

**WORKING DRAFT
SURFACE WATER PATHWAY EVALUATION USER'S GUIDE**

LIST OF APPENDICES

**MINNESOTA POLLUTION CONTROL AGENCY
REMEDIATION PROGRAMS**

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APPENDIX 1
GUIDANCE FOR COMPLETING OR REQUESTING
SURFACE WATER TOXICS IMPACT ASSESSMENT
Form Guidance.doc

PURPOSE OF FORM GUIDANCE.DOC

Assure protection of surface water resources and provide consistent assessment of potential impacts on surface waters from contaminated ground water at Superfund, RCRA, UST or other ground water contamination sites.

GUIDANCE

The assessment form and this guidance can be used by all Minnesota Pollution Control Agency (MPCA) staff to evaluate the environmental risks to surface waters near the contamination site themselves, or it can be used to request help with the assessment from Water Standards Unit which is part of the Environmental Analysis and Outcomes Division.

The primary information needed for staff to complete the assessment themselves is listed below:

1. Classification of the impacted or threatened surface waters from Minn. R. pt. 7050.0400 through 7050.0470. If the water is not listed in pt. 7050.0470, it is classified 2B, 3B, 4A, 4B, and 5.
2. Numerical water quality standards for the appropriate use class from Minn. R. pt. 7050.0220. Standards for class 2 waters will control the need for treatment or remediation in most instances. Most class 2 standards for toxics have three parts: chronic standard (CS), maximum standard (MS) and final acute value (FAV).
3. Concentrations of pollutants in the ground water as measured in the well(s) closest to the down gradient surface water.
4. Allowable dilution. If the water of concern is a river or stream, dilution of the plume may be allowed at the specified low flow ($7Q_{10}$).
 - a. Large rivers usually provide ample dilution for ground water plumes or seeps. Plume quality may be compared to MSs or, in some cases, to FAVs.
 - b. No dilution is allowed for plumes threatening low-flow streams, lakes or most wetlands. Plume quality is compared to CSs.
 - c. Allowable concentrations in plumes threatening small streams can be determined through a mass balance calculation or simple dilution ratio calculation. These situations should be submitted to Environmental Analysis and Outcomes staff for assessment.
5. Actual or predicted exceedance of the appropriate standard in the plume and/or the receiving water is an indication of unacceptable impacts on the surface waters. Treatment or remedial action is probably needed.

REQUESTING REVIEW BY Water Standards STAFF

If staff have questions, are unsure of provisions in Minn. R. ch. 7050, or in the situations listed below, the form should be forwarded to the head of the Water Standards Unit in the Environmental Analysis and Outcomes Division.

1. Review by Environmental Analysis and Outcomes staff is needed if:
 - a. the threatened surface water in an Outstanding Resource Value Water as listed in Minn. R. 7050.0180;
 - b. a $7Q_{10}$ must be calculated;
 - c. background water quality data are needed, or total hardness is needed for hardness-dependent metal standards;
 - d. criteria are needed for pollutants for which standards are not available;
 - e. multiple toxics are present in the plume or seep at acutely toxic levels (exceed FAVs);
 - f. highly bioaccumulative pollutants such as mercury or PCBs are involved; and
 - g. the situation may become controversial, or there are complicating factors.

The person initiating the assessment should complete Parts A (except date received). The requester should complete Part C unless this information is tabulated separately and attached to the form. Also, the name of the receiving water in Part B should be provided by the requester.

The remainder of Part B and all of Part D can be completed by the person initiating the assessment if Environmental Outcomes help is not needed, otherwise Environmental Analysis and Outcomes staff will complete these parts when the form is sent to Environmental Analysis and Outcomes Division.

Any pertinent information such as monitoring results, maps showing well locations with respect to the surface water, contamination source, ground water flow direction, etc. should be attached to the form when submitted to Environmental Analysis and Outcomes.

Assessment requests will be completed within three weeks of receipt, or the requester will be contacted. If the assessment is needed sooner than three weeks, the requester should indicate this on the form or contact Environmental Outcomes staff directly. The completed original form will be returned to the requester, a copy will be filed in Environmental Analysis and Outcomes. If staff completes the form without Environmental Analysis and Outcomes involvement, please forward a copy of the form to Environmental Analysis and Outcomes (Supervisor of the Water Standards Unit) for our files.

