS), mg/L

9.4 See part

9.5 7050.0222,

9.6 subpart 2 -- -- -- -- -- --

9.7 B. METALS AND ELEMENTS

9.8 **2A** **2A** **2A** **1B** **4A** **4B** **5**
 9.9 **CS** **MS** **FAV** **DC** **IR** **LS** **AN**

9.10

9.11 (1) Aluminum, total, µg/L

9.12 87 748 1,496 50-
 9.13 200(S) -- -- --

9.14 (2) Antimony, total, µg/L

9.15 5.5 90 180 6 -- -- --

9.16 (3) Arsenic, total, µg/L

9.17 2.0 360 720 10 -- -- --

9.18 (4) Barium, total, µg/L

9.19 -- -- -- 2,000 -- -- --

9.20 (5) Beryllium, total, µg/L

9.21 -- -- -- 4.0 -- -- --

9.22 **2A** **2A** **2A** **1B** **4A** **4B** **5**
 9.23 **CS** **MS** **FAV** **DC** **IR** **LS** **AN**

9.24

10.1 (6) Boron, total, µg/L

10.2 -- -- -- -- 500 -- --

10.3 (7) Cadmium, total, µg/L

10.4 1.1 3.9 7.8 5 -- -- --

10.5 Class 2A cadmium standards are hardness dependent. Cadmium values shown are for a
10.6 total hardness of 100 mg/L only. See part 7050.0222, subpart 2, for examples at other
10.7 hardness values and equations to calculate cadmium standards for any hardness value not
10.8 to exceed 400 mg/L.

10.9 (8) Chromium +3, total, µg/L

10.10 207 1,737 3,469 -- -- -- --

10.11 Class 2A trivalent chromium standards are hardness dependent. Chromium +3 values shown
10.12 are for a total hardness of 100 mg/L only. See part 7050.0222, subpart 2, for examples at
10.13 other hardness values and equations to calculate trivalent chromium standards for any
10.14 hardness value not to exceed 400 mg/L.

10.15 (9) Chromium +6, total, µg/L

10.16 11 16 32 -- -- -- --

10.17 (10) Chromium, total, µg/L

10.18 -- -- -- 100 -- -- --

10.19 **2A** **2A** **2A** **1B** **4A** **4B** **5**
10.20 **CS** **MS** **FAV** **DC** **IR** **LS** **AN**

10.21

10.22 (11) Cobalt, total, µg/L

10.23 2.8 436 872 -- -- -- --

10.24 (12) Copper, total, µg/L

10.25 9.8 18 35 1,000 -- -- --
10.26 (S)

11.1 Class 2A copper standards are hardness dependent. Copper values shown are for a total
 11.2 hardness of 100 mg/L only. See part 7050.0222, subpart 2, for examples at other hardness
 11.3 values and equations to calculate copper standards for any hardness value not to exceed 400
 11.4 mg/L.

11.5 (13) Iron, total, µg/L

11.6	--	--	--	300(S)	--	--	--
------	----	----	----	--------	----	----	----

11.7 (14) Lead, total, µg/L

11.8	3.2	82	164	NA	--	--	--
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11.9 Class 2A lead standards are hardness dependent. Lead values shown are for a total hardness
 11.10 of 100 mg/L only. See part 7050.0222, subpart 2, for examples at other hardness values and
 11.11 equations to calculate lead standards for any hardness value not to exceed 400 mg/L.

11.12 (15) Manganese, total, µg/L

11.13	--	--	--	50(S)	--	--	--
-------	----	----	----	-------	----	----	----

11.14	2A	2A	2A	1B	4A	4B	5
11.15	CS	MS	FAV	DC	IR	LS	AN

11.16

11.17 (16) Mercury, total, in water, ng/L

11.18	6.9	2,400*	4,900*	2,000	--	--	--
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11.19 (17) Mercury, total in edible fish tissue, mg/kg or parts per million

11.20	0.2	--	--	--	--	--	--
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11.21 (18) Nickel, total, µg/L

11.22	158	1,418	2,836	--	--	--	--
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11.23 Class 2A nickel standards are hardness dependent. Nickel values shown are for a total
 11.24 hardness of 100 mg/L only. See part 7050.0222, subpart 2, for examples at other hardness
 11.25 values and equations to calculate nickel standards for any hardness value not to exceed 400
 11.26 mg/L.

12.1 (19) Selenium, total, µg/L

12.2	5.0	20	40	50	--	--	--
------	-----	----	----	----	----	----	----

12.3 (20) Silver, total, µg/L

12.4	0.12	2.0	4.1	100(S)	--	--	--
------	------	-----	-----	--------	----	----	----

12.5 Class 2A silver MS and FAV are hardness dependent. Silver values shown are for a total
 12.6 hardness of 100 mg/L only. See part 7050.0222, subpart 2, for examples at other hardness
 12.7 values and equations to calculate silver standards for any hardness value not to exceed 400
 12.8 mg/L.

12.9	2A	2A	2A	1B	4A	4B	5
12.10	CS	MS	FAV	DC	IR	LS	AN

12.11

12.12 (21) Thallium, total, µg/L

12.13	0.28	64	128	2	--	--	--
-------	------	----	-----	---	----	----	----

12.14 (22) Zinc, total, µg/L

12.15	106	117	234	5,000	--	--	--
12.16				(S)			

12.17 Class 2A zinc standards are hardness dependent. Zinc values shown are for a total hardness
 12.18 of 100 mg/L only. See part 7050.0222, subpart 2, for examples at other hardness values and
 12.19 equations to calculate zinc standards for any hardness value not to exceed 400 mg/L.

12.20 C. ORGANIC POLLUTANTS OR CHARACTERISTICS

12.21	2A	2A	2A	1B	4A	4B	5
12.22	CS	MS	FAV	DC	IR	LS	AN

12.23

12.24 (1) Acenaphthene, µg/L

12.25	20	56	112	--	--	--	--
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12.26 (2) Acetochlor, µg/L

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13.1	3.6	86	173	--	--	--	--
13.2	(3) Acrylonitrile (c), µg/L						
13.3	0.38	1,140*	2,281*	--	--	--	--
13.4	(4) Alachlor (c), µg/L						
13.5	3.8	800*	1,600*	2	--	--	--
13.6	(5) Aldicarb, µg/L						
13.7	--	--	--	3	--	--	--
13.8	2A	2A	2A	1B	4A	4B	5
13.9	CS	MS	FAV	DC	IR	LS	AN
13.10							
13.11	(6) Aldicarb sulfone, µg/L						
13.12	--	--	--	2	--	--	--
13.13	(7) Aldicarb sulfoxide, µg/L						
13.14	--	--	--	4	--	--	--
13.15	(8) Anthracene, µg/L						
13.16	0.035	0.32	0.63	--	--	--	--
13.17	(9) Atrazine (c), µg/L						
13.18	3.4	323	645	3	--	--	--
13.19	(10) Benzene (c), µg/L						
13.20	5.1	4,487*	8,974*	5	--	--	--
13.21	2A	2A	2A	1B	4A	4B	5
13.22	CS	MS	FAV	DC	IR	LS	AN
13.23							

14.1 (11) Benzo(a)pyrene, µg/L

14.2 -- -- -- 0.2 -- -- --

14.3 (12) Bromoform, µg/L

14.4 33 2,900 5,800 See sub-
14.5 item (73) -- -- --

14.6 (13) Carbofuran, µg/L

14.7 -- -- -- 40 -- -- --

14.8 (14) Carbon tetrachloride (c), µg/L

14.9 1.9 1,750* 3,500* 5 -- -- --

14.10 (15) Chlordane (c), ng/L

14.11 0.073 1,200* 2,400* 2,000 -- -- --

14.12 **2A** **2A** **2A** **1B** **4A** **4B** **5**
14.13 **CS** **MS** **FAV** **DC** **IR** **LS** **AN**

14.14

14.15 (16) Chlorobenzene, µg/L (Monochlorobenzene)

14.16 20 423 846 100 -- -- --

14.17 (17) Chloroform (c), µg/L

14.18 53 1,392 2,784 See sub-
14.19 item (73) -- -- --

14.20 (18) Chlorpyrifos, µg/L

14.21 0.041 0.083 0.17 -- -- --

14.22 (19) Dalapon, µg/L

14.23 -- -- -- 200 -- -- --

15.1 (20) DDT (c), ng/L

15.2 0.11 550* 1,100* -- -- -- --

15.3 **2A** **2A** **2A** **1B** **4A** **4B** **5**
 15.4 **CS** **MS** **FAV** **DC** **IR** **LS** **AN**

15.5

15.6 (21) 1,2-Dibromo-3-chloropropane (c), µg/L

15.7 -- -- -- 0.2 -- -- --

15.8 (22) Dichlorobenzene (ortho), µg/L

15.9 -- -- -- 600 -- -- --

15.10 (23) 1,4-Dichlorobenzene (para) (c), µg/L

15.11 -- -- -- 75 -- -- --

15.12 (24) 1,2-Dichloroethane (c), µg/L

15.13 3.5 45,050* 90,100* 5 -- -- --

15.14 (25) 1,1-Dichloroethylene, µg/L

15.15 -- -- -- 7 -- -- --

15.16 **2A** **2A** **2A** **1B** **4A** **4B** **5**
 15.17 **CS** **MS** **FAV** **DC** **IR** **LS** **AN**

15.18

15.19 (26) 1,2-Dichloroethylene (cis), µg/L

15.20 -- -- -- 70 -- -- --

15.21 (27) 1,2-Dichloroethylene (trans), µg/L

15.22 -- -- -- 100 -- -- --

15.23 (28) 2,4-Dichlorophenoxyacetic acid (2,4-D), µg/L

16.1	--	--	--	70	--	--	--
16.2	(29) 1,2-Dichloropropane (c), µg/L						
16.3	--	--	--	5	--	--	--
16.4	(30) Dieldrin (c), ng/L						
16.5	0.0065	1,300*	2,500*	--	--	--	--
16.6	2A	2A	2A	1B	4A	4B	5
16.7	CS	MS	FAV	DC	IR	LS	AN
16.8							
16.9	(31) Di-2-ethylhexyl adipate, µg/L						
16.10	--	--	--	400	--	--	--
16.11	(32) Di-2-ethylhexyl phthalate (c), µg/L						
16.12	1.9	--*	--*	6	--	--	--
16.13	(33) Di-n-Octyl phthalate, µg/L						
16.14	30	825	1,650	--	--	--	--
16.15	(34) Dinoseb, µg/L						
16.16	--	--	--	7	--	--	--
16.17	(35) Diquat, µg/L						
16.18	--	--	--	20	--	--	--
16.19	2A	2A	2A	1B	4A	4B	5
16.20	CS	MS	FAV	DC	IR	LS	AN
16.21							
16.22	(36) Endosulfan, µg/L						
16.23	0.0076	0.084	0.17	--	--	--	--

17.1	(37) Endothall, µg/L						
17.2	--	--	--	100	--	--	--
17.3	(38) Endrin, µg/L						
17.4	0.0039	0.090	0.18	2	--	--	--
17.5	(39) Ethylbenzene (c), µg/L						
17.6	68	1,859	3,717	700	--	--	--
17.7	(40) Ethylene dibromide, µg/L						
17.8	--	--	--	0.05	--	--	--
17.9	2A	2A	2A	1B	4A	4B	5
17.10	CS	MS	FAV	DC	IR	LS	AN
17.11							
17.12	(41) Fluoranthene, µg/L						
17.13	1.9	3.5	6.9	--	--	--	--
17.14	(42) Glyphosate, µg/L						
17.15	--	--	--	700	--	--	--
17.16	(43) Haloacetic acids (c), µg/L (Bromoacetic acid, Dibromoacetic acid, Dichloroacetic acid,						
17.17	Monochloroacetic acid, and Trichloroacetic acid)						
17.18	--	--	--	60	--	--	--
17.19	(44) Heptachlor (c), ng/L						
17.20	0.10	260*	520*	400	--	--	--
17.21	(45) Heptachlor epoxide (c), ng/L						
17.22	0.12	270*	530*	200	--	--	--

18.1	2A	2A	2A	1B	4A	4B	5
18.2	CS	MS	FAV	DC	IR	LS	AN

18.3

18.4 (46) Hexachlorobenzene (c), ng/L

18.5	0.061	--*	--*	1,000	--	--	--
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18.6 (47) Hexachlorocyclopentadiene, µg/L

18.7	--	--	--	50	--	--	--
------	----	----	----	----	----	----	----

18.8 (48) Lindane (c), µg/L (Hexachlorocyclohexane, gamma-)

18.9	0.0087	1.0*	2.0*	0.2	--	--	--
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18.10 (49) Methoxychlor, µg/L

18.11	--	--	--	40	--	--	--
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18.12 (50) Methylene chloride (c), µg/L (Dichloromethane)

18.13	45	13,875*	27,749*	5	--	--	--
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18.14	2A	2A	2A	1B	4A	4B	5
18.15	CS	MS	FAV	DC	IR	LS	AN

18.16

18.17 (51) Metolachlor

18.18	23	271	543	--	--	--	--
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18.19 (52) Naphthalene, µg/L

18.20	65	409	818	--	--	--	--
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18.21 (53) Oxamyl, µg/L (Vydate)

18.22	--	--	--	200	--	--	--
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18.23 (54) Parathion, µg/L

19.1	0.013	0.07	0.13	--	--	--	--
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19.2	(55) Pentachlorophenol, µg/L						
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19.3	0.93	15	30	1	--	--	--
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19.4	Class 2A MS and FAV are pH dependent. Pentachlorophenol values shown are for a pH of						
19.5	7.5 only. See part 7050.0222, subpart 2, for examples at other pH values and equations to						
19.6	calculate pentachlorophenol standards for any pH value.						

19.7	2A	2A	2A	1B	4A	4B	5
19.8	CS	MS	FAV	DC	IR	LS	AN

19.9							
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19.10	(56) Phenanthrene, µg/L						
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19.11	3.6	32	64	--	--	--	--
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19.12	(57) Phenol, µg/L						
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19.13	123	2,214	4,428	--	--	--	--
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19.14	(58) Picloram, µg/L						
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19.15	--	--	--	500	--	--	--
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19.16	(59) Polychlorinated biphenyls (c), ng/L (PCBs, total)						
-------	--	--	--	--	--	--	--

19.17	0.014	1,000*	2,000*	500	--	--	--
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19.18	(60) Simazine, µg/L						
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19.19	--	--	--	4	--	--	--
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19.20	2A	2A	2A	1B	4A	4B	5
19.21	CS	MS	FAV	DC	IR	LS	AN

19.22							
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19.23	(61) Styrene (c), µg/L						
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19.24	--	--	--	100	--	--	--
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20.1	(62) 2,3,7,8-Tetrachlorodibenzo-p-dioxin, ng/L (TCDD-dioxin)						
20.2	--	--	--	0.03	--	--	--
20.3	(63) 1,1,2,2-Tetrachloroethane (c), µg/L						
20.4	1.1	1,127*	2,253*	--	--	--	--
20.5	(64) Tetrachloroethylene (c), µg/L						
20.6	3.8	428*	857*	5	--	--	--
20.7	(65) Toluene, µg/L						
20.8	253	1,352	2,703	1,000	--	--	--
20.9	2A	2A	2A	1B	4A	4B	5
20.10	CS	MS	FAV	DC	IR	LS	AN
20.11							
20.12	(66) Toxaphene (c), ng/L						
20.13	0.31	730*	1,500*	3,000	--	--	--
20.14	(67) 2,4,5-TP, µg/L (Silvex)						
20.15	--	--	--	50	--	--	--
20.16	(68) 1,2,4-Trichlorobenzene, µg/L						
20.17	--	--	--	70	--	--	--
20.18	(69) 1,1,1-Trichloroethane, µg/L						
20.19	329	2,957	5,913	200	--	--	--
20.20	(70) 1,1,2-Trichloroethane, µg/L						
20.21	--	--	--	5	--	--	--

21.1	2A	2A	2A	1B		4A	4B	5
21.2	CS	MS	FAV	DC		IR	LS	AN

21.3

21.4 (71) 1,1,2-Trichloroethylene (c), µg/L

21.5	25	6,988	13,976*	5		--	--	--
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21.6 (72) 2,4,6-Trichlorophenol, µg/L

21.7	2.0	102	203	--		--	--	--
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21.8 (73) Trihalomethanes, total (c), µg/L (Bromodichloromethane, Bromoform,
21.9 Chlorodibromomethane, and Chloroform)

21.10	--	--	--	80		--	--	--
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21.11 (74) Vinyl chloride (c), µg/L

21.12	0.17	--*	--*	2		--	--	--
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21.13 (75) Xylenes, total, µg/L

21.14	166	1,407	2,814	10,000		--	--	--
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21.15 *[For text of items D and E, see Minnesota Rules]*21.16 *[For text of subpart 4, see Minnesota Rules]*

21.17 Subp. 4a. **Cool and warm water aquatic life and habitat, drinking water, and**
21.18 **associated use classes.** Water quality standards applicable to use classes 1B or 1C; 2Bd,
21.19 2Bde, 2Bdg, or 2Bdm; 3; 4A and 4B; and 5 surface waters. The water quality standards in
21.20 part 7050.0222, subpart 3, that apply to class 2Bd also apply to classes 2Bde, 2Bdg, and
21.21 2Bdm. In addition to the water quality standards in part 7050.0222, subpart 3, the biological
21.22 criteria defined in part 7050.0222, subpart 3d, apply to classes 2Bde, 2Bdg, and 2Bdm.

21.23 A. MISCELLANEOUS SUBSTANCE, CHARACTERISTIC, OR POLLUTANT

22.1	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
22.2	CS	MS	FAV	DC	IR	LS	AN

22.3

22.4 (1) Ammonia, un-ionized as N, µg/L

22.5	40	--	--	--	--	--	--
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22.6 (2) Asbestos, >10 µm (c), fibers/L

22.7	--	--	--	7.0e+06	--	--	--
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22.8 (3) Bromate, µg/L

22.9	--	--	--	10	--	--	--
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22.10 (4) Chloride, mg/L

22.11	230	860	1,720	250(S)	--	--	--
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22.12	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
22.13	CS	MS	FAV	DC	IR	LS	AN

22.14

22.15 (5) Chlorine, total residual, µg/L

22.16	11	19	38	--	--	--	--
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22.17 (6) Chlorite, µg/L

22.18	--	--	--	1,000	--	--	--
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22.19 (7) Color, Pt-Co

22.20	--	--	--	15(S)	--	--	--
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22.21 (8) Cyanide, free, µg/L

22.22	5.2	22	45	200	--	--	--
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23.1 (9) *Escherichia (E.) coli* bacteria, organisms/100 mL

23.2	See	--	--	--	--	--	--
23.3	item D						

23.4	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
23.5	CS	MS	FAV	DC	IR	LS	AN

23.6

23.7 (10) Eutrophication standards for lakes, shallow lakes, and reservoirs (phosphorus, total,
23.8 µg/L; chlorophyll-a, µg/L; Secchi disk transparency, meters)

23.9	See part	--	--	--	--	--	--
23.10	7050.0222,						
23.11	subparts						
23.12	3 and 3a						

23.13 (11) Eutrophication standards for rivers, streams, and navigational pools (phosphorus, total
23.14 µg/L; chlorophyll-a (seston), µg/L; five-day biochemical oxygen demand (BOD₅), mg/L;
23.15 diel dissolved oxygen flux, mg/L; chlorophyll-a (periphyton), mg/m²)

23.16	See part	--	--	--	--	--	--
23.17	7050.0222,						
23.18	subparts 3						
23.19	and 3b						

23.20 (12) Fluoride, mg/L

23.21	--	--	--	4	--	--	--
-------	----	----	----	---	----	----	----

23.22 (13) Fluoride, mg/L

23.23	--	--	--	2(S)	--	--	--
-------	----	----	----	------	----	----	----

23.24 (14) Foaming agents, µg/L

23.25	--	--	--	500(S)	--	--	--
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24.1	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
24.2	CS	MS	FAV	DC	IR	LS	AN

24.3

24.4 (15) Hydrogen sulfide, mg/L

24.5	--	--	--	--	--	--	0.02
------	----	----	----	----	----	----	------

24.6 (16) Nitrate as N, mg/L

24.7	--	--	--	10	--	--	--
------	----	----	----	----	----	----	----

24.8 (17) Nitrite as N, mg/L

24.9	--	--	--	1	--	--	--
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24.10 (18) Nitrate + Nitrite as N, mg/L

24.11	--	--	--	10	--	100	--
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24.12 (19) Odor, TON

24.13	--	--	--	3(S)	--	--	--
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24.14	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
24.15	CS	MS	FAV	DC	IR	LS	AN

24.16

24.17 (20) Oil, µg/L

24.18	500	5,000	10,000	--	--	--	--
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24.19 (21) Oxygen, dissolved, mg/L

24.20	See part	--	--	--	--	--	--
24.21	7050.0222,						
24.22	subpart 3						

24.23 (22) pH minimum, su

24.24	6.5	--	--	6.5(S)	--	6.0	6.0
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25.1 (23) pH maximum, su

25.2 9.0 -- -- 8.5(S) -- 9.0 9.0

25.3 (24) Radioactive materials

25.4 See -- -- See See See --
25.5 item E item E item E

25.6 **2Bd** **2Bd** **2Bd** **1B/1C** **4A** **4B** **5**
25.7 **CS** **MS** **FAV** **DC** **IR** **LS** **AN**

25.8

25.9 (25) Sulfate, mg/L

25.10 -- -- -- 250(S) -- 600 --

25.11 (26) Sulfates, wild rice present, mg/L

25.12 -- -- -- -- 10 -- --

25.13 **2Bd** **2Bd** **2Bd** **1B/1C** **4A** **4B** **5**
25.14 **CS** **MS** **FAV** **DC** **IR** **LS** **AN**

25.15

25.16 (27) Temperature, °F

25.17 See -- -- -- -- -- --
25.18 item F

25.19 (28) Total dissolved solids, mg/L

25.20 -- -- -- 500(S) -- 3,000 --

25.21 (29) Total suspended solids (TSS), mg/L

26.1	See part						
26.2	7050.0222,						
26.3	subpart 3	--	--	--	--	--	--

26.4 B. METALS AND ELEMENTS

26.5	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
26.6	CS	MS	FAV	DC	IR	LS	AN

26.7 _____

26.8 (1) Aluminum, total, µg/L

26.9	125	1,072	2,145	50-	--	--	--
26.10				200(S)			

26.11 (2) Antimony, total, µg/L

26.12	5.5	90	180	6	--	--	--
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26.13 (3) Arsenic, total, µg/L

26.14	2.0	360	720	10	--	--	--
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26.15 (4) Barium, total, µg/L

26.16	--	--	--	2,000	--	--	--
-------	----	----	----	-------	----	----	----

26.17 (5) Beryllium, total, µg/L

26.18	--	--	--	4.0	--	--	--
-------	----	----	----	-----	----	----	----

26.19	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
26.20	CS	MS	FAV	DC	IR	LS	AN

26.21 _____

26.22 (6) Boron, total, µg/L

26.23	--	--	--	--	500	--	--
-------	----	----	----	----	-----	----	----

26.24 (7) Cadmium, total, µg/L

27.1	1.1	33	67	5	--	--	--
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27.2 Class 2Bd cadmium standards are hardness dependent. Cadmium values shown are for a
 27.3 total hardness of 100 mg/L only. See part 7050.0222, subpart 3, for examples at other
 27.4 hardness values and equations to calculate cadmium standards for any hardness value not
 27.5 to exceed 400 mg/L.