REQUEST FOR SURFACE WATER TOXICS IMPACT ASSESSMENT

MPCA Environmental Analysis and Outcomes Division

Part A.

TO: Greg Gross, EAO/Water Standards Unit. Date Submitted: _____
Date Received: _____

REQUESTER(S): _____ Div/Sec: _____ Phone: _____
_____ Div/Sec: _____ Phone: _____

Other Contact (Consultant): _____
Information or Data Attached: _____

POINT SOURCE, Name: _____ Permit # _____
Location: _____

Discharge flow: _____ Name of Receiving Water: _____
Description of Problem: _____

NONPOINT SOURCE, Site Name: _____
Location: _____

Discharge Type: Spill: _____ Contaminated GW: _____ Leachate: _____ UST: _____
Permanent: _____ Temporary: _____

Discharge flow (if available): _____
Ground water plume: _____
Plume width, (W) ft.: _____ Plume thickness, (H) ft.: _____
Hydraulic conductivity, (K) gal/day/ft²: _____
Hydraulic gradient, (dh/dl): _____
Discharge (Q) = H*W*K*(dh/dl)/1440, gal/min: _____
Spill amount: _____
Other flow info: _____

Description of Problem: _____

Part B.

RECEIVING WATER:

Stream: _____ Use Class: _____ ORVW No, Yes
7Q₁₀: _____ Determined by, Method: _____
Staff: _____

Lake or Wetland: _____ Use Class: _____ ORVW No, Yes
DNR ID # _____ Size: _____

APPENDIX 2

PROCEDURE FOR LOOKING UP A SURFACE WATER BODY CLASSIFICATION FOR PURPOSES OF APPLYING SURFACE WATER QUALITY STANDARDS

<u>STEP</u>	<u>DIRECTION</u>
	<u><i>General Directions</i></u>
1	Using a 7.5 or 15 minute quadrangle map, determine the township, section, and range of the part of the surface water body of interest.
2	Use the map of "Drainage Basins and Counties" to determine the basin in which the surface body is contained.
3	Search "Minn. R. 7050.0470 Classifications for Waters in Major Surface Water Drainage Basins" by watershed basin and surface water body. Refer to the appropriate township, range, and section for the surface water segment of interest to determine the surface water classification. Surface waters are listed alphabetically within a basin. If the surface water body segment is listed, go to Step 4. If it is not listed, go to Step 8.
	<u><i>Listed Waters</i></u>
4	If the water body is listed in "Minn. R. 7050.0470 Classification for Waters in Major Surface Water Drainage Basins," then Classes 3C, 4A, 4B, 5, and 6 apply as discussed in Minn. R. 7050.0410.
5	Trout waters are classified as Classes 1B, 2A, 3B, 3C, 4A, 4B, 5, and 6 waters. If the water body in question has this classification, then it is likely a trout water.
6	If the name is preceded by an asterisk, then the surface water body is a Outstanding Resource Value Water (ORVW). The date after the name lists the date that the surface water body was designated as an ORVW and the "R" or "P" after the date indicates the type of ORVW. "R" means restricted and "P" means prohibited. A Tier 3 site evaluation is required for an ORVW. Consultation with Minnesota Pollution Control Agency (MPCA) site and Environmental Analysis and Outcomes (EAO) staff is necessary.
7	Waters of the Lake Superior Basin only that are not ORVW prohibited or restricted waters, as described in Minn. R. ch. 7052, are Outstanding International Resource Waters (OIRW). A Tier 3 site evaluation is required for these waters. Consult MPCA site and EAO staff for further details.