27.6 (8) Chromium +3, total, µg/L

27.7	207	1,737	3,469	--	--	--	--
------	-----	-------	-------	----	----	----	----

27.8 Class 2Bd trivalent chromium standards are hardness dependent. Chromium +3 values
 27.9 shown are for a total hardness of 100 mg/L only. See part 7050.0222, subpart 3, for examples
 27.10 at other hardness values and equations to calculate trivalent chromium standards for any
 27.11 hardness value not to exceed 400 mg/L.

27.12 (9) Chromium +6, total, µg/L

27.13	11	16	32	--	--	--	--
-------	----	----	----	----	----	----	----

27.14 (10) Chromium, total, µg/L

27.15	--	--	--	100	--	--	--
-------	----	----	----	-----	----	----	----

27.16	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
27.17	CS	MS	FAV	DC	IR	LS	AN

27.18

27.19 (11) Cobalt, total, µg/L

27.20	2.8	436	872	--	--	--	--
-------	-----	-----	-----	----	----	----	----

27.21 (12) Copper, total, µg/L

27.22	9.8	18	35	1,000	--	--	--
27.23				(S)			

27.24 Class 2Bd copper standards are hardness dependent. Copper values shown are for a total
 27.25 hardness of 100 mg/L only. See part 7050.0222, subpart 3, for examples at other hardness
 27.26 values and equations to calculate copper standards for any hardness value not to exceed 400
 27.27 mg/L.

28.1 (13) Iron, total, µg/L

28.2 -- -- -- 300(S) -- -- --

28.3 (14) Lead, total, µg/L

28.4 3.2 82 164 NA -- -- --

28.5 Class 2Bd lead standards are hardness dependent. Lead values shown are for a total hardness
28.6 of 100 mg/L only. See part 7050.0222, subpart 3, for examples at other hardness values and
28.7 equations to calculate lead standards for any hardness value not to exceed 400 mg/L.

28.8 (15) Manganese, total, µg/L

28.9 -- -- -- 50(S) -- -- --

28.10 **2Bd** **2Bd** **2Bd** **1B/1C** **4A** **4B** **5**
28.11 **CS** **MS** **FAV** **DC** **IR** **LS** **AN**

28.12

28.13 (16) Mercury, total in water, ng/L

28.14 6.9 2,400* 4,900* 2,000 -- -- --

28.15 (17) Mercury, total in edible fish tissue, mg/kg or parts per million

28.16 0.2 -- -- -- -- -- --

28.17 (18) Nickel, total, µg/L

28.18 158 1,418 2,836 -- -- --

28.19 Class 2Bd nickel standards are hardness dependent. Nickel values shown are for a total
28.20 hardness of 100 mg/L only. See part 7050.0222, subpart 3, for examples at other hardness
28.21 values and equations to calculate nickel standards for any hardness value not to exceed 400
28.22 mg/L.

28.23 (19) Selenium, total, µg/L

28.24 5.0 20 40 50 -- -- --

28.25 (20) Silver, total, µg/L

29.1	1.0	2.0	4.1	100(S)	--	--	--
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29.2 Class 2Bd silver MS and FAV are hardness dependent. Silver values shown are for a total
 29.3 hardness of 100 mg/L only. See part 7050.0222, subpart 3, for examples at other hardness
 29.4 values and equations to calculate silver standards for any hardness value not to exceed 400
 29.5 mg/L.

29.6	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
29.7	CS	MS	FAV	DC	IR	LS	AN

29.8

29.9 (21) Thallium, total, µg/L

29.10	0.28	64	128	2	--	--	--
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29.11 (22) Zinc, total, µg/L

29.12	106	117	234	5,000	--	--	--
29.13				(S)			

29.14 Class 2Bd zinc standards are hardness dependent. Zinc values shown are for a total hardness
 29.15 of 100 mg/L only. See part 7050.0222, subpart 3, for examples at other hardness values and
 29.16 equations to calculate zinc standards for any hardness value not to exceed 400 mg/L.

29.17 C. ORGANIC POLLUTANTS OR CHARACTERISTICS

29.18	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
29.19	CS	MS	FAV	DC	IR	LS	AN

29.20

29.21 (1) Acenaphthene, µg/L

29.22	20	56	112	--	--	--	--
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29.23 (2) Acetochlor, µg/L

29.24	3.6	86	173	--	--	--	--
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29.25 (3) Acrylonitrile (c), µg/L

29.26	0.38	1,140*	2,281*	--	--	--	--
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30.1 (4) Alachlor (c), µg/L

30.2	4.2	800*	1,600*	2	--	--	--
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30.3 (5) Aldicarb, µg/L

30.4	--	--	--	3	--	--	--
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30.5 **2Bd** **2Bd** **2Bd** **1B/1C**30.6 **CS** **MS** **FAV** **DC** **4A** **4B** **5****IR** **LS** **AN**

30.7

30.8 (6) Aldicarb sulfone, µg/L

30.9	--	--	--	2	--	--	--
------	----	----	----	---	----	----	----

30.10 (7) Aldicarb sulfoxide, µg/L

30.11	--	--	--	4	--	--	--
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30.12 (8) Anthracene, µg/L

30.13	0.035	0.32	0.63	--	--	--	--
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30.14 (9) Atrazine (c), µg/L

30.15	3.4	323	645	3	--	--	--
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30.16 (10) Benzene (c), µg/L

30.17	6.0	4,487*	8,974*	5	--	--	--
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30.18 **2Bd** **2Bd** **2Bd** **1B/1C**30.19 **CS** **MS** **FAV** **DC** **4A** **4B** **5****IR** **LS** **AN**

30.20

30.21 (11) Benzo(a)pyrene, µg/L

30.22	--	--	--	0.2	--	--	--
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30.23 (12) Bromoform, µg/L

31.1	41	2,900	5,800	See	--	--	--
31.2				subitem			
31.3				(73)			
31.4	(13) Carbofuran, µg/L						
31.5	--	--	--	40	--	--	--
31.6	(14) Carbon tetrachloride (c), µg/L						
31.7	1.9	1,750*	3,500*	5	--	--	--
31.8	(15) Chlordane (c), ng/L						
31.9	0.29	1,200*	2,400*	2,000	--	--	--
31.10	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
31.11	CS	MS	FAV	DC	IR	LS	AN
31.12							
31.13	(16) Chlorobenzene, µg/L (Monochlorobenzene)						
31.14	20	423	846	100	--	--	--
31.15	(17) Chloroform (c), µg/L						
31.16	53	1,392	2,784	See	--	--	--
31.17				subitem			
31.18				(73)			
31.19	(18) Chlorpyrifos, µg/L						
31.20	0.041	0.083	0.17	--	--	--	--
31.21	(19) Dalapon, µg/L						
31.22	--	--	--	200	--	--	--
31.23	(20) DDT (c), ng/L						
31.24	1.7	550*	1,100*	--	--	--	--

32.1	2Bd	2Bd	2Bd	1B/1C		4A	4B	5
32.2	CS	MS	FAV	DC		IR	LS	AN

32.3

32.4 (21) 1,2-Dibromo-3-chloropropane (c), µg/L

32.5	--	--	--	0.2		--	--	--
------	----	----	----	-----	--	----	----	----

32.6 (22) Dichlorobenzene (ortho), µg/L

32.7	--	--	--	600		--	--	--
------	----	----	----	-----	--	----	----	----

32.8 (23) 1,4-Dichlorobenzene (para) (c), µg/L

32.9	--	--	--	75		--	--	--
------	----	----	----	----	--	----	----	----

32.10 (24) 1,2-Dichloroethane (c), µg/L

32.11	3.8	45,050*	90,100*	5		--	--	--
-------	-----	---------	---------	---	--	----	----	----

32.12 (25) 1,1-Dichloroethylene, µg/L

32.13	--	--	--	7		--	--	--
-------	----	----	----	---	--	----	----	----

32.14	2Bd	2Bd	2Bd	1B/1C		4A	4B	5
32.15	CS	MS	FAV	DC		IR	LS	AN

32.16

32.17 (26) 1,2-Dichloroethylene (cis), µg/L

32.18	--	--	--	70		--	--	--
-------	----	----	----	----	--	----	----	----

32.19 (27) 1,2-Dichloroethylene (trans), µg/L

32.20	--	--	--	100		--	--	--
-------	----	----	----	-----	--	----	----	----

32.21 (28) 2,4-Dichlorophenoxyacetic acid (2,4-D), µg/L

32.22	--	--	--	70		--	--	--
-------	----	----	----	----	--	----	----	----

32.23 (29) 1,2-Dichloropropane (c), µg/L

33.1	--	--	--	5	--	--	--
33.2	(30) Dieldrin (c), ng/L						
33.3	0.026	1,300*	2,500*	--	--	--	--
33.4	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
33.5	CS	MS	FAV	DC	IR	LS	AN
33.6							
33.7	(31) Di-2-ethylhexyl adipate, µg/L						
33.8	--	--	--	400	--	--	--
33.9	(32) Di-2-ethylhexyl phthalate (c), µg/L						
33.10	1.9	--*	--*	6	--	--	--
33.11	(33) Di-n-Octyl phthalate, µg/L						
33.12	30	825	1,650	--	--	--	--
33.13	(34) Dinoseb, µg/L						
33.14	--	--	--	7	--	--	--
33.15	(35) Diquat, µg/L						
33.16	--	--	--	20	--	--	--
33.17	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
33.18	CS	MS	FAV	DC	IR	LS	AN
33.19							
33.20	(36) Endosulfan, µg/L						
33.21	0.029	0.28	0.56	--	--	--	--
33.22	(37) Endothall, µg/L						
33.23	--	--	--	100	--	--	--

34.1	(38) Endrin, µg/L						
34.2	0.016	0.090	0.18	2	--	--	--
34.3	(39) Ethylbenzene (c), µg/L						
34.4	68	1,859	3,717	700	--	--	--
34.5	(40) Ethylene dibromide, µg/L						
34.6	--	--	--	0.05	--	--	--
34.7	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
34.8	CS	MS	FAV	DC	IR	LS	AN
34.9							
34.10	(41) Fluoranthene, µg/L						
34.11	1.9	3.5	6.9	--	--	--	--
34.12	(42) Glyphosate, µg/L						
34.13	--	--	--	700	--	--	--
34.14	(43) Haloacetic acids (c), µg/L (Bromoacetic acid, Dibromoacetic acid, Dichloroacetic acid, Monochloroacetic acid, and Trichloroacetic acid)						
34.15							
34.16	--	--	--	60	--	--	--
34.17	(44) Heptachlor (c), ng/L						
34.18	0.39	260*	520*	400	--	--	--
34.19	(45) Heptachlor epoxide (c), ng/L						
34.20	0.48	270*	530*	200	--	--	--
34.21	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
34.22	CS	MS	FAV	DC	IR	LS	AN
34.23							

35.1 (46) Hexachlorobenzene (c), ng/L

35.2 0.24 --* --* 1,000 -- -- --

35.3 (47) Hexachlorocyclopentadiene, µg/L

35.4 -- -- -- 50 -- -- --

35.5 (48) Lindane (c), µg/L (Hexachlorocyclohexane, gamma-)

35.6 0.032 4.4* 8.8* 0.2 -- -- --

35.7 (49) Methoxychlor, µg/L

35.8 -- -- -- 40 -- -- --

35.9 (50) Methylene chloride (c), µg/L (Dichloromethane)

35.10 46 13,875* 27,749* 5 -- -- --

35.11 **2Bd** **2Bd** **2Bd** **1B/1C** **4A** **4B** **5**
 35.12 **CS** **MS** **FAV** **DC** **IR** **LS** **AN**

35.13

35.14 (51) Metolachlor

35.15 23 271 543 -- -- --

35.16 (52) Naphthalene, µg/L

35.17 81 409 818 -- -- --

35.18 (53) Oxamyl, µg/L (Vydate)

35.19 -- -- -- 200 -- -- --

35.20 (54) Parathion, µg/L

35.21 0.013 0.07 0.13 -- -- --

35.22 (55) Pentachlorophenol, µg/L

36.1	1.9	15	30	1	--	--	--
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36.2 Class 2Bd MS and FAV are pH dependent. Pentachlorophenol values shown are for a pH
 36.3 of 7.5 only. See part 7050.0222, subpart 3, for examples at other pH values and equations
 36.4 to calculate pentachlorophenol standards for any pH value.

36.5	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
36.6	CS	MS	FAV	DC	IR	LS	AN

36.8 (56) Phenanthrene, µg/L

36.9	3.6	32	64	--	--	--	--
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36.10 (57) Phenol, µg/L

36.11	123	2,214	4,428	--	--	--	--
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36.12 (58) Picloram, µg/L

36.13	--	--	--	500	--	--	--
-------	----	----	----	-----	----	----	----

36.14 (59) Polychlorinated biphenyls (c), ng/L (PCBs, total)

36.15	0.029	1,000*	2,000*	500	--	--	--
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36.16 (60) Simazine, µg/L

36.17	--	--	--	4	--	--	--
-------	----	----	----	---	----	----	----

36.18	2Bd	2Bd	2Bd	1B/1C	4A	4B	5
36.19	CS	MS	FAV	DC	IR	LS	AN

36.21 (61) Styrene (c), µg/L

36.22	--	--	--	100	--	--	--
-------	----	----	----	-----	----	----	----

36.23 (62) 2,3,7,8-Tetrachlorodibenzo-p-dioxin, ng/L (TCDD-dioxin)

36.24	--	--	--	0.03	--	--	--
-------	----	----	----	------	----	----	----

37.1 (63) 1,1,2,2-Tetrachloroethane (c), µg/L

37.2 1.5 1,127* 2,253* -- -- -- --

37.3 (64) Tetrachloroethylene (c), µg/L

37.4 3.8 428* 857* 5 -- -- --

37.5 (65) Toluene, µg/L

37.6 253 1,352 2,703 1,000 -- -- --

37.7 **2Bd** **2Bd** **2Bd** **1B/1C** **4A** **4B** **5**
 37.8 **CS** **MS** **FAV** **DC** **IR** **LS** **AN**

37.9

37.10 (66) Toxaphene (c), ng/L

37.11 1.3 730* 1,500* 3,000 -- -- --

37.12 (67) 2,4,5-TP, µg/L (Silvex)

37.13 -- -- -- 50 -- -- --

37.14 (68) 1,2,4-Trichlorobenzene, µg/L

37.15 -- -- -- 70 -- -- --

37.16 (69) 1,1,1-Trichloroethane, µg/L

37.17 329 2,957 5,913 200 -- -- --

37.18 (70) 1,1,2-Trichloroethane, µg/L

37.19 -- -- -- 5 -- -- --

37.20 **2Bd** **2Bd** **2Bd** **1B/1C** **4A** **4B** **5**
 37.21 **CS** **MS** **FAV** **DC** **IR** **LS** **AN**

37.22

37.23 (71) 1,1,2-Trichloroethylene (c), µg/L

38.1	25	6,988*	13,976*	5	--	--	--
38.2	(72) 2,4,6-Trichlorophenol, µg/L						
38.3	2.0	102	203	--	--	--	--
38.4	(73) Trihalomethanes, total (c), µg/L (Bromodichloromethane, Bromoform,						
38.5	Chlorodibromomethane, and Chloroform)						
38.6	--	--	--	80	--	--	--
38.7	(74) Vinyl chloride (c), µg/L						
38.8	0.18	--*	--*	2	--	--	--
38.9	(75) Xylenes, total, µg/L						
38.10	166	1,407	2,814	10,000	--	--	--

38.11 *[For text of items D to F, see Minnesota Rules]*

38.12 *[For text of subpart 5, see Minnesota Rules]*

38.13 Subp. 5a. **Cool and warm water aquatic life and habitat and associated use**

38.14 **classes.** Water quality standards applicable to use classes 2B, 2Be, 2Bg, 2Bm, or 2D; 3;

38.15 4A and 4B; and 5 surface waters. See part 7050.0225, subpart 2, for class 3 and 5 standards

38.16 applicable to wetlands. The water quality standards in part 7050.0222, subpart 4, that apply

38.17 to class 2B also apply to classes 2Be, 2Bg, and 2Bm. In addition to the water quality standards

38.18 in part 7050.0222, subpart 4, the biological criteria defined in part 7050.0222, subpart 4d,

38.19 apply to classes 2Be, 2Bg, and 2Bm.