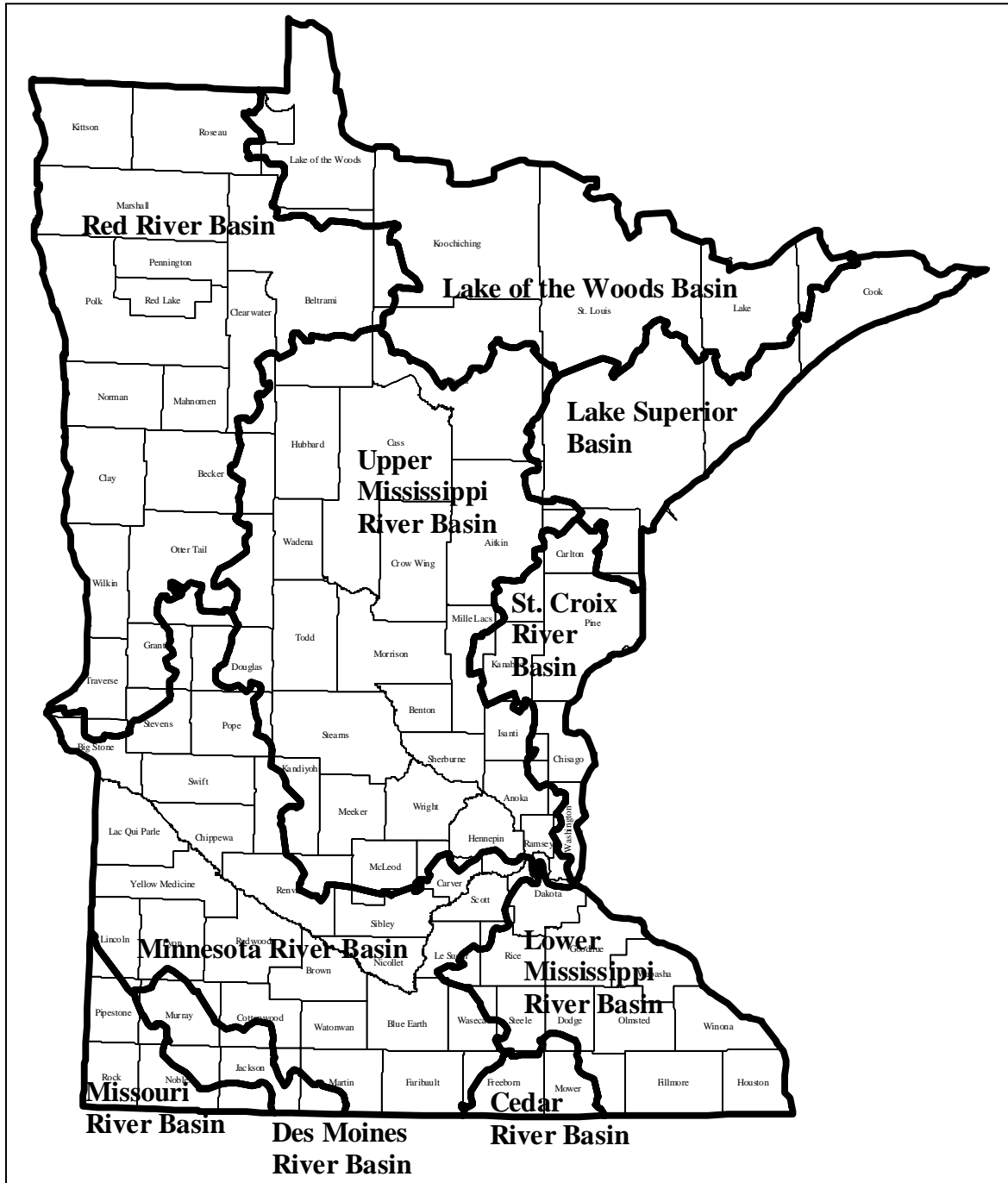
APPENDIX 2

PROCEDURE FOR LOOKING UP A SURFACE WATER BODY CLASSIFICATION FOR PURPOSES OF APPLYING SURFACE WATER QUALITY STANDARDS (Continued)