38.20 A. MISCELLANEOUS SUBSTANCE, CHARACTERISTIC, OR POLLUTANT

38.21	2B&D	2B&D	2B&D	4A	4B	5
38.22	CS	MS	FAV	IR	LS	AN

38.23

38.24 (1) Ammonia, un-ionized as N, µg/L

39.1	40	--	--	--	--	--
39.2	(2) Chloride, mg/L					
39.3	230					
39.4	See					
39.5	item F	860	1,720	--	--	--
39.6	(3) Chlorine, total residual, µg/L					
39.7	11	19	38	--	--	--
39.8	(4) Cyanide, free, µg/L					
39.9	5.2	22	45	--	--	--
39.10	2B&D	2B&D	2B&D	4A	4B	5
39.11	CS	MS	FAV	IR	LS	AN
39.12						
39.13	(5) <i>Escherichia (E.) coli</i> bacteria, organisms/100 mL					
39.14	See	--	--	--	--	--
39.15	item D					
39.16	(6) Eutrophication standards for lakes, shallow lakes, and reservoirs (phosphorus, total,					
39.17	µg/L; chlorophyll-a, µg/L; Secchi disk transparency, meters)					
39.18	See part	--	--	--	--	--
39.19	7050.0222,					
39.20	subparts					
39.21	4 and 4a					
39.22	(7) Eutrophication standards for rivers, streams, and navigational pools (phosphorus, total					
39.23	µg/L; chlorophyll-a (seston), µg/L; five-day biochemical oxygen demand (BOD ₅), mg/L;					
39.24	diel dissolved oxygen flux, mg/L; chlorophyll-a (periphyton), mg/m ²)					
39.25	See part	--	--	--	--	--
39.26	7050.0222,					

40.1	subparts 4					
40.2	and 4b					
40.3	(8) Hydrogen sulfide, mg/L					
40.4	--	--	--	--	--	0.02
40.5	(9) Nitrate + nitrite as N, mg/L					
40.6	--	--	--	--	100	--
40.7	(10) Oil, µg/L					
40.8	500	5,000	10,000	--	--	--
40.9	2B&D	2B&D	2B&D	4A	4B	5
40.10	CS	MS	FAV	IR	LS	AN
40.11						
40.12	(11) Oxygen, dissolved, mg/L					
40.13	See part	--	--	--	--	--
40.14	7050.0222,					
40.15	subparts					
40.16	4 and 6					
40.17	(12) pH minimum, su					
40.18	6.5	--	--	--	6.0	6.0
40.19	See					
40.20	item E					
40.21	(13) pH maximum, su					
40.22	9.0	--	--	--	9.0	9.0
40.23	See					
40.24	item E					
40.25	(14) Radioactive materials					

41.1	See	--	--		See	See	--
41.2	item G				item G	item G	

41.3	2B&D	2B&D	2B&D		4A	4B	5
41.4	CS	MS	FAV		IR	LS	AN

41.5							
------	-------	--	--	--	--	--	--

41.6 (15) Settleable solids, mL/L

41.7	See part						
41.8	7050.0222,						
41.9	subpart 6	--	--		--	--	--

41.10 (16) Sulfates, wild rice present, mg/L

41.11	--	--	--		10	--	--
-------	----	----	----	--	----	----	----

41.12 (17) Sulfate, mg/L

41.13	--	--	--		--	600	--
-------	----	----	----	--	----	-----	----

41.14 (18) Temperature, °F

41.15	See	--	--		--	--	--
41.16	item H						

41.17 (19) Total dissolved solids, mg/L

41.18	--	--	--		--	3,000	--
-------	----	----	----	--	----	-------	----

41.19 (20) Total suspended solids (TSS), mg/L

41.20	See part						
41.21	7050.0222,						
41.22	subpart 4	--	--		--	--	--

42.1 B. METALS AND ELEMENTS

	2B&D	2B&D	2B&D	4A	4B	5
	CS	MS	FAV	IR	LS	AN

42.5 (1) Aluminum, total, µg/L

42.6	125	1,072	2,145	--	--	--
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42.7 (2) Antimony, total, µg/L

42.8	31	90	180	--	--	--
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42.9 (3) Arsenic, total, µg/L

42.10	53	360	720	--	--	--
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42.11 (4) Boron, total, µg/L

42.12	--	--	--	500	--	--
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42.13 (5) Cadmium, total, µg/L

42.14	1.1	33	67	--	--	--
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42.15 Class 2B and 2D cadmium standards are hardness dependent. Cadmium values shown are
 42.16 for a total hardness of 100 mg/L only. See part 7050.0222, subpart 4, for examples at other
 42.17 hardness values and equations to calculate cadmium standards for any hardness value not
 42.18 to exceed 400 mg/L.

	2B&D	2B&D	2B&D	4A	4B	5
	CS	MS	FAV	IR	LS	AN

42.22 (6) Chromium +3, total, µg/L

42.23	207	1,737	3,469	--	--	--
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42.24 Class 2B and 2D trivalent chromium standards are hardness dependent. Chromium +3 values
 42.25 shown are for a total hardness of 100 mg/L only. See part 7050.0222, subpart 4, for examples

43.1 at other hardness values and equations to calculate trivalent chromium standards for any
43.2 hardness value not to exceed 400 mg/L.

43.3 (7) Chromium +6, total, µg/L

43.4	11	16	32	--	--	--
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43.5 (8) Cobalt, total, µg/L

43.6	5.0	436	872	--	--	--
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43.7 (9) Copper, total, µg/L

43.8	9.8	18	35	--	--	--
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43.9 Class 2B and 2D copper standards are hardness dependent. Copper values shown are for a
43.10 total hardness of 100 mg/L only. See part 7050.0222, subpart 4, for examples at other
43.11 hardness values and equations to calculate copper standards for any hardness value not to
43.12 exceed 400 mg/L.

43.13 (10) Lead, total, µg/L

43.14	3.2	82	164	--	--	--
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43.15 Class 2B and 2D lead standards are hardness dependent. Lead values shown are for a total
43.16 hardness of 100 mg/L only. See part 7050.0222, subpart 4, for examples at other hardness
43.17 values and equations to calculate lead standards for any hardness value not to exceed 400
43.18 mg/L.

43.19	2B&D	2B&D	2B&D	4A	4B	5
43.20	CS	MS	FAV	IR	LS	AN

43.21

43.22 (11) Mercury, total in water, ng/L

43.23	6.9	2,400*	4,900*	--	--	--
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43.24 (12) Mercury, total in edible fish tissue, mg/kg or parts per million

43.25	0.2	--	--	--	--	--
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43.26 (13) Nickel, total, µg/L

44.1	158	1,418	2,836	--	--	--
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44.2 Class 2B and 2D nickel standards are hardness dependent. Nickel values shown are for a
 44.3 total hardness of 100 mg/L only. See part 7050.0222, subpart 4, for examples at other
 44.4 hardness values and equations to calculate nickel standards for any hardness value not to
 44.5 exceed 400 mg/L.

44.6 (14) Selenium, total, µg/L

44.7	5.0	20	40	--	--	--
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44.8 (15) Silver, total, µg/L

44.9	1.0	2.0	4.1	--	--	--
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44.10 Class 2B and 2D silver MS and FAV are hardness dependent. Silver values shown are for
 44.11 a total hardness of 100 mg/L only. See part 7050.0222, subpart 4, for examples at other
 44.12 hardness values and equations to calculate silver standards for any hardness value not to
 44.13 exceed 400 mg/L.

44.14	2B&D	2B&D	2B&D	4A	4B	5
44.15	CS	MS	FAV	IR	LS	AN

44.16

44.17 (16) Thallium, total, µg/L

44.18	0.56	64	128	--	--	--
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44.19 (17) Zinc, total, µg/L

44.20	106	117	234	--	--	--
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44.21 Class 2B and 2D zinc standards are hardness dependent. Zinc values shown are for a total
 44.22 hardness of 100 mg/L only. See part 7050.0222, subpart 4, for examples at other hardness
 44.23 values and equations to calculate zinc standards for any hardness value not to exceed 400
 44.24 mg/L.

44.25 C. ORGANIC POLLUTANTS OR CHARACTERISTICS

44.26	2B&D	2B&D	2B&D	4A	4B	5
44.27	CS	MS	FAV	IR	LS	AN

44.28

45.1	(1) Acenaphthene, µg/L					
45.2	20	56	112	--	--	--
45.3	(2) Acetochlor, µg/L					
45.4	3.6	86	173	--	--	--
45.5	(3) Acrylonitrile (c), µg/L					
45.6	0.89	1,140*	2,281*	--	--	--
45.7	(4) Alachlor (c), µg/L					
45.8	59	800	1,600	--	--	--
45.9	(5) Anthracene, µg/L					
45.10	0.035	0.32	0.63	--	--	--
45.11	2B&D	2B&D	2B&D	4A	4B	5
45.12	CS	MS	FAV	IR	LS	AN
45.13						
45.14	(6) Atrazine (c), µg/L					
45.15	10	323	645	--	--	--
45.16	(7) Benzene (c), µg/L					
45.17	98	4,487	8,974	--	--	--
45.18	(8) Bromoform, µg/L					
45.19	466	2,900	5,800	--	--	--
45.20	(9) Carbon tetrachloride (c), µg/L					
45.21	5.9	1,750*	3,500*	--	--	--
45.22	(10) Chlordane (c), ng/L					

46.1	0.29	1,200*	2,400*	--	--	--
46.2	2B&D	2B&D	2B&D	4A	4B	5
46.3	CS	MS	FAV	IR	LS	AN
46.4						
46.5	(11) Chlorobenzene, µg/L (Monochlorobenzene)					
46.6	20	423	846	--	--	--
46.7	(12) Chloroform (c), µg/L					
46.8	155	1,392	2,78	--	--	--
46.9	(13) Chlorpyrifos, µg/L					
46.10	0.041	0.083	0.17	--	--	--
46.11	(14) DDT (c), ng/L					
46.12	1.7	550*	1,100*	--	--	--
46.13	(15) 1,2-Dichloroethane (c), µg/L					
46.14	190	45,050*	90,100*	--	--	--
46.15	2B&D	2B&D	2B&D	4A	4B	5
46.16	CS	MS	FAV	IR	LS	AN
46.17						
46.18	(16) Dieldrin (c), ng/L					
46.19	0.026	1,300*	2,500*	--	--	--
46.20	(17) Di-2-ethylhexyl phthalate (c), µg/L					
46.21	2.1	--*	--*	--	--	--
46.22	(18) Di-n-Octyl phthalate, µg/L					
46.23	30	825	1,650	--	--	--

47.1 (19) Endosulfan, µg/L

47.2 0.031 0.28 0.56 -- -- --

47.3 (20) Endrin, µg/L

47.4 0.016 0.090 0.18 -- -- --

47.5 **2B&D** **2B&D** **2B&D** **4A** **4B** **5**
 47.6 **CS** **MS** **FAV** **IR** **LS** **AN**

47.7

47.8 (21) Ethylbenzene (c), µg/L

47.9 68 1,859 3,717 -- -- --

47.10 (22) Fluoranthene, µg/L

47.11 1.9 3.5 6.9 -- -- --

47.12 (23) Heptachlor (c), ng/L

47.13 0.39 260* 520* -- -- --

47.14 (24) Heptachlor epoxide (c), ng/L

47.15 0.48 270* 530* -- -- --

47.16 (25) Hexachlorobenzene (c), ng/L

47.17 0.24 --* --* -- -- --

47.18 **2B&D** **2B&D** **2B&D** **4A** **4B** **5**
 47.19 **CS** **MS** **FAV** **IR** **LS** **AN**

47.20

47.21 (26) Lindane (c), µg/L (Hexachlorocyclohexane, gamma-)

47.22 0.036 4.4* 8.8* -- -- --

47.23 (27) Methylene chloride (c), µg/L (Dichloromethane)

48.1	1,940	13,875	27,749	--	--	--
48.2	(28) Metolachlor					
48.3	23	271	543	--	--	--
48.4	(29) Naphthalene, µg/L					
48.5	81	409	818	--	--	--
48.6	(30) Parathion, µg/L					
48.7	0.013	0.07	0.13	--	--	--
48.8	2B&D	2B&D	2B&D	4A	4B	5
48.9	CS	MS	FAV	IR	LS	AN
48.10						
48.11	(31) Pentachlorophenol, µg/L					
48.12	5.5	15	30	--	--	--
48.13	Class 2B and 2D standards are pH dependent, except that the CS will not exceed 5.5 µg/L.					
48.14	Pentachlorophenol values shown are for a pH of 7.5 only. See part 7050.0222, subpart 4,					
48.15	for examples at other pH values and equations to calculate pentachlorophenol standards for					
48.16	any pH value.					
48.17	(32) Phenanthrene, µg/L					
48.18	3.6	32	64	--	--	--
48.19	(33) Phenol, µg/L					
48.20	123	2,214	4,428	--	--	--
48.21	(34) Polychlorinated biphenyls (c), ng/L (PCBs, total)					
48.22	0.029	1,000*	2,000*	--	--	--
48.23	(35) 1,1,2,2-Tetrachloroethane (c), µg/L					
48.24	13	1,127	2,253	--	--	--

49.1	2B&D	2B&D	2B&D		4A	4B	5
49.2	CS	MS	FAV		IR	LS	AN

49.3

49.4 (36) Tetrachloroethylene (c), µg/L

49.5	8.9	428	857	--	--	--
------	-----	-----	-----	----	----	----

49.6 (37) Toluene, µg/L

49.7	253	1,352	2,703	--	--	--
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49.8 (38) Toxaphene (c), ng/L

49.9	1.3	730*	1,500*	--	--	--
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49.10 (39) 1,1,1-Trichloroethane, µg/L

49.11	329	2,957	5,913	--	--	--
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49.12 (40) 1,1,2-Trichloroethylene (c), µg/L

49.13	120	6,988	13,976	--	--	--
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49.14	2B&D	2B&D	2B&D		4A	4B	5
49.15	CS	MS	FAV		IR	LS	AN

49.16

49.17 (41) 2,4,6-Trichlorophenol, µg/L

49.18	2.0	102	203	--	--	--
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49.19 (42) Vinyl chloride (c), µg/L

49.20	9.2	--*	--*	--	--	--
-------	-----	-----	-----	----	----	----

49.21 (43) Xylenes, total, µg/L

49.22	166	1,407	2,814	--	--	--
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49.23 *[For text of items D and E, see Minnesota Rules]*

50.1 F. For chloride, maintain background if background is greater than the class 2B
 50.2 chloride standard. See part 7050.0222, subpart 6.

50.3 G. For radioactive materials, see parts 7050.0222, subpart 4; and 7050.0224,
 50.4 subparts 2 and 3.

50.5 H. Temperature must not exceed:

50.6 (1) Class 2B standard: five degrees Fahrenheit above natural in streams and
 50.7 three degrees Fahrenheit above natural in lakes, based on monthly average of maximum
 50.8 daily temperature, except in no case shall it exceed the daily average temperature of 86
 50.9 degrees Fahrenheit; and

50.10 (2) Class 2D standard: maintain background as defined in part 7050.0222,
 50.11 subpart 6.

50.12 *[For text of subpart 6, see Minnesota Rules]*

50.13 Subp. 6a. **Limited resource value waters and associated use classes.**

50.14 A. WATER QUALITY STANDARDS APPLICABLE TO USE CLASSES 3, 4A, 4B, 5,
 50.15 AND 7 SURFACE WATERS

50.16	7	4A	4B	5
50.17	LIMITED	1R	LS	AN
50.18	RESOURCE			
50.19	VALUE			

50.20

50.21 (1) Boron, µg/L

50.22	--	500	--	--
-------	----	-----	----	----

50.23 (2) *Escherichia (E.) coli* bacteria, organisms/100 mL

51.1	See item B	--	--	--
51.2	7	4A	4B	5
51.3	LIMITED	1R	LS	AN
51.4	RESOURCE			
51.5	VALUE			
51.6				
51.7	(3) Hydrogen sulfide, mg/L			
51.8	--	--	--	0.02
51.9	(4) Nitrate + nitrite as N, mg/L			
51.10	--	--	100	--
51.11	(5) Oxygen, dissolved, mg/L			
51.12	See item C	--	--	--
51.13	(6) pH minimum, su			
51.14	6.0	--	6.0	6.0
51.15	(7) pH maximum, su			
51.16	9.0	--	9.0	9.0
51.17	(8) Radioactive materials			
51.18	--	See item D	See item D	--
51.19	7	4A	4B	5
51.20	LIMITED	1R	LS	AN
51.21	RESOURCE			
51.22	VALUE			
51.23				

52.1 (9) Sulfate, mg/L

52.2 -- -- 600 --

52.3 (10) Sulfates, wild rice present, mg/L

52.4 -- 10 -- --

52.5 (11) Total dissolved solids, mg/L

52.6 -- -- 3,000 --

52.7 (12) Toxic pollutants

52.8 See item E -- -- --

52.9 *[For text of items B to E, see Minnesota Rules]*

52.10 *[For text of subpart 7, see Minnesota Rules]*

52.11 **7050.0222 SPECIFIC WATER QUALITY STANDARDS FOR CLASS 2 WATERS**
 52.12 **OF THE STATE; AQUATIC LIFE AND RECREATION.**

52.13 *[For text of subparts 1 to 5, see Minnesota Rules]*

52.14 Subp. 6. **Class 2D waters; wetlands.**

52.15 A. The quality of class 2D wetlands shall be such as to permit propagation and
 52.16 maintenance of a healthy community of aquatic and terrestrial species indigenous to wetlands,
 52.17 and their habitats. Wetlands also add to the biological diversity of the landscape. These
 52.18 waters shall be suitable for boating and other forms of aquatic recreation for which the
 52.19 wetland may be usable. The standards for class 2B waters listed under subpart 4 shall apply
 52.20 to these waters except as listed below:

52.21 Substance, Characteristic, or Pollutant Class 2D standard

52.22 Oxygen, dissolved If background is less than 5.0 mg/L as a daily
 52.23 minimum, maintain background

53.1	pH	Maintain background
53.2	Temperature	Maintain background
53.3	Chloride (Cl)	If background is greater than the class 2B
53.4		chloride standard, maintain background
53.5	Settleable solids	Must not be allowed in concentrations
53.6		sufficient to create ~~the potential for~~ significant
53.7		adverse impacts on ~~one or more designated~~
53.8		uses <u>aquatic life</u>

53.9 *[For text of item B, see Minnesota Rules]*

53.10 C. Activities in wetlands which involve the normal farm practices of planting with
 53.11 annually seeded crops or the utilization of a crop rotation seeding of pasture grasses or
 53.12 legumes, including the recommended applications of fertilizer and pesticides, are excluded
 53.13 from the standards in this subpart and the wetland standards in item A and parts 7050.0225,
 53.14 subpart 2, and 7050.0227. All other activities in these wetlands must meet water quality
 53.15 standards.

53.16 *[For text of subparts 7 to 9, see Minnesota Rules]*

53.17 **7050.0223 SPECIFIC WATER QUALITY STANDARD FOR CLASS 3 WATERS**
 53.18 **OF THE STATE; INDUSTRIAL CONSUMPTION.**

53.19 Subpart 1. **General.** The narrative water quality standard in this part prescribes the
 53.20 qualities or properties of the waters of the state that are necessary for the industrial
 53.21 consumption designated public uses and benefits.

53.22 Subp. 2. **Class 3 waters; industrial consumption.** The quality of class 3 waters of
 53.23 the state must be such as to permit their use for industrial purposes to avoid severe fouling,
 53.24 corrosion, or scaling. If the standard in this part is exceeded in waters of the state that have
 53.25 the class 3 designation, it is considered indicative of a polluted condition that is actually or
 53.26 potentially deleterious, harmful, detrimental, or injurious with respect to the designated use.
 53.27 No sewage, industrial waste, or other wastes from point or nonpoint sources, treated or

54.1 untreated, shall be discharged into or permitted by any person to gain access to any waters
54.2 of the state classified for industrial purposes so as to cause any material impairment of their
54.3 use as a source of industrial water supply.

54.4 Subp. 3. [See repealer.]

54.5 Subp. 4. [See repealer.]

54.6 Subp. 5. [See repealer.]

54.7 Subp. 6. [See repealer.]

54.8 **7050.0224 SPECIFIC WATER QUALITY STANDARDS FOR CLASS 4 WATERS**
54.9 **OF THE STATE; AGRICULTURE AND WILDLIFE.**

54.10 *[For text of subpart 1, see Minnesota Rules]*

54.11 Subp. 2. **Class 4A waters.** The quality of class 4A waters of the state must be such
54.12 as to permit their use for irrigation without significant damage or adverse effects upon any
54.13 crops or vegetation usually grown in the waters or area. In addition, the following standards
54.14 apply:

54.15 Substance, Characteristic, or
54.16 Pollutant

Class 4A Standard

54.17 Boron (B) 0.5 mg/L

54.18 Sulfates (SO₄) 10 mg/L, applicable to water used for production of
54.19 wild rice during periods when the rice may be
54.20 susceptible to damage by high sulfate levels.

54.21 Radioactive materials Not to exceed the lowest concentrations permitted to
54.22 be discharged to an uncontrolled environment as

55.1 prescribed by the appropriate authority having control
55.2 over their use.

55.3 Items A and B apply to the quality of class 4A waters of the state, with the exception of the
55.4 numeric sulfate standard applicable to waters used for production of wild rice.

55.5 A. Determining whether irrigation water quality would cause significant damage
55.6 or adverse effects must consider the following items in the area where the water is applied
55.7 for irrigation: crop types, soil types, climate, and irrigation practices.

55.8 B. Irrigation water quality must be protected over the growing season as an average.

55.9 Subp. 3. **Class 4B waters; livestock and wildlife watering.** The quality of class 4B
55.10 waters of the state must be such as to permit their use by livestock and wildlife ~~for watering~~
55.11 without inhibition or injurious effects. The standards for substances, characteristics, or
55.12 pollutants given below must not be exceeded, as a 30-day average, in the waters of the state:

55.13	Substance, Characteristic, or Pollutant	Class 4B Standard
55.14	pH, minimum value	6.0
55.15	pH, maximum value	9.0
55.16	Total dissolved solids	3,000 mg/L
55.17	Nitrate + nitrite (as NO ₃ +NO ₂ -N)	100 mg/L
55.18	Sulfate (SO ₄)	600 mg/L
55.19	Radioactive materials	Not to exceed the lowest concentrations
55.20		permitted to be discharged to an uncontrolled
55.21		environment as prescribed by the appropriate
55.22		authority having control over their use.
55.23	Toxic substances	None at levels harmful either directly or
55.24		indirectly

55.25 Subp. 4. [See repealer.]

56.1 **7050.0415 DESIGNATED BENEFICIAL USES OF WATERS AND WETLANDS.**

56.2 Subpart 1. **Multiple classifications.** All surface waters of the state are classified in
56.3 more than one beneficial use class and all the water quality standards for each of the
56.4 beneficial use classes apply. If the water quality standard for a particular parameter is
56.5 different among applicable classes, the most restrictive of the standards applies.

56.6 Subp. 2. **Determining the beneficial use classification.** All waters of the state, except
56.7 wetlands, are generally classified as class 2B, 3, 4A, 4B, 5, and 6 waters. Wetlands are
56.8 generally classified as class 2D, 3, 4A, 4B, 5, and 6 waters. Specific beneficial use
56.9 classifications are described in subparts 3 and 4.

56.10 Subp. 3. **Listed waters and wetlands.** The waters of the state listed in part 7050.0470
56.11 are classified as specified in that part. Those waters of the state, including wetlands, that
56.12 are specifically listed in part 7050.0470 have the beneficial use classifications listed in part
56.13 7050.0470. Part 7050.0470 reflects any changes to the beneficial use classifications of a
56.14 water body that differ from the default classifications under subpart 4, based on a specific
56.15 review of a water body's existing or attainable uses.

56.16 Subp. 4. **Unlisted waters and wetlands.**

56.17 A. Except as provided in subitems (1) and (2), all surface waters of the state that
56.18 are not listed in part 7050.0470 and that are not wetlands as defined in part 7050.0186,
56.19 subpart 1a, are classified as class 2B, 3, 4A, 4B, 5, and 6 waters. Unlisted lotic waters are
56.20 also assigned the beneficial use subclass designator "g" to the class 2B designator.

56.21 (1) Boundary Waters Canoe Area Wilderness:

56.22 (a) All streams in the Boundary Waters Canoe Area Wilderness
56.23 [11/5/84P] not listed in part 7050.0470 are classified as class 1B, 2Bdg, 3, 4A, 4B, 5, and
56.24 6 waters.

57.1 (b) All lakes in the Boundary Waters Canoe Area Wilderness [11/5/84P]
57.2 not listed in part 7050.0470 are classified as class 1B, 2Bd, 3, 4A, 4B, 5, and 6 waters.

57.3 (c) All wetlands in the Boundary Waters Canoe Area Wilderness
57.4 [11/5/84P] are classified as class 2D, 3, 4A, 4B, 5, and 6 waters.

57.5 (2) Voyageurs National Park:

57.6 (a) All streams in Voyageurs National Park [11/5/84P] not listed in part
57.7 7050.0470 are classified as class 2Bg, 3, 4A, 4B, 5, and 6 waters.

57.8 (b) All lakes in Voyageurs National Park [11/5/84P] not listed in part
57.9 7050.0415 are classified as class 2B, 3, 4A, 4B, 5, and 6 waters.

57.10 (c) All wetlands in Voyageurs National Park [11/5/84P] are classified
57.11 as class 2D, 3, 4A, 4B, 5, and 6 waters.

57.12 B. Those waters of the state that are wetlands as defined in part 7050.0186, subpart
57.13 1a, and that are not listed in part 7050.0470 are classified as class 2D, 3, 4A, 4B, 5, and 6
57.14 waters.

57.15 **7050.0420 COLD WATER HABITAT WATERS.**

57.16 *[For text of items A to C, see Minnesota Rules]*

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

57.19 **7050.0460 WATERS SPECIFICALLY CLASSIFIED; EXPLANATION OF**
57.20 **LISTINGS IN PART 7050.0470.**

57.21 Subpart 1. **Explanation of listings.** The waters of the state listed in part 7050.0470
57.22 are classified as specified. The location of lakes, wetlands, calcareous fens, and scientific
57.23 and natural areas are described by township, range, and section. Specific stream stretches
57.24 are described by township, range, and section; stream confluence; geographic coordinates;

road crossing; some other recognizable landmark; or a combination of these descriptors. Streams and rivers are listed by the eight-digit hydrologic unit code (HUC) of the major watersheds in part 7050.0469 in which the streams and rivers are located. The tables that specify the applicable beneficial uses for the stream and river reaches are incorporated by reference in part 7050.0470. Any community listed in part 7050.0470 is the community nearest the water classified, and is included solely to assist in identifying the water. Most waters of the state are not specifically listed in part 7050.0470. See part 7050.0415 for the classifications of waters not listed.

Subp. 2. **Outstanding international waters.** The waters listed in part 7050.0470, subpart 1, that are not designated as outstanding resource value waters or classified as class 7 waters are designated as outstanding international resource waters under part 7052.0300, subpart 3. Unlisted waters classified in part 7050.0415 and unlisted wetlands classified in part 7050.0415 that are located in the Lake Superior basin are also designated as outstanding international resource waters under part 7052.0300, subpart 3.

[For text of subpart 3, see Minnesota Rules]

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/incorporations-reference. 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 part 7050.0415 for the classifications of waters not listed. Designated use information for water

59.1 bodies can also be accessed through the agency's Environmental Data Access
59.2 (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

59.3 *[For text of item A, see Minnesota Rules]*

59.4 B. Lakes:

59.5 (1) *Alder Lake, 16-0114-00, [11/5/84P] (T.64, R.1E): 1B, 2A, 3, 4A, 4B,
59.6 5, 6;

59.7 (2) *Alton Lake, 16-0622-00, [11/5/84P] (T.62, 63, R.4, 5): 1B, 2A, 3, 4A,
59.8 4B, 5, 6;

59.9 (3) Artichoke Lake, 69-0623-00, [WR] (T.52, R.17, S.17, 18, 19, 20): 2B, 3,
59.10 4A, 4B, 5, 6;

59.11 (4) Bath Lake, 16-0164-00, (T.62, R.1W, S.5, 6; T.63, R.1W, S.31, 32): 1B,
59.12 2A, 3, 4A, 4B, 5, 6;

59.13 (5) Bean Lake (lower Twin), 38-0409-00, (T.56, R.8W, S.25, 26): 1B, 2A,
59.14 3, 4A, 4B, 5, 6;

59.15 (6) Bear Lake (see Twin Lake, upper);

59.16 (7) Bearskin Lake, East, 16-0146-00, (T.64, R.1E, 1W): 1B, 2A, 3, 4A, 4B,
59.17 5, 6;

59.18 (8) *Bearskin Lake, West, 16-0228-00, [3/7/88R] (T.64, 65, R.1): 1B, 2A,
59.19 3, 4A, 4B, 5, 6;

59.20 (9) *Bench Lake, 16-0063-00, [11/5/84P] (T.64, 2E, S.6): 1B, 2A, 3, 4A, 4B,
59.21 5, 6;

59.22 (10) Benson Lake, 38-0018-00, (T.58, R.6W, S.29): 1B, 2A, 3, 4A, 4B, 5, 6;

- 60.1 (11) *Birch Lake, 16-0247-00, [3/7/88R] (T.65, R.1, 2): 1B, 2A, 3, 4A, 4B,
60.2 5, 6;
- 60.3 (12) *Black Lake, 58-0001-00, [3/7/88P] (T.45, R.15): 1B, 2Bd, 3, 4A, 4B,
60.4 5, 6;
- 60.5 (13) Bluebill Lake, 38-0261-00, [WR] (T.59, R.7, S.15): 2B, 3, 4A, 4B, 5,
60.6 6;
- 60.7 (14) Bogus Lake, 16-0050-00, (T.62, R.2E, S.12): 1B, 2A, 3, 4A, 4B, 5, 6;
- 60.8 (15) Bone Lake, 38-0065-00, (T.61, R.6W, S.13, 14): 1B, 2A, 3, 4A, 4B, 5,
60.9 6;
- 60.10 (16) Bow Lake, 16-0211-00, (T.64, R.1W, S.15): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 60.11 (17) Boys Lake, 16-0044-00, (T.62, R.2E, S.5, 8): 1B, 2A, 3, 4A, 4B, 5, 6;
- 60.12 (18) Breda Lake, 69-0037-00, [WR] (T.56, R.12, S.16): 2B, 3, 4A, 4B, 5, 6;
- 60.13 (19) Briar Lake, 69-0128-00, (T.53, R.13W, S.14, 15, 23): 1B, 2A, 3, 4A,
60.14 4B, 5, 6;
- 60.15 (20) *Brule Lake, 16-0348-00, [11/5/84P] (T.63, R.2, 3): 1B, 2A, 3, 4A, 4B,
60.16 5, 6;
- 60.17 (21) Cabin Lake, 38-0260-00, [WR] (T.59, R.7, S.13, 14, 23, 24): 2B, 3, 4A,
60.18 4B, 5, 6;
- 60.19 (22) Canton Mine Pit Lake, 69-1294-00, (T.58, R.16, S.2, 3): 1C, 2Bd, 3,
60.20 4A, 4B, 5, 6;
- 60.21 (23) Caribou Lake, 16-0360-00, [WR] (T.60, R.3W, S.1, 2, 11, 12; T.61,
60.22 R.3W, S.35, 36): 2B, 3, 4A, 4B, 5, 6;
- 60.23 (24) Carrot Lake, 16-0071-00, (T.64, R.2E, S.17): 1B, 2A, 3, 4A, 4B, 5, 6;

- 61.1 (25) Cedar Lake, 69-0431-00, (T.58, R.15W, S.20): 1B, 2Bd, 3, 4A, 4B, 5,
61.2 6;
- 61.3 (26) Chester Lake, 69-0033-00, (T.64, R.3E, S.32, 33): 1B, 2A, 3, 4A, 4B,
61.4 5, 6;
- 61.5 (27) Christine Lake, 16-0373-00, [WR] (T.61, R.3W, S.28, 29, 32): 2B, 3,
61.6 4A, 4B, 5, 6;
- 61.7 (28) Clearwater Lake (Clear Lake), 69-0397-00, (T.52, R.15W, S.23): 1B,
61.8 2A, 3, 4A, 4B, 5, 6;
- 61.9 (29) *Clearwater Lake (Emby Lake), 16-0139-00, [11/5/84P] (T.65, R.1E):
61.10 1B, 2A, 3, 4A, 4B, 5, 6;
- 61.11 (30) Colby Lake, 69-0249-00, (T.58, R.14): 1B, 2Bd, 3, 4A, 4B, 5, 6;
- 61.12 (31) *Cone Lake, 16-0412-00, North, [11/5/84P] (T.63, 64, R.3): 1B, 2A, 3,
61.13 4A, 4B, 5, 6;
- 61.14 (32) Corona Lake, 09-0048-00, (T.48, R.19W, S.11, 12): 1B, 2A, 3, 4A, 4B,
61.15 5, 6;
- 61.16 (33) Corsica Mine Pit Lake, 69-1316-00, (T.58, R.16, S.18): 1C, 2Bd, 3, 4A,
61.17 4B, 5, 6;
- 61.18 (34) Crosscut Lake, 38-0257-00, (T.59, R.7W, S.7, 18): 1B, 2A, 3, 4A, 4B,
61.19 5, 6;
- 61.20 (35) *Crystal Lake, 16-0090-00, [11/5/84P] (T.64, R.1E, 2E): 1B, 2A, 3, 4A,
61.21 4B, 5, 6;
- 61.22 (36) *Daniels Lake, 16-0150-00, [11/5/84P] (T.65, R.1E, 1W): 1B, 2A, 3,
61.23 4A, 4B, 5, 6;

- 62.1 (37) *Davis Lake, 16-0435-00, [11/5/84P] (T.64, R.3): 1B, 2A, 3, 4A, 4B,
62.2 5, 6;
- 62.3 (38) Devilfish Lake, 16-0029-00, (T.64, R.3E): 1B, 2A, 3, 4A, 4B, 5, 6;
- 62.4 (39) Divide (Towhey) Lake, 38-0256-00, (T.59, R.7W, S.7, 8): 1B, 2A, 3,
62.5 4A, 4B, 5, 6;
- 62.6 (40) Duke Lake, 16-0111-00, (T.63, R.1E, S.30): 1B, 2A, 3, 4A, 4B, 5, 6;
- 62.7 (41) *Duncan Lake, 16-0232-00, [11/5/84P] (T.65, R.1): 1B, 2A, 3, 4A, 4B,
62.8 5, 6;
- 62.9 (42) *Dunn Lake, 16-0245-00, [11/5/84P] (T.65, R.1, 2): 1B, 2A, 3, 4A, 4B,
62.10 5, 6;
- 62.11 (43) East Lake, 38-0020-00, (T.59, R.6W, S.1, 2): 1B, 2A, 3, 4A, 4B, 5, 6;
- 62.12 (44) *Echo Lake, 38-0028-00, [3/7/88R] (T.59, R.6, S.14, 15, 22, 23): 1B,
62.13 2A, 3, 4A, 4B, 5, 6;
- 62.14 (45) Elbow Lake, Little, 69-1329-00, (T.57, R.18W, S.9, 10, 16): 1B, 2A, 3,
62.15 4A, 4B, 5, 6;
- 62.16 (46) Embarrass Mine Pit (Sabin Lake or Lake Mine), 69-0429-00, (T.58,
62.17 R.15W, S.5, 6): 1B, 2A, 3, 4A, 4B, 5, 6
- 62.18 (47) Esther Lake, 16-0023-00, (T.63, R.3E, S.6; T.64, R.3E, S.31): 1B, 2A,
62.19 3, 4A, 4B, 5, 6;
- 62.20 (48) *Fan Lake (West Lily), 16-0084-00, [11/5/84P] (T.65, R.2E): 1B, 2Bd,
62.21 3, 4A, 4B, 5, 6;
- 62.22 (49) Feather Lake, 16-0905-00, (T.61, R.5W, S.35): 1B, 2A, 3, 4A, 4B, 5, 6;
- 62.23 (50) Flour Lake, 16-0147-00, (T.64, R.1E, 1W): 1B, 2A, 3, 4A, 4B, 5, 6;

- 63.1 (51) Fourmile Lake, 16-0639-00, [WR] (T.60, R.5W, S.4, 8, 9, 10, 16, 17):
63.2 2B, 3, 4A, 4B, 5, 6;
- 63.3 (52) Fowl Lake, North, 16-0036-00, (T.64, 65, R.3E): 1B, 2Bd, 3, 4A, 4B,
63.4 5, 6;
- 63.5 (53) Fowl Lake, South, 16-0034-00, (T.64, 65, R.3E): 1B, 2Bd, 3, 4A, 4B,
63.6 5, 6;
- 63.7 (54) Fraser Mine Pit Lake, (T.58, R.20, S.23): 1C, 2Bd, 3, 4A, 4B, 5, 6, until
63.8 the city of Chisholm no longer uses Fraser Mine Pit Lake as a water supply source for its
63.9 public water system, and then the classification is identified in part 7050.0415, subpart 4;
- 63.10 (55) *Gadwall Lake (Gadwell Lake), 16-0060-00, [11/5/84P] (T.64, R.2E,
63.11 S.3): 1B, 2A, 3, 4A, 4B, 5, 6;
- 63.12 (56) *Gaskin Lake, 16-0319-00, [11/5/84P] (T.64, R.2): 1B, 2A, 3, 4A, 4B,
63.13 5, 6;
- 63.14 (57) *Gogebic Lake, 16-0087-00, [11/5/84P] (T.65, R.2E, S.30, 31): 1B, 2A,
63.15 3, 4A, 4B, 5, 6;
- 63.16 (58) Goldeneye (Duck) Lake, 38-0029-00, (T.59, R.6W, S.15): 1B, 2A, 3,
63.17 4A, 4B, 5, 6;
- 63.18 (59) *Greenwood Lake, 16-0077-00, [3/7/88R] (T.64, R.2E): 1B, 2A, 3, 4A,
63.19 4B, 5, 6;
- 63.20 (60) Hay Lake, 69-0435-00, [WR] (T.59, R.15, S.8): 2B, 3, 4A, 4B, 5, 6;
- 63.21 (61) Hungry Jack Lake, 16-0227-00, (T.64, 65, R.1): 1B, 2A, 3, 4A, 4B, 5,
63.22 6;
- 63.23 (62) Jim Lake (Jerry Lake), 16-0135-00, (T.64, R.1E): 1B, 2A, 3, 4A, 4B, 5,
63.24 6;

- 64.1 (63) Judson Mine Pit, 69-1295-00, (T.58, R.19W, S.20, 29): 1B, 2A, 3, 4A,
64.2 4B, 5, 6;
- 64.3 (64) Junco Lake, 16-0159-00, (T.62, R.1W, S.11, 12, 13): 1B, 2A, 3, 4A, 4B,
64.4 5, 6;
- 64.5 (65) *Kemo Lake, 16-0188-00, [3/7/88R] (T.63, R.1): 1B, 2A, 3, 4A, 4B, 5,
64.6 6;
- 64.7 (66) Kimball Lake, 16-0045-00, (T.62, R.2E, S.7, 8, 17): 1B, 2A, 3, 4A, 4B,
64.8 5, 6;
- 64.9 (67) Leo Lake, 16-0198-00, (T.64, R.1W, S.4, 5): 1B, 2A, 3, 4A, 4B, 5, 6;
- 64.10 (68) Lieung (Lieuna) Lake, 69-0123-00, [WR] (T.53, R.13, S.3, 4, 9, 10):
64.11 2B, 3, 4A, 4B, 5, 6;
- 64.12 (69) *Lily Lakes (Vaseux Lake and Fan Lake), 16-0083-00 and 16-0084-00,
64.13 [11/5/84P] (T.65, R.2E): 1B, 2Bd, 3, 4A, 4B, 5, 6;
- 64.14 (70) Lima Lake, 16-0226-00, (T.64, R.1W, S.35): 1B, 2A, 3, 4A, 4B, 5, 6;
- 64.15 (71) *Lizz Lake, 16-0199-00, [11/5/84P] (T.64, R.1W, S.7, 18): 1B, 2A, 3,
64.16 4A, 4B, 5, 6;
- 64.17 (72) Loaine (Sand) Lake, 69-0016-00, (T.54, R.12W, S.16, 17): 1B, 2A, 3,
64.18 4A, 4B, 5, 6;
- 64.19 (73) Loft Lake, 16-0031-00, (T.64, R.3E, S.21): 1B, 2A, 3, 4A, 4B, 5, 6;
- 64.20 (74) Long Lake, 69-0044-00, [WR] (T.57, R.12, S.4, 5; T.58, R.12, S.32,
64.21 33): 2B, 3, 4A, 4B, 5, 6;
- 64.22 (75) Margaret Lake, 16-0896-00, (T.64, R.3E, S.27, 28, 33, 34): 1B, 2A, 3,
64.23 4A, 4B, 5, 6;

- 65.1 (76) Marsh Lake, 16-0488-00, [WR] (T.62, R.4W, S.22, 23, 27, 28): 2B, 3,
65.2 4A, 4B, 5, 6;
- 65.3 (77) McFarland Lake, 16-0027-00, (T.64, R.3E): 1B, 2A, 3, 4A, 4B, 5, 6;
- 65.4 (78) Mesabi (Missabe) Mountain Mine Pit Lake, 69-1292-00, (T.58, R.17,
65.5 S.8): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 65.6 (79) Mink Lake, 16-0046-00, (T.62, R.2E, S.8): 1B, 2A, 3, 4A, 4B, 5, 6;
- 65.7 (80) Mirror Lake, 69-0234-00, (T.52, R.14W, S.19, 30): 1B, 2A, 3, 4A, 4B,
65.8 5, 6;
- 65.9 (81) *Misquah Lake, 16-0225-00, [11/5/84P] (T.64, R.1): 1B, 2A, 3, 4A, 4B,
65.10 5, 6;
- 65.11 (82) Moore Lake, 16-0489-00, [WR] (T.62, R.4W, S.23, 24): 2B, 3, 4A, 4B,
65.12 5, 6;
- 65.13 (83) Moosehorn Lake, 16-0015-00, (T.63, R.3E, S.36; T.63, R.4E, S.31): 1B,
65.14 2A, 3, 4A, 4B, 5, 6;
- 65.15 (84) *Moose Lake, 16-0043-00, [11/5/84P] (T.65, R.2E, 3E): 1B, 2A, 3, 4A,
65.16 4B, 5, 6;
- 65.17 (85) Morton Mine Pit Lake, 69-1310-00, (T.57, R.21, S.10, 11, 14): 1C, 2Bd,
65.18 3, 4A, 4B, 5, 6;
- 65.19 (86) *Moss Lake, 16-0234-00, [3/7/88R] (T.65, R.1): 1B, 2A, 3, 4A, 4B, 5,
65.20 6;
- 65.21 (87) *Mountain Lake, 16-0093-00, [11/5/84P] (T.65, R.1E, 2E): 1B, 2A, 3,
65.22 4A, 4B, 5, 6;