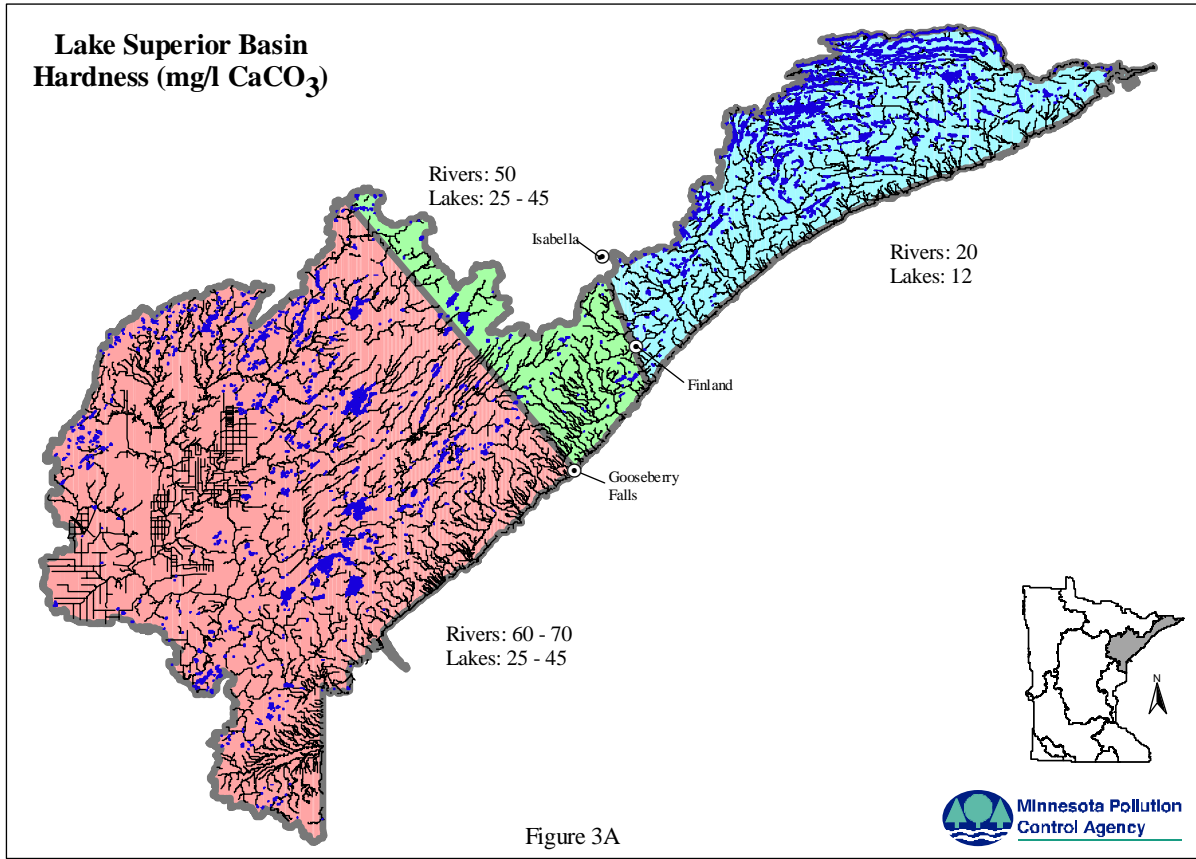
	<u><i>Unlisted Waters</i></u>
8	If the surface water body is not found in "Minn. R. 7050.0470 Classifications for Waters in Major Surface Water Drainage Basins," it is an unlisted water. Proceed as follows:
9	If the surface water body is not a wetland, then it is classified by default as Classes 2B, 3B, 4A, 4B, 5, and 6 (Minn. R. 7050.0430). The exception to this is waters in the Lake Superior Basin. See Steps 6 and 7 for Lake Superior Basin waters.
10	If the surface water body is a wetland, it is classified by default as Classes 2D, 3D, 4C, 5, and 6 (Minn. R. 7050.0425). For the most part, the standards for these classes are identical to the Class 2B standards with the exceptions of dissolved oxygen, pH, and temperature.

APPENDIX 3

MINN. R. 7050.0466 CLASSIFICATIONS FOR WATERS IN MAJOR SURFACE WATER DRAINAGE BASINS - STATE MAP



Appendix 3A: Lake Superior Basin



Minnesota Rule 7050.0470, Classifications of Waters of the State

The most current version of the rule for all basins can be checked at the website:

<http://www.revisor.leg.state.mn.us/arule/7050/0470.html>. A courtesy copy is provided below for the convenience of the reviewer and to assist in finding the basin and water within the website. It is the user's responsibility to check the website for updates and to use the most current version of a surface water body's classification.