- 66.1 (88) Muckwa Lake, 16-0105-00, (T.63, R.1E, S.21, 28): 1B, 2A, 3, 4A, 4B,
66.2 5, 6;
- 66.3 (89) *Mulligan Lake, 16-0389-00, [11/5/84P] (T.63, R.3W, S.1, 12): 1B, 2A,
66.4 3, 4A, 4B, 5, 6;
- 66.5 (90) Musquash Lake, 16-0104-00, (T.63, R.1E, S.20, 28, 29): 1B, 2A, 3, 4A,
66.6 4B, 5, 6;
- 66.7 (91) Normanna Lake, 69-0122-00, (T.52, R.13W, S.7, 8): 1B, 2A, 3, 4A, 4B,
66.8 5, 6;
- 66.9 (92) Northern Light Lake, 16-0089-00, [WR] (T.63, R.2E, S.29, 30, 31, 32,
66.10 33; T.63, R.1E, S.25): 2B, 3, 4A, 4B, 5, 6;
- 66.11 (93) Olga Lake, 16-0024-00, (T.63, R.3E, S.6; T.64, R.3E, S.31): 1B, 2A, 3,
66.12 4A, 4B, 5, 6;
- 66.13 (94) Olson Lake, 16-0158-00, (T.62, R.1W, S.9, 16): 1B, 2A, 3, 4A, 4B, 5,
66.14 6;
- 66.15 (95) *Onega Lake (Omega Lake), 16-0353-00, [11/5/84P] (T.64, R.2, 3): 1B,
66.16 2A, 3, 4A, 4B, 5, 6;
- 66.17 (96) *Otto Lake, lower (South Otto), 16-0323-00, [11/5/84P] (T.64, R.2):
66.18 1B, 2A, 3, 4A, 4B, 5, 6;
- 66.19 (97) Pancore (Lost) Lake, 16-0475-00, (T.61, R.4W, S.22, 27): 1B, 2A, 3,
66.20 4A, 4B, 5, 6;
- 66.21 (98) Papoose Lake, 69-0024-00, [WR] (T.55, R.12, S.9): 2B, 3, 4A, 4B, 5,
66.22 6;
- 66.23 (99) *Partridge Lake, 16-0233-00, [11/5/84P] (T.65, R.1): 1B, 2A, 3, 4A,
66.24 4B, 5, 6;

- 67.1 (100) *Pemmican Lake, 16-0085-00, [11/5/84P] (T.65, R.2E, S.22): 1B, 2A,
67.2 3, 4A, 4B, 5, 6;
- 67.3 (101) *Pike Lake, West, 16-0086-00, [11/5/84P] (T.65, R.2E): 1B, 2A, 3,
67.4 4A, 4B, 5, 6;
- 67.5 (102) Pine Lake, 16-0194-00, (T.63, R.1W, S.35, 36): 1B, 2A, 3, 4A, 4B, 5,
67.6 6;
- 67.7 (103) *Pine Lake, 16-0041-00, [11/5/84P] (T.64, 65, R.1E, 2E, 3E): 1B, 2A,
67.8 3, 4A, 4B, 5, 6;
- 67.9 (104) Pine Mountain Lake, 16-0108-00, (T.63, R.1E, S.26, 27, 34, 35): 1B,
67.10 2A, 3, 4A, 4B, 5, 6;
- 67.11 (105) Poplar Lake, 16-0239-00, (T.64N, R.1, 2W): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 67.12 (106) *Ptarmigan Lake, 16-0183-00, [11/5/84P] (T.63, R.1, S.20, 29): 1B
67.13 2Bd, 3, 4A, 4B, 5, 6;
- 67.14 (107) *Ram Lake, 16-0174-00, [11/5/84P] (T.63, R.1W, S.9, 10): 1B, 2A,
67.15 3, 4A, 4B, 5, 6;
- 67.16 (108) Rice Lake, 16-0453-00, [WR] (T.61 R.3W, S.7; T.61, R.4W, S.2, 11,
67.17 12): 2B, 3, 4A, 4B, 5, 6;
- 67.18 (109) *Rose Lake, 16-0230-00, [11/5/84P] (T.65, R.1): 1B, 2A, 3, 4A, 4B,
67.19 5, 6;
- 67.20 (110) Round Island Lake, 38-0417-00 [WR] (T.59, R.8, S.12): 2B, 3, 4A,
67.21 4B, 5, 6;
- 67.22 (111) Round Lake, 69-0048-00, [WR] (T.58, R.12, S.25, 26): 2B, 3, 4A, 4B,
67.23 5, 6;

- 68.1 (112) St. James Mine Pit, 69-0428-00, (T.58, R.15W, S.3, 4): 1C, 2Bd, 3,
68.2 4A, 4B, 5, 6;
- 68.3 (113) Saint Mary's Lake, 69-0651-00, (T.57, R.17, S.9, 16, 17): 1C, 2Bd, 3,
68.4 4A, 4B, 5, 6;
- 68.5 (114) *Sawbill Lake, 16-0496-00, [11/5/84P] (T.62, 63, R.4): 1B, 2Bd, 3,
68.6 4A, 4B, 5, 6;
- 68.7 (115) Section 8 Lake, 38-0258-00, (T.59, R.7W, S.8): 1B, 2A, 3, 4A, 4B, 5,
68.8 6;
- 68.9 (116) Seven Beaver Lake, 69-0002-00, [WR] (T.58, R.11, 12): 2B, 3, 4A,
68.10 4B, 5, 6;
- 68.11 (117) Shady, North, Lake, 16-0076-00, (T.64, R.2E, S.21, 22): 1B, 2A, 3,
68.12 4A, 4B, 5, 6;
- 68.13 (118) Shoe Lake, 16-0080-00, (T.64, 2E, S.30): 1B, 2A, 3, 4A, 4B, 5, 6;
- 68.14 (119) Sled Lake, 16-0897-00, (T.63, R.1W, S.3): 1B, 2A, 3, 4A, 4B, 5, 6;
- 68.15 (120) *Sock Lake, 16-0335-00, [11/5/84P] (T.65, R.2W, S.26): 1B, 2A, 3,
68.16 4A, 4B, 5, 6;
- 68.17 (121) Sonju Lake, 38-0248-00, (T.58, R.7W, S.27, 28): 1B, 2A, 3, 4A, 4B,
68.18 5, 6;
- 68.19 (122) *South Lake, 16-0244-00, [11/5/84P] (T.65, R.1, 2): 1B, 2A, 3, 4A,
68.20 4B, 5, 6;
- 68.21 (123) Spring Hole Lake, 69-1372-00, (T.55, R.14W, S.14): 1B, 2A, 3, 4A,
68.22 4B, 5, 6;

69.1 (124) *State Lake, 16-0293-00, [11/5/84P] (T.63, 64, R.2): 1B, 2A, 3, 4A,
69.2 4B, 5, 6;

69.3 (125) Steer Lake, 38-0920-00, (T.60, R.6W, S.32): 1B, 2A, 3, 4A, 4B, 5, 6;

69.4 (126) Stone Lake, 69-0686-00, [WR] (T.55, R.17, S.6; T.55, R.18, S.1; T.56,
69.5 R.17, S.31; T.56, R.18, S.36): 2B, 3, 4A, 4B, 5, 6;

69.6 (127) Stone Lake (Skibo Lake), 69-0046-00, [WR] (T.58, R.12, S.17, 19,
69.7 20): 2B, 3, 4A, 4B, 5, 6;

69.8 (128) Stone Lake (Murphy Lake or Tommila Lake), 69-0035-00, [WR] (T.56,
69.9 R.12, S.13, 24): 2B, 3, 4A, 4B, 5, 6;

69.10 (129) *Superior, Lake, excluding the portions identified in subitem (130)
69.11 16-0001-00, [11/5/84R] (T.49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64,
69.12 R.14W-7E): 1B, 2A, 3, 4A, 4B, 5, 6;

69.13 (130) *Superior, Lake, 16-0001-00, [3/9/98P] (those portions of Lake Superior
69.14 north of latitude 47 degrees, 57 minutes, 13 seconds, east of Hat Point, south of the
69.15 Minnesota-Ontario boundary, and west of the Minnesota-Michigan boundary): 1B, 2A, 3,
69.16 4A, 4B, 5, 6;

69.17 (131) Swamp River (Reservoir), 16-0901-00, [WR] (T.63, R.4E, S.4; T.64,
69.18 R.4E, S.33): 2B, 3, 4A, 4B, 5, 6;

69.19 (132) *Swan Lake, 16-0268-00, [11/5/84P] (T.63, R.2): 1B, 2A, 3, 4A, 4B,
69.20 5, 6;

69.21 (133) Talus Lake, 16-0187-00, (T.63, R.1W, S.26, 27): 1B, 2A, 3, 4A, 4B,
69.22 5, 6;

69.23 (134) Thompson Lake, 16-0160-00, (T.62, R.1W, S.19, 20, 29, 30): 1B, 2A,
69.24 3, 4A, 4B, 5, 6;

- 70.1 (135) Thrasher Lake, 16-0192-00, (T.63, R.1W, S.31): 1B, 2A, 3, 4A, 4B,
70.2 5, 6;
- 70.3 (136) Thrush Lake, 16-0191-00, (T.63, R.1W, S.31): 1B, 2A, 3, 4A, 4B, 5,
70.4 6;
- 70.5 (137) *Topper Lake, 16-0336-00, [11/5/84P] (T.65, R.2W, S.27): 1B, 2A,
70.6 3, 4A, 4B, 5, 6;
- 70.7 (138) *Trout Lake, 16-0049-00, [3/7/88R] (T.62, R.2E): 1B, 2A, 3, 4A, 4B,
70.8 5, 6;
- 70.9 (139) *Trout Lake, Little, 16-0170-00, [11/5/84P] (T.63, R.1): 1B, 2A, 3,
70.10 4A, 4B, 5, 6;
- 70.11 (140) Turnip Lake, 16-0132-00, (T.64, R.1E, S.24): 1B, 2A, 3, 4A, 4B, 5, 6;
- 70.12 (141) Twin Lake, lower, 69-0967-02, (T.50, R.14W, S.28, 33): 1B, 2A, 3,
70.13 4A, 4B, 5, 6;
- 70.14 (142) Twin Lake, upper, 69-0967-01, (T.50, R.14W, S.28, 33): 1B, 2A, 3,
70.15 4A, 4B, 5, 6;
- 70.16 (143) *Twin Lake, upper (Bear Lake), 38-0408-00, [3/7/88R] (T.56, R.8,
70.17 S.25): 1B, 2A, 3, 4A, 4B, 5, 6;
- 70.18 (144) unnamed lake, 16-0903-00, (T.63, R.3E, S.20, 21, 28, 29): 1B, 2A, 3,
70.19 4A, 4B, 5, 6;
- 70.20 (145) unnamed lake, 16-0908-00, (T.63, R.1W, S.31): 1B, 2A, 3, 4A, 4B, 5,
70.21 6;
- 70.22 (146) *unnamed lake, 16-0237-00, [11/5/84P] (T.63, R.1, S.19, 30; T.63,
70.23 R.2, S.24, 25): 1B, 2Bd, 3, 4A, 4B, 5, 6;

71.1 (147) *Vale Lake, 16-0061-00, [11/5/84P] (T.64, R.2E, S.3): 1B, 2A, 3, 4A,
71.2 4B, 5, 6;

71.3 (148) Vaseux Lake (East Lily), see Lily Lakes;

71.4 (149) *Vista Lake, 16-0224-00, [11/5/84P] (T.64, R.1): 1B, 2A, 3, 4A, 4B,
71.5 5, 6;

71.6 (150) *Wanihigan Lake (Trap Lake), 16-0349-00, [11/5/84P] (T.63, 64, R.2,
71.7 3): 1B, 2A, 3, 4A, 4B, 5, 6;

71.8 (151) *Wee Lake, 16-0183-00, [11/5/84P] (T.62, R.4W, S.13): 1B, 2A, 3,
71.9 4A, 4B, 5, 6;

71.10 (152) *Wench Lake, 16-0398-00, [11/5/84P] (T.63, R.3W, S.7, 18): 1B, 2A,
71.11 3, 4A, 4B, 5, 6;

71.12 (153) White Pine Lake, 16-0369-00, [WR] (T.61, R.3W, S.19, 20, 29, 30):
71.13 2B, 3, 4A, 4B, 5, 6; and

71.14 (154) *Winchell Lake, 16-0354-00, [11/5/84P] (T.64, R.2, 3): 1B, 2A, 3, 4A,
71.15 4B, 5, 6.

71.16 C. Calcareous fens: none currently listed.

71.17 D. Scientific and natural areas: *Black Lake Bog [3/7/88P] waters within the
71.18 Black Lake Bog Scientific and Natural Area, Pine County, (T.45, R.15, S.18, 19, 30; T.45,
71.19 R.16, S.13, 24, 25): 2B, 3B, except wetlands, which are 2D, 3, 4A, 4B, 5, 6.

71.20 Subp. 2. **Lake of the Woods basin.** The water-use classifications for the stream
71.21 reaches within each of the major watersheds in the Lake of the Woods basin listed in item
71.22 A are found in tables entitled "Beneficial Use Designations for Stream Reaches" published
71.23 on the website of the Minnesota Pollution Control Agency at
71.24 www.pca.state.mn.us/regulations/incorporations-reference. 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 of the Woods basin are as identified in items B to D. See part 7050.0415 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:

(1) *Adams Lake, 38-0153-00, [11/5/84P] (T.64, R.6): 1B, 2A, 3, 4A, 4B, 5, 6;

(2) *Agamok Lake, 38-0011-00, [11/5/84P] (T.65, R.5, 6): 1B, 2A, 3, 4A, 4B, 5, 6;

(3) *Ahmakose Lake, 38-0365-00 [11/5/84P] (T.64, R.7): 1B, 2A, 3, 4A, 4B, 5, 6;

(4) *Ahsab Lake, 38-0516-00, [11/5/84P] (T.64, R.8W, S.27, 28): 1B, 2A, 3, 4A, 4B, 5, 6;

(5) *Alpine Lake, 16-0759-00, [11/5/84P] (T.65, R.5): 1B, 2A, 3, 4A, 4B, 5, 6;

(6) *Alruss Lake, 69-0005-00, [11/5/84P] (T.64, R.11W, S.7; T.64, R.12W, S.12): 1B, 2A, 3, 4A, 4B, 5, 6;

(7) *Amoeber Lake, 38-0227-00, [11/5/84P] (T.65, R.6, 7): 1B, 2A, 3, 4A, 4B, 5, 6;

(8) *Arkose Lake, 38-0382-00, [11/5/84P] (T.64, 65, R.7): 1B, 2A, 3, 4A, 4B, 5, 6;

- 73.1 (9) *Ashdick Lake (Caribou Lake), 38-0210-00, [11/5/84P] (T.66, R.6): 1B,
73.2 2A, 3, 4A, 4B, 5, 6;
- 73.3 (10) *Basswood Lake, 38-0645-00, [11/5/84P] (T.64, 65, R.9, 10): 1B, 2A,
73.4 3, 4A, 4B, 5, 6;
- 73.5 (11) *Bat Lake, 16-0752-00, [11/5/84P] (T.64, 65, R.5): 1B, 2A, 3, 4A, 4B,
73.6 5, 6;
- 73.7 (12) *Beartrack Lake, 69-0480-00, [11/5/84P] (T.67, R.15): 1B, 2A, 3, 4A,
73.8 4B, 5, 6;
- 73.9 (13) *Beaver Lake (Elbow Lake), 38-0223-00, [11/5/84P] (T.63, 64, R.6, 7):
73.10 1B, 2A, 3, 4A, 4B, 5, 6;
- 73.11 (14) Beaver Hut Lake, 38-0737-00, (T.61, R.10W, S.30, 31; T.61, R.11, S.25,
73.12 36): 1B, 2A, 3, 4A, 4B, 5, 6;
- 73.13 (15) Beetle Lake, 38-0551-00, (T.60, R.9W, S.7): 1B, 2A, 3, 4A, 4B, 5, 6;
- 73.14 (16) Big Lake, 69-0190-00, (T.64, 65, R.13): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 73.15 (17) *Bingshick Lake, 16-0627-00, [11/5/84P] (T.65, R.4, 5): 1B, 2A, 3, 4A,
73.16 4B, 5, 6;
- 73.17 (18) *Brandt Lake (Brant Lake), 16-0600-00, [11/5/84P] (T.65, R.4): 1B,
73.18 2A, 3, 4A, 4B, 5, 6;
- 73.19 (19) *Burntside Lake, 69-0118-00, [3/7/88R] (T.63, 64, R.12, 13, 14): 1B,
73.20 2A, 3, 4A, 4B, 5, 6;
- 73.21 (20) Camp Four (Wessman) Lake, 69-0788-00, (T.59, R.19W, S.4): 1B, 2A,
73.22 3, 4A, 4B, 5, 6;

- 74.1 (21) *Camp Lake, 38-0789-00, [11/5/84P] (T.64, R.11): 1B, 2Bd, 3, 4A, 4B,
74.2 5, 6;
- 74.3 (22) *Caribou Lake, 31-0620-00, [3/7/88R] (T.58, R.26): 1B, 2A, 3, 4A, 4B,
74.4 5, 6;
- 74.5 (23) *Cash Lake, 16-0438-00, [11/5/84P] (T.64, R.3): 1B, 2A, 3, 4A, 4B, 5,
74.6 6;
- 74.7 (24) Cedar Lake, 38-0810-00, (T.63, R.11, 12): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 74.8 (25) Chant Lake, 69-0172-00, (T.63, R.13W, S.10): 1B, 2A, 3, 4A, 4B, 5, 6;
- 74.9 (26) *Cherokee Lake, 16-0524-00, [11/5/84P] (T.63, 64, R.4): 1B, 2A, 3,
74.10 4A, 4B, 5, 6;
- 74.11 (27) *Cherry Lake, 38-0166-00, [11/5/84P] (T.65, R.6): 1B, 2A, 3, 4A, 4B,
74.12 5, 6;
- 74.13 (28) *Conchu Lake, 38-0720-00, [11/5/84P] (T.63, R.10W, S.21, 22): 1B,
74.14 2A, 3, 4A, 4B, 5, 6;
- 74.15 (29) *Crab Lake (includes West Crab Lake, 69-0297-00), 69-0220-00,
74.16 [11/5/84P] (T.63, R.13, 14): 1B, 2A, 3, 4A, 4B, 5, 6;
- 74.17 (30) Crab Lake, 16-0357-00, (T.65, R.2, 3): 1B, 2A, 3, 4A, 4B, 5, 6;
- 74.18 (31) Crane Lake, 69-0616-00, (T.67, 68, R.16, 17): 1B, 2A, 3, 4A, 4B, 5, 6;
- 74.19 (32) *Crooked Lake, 16-0723-00, [11/5/84P] (T.64, R.5): 1B, 2A, 3, 4A, 4B,
74.20 5, 6;
- 74.21 (33) *Crooked Lake, 38-0817-00, [11/5/84P] (T.66, R.11, 12): 1B, 2A, 3,
74.22 4A, 4B, 5, 6;

- 75.1 (34) *Cruiser Lake (Trout Lake), 69-0832-00, [11/5/84P] (T.69, 70, R.19):
75.2 1B, 2A, 3, 4A, 4B, 5, 6;
- 75.3 (35) Cub Lake, 69-1318-00, (T.61, R.14W, S.2): 1B, 2A, 3, 4A, 4B, 5, 6;
- 75.4 (36) Dan Lake, 38-0853-00, (T.63, R.10W, S.17): 1B, 2A, 3, 4A, 4B, 5, 6;
- 75.5 (37) Deepwater Lake, 69-0858-00, (T.59, R.20W, S.2): 1B, 2A, 3, 4A, 4B,
75.6 5, 6;
- 75.7 (38) Dry Lake, 69-0064-00, (T.63, R.12W, S.9): 1B, 2A, 3, 4A, 4B, 5, 6;
- 75.8 (39) Dry Lake, Little, 69-1040-00, (T.63, R.12W, S.9): 1B, 2A, 3, 4A, 4B,
75.9 5, 6;
- 75.10 (40) *Eddy Lake, 38-0187-00, [11/5/84P] (T.65, R.6): 1B, 2A, 3, 4A, 4B, 5,
75.11 6;
- 75.12 (41) Eikela Lake, 38-0677-00, (T.60, R.10W, S.22): 1B, 2A, 3, 4A, 4B, 5,
75.13 6;
- 75.14 (42) Ennis Lake, 38-0634-00, (T.64, R.9W, S.33): 1B, 2A, 3, 4A, 4B, 5, 6;
- 75.15 (43) Erskine Lake, 31-0311-00, (T.61, R.24W, S.2, 3): 1B, 2A, 3, 4A, 4B,
75.16 5, 6;
- 75.17 (44) *Ester Lake (Gnig Lake), 38-0207-00, [11/5/84P] (T.65, 66, R.6): 1B,
75.18 2A, 3, 4A, 4B, 5, 6;
- 75.19 (45) *Eugene Lake, 69-0473-00, [11/5/84P] (T.67, R.15): 1B, 2A, 3, 4A, 4B,
75.20 5, 6;
- 75.21 (46) *Explorer Lake (South Three Lake), 38-0399-00, [11/5/84P] (T.64, R.7,
75.22 8): 1B, 2A, 3, 4A, 4B, 5, 6;