Subpart 1. Lake Superior Basin. The water use classifications for the listed waters in the Lake Superior Basin are as identified in items A, B, and D.

A. Streams:

- (1) Ahlenius Creek, (T.53, R.14, S.9, 10): 1B, 2A, 3B;
- (2) Amenda Creek, (T.59, R.5W): 2C;
- (3) Amity Creek, (T.50, R.13, S.5, 6; T.50, R.14, S.1; T.51, R.13, S.31, 32; T.51, R.14, S.26, 27, 28, 35, 36): 1B, 2A, 3B;
- (4) Amity Creek, East Branch (T.51, R.13, S.30, 31; T.51, R.14, S.13, 14, 15, 22, 24, 25, 36): 1B, 2A, 3B;
- (5) Anderson Creek, (T.46, R.17, S.14, 15, 22, 26, 27): 1B, 2A, 3B;
- (6) Anderson Creek, (T.49, R.15, S.16, 17, 18; T.49, R.16, S.12, 13): 1B, 2A, 3B;
- (7) Artichoke Creek, (T.52, R.17, S.7, 17, 18): 1B, 2A, 3B;
- (8) Assinika Creek, (T.63, R.1E, S.1; T.63, R.2E, S.7, 8, 16, 17, 21; T.64, R.1E, S.36; T.64, R.2E, S.31): 1B, 2A, 3B;
- (9) Bally Creek, (T.61, R.1W, S.3, 4, 5, 6, 7, 8, 9, 10, 11; T.61, R.2W, S.12): 1B, 2A, 3B;
- (10) Baptism River, East Branch, (T.57, R.6, S.6; T.57, R.7, S.1, 2, 3, 9, 10, 11, 12, 16, 17, 20; T.58, R.6, S.30, 31; T.58, R.7, S.13, 17, 19, 20, 21, 22, 23, 24, 25, 26, 29, 30, 36; T.58, R.8, S.22, 23, 24, 25, 26): 1B, 2A, 3B;
- (11) Baptism River, Main Branch, (T.56, R.7, S.3, 4, 5, 9, 10, 14, 15; T.57, R.7, S.20, 27, 28, 29, 33, 34): 1B, 2A, 3B;
- (12) Baptism River, West Branch, (T.57, R.7, S.7, 17, 18, 20; T.57, R.8, S.1, 2, 12; T.58, R.8, S.2, 3, 4, 9, 10, 11, 15, 16, 20, 21, 22, 28, 33, 34, 35, 36; T.59, R.8, S.27, 34, 35): 1B, 2A, 3B;
- (13) Barber Creek (East Swan River) (Chisholm Creek) Chisholm, (T.58, R.20, S.21, 22, 26, 27, 34, 35): 7;
- (14) Barker Creek, (T. 60, R.3W, S.5, 6, 7, 8; T.60, R.4W, S.2, 3, 9, 10, 11, 12; T.61, R.4W, S.34, 35): 1B, 2A, 3B;
- (15) Barrs Creek, (T.53, R.13, S.20, 27, 28, 29): 1B, 2A, 3B;
- (16) Bear Trap Creek, (T.51, R.16, S.30; T.51, R.17, S.16, 21, 22, 23, 25, 26, 27, 28): 1B, 2A, 3B;
- (17) Beaver Dam Creek, (T.63, R.3E, S.2, 3, 4, 5; T.64, R.3E, S.32, 33, 34, 35): 1B, 2A, 3B;
- (18) Beaver River, (T.55, R.8, S.2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 16, 17; T.55, R.9, S.1, 2; T.56, R.8, S.31; T.56, R.9, S.4, 5, 6, 8, 9, 16, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 32, 33, 34, 35, 36; T.57, R.9, S.28, 32, 33): 1B, 2A, 3B;
- (19) Beaver River, East Branch, (T.55, R.8, S.2; T.56, R.8, S.4, 5, 6, 8, 9, 15, 16, 21, 22, 25, 26, 27, 35, 36; T.57, R.8, S.7, 18, 19, 30, 31, 32; T.57, R.9, S.2, 3, 11, 12, 13, 14, 15, 23, 24, 25, 26, 36): 1B, 2A, 3B;
- (20) Beaver River, West Branch, (T.55, R.8, S.7, 17, 18; T.55, R.9, S.2, 3, 4, 10, 11, 12, 13, 14): 1B, 2A, 3B;
- (21) Berry Creek (Breda), (T.55, R.12, S.6, 7; T.55, R.13, S.12, 13; T.56, R.11, S.6; T.56, R.12, S.1, 11, 12, 14, 15, 16, 21, 28, 29, 31, 32; T.57, R.11, S.10, 15, 16, 21, 28, 29, 31, 32): 1B, 2A, 3B;