- 76.1 (47) Extortion Lake, 16-0450-00, (T.65, R.3W, S.31, 32): 1B, 2A, 3, 4A, 4B,
76.2 5, 6;
- 76.3 (48) Fall Lake, 38-0811-00, (T.63, 64, R.11, 12): 1B, 2Bd, 3, 4A, 4B, 5, 6;
- 76.4 (49) Farm Lake, 38-0779-00, (T.62, 63, R.11): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 76.5 (50) *Fat Lake, 69-0481-00, [11/5/84P] (T.67, R.15): 1B, 2A, 3, 4A, 4B, 5,
76.6 6;
- 76.7 (51) *Fay Lake, 16-0783-00, [11/5/84P] (T.65, R.5): 1B, 2A, 3, 4A, 4B, 5,
76.8 6;
- 76.9 (52) Fenske Lake, 69-0085-00, (T.64, R.12, S.29, 30, 32): 1C, 2Bd, 3, 4A,
76.10 4B, 5, 6;
- 76.11 (53) *Fern Lake, 16-0716-00, [11/5/84P] (T.64, R.5): 1B, 2A, 3, 4A, 4B, 5,
76.12 6;
- 76.13 (54) *Fern Lake, West, 16-0718-00, [11/5/84P] (T.64, R.5): 1B, 2A, 3, 4A,
76.14 4B, 5, 6;
- 76.15 (55) *Finger Lake, 69-0348-00, [11/5/84P] (T.67, R.14): 1B, 2A, 3, 4A, 4B,
76.16 5, 6;
- 76.17 (56) *Fishdance Lake, 38-0343-00, [11/5/84P] (T.63, R.7): 1B, 2A, 3, 4A,
76.18 4B, 5, 6;
- 76.19 (57) *Found Lake, 38-0620-00, [11/5/84P] (T.64, R.9W, S.10, 15): 1B, 2A,
76.20 3, 4A, 4B, 5, 6;
- 76.21 (58) *Fraser Lake, 38-0372-00, [11/5/84P] (T.64, R.7): 1B, 2A, 3, 4A, 4B,
76.22 5, 6;

- 77.1 (59) *French Lake, 16-0755-00, [11/5/84P] (T.64, 65, R.5): 1B, 2A, 3, 4A,
77.2 4B, 5, 6;
- 77.3 (60) *Frost Lake, 16-0571-00, [11/5/84P] (T.64, R.4): 1B, 2A, 3, 4A, 4B, 5,
77.4 6;
- 77.5 (61) *Gabimichigami Lake, 16-0811-00, [11/5/84P] (T.64, 65, R.5, 6): 1B,
77.6 2A, 3, 4A, 4B, 5, 6;
- 77.7 (62) *Ge-Be-On-Equat Lake, 69-0350-00, [11/5/84P] (T.67, R.14): 1B, 2A,
77.8 3, 4A, 4B, 5, 6;
- 77.9 (63) *Gijikiki Lake (Cedar Lake), 38-0209-00, [11/5/84P] (T.65, 66, R.6):
77.10 1B, 2A, 3, 4A, 4B, 5, 6;
- 77.11 (64) *Gillis Lake, 16-0753-00, [11/5/84P] (T.64, 65, R.5): 1B, 2A, 3, 4A,
77.12 4B, 5, 6;
- 77.13 (65) Glacier Pond No. 1, 38-0712-00, (T.63, R. 10W, S.11): 1B, 2A, 3, 4A,
77.14 4B, 5, 6;
- 77.15 (66) Glacier Pond No. 2, 38-0712-02, (T.63, R.10W, S.11): 1B, 2A, 3, 4A,
77.16 4B, 5, 6;
- 77.17 (67) *Gordon Lake, 16-0569-00, [11/5/84P] (T.64, R.4): 1B, 2A, 3, 4A, 4B,
77.18 5, 6;
- 77.19 (68) Gull Lake, 16-0632-00, (T.66, R.4, 5): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 77.20 (69) *Gun Lake, 69-0487-00, [11/5/84P] (T.67, 68, R.15): 1B, 2A, 3, 4A,
77.21 4B, 5, 6;
- 77.22 (70) *Gunflint Lake, 16-0356-00, [3/7/88R] (T.65, R.2, 3, 4): 1B, 2A, 3, 4A,
77.23 4B, 5, 6;

- 78.1 (71) Gunflint Lake, Little, 16-0330-00, (T.65, R.2): 1B, 2Bd, 3, 4A, 4B, 5,
78.2 6;
- 78.3 (72) Gypsy Lake, 38-0665-00, (T.60, R.10W, S.6, 7): 1B, 2A, 3, 4A, 4B, 5,
78.4 6;
- 78.5 (73) Hanson Lake, 69-0189-00, (T.64, R.13W, S.36): 1B, 2A, 3, 4A, 4B, 5,
78.6 6;
- 78.7 (74) *Hanson Lake, 38-0206-00, [11/5/84P] (T.65, 66, R.6): 1B, 2A, 3, 4A,
78.8 4B, 5, 6;
- 78.9 (75) High Lake, 69-0071-00, (T.63, R.12W, S.3, 4, 5; T.64, R.12W, S.33,
78.10 34): 1B, 2A, 3, 4A, 4B, 5, 6;
- 78.11 (76) Hogback (Twin or Canal) Lake, 38-0057-01 and 38-0057-02, (T.60,
78.12 R.6W, S.31): 1B, 2A, 3, 4A, 4B, 5, 6;
- 78.13 (77) *Holt Lake, 38-0178-00, [11/5/84P] (T.65, R.6): 1B, 2A, 3, 4A, 4B, 5,
78.14 6;
- 78.15 (78) *Howard Lake, 16-0789-00, [11/5/84P] (T.65, R.5): 1B, 2A, 3, 4A, 4B,
78.16 5, 6;
- 78.17 (79) *Hustler Lake, 69-0343-00, [11/5/84P] (T.66, 67, R.14): 1B, 2A, 3, 4A,
78.18 4B, 5, 6;
- 78.19 (80) *Ima Lake (Slate Lake), 38-0400-00, [11/5/84P] (T.64, R.7, 8): 1B, 2A,
78.20 3, 4A, 4B, 5, 6;
- 78.21 (81) Indian Lake, 38-0440-00, (T.60, R.8W, S.35): 1B, 2A, 3, 4A, 4B, 5, 6;
- 78.22 (82) *Jacob (Louis) Lake, 69-0077-00, [11/5/84P] (T.64, R.12W, S.11, 12):
78.23 1B, 2A, 3, 4A, 4B, 5, 6;

- 79.1 (83) James (Jammer) Lake, 69-0734-00, (T.60, R.18W, S.27): 1B, 2A, 3, 4A,
79.2 4B, 5, 6;
- 79.3 (84) Jasper Lake, 38-0641-00, (T.63, 64, R.9, 10): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 79.4 (85) *Jasper Lake, 16-0768-00, [11/5/84P] (T.65, R.5): 1B, 2A, 3, 4A, 4B,
79.5 5, 6;
- 79.6 (86) *Johnson Lake, 69-0691-00, [3/7/88R] (T.67, 68, R.17, 18): 1B, 2A, 3,
79.7 4A, 4B, 5, 6;
- 79.8 (87) Jouppe Lake, 38-0909-00, (T.59, R.8W, S.14, 22, 23): 1B, 2A, 3, 4A,
79.9 4B, 5, 6;
- 79.10 (88) Judd Lake, 38-0615-00, (T.63, R.9W, S.4, 5; T.64, R.9W, S.32, 33): 1B,
79.11 2A, 3, 4A, 4B, 5, 6;
- 79.12 (89) *Kabetogama Lake, 69-0845-00, [11/5/84P] (T.69, 70, R.19, 20, 21,
79.13 22): 1B, 2Bd, 3, 4A, 4B, 5, 6;
- 79.14 (90) *Karl Lake, 16-0461-00, [11/5/84P] (T.64, R.3, 4): 1B, 2A, 3, 4A, 4B,
79.15 5, 6;
- 79.16 (91) *Kek Lake, Little, 38-0228-00, [11/5/84P] (T.65, R.6, 7): 1B, 2A, 3,
79.17 4A, 4B, 5, 6;
- 79.18 (92) *Kekekabic Lake, 38-0226-00, [11/5/84P] (T.64, 65, R.6, 7): 1B, 2A,
79.19 3, 4A, 4B, 5, 6;
- 79.20 (93) *Knife Lake, 38-0404-00, [11/5/84P] (T.65, R.6, 7, 8): 1B, 2A, 3, 4A,
79.21 4B, 5, 6;
- 79.22 (94) *Lake of the Clouds Lake (Dutton Lake), 38-0169-00, [11/5/84P] (T.65,
79.23 R.6): 1B, 2A, 3, 4A, 4B, 5, 6;

- 80.1 (95) Lake of the Woods, 39-0002-00, (T.161, 162, 163, 164, 165, 166, 167,
80.2 168, R.30, 31, 32, 33, 34, 35, 36): 1B, 2Bd, 3, 4A, 4B, 5, 6;
- 80.3 (96) Lake Vermilion, 69-0378-00, (T.61, 62, 63, R.14, 15, 16, 17, 18): 1C,
80.4 2Bd, 3, 4A, 4B, 5, 6;
- 80.5 (97) *Larson Lake, 31-0317-00, [3/7/88R] (T.61, R.24W, S.16, 21): 1B, 2A,
80.6 3, 4A, 4B, 5, 6;
- 80.7 (98) Little Long Lake, 69-0066-00, (T.63, R.12): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 80.8 (99) *Long Island Lake, 16-0460-00, [11/5/84P] (T.64, R.3, 4): 1B, 2A, 3,
80.9 4A, 4B, 5, 6;
- 80.10 (100) *Loon Lake, 16-0448-00, [3/7/88R] (T.65, R.3): 1B, 2A, 3, 4A, 4B, 5,
80.11 6;
- 80.12 (101) *Loon Lake, 69-0470-00, [11/5/84P] (T.66, 67, R.15): 1B, 2A, 3, 4A,
80.13 4B, 5, 6;
- 80.14 (102) *Lunar Lake (Moon Lake), 38-0168-00, [11/5/84P] (T.65, R.6): 1B,
80.15 2A, 3, 4A, 4B, 5, 6;
- 80.16 (103) *Lynx Lake, 69-0383-00, [11/5/84P] (T.66, R.14, 15): 1B, 2A, 3, 4A,
80.17 4B, 5, 6;
- 80.18 (104) *Magnetic Lake, 16-0463-00, [3/7/88R] (T.65, R.3, 4): 1B, 2A, 3, 4A,
80.19 4B, 5, 6;
- 80.20 (105) *Makwa Lake (Bear Lake), 38-0147-00, [11/5/84P] (T.64, R.6): 1B,
80.21 2A, 3, 4A, 4B, 5, 6;
- 80.22 (106) *Marble Lake, 38-0109-00, [11/5/84P] (T.64, R.6): 1B, 2A, 3, 4A, 4B,
80.23 5, 6;

- 81.1 (107) *Mavis Lake, 16-0528-00, [11/5/84P] (T.64, R.4W, S.4): 1B, 2A, 3,
81.2 4A, 4B, 5, 6;
- 81.3 (108) *Mayhew Lake, 16-0337-00, [3/7/88R] (T.65, R.2): 1B, 2A, 3, 4A,
81.4 4B, 5, 6;
- 81.5 (109) *Meditation Lake, 16-0583-00, [11/5/84P] (T.65, R.4W, S.7, 8): 1B,
81.6 2A, 3, 4A, 4B, 5, 6;
- 81.7 (110) *Mesaba Lake, 16-0673-00, [11/5/84P] (T.63, R.5): 1B, 2A, 3, 4A,
81.8 4B, 5, 6;
- 81.9 (111) Miner's Mine Pit, 69-1293-00, (T.63, R.12W, S.26, 27, 28): 1B, 2A,
81.10 3, 4A, 4B, 5, 6;
- 81.11 (112) *Missing Link Lake, 16-0529-00, [11/5/84P] (T.64, R.4W, S.4): 1B,
81.12 2A, 3, 4A, 4B, 5, 6;
- 81.13 (113) *Missionary Lake (East Three Lake), 38-0398-00, [11/5/84P] (T.64,
81.14 R.7, 8): 1B, 2A, 3, 4A, 4B, 5, 6;
- 81.15 (114) *Moose Lake, 38-0644-00, [11/5/84P] (T.64, R.9, 10): 1B, 2Bd, 3, 4A,
81.16 4B, 5, 6;
- 81.17 (115) *Mora Lake, 16-0732-00, [11/5/84P] (T.64, R.5): 1B, 2A, 3, 4A, 4B,
81.18 5, 6;
- 81.19 (116) *Mukooda Lake, 69-0684-00, [11/5/84P] (T.68, R.17): 1B, 2A, 3, 4A,
81.20 4B, 5, 6;
- 81.21 (117) *Namakan Lake, 69-0693-00, [11/5/84P] (T.69, 70, R.17, 18, 19): 1B,
81.22 2Bd, 3, 4A, 4B, 5, 6;
- 81.23 (118) *Neglige Lake, 38-0492-00, [11/5/84P] (T.64, R.8W, S.1, 2, 11, 12):
81.24 1B, 2A, 3, 4A, 4B, 5, 6;

- 82.1 (119) Nickel (Nichols) Lake, 31-0470-00, (T.59, R.25W, S.12): 1B, 2A, 3,
82.2 4A, 4B, 5, 6;
- 82.3 (120) Norberg Lake, 69-1312-00, (T.61, R.14W, S.1): 1B, 2A, 3, 4A, 4B, 5,
82.4 6;
- 82.5 (121) *North Lake, 16-0331-00, [3/7/88R] (T.65, R.2): 1B, 2A, 3, 4A, 4B,
82.6 5, 6;
- 82.7 (122) North Lake, Little, 16-0329-00, (T.65, R.2): 1B, 2Bd, 3, 4A, 4B, 5, 6;
- 82.8 (123) Norway Lake, 38-0688-00, (T.61, R.10W, S.3): 1B, 2A, 3, 4A, 4B, 5,
82.9 6;
- 82.10 (124) *Ogishkemuncie Lake, 38-0180-00, [11/5/84P] (T.65, R.6): 1B, 2A,
82.11 3, 4A, 4B, 5, 6;
- 82.12 (125) *Ojibway Lake (upper Twin), 38-0640-00, [3/7/88R] (T.63, R.9, 10):
82.13 1B, 2A, 3, 4A, 4B, 5, 6;
- 82.14 (126) *Owl Lake, 16-0726-00, [11/5/84P] (T.64, R.5): 1B, 2A, 3, 4A, 4B, 5,
82.15 6;
- 82.16 (127) *Oyster Lake, 69-0330-00, [11/5/84P] (T.66, R.14): 1B, 2A, 3, 4A,
82.17 4B, 5, 6;
- 82.18 (128) *Paulson Lake, 16-0626-00, [11/5/84P] (T.65, R.4W, S.19; T.65, R.5W,
82.19 S.24): 1B, 2A, 3, 4A, 4B, 5, 6;
- 82.20 (129) Peanut Lake, 38-0662-00, (T.60, R.10W, S.5): 1B, 2A, 3, 4A, 4B, 5,
82.21 6;
- 82.22 (130) Pelican Lake, 69-0841-00, (T.64, 65, R.19, 20, 21): 1C, 2Bd, 3, 4A,
82.23 4B, 5, 6;

- 83.1 (131) *Pellet Lake, 16-0592-00, [11/5/84P] (T.65, R.4, S.19, 20): 1B, 2Bd,
83.2 3, 4A, 4B, 5, 6;
- 83.3 (132) *Peter Lake, 16-0757-00, [11/5/84P] (T.64, 65, R.5): 1B, 2A, 3, 4A,
83.4 4B, 5, 6;
- 83.5 (133) Pickerel Lake, 69-0934-00, (T.60, R.21W, S.17): 1B, 2A, 3, 4A, 4B,
83.6 5, 6;
- 83.7 (134) Portage Lake, 16-0327-00, (T.64, R. 2W, S.3, 4, 5; T.65, R.2W, S.33):
83.8 1B, 2A, 3, 4A, 4B, 5, 6;
- 83.9 (135) *Portage Lake, 38-0524-00, [11/5/84P] (T.65, R.8): 1B, 2A, 3, 4A, 4B,
83.10 5, 6;
- 83.11 (136) Portage Lake, Little, 16-0297-00, (T.64, R.2W, S.3): 1B, 2A, 3, 4A,
83.12 4B, 5, 6;
- 83.13 (137) *Powell Lake, 16-0756-00, [11/5/84P] (T.64, 65, R.5): 1B, 2A, 3, 4A,
83.14 4B, 5, 6;
- 83.15 (138) *Rabbit Lake, 38-0214-00, [11/5/84P] (T.66, R.6): 1B, 2A, 3, 4A, 4B,
83.16 5, 6;
- 83.17 (139) *Rainy Lake, 69-0694-00, [11/5/84P] (T.70, 71, R.18, 19, 20, 21, 22,
83.18 23): 1B, 2Bd, 3, 4A, 4B, 5, 6;
- 83.19 (140) *Raven Lake (Lynx Lake), 38-0113-00, [11/5/84P] (T.64, R.6): 1B,
83.20 2A, 3, 4A, 4B, 5, 6;
- 83.21 (141) *Red Rock Lake, 16-0793-00, [11/5/84P] (T.65, 66, R.5): 1B, 2A, 3,
83.22 4A, 4B, 5, 6;
- 83.23 (142) Regenbogan Lake, 69-0081-00, (T.64, R.12W, S.18): 1B, 2A, 3, 4A,
83.24 4B, 5, 6;

- 84.1 (143) *Rog Lake, 16-0765-00, [11/5/84P] (T.65, R.5W, S.16, 17): 1B, 2A,
84.2 3, 4A, 4B, 5, 6;
- 84.3 (144) *Ruby Lake, Big, 16-0333-00, [11/5/84P] (T.66, R.14): 1B, 2A, 3, 4A,
84.4 4B, 5, 6;
- 84.5 (145) *Saganaga Lake, 16-0633-00, [11/5/84P] (T.66, 67, R.4, 5): 1B, 2A,
84.6 3, 4A, 4B, 5, 6;
- 84.7 (146) *Saganaga Lake, Little, 16-0890-00, [11/5/84P] (T.64, R.5, 6): 1B, 2A,
84.8 3, 4A, 4B, 5, 6;
- 84.9 (147) *Sand Point Lake, 69-0617-00, [11/5/84P] (T.67, 68, 69, R.16, 17):
84.10 1B, 2A, 3, 4A, 4B, 5, 6;
- 84.11 (148) Scarp (Cliff) Lake, 38-0058-00, (T.60, R.6W, S.31, 32): 1B, 2A, 3,
84.12 4A, 4B, 5, 6;
- 84.13 (149) *Sea Gull Lake, 16-0629-00, [11/5/84P] (T.65, 66, R.4, 5): 1B, 2A, 3,
84.14 4A, 4B, 5, 6;
- 84.15 (150) *Sema Lake (Coon Lake), 38-0386-00, [11/5/84P] (T.65, R.7): 1B,
84.16 2A, 3, 4A, 4B, 5, 6;
- 84.17 (151) Shoo-fly Lake, 38-0422-00, (T.59, R.8W, S.1; T.60, R.8W, S.36): 1B,
84.18 2A, 3, 4A, 4B, 5, 6;
- 84.19 (152) *Skull Lake, 38-0624-00, [11/5/84P] (T.64, R.9W, S.14): 1B, 2A, 3,
84.20 4A, 4B, 5, 6;
- 84.21 (153) *Snowbank Lake, 38-0529-00, [11/5/84P] (T.63, 64, R.8, 9): 1B, 2A,
84.22 3, 4A, 4B, 5, 6;
- 84.23 (154) *Spoon Lake (Fames Lake), 38-0388-00, [11/5/84P] (T.65, R.7): 1B,
84.24 2A, 3, 4A, 4B, 5, 6;

- 85.1 (155) *Spring Lake, 69-0761-00, [3/7/88R] (T.68, R.18): 1B, 2A, 3, 4A, 4B,
85.2 5, 6;
- 85.3 (156) Steamhaul Lake, 38-0570-00, (T.60, R.9W, S.23): 1B, 2A, 3, 4A, 4B,
85.4 5, 6;
- 85.5 (157) *Strup Lake, 38-0360-00, [11/5/84P] (T.64, R.7): 1B, 2A, 3, 4A, 4B,
85.6 5, 6;
- 85.7 (158) *Sumpet Lake, 38-0283-00, [11/5/84P] (T.61, R.7): 1B, 2Bd, 3, 4A,
85.8 4B, 5, 6;
- 85.9 (159) Surber Lake, 16-0343-00, (T.65, R.2W, S.34): 1B, 2A, 3, 4A, 4B, 5,
85.10 6;
- 85.11 (160) *Takucmich Lake, 69-0369-00, [11/5/84P] (T.67, 68, R.14): 1B, 2A,
85.12 3, 4A, 4B, 5, 6;
- 85.13 (161) *Tarry Lake, 16-0731-00, [11/5/84P] (T.64, R.5): 1B, 2A, 3, 4A, 4B,
85.14 5, 6;
- 85.15 (162) *Thomas Lake, 38-0351-00, [11/5/84P] (T.63, 64, R.7): 1B, 2A, 3, 4A,
85.16 4B, 5, 6;
- 85.17 (163) *Thumb Lake, 69-0352-00, [11/5/84P] (T.67, R.14): 1B, 2A, 3, 4A,
85.18 4B, 5, 6;
- 85.19 (164) Tofte Lake, 38-0724-00, (T.63, R.10W, S.2, 3, 10, 11; T.64, R.10W,
85.20 S.35): 1B, 2A, 3, 4A, 4B, 5, 6;
- 85.21 (165) *Topaz Lake (Star Lake), 38-0172-00, [11/5/84P] (T.65, R.6): 1B, 2A,
85.22 3, 4A, 4B, 5, 6;
- 85.23 (166) *Town Lake, 16-0458-00, [11/5/84P] (T.63, 64, R.3, 4): 1B, 2A, 3,
85.24 4A, 4B, 5, 6;

- 86.1 (167) Trappers Lake, 38-0431-00, (T.60, R.8W, S.27, 34): 1B, 2A, 3, 4A,
86.2 4B, 5, 6;
- 86.3 (168) Trip Lake, 16-0451-00, (T.65, R.3W, S.32): 1B, 2A, 3, 4A, 4B, 5, 6;
- 86.4 (169) *Trout Lake, Big, 69-0498-00, [11/5/84P] (T.63, 64, R.15, 16): 1B,
86.5 2A, 3, 4A, 4B, 5, 6;
- 86.6 (170) *Trout Lake, Little (Pocket Lake), 69-0682-00, [11/5/84P] (T.68, R.17):
86.7 1B, 2A, 3, 4A, 4B, 5, 6;
- 86.8 (171) *Trygg (Twigg) Lake, 69-0389-00, [11/5/84P] (T.68, R.14W, S.31;
86.9 T.68, R.15W, S.36): 1B, 2A, 3, 4A, 4B, 5, 6;
- 86.10 (172) *Tucker Lake (Trucker Lake), 16-0417-00, [11/5/84P] (T.64, R.3): 1B,
86.11 2Bd, 3, 4A, 4B, 5, 6;
- 86.12 (173) *Tuscarora Lake, 16-0623-00, [11/5/84P] (T.64, R.4, 5): 1B, 2A, 3,
86.13 4A, 4B, 5, 6;
- 86.14 (174) unnamed (Pear) lake, 38-0769-00, (T.60, R.11W, S.4): 1B, 2A, 3, 4A,
86.15 4B, 5, 6;
- 86.16 (175) *unnamed lake, 16-0598-00, [11/5/84P] (T.65, R.4, S.29, 30): 1B, 2Bd,
86.17 3, 4A, 4B, 5, 6;
- 86.18 (176) unnamed swamp, Winton, (T.63, R.11, S.19; T.63, R.12, S.24): 3, 4A,
86.19 4B, 5, 6, 7;
- 86.20 (177) *Vera Lake, 38-0491-00, [11/5/84P] (T.64, R.8): 1B, 2A, 3, 4A, 4B,
86.21 5, 6;
- 86.22 (178) Vermilion, Lake, 69-0378-00, (see Lake Vermilion);

- 87.1 (179) *Virgin Lake, 16-0719-00, [11/5/84P] (T.64, R.5): 1B, 2A, 3, 4A, 4B,
87.2 5, 6;
- 87.3 (180) West Crab Lake, 69-0220-00, (see Crab Lake);
- 87.4 (181) White Iron Lake, 69-0004-00, (T.62, 63, R.11, 12): 1C, 2Bd, 3, 4A,
87.5 4B, 5, 6;
- 87.6 (182) *Wine Lake, 16-0686-00, [11/5/84P] (T.63, R.5): 1B, 2A, 3, 4A, 4B,
87.7 5, 6;
- 87.8 (183) *Wisini Lake, 38-0361-00, [11/5/84P] (T.64, R.7): 1B, 2A, 3, 4A, 4B,
87.9 5, 6; and
- 87.10 (184) Woods, Lake of the, 39-0002-00, (see Lake of the Woods).

87.11 C. Calcareous fens: none currently listed.

87.12 D. Scientific and natural areas: *Purvis Lake-Ober, [11/5/84P] waters within the
87.13 Purvis Lake-Ober Foundation Scientific and Natural Area, Saint Louis County, (T.62, R.13):
87.14 2B, 3, 4A, 4B, 5, 6, except wetlands, which are 2D, 3, 4A, 4B, 5, 6.

87.15 Subp. 3. **Red River of the North basin.** The water-use classifications for the stream
87.16 reaches within each of the major watersheds in the Red River of the North basin listed in
87.17 item A are found in tables entitled "Beneficial Use Designations for Stream Reaches"
87.18 published on the website of the Minnesota Pollution Control Agency at
87.19 www.pca.state.mn.us/regulations/incorporations-reference The tables are incorporated by
87.20 reference and are not subject to frequent change. The date after each watershed listed in
87.21 item A is the publication date of the applicable table. The water-use classifications for the
87.22 other listed waters in the Red River of the North basin are as identified in items B to D. See
87.23 part 7050.0415 for the classifications of waters not listed. Designated use information for
87.24 water bodies can also be accessed through the agency's Environmental Data Access
87.25 (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

88.1 *[For text of item A, see Minnesota Rules]*

88.2 B. Lakes:

88.3 (1) Bass Lake, 56-0722-00, (T.135, R.42W, S.10, 11): 1B, 2A, 3, 4A, 4B, 5,

88.4 6;

88.5 (2) Hanson Lake, 03-0177-00, (T.139, R.39W, S.6): 1B, 2A, 3, 4A, 4B, 5,

88.6 6;

88.7 (3) Hoot Lake, 56-0782-00, (T.133, R.42, 43): 1C, 2Bd, 3, 4A, 4B, 5, 6;

88.8 (4) Lake Bronson, 35-0003-00, (T.160, 161, R.46): 1C, 2Bd, 3, 4A, 4B, 5,

88.9 6;

88.10 (5) Twin Lake, East, 03-0362-00, (T.138, R.41): 1B, 2A, 3, 4A, 4B, 5, 6;

88.11 (6) unnamed slough, Vergas, (T.137, R.40, S.18; T.137, R.41, S.13, 24): 3,

88.12 4A, 4B, 5, 6, 7;

88.13 (7) Wapatus (Island) Lake, 15-0127-00, (T.144, R.38W, S.21, 28): 1B, 2A,

88.14 3, 4A, 4B, 5, 6; and

88.15 (8) Wright Lake, 56-0783-00, (T.133, R.42, 43): 1C, 2Bd, 3, 4A, 4B, 5, 6.

88.16 *[For text of item C, see Minnesota Rules]*

88.17 D. Scientific and natural areas:

88.18 (1) *Green Water Lake, [11/5/84P] waters within the Green Water Lake

88.19 Scientific and Natural Area, Becker County, (T.141, R.38, S.28, 33, 34): 2B, 3, 4A, 4B, 5,

88.20 6, except wetlands, which are 2D, 3, 4A, 4B, 5, 6; and

88.21 (2) *Pembina Trail Preserve, [3/7/88P] waters within the Pembina Trail

88.22 Preserve Scientific and Natural Area, Polk County, (T.148, R.45, S.1, 2; T.149, R.44, S.18,

89.1 19, 30, 31; T.149, R.45, S.13, 24, 25, 36): 2B, 3, 4A, 4B, 5, 6, except wetlands, which are
89.2 2D, 3, 4A, 4B, 5, 6.

89.3 Subp. 4. **Upper Mississippi River basin (headwaters to the confluence with the St.**
89.4 **Croix River).** The water-use classifications for the stream reaches within each of the major
89.5 watersheds in the upper Mississippi River basin from the headwaters to the confluence with
89.6 the St. Croix River listed in item A are found in tables entitled "Beneficial Use Designations
89.7 for Stream Reaches" published on the website of the Minnesota Pollution Control Agency
89.8 at www.pca.state.mn.us/regulations/incorporations-reference. The tables are incorporated
89.9 by reference and are not subject to frequent change. The date after each watershed listed in
89.10 item A is the publication date of the applicable table. The water-use classifications for the
89.11 other listed waters in the upper Mississippi River basin from the headwaters to the confluence
89.12 with the St. Croix River are as identified in items B to D. See part 7050.0415 for the
89.13 classifications of waters not listed. Designated use information for water bodies can also
89.14 be accessed through the agency's Environmental Data Access
89.15 (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

89.16 *[For text of item A, see Minnesota Rules]*

89.17 B. Lakes:

89.18 (1) Allen Lake, 18-0208-00, (T.138, R.26W, S.5): 1B, 2A, 3, 4A, 4B, 5, 6;

89.19 (2) Bald Eagle Lake, 62-0002-00, (T.30, 31, R.21, 22): 1C, 2Bd, 3, 4A, 4B,
89.20 5, 6;

89.21 (3) Bee Cee Lake, 31-0443-00, (T.58, R.25W, S.28, 33): 1B, 2A, 3, 4A, 4B,
89.22 5, 6;

89.23 (4) Benedict Lake, 29-0048-00, (T.142, R.32): 1B, 2A, 3, 4A, 4B, 5, 6;

89.24 (5) Benjamin Lake, 04-0033-00, (T.148, R.30W, S.7, 18; T.148, R.31W,
89.25 S.13): 1B, 2A, 3, 4A, 4B, 5, 6;

- 90.1 (6) Blacksmith Lake, 29-0275-00, (T.142, R.35W, S.13): 1B, 2A, 3, 4A, 4B,
90.2 5, 6;
- 90.3 (7) *Blue Lake, 01-0181-00, [3/7/88R] (T.46, 47, R.27): 1B, 2A, 3, 4A, 4B,
90.4 5, 6;
- 90.5 (8) *Blue Lake, 29-0184-00, [3/7/88R] (T.141, R.34): 1B, 2A, 3, 4A, 4B, 5,
90.6 6;
- 90.7 (9) *Bluewater Lake, 31-0395-00, [3/7/88R] (T.57, R.25): 1B, 2A, 3, 4A,
90.8 4B, 5, 6;
- 90.9 (10) Cenaiko Lake (unnamed), 02-0654-00, (T.31, R.24W, S.26): 1B, 2A, 3,
90.10 4A, 4B, 5, 6;
- 90.11 (11) Centerville Lake, 02-0006-00, (T.31, R.22): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 90.12 (12) Charley Lake, 62-0062-00, (T.30, R.23): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 90.13 (13) Crappie Lake, 29-0127-00, (T.143, R.33W, S.31): 1B, 2A, 3, 4A, 4B, 5,
90.14 6;
- 90.15 (14) Deep Lake, 62-0018-00, (T.30, R.22): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 90.16 (15) Diamond Lake, 11-0396-00, (T.141, R.30W, S.26, 27, 34): 1B, 2A, 3,
90.17 4A, 4B, 5, 6;
- 90.18 (16) Hazel Lake, 11-0295-00, (T.141, R.29W, S.25): 1B, 2A, 3, 4A, 4B, 5,
90.19 6;
- 90.20 (17) Hay Lake, lower, 18-0378-00, (T.137, R.28, 29): 1B, 2A, 3, 4A, 4B, 5,
90.21 6;
- 90.22 (18) *Kabekona Lake, 29-0075-00, [3/7/88R] (T.142, 143, R.32, 33): 1B,
90.23 2A, 3, 4A, 4B, 5, 6;

- 91.1 (19) Kennedy Lake, 31-0137-00, (T.58, R.23): 1B, 2A, 3, 4A, 4B, 5, 6;
- 91.2 (20) Kremer Lake, 31-0645-00, (T.58, R.26W, S.33, 34): 1B, 2A, 3, 4A, 4B,
91.3 5, 6;
- 91.4 (21) LaSalle Lake, lower, 29-0309-00, (T.145, R.35): 1B, 2A, 3, 4A, 4B, 5,
91.5 6;
- 91.6 (22) Loon (Townline) Lake, 01-0024-00, (T.50, R.22W, S.7; T.50, R.23W,
91.7 S.12, 13): 1B, 2A, 3, 4A, 4B, 5, 6;
- 91.8 (23) Lucky Lake, 31-0603-00, (T.57, R.26W, S.14): 1B, 2A, 3, 4A, 4B, 5,
91.9 6;
- 91.10 (24) Mallen Mine Pit, 18-0740-00, (T.46, R.29W, S.17): 1B, 2A, 3, 4A, 4B,
91.11 5, 6;
- 91.12 (25) Manuel (South Yawkey) Mine Pit, 18-0435-00, (T.46, R.29W, S.1): 1B,
91.13 2A, 3, 4A, 4B, 5, 6;
- 91.14 (26) Margaret Lake, 11-0045-00, (T.139, R.26W, S.16): 1B, 2A, 3, 4A, 4B,
91.15 5, 6;
- 91.16 (27) Marion Lake, 11-0046-00, (T.139, R.26W, S.16, 17): 1B, 2A, 3, 4A,
91.17 4B, 5, 6;
- 91.18 (28) Martin (Huntington, Feigh) Mine Pit, 18-0441-00, (T.46, R.29W, S.9,
91.19 10, 16): 1B, 2A, 3, 4A, 4B, 5, 6;
- 91.20 (29) Moonshine Lake, Little (Moonshine), 31-0444-00, (T.58, R.25W, S.28,
91.21 33): 1B, 2A, 3, 4A, 4B, 5, 6;
- 91.22 (30) Newman (Putnam) Lake, 29-0237-00, (T.145, R.34W, S.10, 11): 1B,
91.23 2A, 3, 4A, 4B, 5, 6;

- 92.1 (31) Otter Lake, 02-0003-00, (T.30, 31, R.22): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 92.2 (32) Pennington (Mahnomen, Alstead, Arco) Mine Pit, 18-0439-00, (T.46,
92.3 R.29W, S.3, 9, 10, 11): 1B, 2A, 3, 4A, 4B, 5, 6;
- 92.4 (33) Perch Lake, 11-0826-00, (T.139, R.31W, S.33): 1B, 2A, 3, 4A, 4B, 5,
92.5 6;
- 92.6 (34) Pleasant Lake, 62-0046-00, (T.30, R.22, 23): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 92.7 (35) Pleasant Lake, 18-0278-00, (T.137, R.27W, S.19): 1B, 2A, 3, 4A, 4B,
92.8 5, 6;
- 92.9 (36) *Pokegama Lake, 31-0532-01 and 31-0532-02, [3/7/88R] (T.54, 55,
92.10 R.25, 26): 1B, 2A, 3, 4A, 4B, 5, 6;
- 92.11 (37) Portsmouth Mine Pit, 18-0437-00, (T.46, R.29W, S.1, 2, 11): 1B, 2A,
92.12 3, 4A, 4B, 5, 6;
- 92.13 (38) *Roosevelt Lake, 11-0043-00, [3/7/88R] (T.138, 139, R.26): 1B, 2A, 3,
92.14 4A, 4B, 5, 6;
- 92.15 (39) Sagamore Mine Pit, 18-0523-00, (T.46, R.29W, S.19; T.46, R.30W,
92.16 S.24): 1B, 2A, 3, 4A, 4B, 5, 6;
- 92.17 (40) Section 6 Mine Pit, 18-0667-00, (T.46, R.29W, S.6): 1B, 2A, 3, 4A, 4B,
92.18 5, 6;
- 92.19 (41) Snoshoe Mine Pit, 18-0524-00, (T.46, R.29W, S.17, 18): 1B, 2A, 3, 4A,
92.20 4B, 5, 6;
- 92.21 (42) Snowshoe (Little Andrus) Lake, 11-0054-00, (T.139, R.26W, S.29, 30):
92.22 1B, 2A, 3, 4A, 4B, 5, 6;

- 93.1 (43) Strawberry Lake, 18-0363-00, (T.137, R.28W, S.27, 34): 1B, 2A, 3, 4A,
93.2 4B, 5, 6;
- 93.3 (44) Sucker Lake, 62-0028-00, (T.30, R.22): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 93.4 (45) Taylor Lake, 01-0109-00, (T.52, R.25W, S.16): 1B, 2A, 3, 4A, 4B, 5,
93.5 6;
- 93.6 (46) Teepee Lake, 11-0312-00, (T.141, R.29W, S.30; T.141, R.30W, S.25):
93.7 1B, 2A, 3, 4A, 4B, 5, 6;
- 93.8 (47) Tioga Mine Pit, 31-0946-00, (T.55, R.26W, S.26): 1B, 2A, 3, 4A, 4B,
93.9 5, 6;
- 93.10 (48) Trout Lake, 31-0216-00, (T.55, 56, R.24): 1B, 2A, 3, 4A, 4B, 5, 6;
- 93.11 (49) *Trout Lake, Big, 31-0410-00, [3/7/88R] (T.57, 58, R.25): 1B, 2A, 3,
93.12 4A, 4B, 5, 6;
- 93.13 (50) *Trout Lake, Big, 18-0315-00, [3/7/88R] (T.137, 138, R.27, 28): 1B,
93.14 2A, 3, 4A, 4B, 5, 6;
- 93.15 (51) *Trout Lake, Little, 31-0394-00, [3/7/88R] (T.57, R.25): 1B, 2A, 3, 4A,
93.16 4B, 5, 6;
- 93.17 (52) unnamed swamp, Flensburg, (T.129, R.31, S.25): 3, 4A, 4B, 5, 6, 7;
- 93.18 (53) unnamed slough, Miltona, (T.130, R.37, S.26, 35, 36): 3, 4A, 4B, 5, 6,
93.19 7;
- 93.20 (54) unnamed swamp, Staples, (T.133, R.33, S.1): 3, 4A, 4B, 5, 6, 7;
- 93.21 (55) unnamed swamp, Taconite, (T.56, R.24, S.22): 3, 4A, 4B, 5, 6, 7;
- 93.22 (56) Vadnais Lake, 62-0038-00, (T.30, R.22): 1C, 2Bd, 3, 4A, 4B, 5, 6;
- 93.23 (57) Wabana Lake, 31-0392-00, (T.57, R.25): 1B, 2A, 3, 4A, 4B, 5, 6;

94.1 (58) Watab Lake, Big, 73-0102-00, (T.124, R.30): 1B, 2A, 3, 4A, 4B, 5, 6;

94.2 (59) Wilkinson Lake, 62-0043-00, (T.30, R.22): 1C, 2Bd, 3, 4A, 4B, 5, 6;

94.3 (60) Willard Lake, 11-0564-00, (T.139, R.30W, S.15): 1B, 2A, 3, 4A, 4B,

94.4 5, 6; and

94.5 (61) Yawkey (North Yawkey) Mine Pit, 18-0434-00, (T.46, R.29W, S.1):

94.6 1B, 2A, 3, 4A, 4B, 5, 6.

94.7 C. Calcareous fens: none currently listed.

94.8 D. Scientific and natural areas:

94.9 (1) *Itasca Wilderness Sanctuary, [11/5/84P] waters within the Itasca

94.10 Wilderness Sanctuary, Clearwater County, (T.143, R.36): 2B, 3, 4A, 4B, 5, 6, except

94.11 wetlands, which are 2D, 3, 4A, 4B, 5, 6;

94.12 (2) *Iron Springs Bog, [11/5/84P] waters within the Iron Springs Bog

94.13 Scientific and Natural Area, Clearwater County, (T.144, R.36): 2B, 3, 4A, 4B, 5, 6, except

94.14 wetlands, which are 2D, 3, 4A, 4B, 5, 6;

94.15 (3) *Pennington Bog, [11/5/84P] waters within the Pennington Bog Scientific

94.16 and Natural Area, Beltrami County, (T.146, R.30): 2B, 3, 4A, 4B, 5, 6, except wetlands,

94.17 which are 2D, 3, 4A, 4B, 5, 6; and

94.18 (4) *Wolsfeld Woods, [11/5/84P] waters within the Wolsfeld Woods Scientific

94.19 and Natural Area, Hennepin County, (T.118, R.23): 2B, 3, 4A, 4B, 5, 6, except wetlands,

94.20 which are 2D, 3, 4A, 4B, 5, 6.

94.21 Subp. 5. **Minnesota River basin.** The water-use classifications for the stream reaches

94.22 within each of the major watersheds in the Minnesota River basin listed in item A are found

94.23 in tables entitled "Beneficial Use Designations for Stream Reaches" published on the website

94.24 of the Minnesota Pollution Control Agency at

www.pca.state.mn.us/regulations/incorporations-reference. 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 Minnesota River basin are as identified in items B to D. See part 7050.0415 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:

(1) Amber Lake, 46-0034-00, (T.102, R.30): 1C, 2Bd, 3, 4A, 4B, 5, 6;

(2) Bardwell Lake, 46-0023-00, (T.102, R.30): 1C, 2Bd, 3, 4A, 4B, 5, 6;

(3) Budd Lake, 46-0030-00, (T.102, R.30): 1C, 2Bd, 3, 4A, 4B, 5, 6;

(4) Courthouse Lake, 10-0005-00, (T.115, R.23W, S.9): 1B, 2A, 3, 4A, 4B, 5, 6;

(5) George Lake, 46-0024-00, (T.102, R.30): 1C, 2Bd, 3, 4A, 4B, 5, 6;

(6) Hall Lake, 46-0031-00, (T.102, R.30): 1C, 2Bd, 3, 4A, 4B, 5, 6;

(7) Mud Lake, 46-0035-00, (T.102, R.30): 1C, 2Bd, 3, 4A, 4B, 5, 6;

(8) One Hundred Acre Slough, Saint James, (T.106, R.31, S.7): 3, 4A, 4B, 5, 6, 7;

(9) Silver Lake, North, 46-0016-00, (T.101, R.30): 1C, 2Bd, 3, 4A, 4B, 5, 6;

(10) Sisseton Lake, 46-0025-00, (T.102, R.30): 1C, 2Bd, 3, 4A, 4B, 5, 6;

(11) unnamed marsh, Barry, (T.124, R.47, S.8): 3, 4A, 4B, 5, 6, 7;

(12) unnamed slough, Kensington, (T.127, R.40, S.34): 3, 4A, 4B, 5, 6, 7;

- 96.1 (13) unnamed slough, Brandon, (T.129, R.39, S.21, 22): 3, 4A, 4B, 5, 6, 7;
- 96.2 (14) unnamed swamp, Minnesota Lake, (T.104, R.25, S.3, 4): 3, 4A, 4B, 5,
- 96.3 6, 7;
- 96.4 (15) unnamed swamp (Skauby Lake), 17-0035-00, Storden, (T.107, R.37,
- 96.5 S.30): 3, 4A, 4B, 5, 6, 7;
- 96.6 (16) unnamed swamp, Sunburg, Sunburg Coop Cry., (T.122, R.36, S.30): 3,
- 96.7 4A, 4B, 5, 6, 7;
- 96.8 (17) unnamed swamp, Lowry, (T.126, R.39, S.35, 36): 3, 4A, 4B, 5, 6, 7;
- 96.9 and
- 96.10 (18) Wilmert Lake, 46-0014-00, (T.101, R.30): 1C, 2Bd, 3, 4A, 4B, 5, 6.

96.11 *[For text of item C, see Minnesota Rules]*

96.12 D. Scientific and natural areas: *Blackdog Preserve, [3/7/88P] waters within the

96.13 Blackdog Preserve Scientific and Natural Area, Dakota County (T.27, R.24, S.27, 34): 2B,

96.14 3, 4A, 4B, 5, 6, except wetlands, which are 2D, 3, 4A, 4B, 5, 6.

96.15 Subp. 6. **Saint Croix River basin.** The water-use classifications for the stream reaches

96.16 within each of the major watersheds in the Saint Croix River basin listed in item A are found

96.17 in tables entitled "Beneficial Use Designations for Stream Reaches" published on the website

96.18 of the Minnesota Pollution Control Agency at

96.19 www.pca.state.mn.us/regulations/incorporations-reference. The tables are incorporated by

96.20 reference and are not subject to frequent change. The date after each watershed listed in

96.21 item A is the publication date of the applicable table. The water-use classifications for the

96.22 other listed waters in the Saint Croix River basin are as identified in items B to D. See part

96.23 7050.0415 for the classifications of waters not listed. Designated use information for water

96.24 bodies can also be accessed through the agency's Environmental Data Access

96.25 (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

97.1 *[For text of item A, see Minnesota Rules]*

97.2 B. Lakes:

97.3 (1) *Grindstone Lake, 58-0123-00, [3/7/88R] (T.42, R.21): 1B, 2A, 3, 4A,
97.4 4B, 5, 6; and

97.5 (2) unnamed swamp, Shafer, (T.34, R.19, S.31, 32): 3, 4A, 4B, 5, 6, 7.

97.6 C. Calcareous fens: none currently listed.

97.7 D. Scientific and natural areas:

97.8 (1) *Boot Lake, [11/5/84P] waters within the Boot Lake Scientific and Natural
97.9 Area, Anoka County, (T.33, R.22): 2B, 3, 4A, 4B, 5, 6, except wetlands, which are 2D, 3,
97.10 4A, 4B, 5, 6;

97.11 (2) *Falls Creek, [4/18/94P] (trout designated waters within Washington
97.12 County), (T.32, R.19, S.7; T.32, R.20, S.12): 1B, 2A, 3, 4A, 4B, 5, 6;

97.13 (3) *Falls Creek, [4/18/94P] waters within the Falls Creek Scientific and
97.14 Natural Area, Washington County, (T.32, R.19, S.7; T.32, R.20, S.12): 2B, 3, 4A, 4B, 5,
97.15 6, except wetlands, which are 2D, 3, 4A, 4B, 5, 6; and

97.16 (4) *Kettle River, [11/5/84P] waters within the Kettle River Scientific and
97.17 Natural Area, Pine County, (T.41, R.20): 2B, 3, 4A, 4B, 5, 6.

97.18 Subp. 7. **Lower Mississippi River basin (from the confluence with the St. Croix**
97.19 **River to the Iowa border).** The water-use classifications for the stream reaches within
97.20 each of the major watersheds in the lower Mississippi River basin from the confluence with
97.21 the Saint Croix River to the Iowa border listed in item A are found in tables entitled
97.22 "Beneficial Use Designations for Stream Reaches" published on the website of the Minnesota
97.23 Pollution Control Agency at www.pca.state.mn.us/regulations/incorporations-reference.
97.24 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 lower Mississippi River basin from the confluence with the St. Croix River to the Iowa border are as identified in items B to D. See part 7050.0415 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:

(1) unnamed marsh, Kilkenny, (T.110, R.23, S.22, 23): 3, 4A, 4B, 5, 6, 7;

and

(2) unnamed swamp, Hampton, (T.113, R.18, S.8): 3, 4A, 4B, 5, 6, 7.

C. Calcareous fens:

(1) *Cannon River Wilderness Area fen, 18, Rice [3/7/88R] (T.111, R.20, S.34): 2D, 3, 4A, 4B, 5, 6;

(2) *Cannon River Wilderness Area fen, 73, Rice [4/18/94R] (T.111, R.20, S.22): 2D, 3, 4A, 4B, 5, 6;

(3) *High Forest fen, 12, Olmsted [4/18/94R] (T.105, R.14, S.14, 15): 2D, 3, 4A, 4B, 5, 6;

(4) *Holden 1 West fen, 3, Goodhue [4/18/94R] (T.110, R.18, S.1): 2D, 3, 4A, 4B, 5, 6;

(5) *Houston fen, 62, Houston [4/18/94R] (T.104, R.6, S.26): 2D, 3, 4A, 4B, 5, 6;

(6) *Nelson WMA fen, 5, Olmsted [3/7/88R] (T.105, R.15, S.16): 2D, 3, 4A, 4B, 5, 6;

99.1 (7) *Perched Valley Wetlands fen, 2, Goodhue [3/7/88R] (T.112, R.13, S.8):
99.2 2D, 3, 4A, 4B, 5, 6;

99.3 (8) *Red Wing fen, 72, Goodhue [4/18/94R] (T.113, R.15, S.21): 2D, 3, 4A,
99.4 4B, 5, 6 and

99.5 (9) *Wiscoy fen, 58, Winona [3/7/88R] (T.105, R.7, S.15): 2D, 3, 4A, 4B,
99.6 5, 6.

99.7 *[For text of item D, see Minnesota Rules]*

99.8 Subp. 8. **Cedar-Des Moines Rivers basin.** The water-use classifications for the stream
99.9 reaches within each of the major watersheds in the Cedar-Des Moines Rivers basin listed
99.10 in item A are found in tables entitled "Beneficial Use Designations for Stream Reaches"
99.11 published on the website of the Minnesota Pollution Control Agency at
99.12 www.pca.state.mn.us/regulations/incorporations-reference. The tables are incorporated by
99.13 reference and are not subject to frequent change. The date after each watershed listed in
99.14 item A is the publication date of the applicable table. The water-use classifications for the
99.15 other listed waters in the Cedar-Des Moines Rivers basin are as identified in items B to D.
99.16 See part 7050.0415 for the classifications of waters not listed. Designated use information
99.17 for water bodies can also be accessed through the agency's Environmental Data Access
99.18 (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

99.19 *[For text of items A and B, see Minnesota Rules]*

99.20 C. Calcareous fens:

99.21 (1) *Heron Lake fen, 45, Jackson [3/7/88R] (T.103, R.36, S.29): 2D, 3, 4A,
99.22 4B, 5, 6; and

99.23 (2) *Thompson Prairie fen, 20, Jackson [3/7/88R] (T.103, R.35, S.7): 2D, 3,
99.24 4A, 4B, 5, 6.

100.1 D. Scientific and natural areas: *Prairie Bush Clover, [3/7/88P] waters within the
100.2 Prairie Bush Clover Scientific and Natural Area, Jackson County, (T.103, R.35, S.17): 2B,
100.3 3, 4A, 4B, 5, 6, except wetlands, which are 2D, 3, 4A, 4B, 5, 6.

100.4 Subp. 9. **Missouri River basin.** The water-use classifications for the stream reaches
100.5 within each of the major watersheds in the Missouri River basin listed in item A are found
100.6 in tables entitled "Beneficial Use Designations for Stream Reaches" published on the website
100.7 of the Minnesota Pollution Control Agency at
100.8 www.pca.state.mn.us/regulations/incorporations-reference. The tables are incorporated by
100.9 reference and are not subject to frequent change. The date after each watershed listed in
100.10 item A is the publication date of the applicable table. The water-use classifications for the
100.11 other listed waters in the Missouri River basin are as identified in items B to D. See part
100.12 7050.0415 for the classifications of waters not listed. Designated use information for water
100.13 bodies can also be accessed through the agency's Environmental Data Access
100.14 (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

100.15 *[For text of items A and B, see Minnesota Rules]*

100.16 C. Calcareous fens:

100.17 (1) *Burke WMA fen, 57, Pipestone [11/12/90R] (T.106, R.44, S.28): 2D,
100.18 3, 4A, 4B, 5, 6;

100.19 (2) *Hole-in-the-Mountain Prairie fen, 6, Pipestone [11/12/90R] (T.108,
100.20 R.46, S.1; T.109, R.45, S.31): 2D, 3, 4A, 4B, 5, 6;

100.21 (3) *Lost Timber Prairie fen, 13, Murray [4/18/94R] (T.105, R.43, S.2): 2D,
100.22 3, 4A, 4B, 5, 6; and

100.23 (4) *Westside fen, 59, Nobles [11/12/90R] (T.102, R.43, S.11): 2D, 3, 4A,
100.24 4B, 5, 6.

100.25 *[For text of item D, see Minnesota Rules]*

101.1 **7053.0135 GENERAL DEFINITIONS.**

101.2 *[For text of subparts 1 to 4, see Minnesota Rules]*

101.3 Subp. 4a. **122-day ten-year low flow or 122Q₁₀.** "122-day ten-year low flow" or
101.4 "122Q₁₀" means the lowest average 122-day flow with a once-in-ten-year recurrence interval.
101.5 A 122Q₁₀ is derived using the same methods used to derive a 7Q₁₀, and the guidelines
101.6 regarding period of record for flow data and estimating a 7Q₁₀ apply equally to determining
101.7 a 122Q₁₀, as described in subpart 3.

101.8 *[For text of subpart 5, see Minnesota Rules]*

101.9 Subp. 5a. **Control document.** "Control document" has the meaning given in part
101.10 7050.0255, subpart 10.

101.11 *[For text of subparts 6 to 10, see Minnesota Rules]*

101.12 **7053.0205 GENERAL REQUIREMENTS FOR DISCHARGES TO WATERS OF**
101.13 **THE STATE.**

101.14 *[For text of subparts 1 to 6, see Minnesota Rules]*

101.15 Subp. 7. **Minimum stream flow.**

101.16 A. Except as provided in items B to E, discharges of sewage, industrial waste, or
101.17 other wastes must be controlled so that the water quality standards are maintained at all
101.18 stream flows that are equal to or greater than the 7Q₁₀ for the critical month or months.

101.19 *[For text of items B and C, see Minnesota Rules]*

101.20 D. Discharges of sewage, industrial waste, or other wastes must be controlled at
101.21 the point where water is withdrawn for irrigation, so that the irrigation water quality standards
101.22 in part 7050.0224, subpart 2, are maintained at all stream flows that are equal to or greater
101.23 than the 122Q₁₀ calculated from flows during the growing season (June through September).

E. Discharges of sewage, industrial waste, or other wastes must be controlled at the point where water is withdrawn for industrial consumption, so that the industrial water quality standard in part 7050.0223, subpart 2, is maintained at all flows at or above the specified low flows considered under Minnesota Statutes, section 103G.285, subdivision 2, for consumptive appropriations.

F. Allowance must not be made in the design of treatment works for low stream flow augmentation unless the flow augmentation of minimum flow is dependable and controlled under applicable laws or regulations.

[For text of subparts 8 to 13, see Minnesota Rules]

**7053.0255 PHOSPHORUS EFFLUENT LIMITS FOR POINT SOURCE
DISCHARGES OF SEWAGE, INDUSTRIAL, AND OTHER WASTES.**

[For text of subpart 1, see Minnesota Rules]

Subp. 2. **Definitions.** For the purposes of this part, the following definitions apply. Other relevant definitions are found in part 7050.0150, subpart 4.

A. "Affects" means a measurable increase in the adverse effects of phosphorus loading as determined by monitoring or modeling, including, but not limited to, an increase in chlorophyll-a concentrations, a decrease in water transparency, or an increase in the frequency or duration of nuisance algae blooms, from an individual point source discharge.

B. "Expanded discharge" means a disposal system that after May 1, 2008, discharges more than 1,800 pounds of total phosphorus per year to a surface water on an annual average basis, and increases in wastewater treatment capacity as indicated by an increase in the:

(1) design average wet weather flow for the wettest 30-day period for point source dischargers of sewage with a continuous discharge, typically a mechanical facility;

103.1 (2) design average wet weather flow for the wettest 180-day period for point
103.2 source dischargers of sewage with a controlled discharge, typically a pond facility; or

103.3 (3) design average daily flow rate for dischargers of industrial or other wastes.

103.4 C. "Lake" means an enclosed basin filled or partially filled with standing fresh
103.5 water with a maximum depth greater than 15 feet. Lakes may have no inlet or outlet, an
103.6 inlet or outlet, or both an inlet and outlet.

103.7 D. "Measurable increase" or "measurable impact" means a change in trophic status
103.8 that can be discerned above the normal variability in water quality data using a weight of
103.9 evidence approach. The change in trophic status does not require a demonstration of statistical
103.10 significance to be considered measurable. Mathematical models may be used as a tool in
103.11 the data analysis to help predict changes in trophic status.

103.12 E. "New discharge" means a discharge that was not in existence before May 1,
103.13 2008, and discharges more than 1,800 pounds of total phosphorus per year.

103.14 F. "Reservoir" means a body of water in a natural or artificial basin or water course
103.15 where the outlet or flow is artificially controlled by a structure such as a dam. Reservoirs
103.16 are distinguished from river systems by having a hydraulic residence time of at least 14
103.17 days. For purposes of this item, residence time is determined using a flow equal to the
103.18 $122Q_{10}$ for the months of June through September. " $122Q_{10}$ " has the meaning given in part
103.19 7053.0135, subpart 4b.

103.20 G. "Shallow lake" means an enclosed basin filled or partially filled with standing
103.21 fresh water with a maximum depth of 15 feet or less or with 80 percent or more of the lake
103.22 area shallow enough to support emergent and submerged rooted aquatic plants (the littoral
103.23 zone). It is uncommon for shallow lakes to thermally stratify during the summer. The quality
103.24 of shallow lakes will permit propagation and maintenance of a healthy indigenous aquatic
103.25 community, and the shallow lakes will be suitable for boating and other forms of aquatic

104.1 recreation for which they may be usable. For purposes of this chapter, shallow lakes will
104.2 be differentiated from wetlands and lakes on a case-by-case basis. For purposes of this item,
104.3 "wetlands" has the meaning given in part 7050.0186, subpart 1a.

104.4 *[For text of subparts 3 to 6, see Minnesota Rules]*

104.5 **7053.0260 EFFLUENT LIMITS FOR POINT SOURCE DISCHARGES OF SEWAGE,**
104.6 **INDUSTRIAL, AND OTHER WASTES TO PROTECT INDUSTRIAL**
104.7 **CONSUMPTION.**

104.8 Subpart 1. **Scope.** The effluent limits in this part are in addition to the effluent limits
104.9 specified elsewhere in this chapter. In the event of a conflict between this part and other
104.10 applicable regulations, the more stringent requirement applies.

104.11 Subp. 2. **Definitions.** Definitions in parts 7050.0150, subpart 4, and 7053.0135 apply
104.12 to this part.

104.13 Subp. 3. **Developing effluent limits to protect industrial consumption.**

104.14 A. The commissioner must use the procedures in Class 3 Translator Method,
104.15 which is incorporated by reference in item D, to determine whether a discharger would
104.16 cause or contribute to an impairment of the class 3 industrial consumption water quality
104.17 standard.

104.18 B. Water-quality-based effluent limits must protect water quality at the point at
104.19 which water is withdrawn for industrial consumption at all flows at or above the specified
104.20 low flows considered under Minnesota Statutes, section 103G.285, subdivision 2, for
104.21 consumptive appropriations.

104.22 C. When the commissioner determines, using the procedures incorporated in item
104.23 D, that a discharger requires a water-quality-based effluent limit to protect water used for
104.24 industrial consumption, the commissioner must include an effluent limit in the discharger's
104.25 control document.

105.1 D. Class 3 Translator Method, Minnesota Pollution Control Agency (~~2020 and~~
105.2 ~~as subsequently amended~~ April 2021), is incorporated by reference. The document is not
105.3 subject to frequent change and is available at
105.4 www.pca.state.mn.us/regulations/incorporations-reference.

105.5 **7053.0263 EFFLUENT LIMITS FOR POINT SOURCE DISCHARGES OF SEWAGE,**
105.6 **INDUSTRIAL, AND OTHER WASTES TO PROTECT WATER QUALITY FOR**
105.7 **IRRIGATION.**

105.8 Subpart 1. **Scope.** The effluent limits in this part are in addition to the effluent limits
105.9 specified elsewhere in this chapter. In the event of a conflict between this part and other
105.10 applicable regulations, the more stringent requirement applies.

105.11 Subp. 2. **Definitions.** Definitions in parts 7050.0150, subpart 4, and 7053.0135 apply
105.12 to this part.

105.13 Subp. 3. **Developing effluent limits to protect irrigation water quality.**

105.14 A. The commissioner must use the procedures in Class 4A Translator Method,
105.15 which is incorporated by reference in item D, to determine whether a discharger would
105.16 cause or contribute to an impairment of the class 4A irrigation water quality, except for
105.17 when protecting wild rice.

105.18 B. Water-quality-based effluent limits must protect water quality at the point at
105.19 which water is withdrawn for irrigation at all flows at or above the 122Q₁₀ critical low flow.

105.20 C. When the commissioner determines, using the procedures incorporated in item
105.21 D, that a discharger requires a water-quality-based effluent limit to protect irrigation water
105.22 quality, the commissioner must include an effluent limit in the discharger's control document.

105.23 D. Class 4A Translator Method, Minnesota Pollution Control Agency (~~2020 and~~
105.24 ~~as subsequently amended~~ April 2021), is incorporated by reference. The document is not

106.1 subject to frequent change and is available at
106.2 www.pca.state.mn.us/regulations/incorporations-reference.

106.3 **7053.0265 DISCHARGE RESTRICTIONS APPLICABLE TO MISSISSIPPI RIVER**
106.4 **FROM RUM RIVER TO ST. ANTHONY FALLS.**

106.5 Subpart 1. **Scope and beneficial uses.** The restrictions on discharges specified in this
106.6 part are applicable to that portion of the Mississippi River from, but not including, the mouth
106.7 of the Rum River to the upper lock and dam at St. Anthony Falls, approximately at the
106.8 northeastward extension of Fifth Avenue South in the city of Minneapolis, and tributary
106.9 streams. The primary use of these waters is as a source of public water supply for drinking,
106.10 food processing, and related purposes. Other uses applicable to these waters are defined in
106.11 parts 7050.0415 and 7050.0470, subpart 4.

106.12 *[For text of subparts 2 and 3, see Minnesota Rules]*

106.13 **REPEALER.** Minnesota Rules, parts 7050.0223, subparts 3, 4, 5, and 6; 7050.0224, subpart
106.14 4; 7050.0410; 7050.0425; 7050.0430; and 7050.0450, are repealed.

June 10, 2021

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: *In the Matter of the Planned Amendments to Rules Governing Water Quality Standards - Use Classification 3 and 4, Minnesota Rules, chapters 7050 and 7053*
OAH 8-9003-37102; Revisor R-4335

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:

Claudia Hochstein
Minnesota Pollution Control Agency
520 Lafayette Rd N
Saint Paul, MN 55155
claudia.hochstein@state.mn.us

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,



Michelle Severson
Legal Assistant

Enclosures

cc: Claudia Hochstein (via email)