- (22) Blackhoof River, (T. 47, R.16, S.29, 30; T.47, R.17, S.6, 7, 9, 10, 14, 15, 16, 17, 18, 19, 20, 22, 25, 26, 27, 28; T.48, R.17, S.30, 31): 1B, 2A, 3B;
- (23) Blesner Creek, (T.58, R.6, S.20, 29, 30, 31): 1B, 2A, 3B;
- (24) Blind Temperance Creek, (T.60, R.4W, S.19, 29, 30, 32; T.60, R.5W, S.25, 36): 1B, 2A, 3B;
- (25) Bluff Creek, (T.63, R.1W, S.13, 23, 24, 25): 1B, 2A, 3B;
- (26) Boulder Creek, (T.53, 54, R.14): 2C;
- (27) Bruce Creek, (T.53, R.22, S.6, 7; T.53, R.23, S.25, 26; T.54, R.22, S.18, 19, 30, 31; T.54, R.23, S.25, 26): 1B, 2A, 3B;
- (28) Brule River, (T.62, R.2E, S.1, 2; T.62, R.3E, S.4, 5, 6, 9, 10, 15, 16, 22, 27, 34; T.63, R.2E, S.21, 22, 23, 25, 26, 27, 28, 33, 35, 36; T.63, R.3E, S.30, 31, 32): 1B, 2A, 3B;
- (29) Brule River (excluding trout waters), (T.62, 63, 64, R.1W, 1E, 2E, 3E): 1B, 2Bd, 3B;
- (30) Brule River, Little, (T.62, R.3E, S.19, 20, 29, 32, 33): 1B, 2A, 3B;
- (31) Budd Creek, (T.55, R.9, S.7, 17, 18, 20, 21): 1B, 2A, 3B;
- (32) Buhl Creek, Buhl, (T.58, R.19, S.20, 29): 7;
- (33) *Burnt Creek, [11/5/84P] (T.62, R.4W, S.8, 9): 1B, 2A, 3B;
- (34) Burnt Creek, (T.62, R.4W, S.16, 17, 20): 1B, 2A, 3B;
- (35) Captain Jacobson Creek, (T.52, R.12, S.1, 2, 3; T.53, R.12, S.33, 34, 35): 1B, 2A, 3B;
- (36) Carey Creek, (T.53, R.14, S.28, 33): 1B, 2A, 3B;
- (37) Caribou Creek, (T.60, R.3W, S.2, 3, 10): 1B, 2A, 3B;
- (38) Caribou River, (T.58, R.6, S.1, 2, 11, 13, 14, 15, 22, 23, 24, 25, 26, 36; T.59, R.5W, S.19, 20, 29, 30, 31; T.59, R.6, S.23, 24, 25, 26, 35, 36): 1B, 2A, 3B;
- (39) Carlson Creek, (T.52, R.12, S.19; R.13, S.14, 15, 23, 24): 1B, 2A, 3B;
- (40) Carlson Creek (Stony Brook), (T.62, R.4E, S.3, 4, 9, 10; T.63, R.4E, S.31, 32, 33, 34): 1B, 2A, 3B;
- (41) Cascade River, (T.60, R.2W, S.1; T.61, R.1W, S.19, 20, 21; T.61, R.2W, S.1, 12, 13, 14, 24, 25, 26, 35, 36; T.62, R.2W, S.10, 11, 14, 15, 16, 22, 23, 24, 25, 36): 1B, 2A, 3B;
- (42) *Cascade River, [11/5/84P] (T.62, R.2W, S.3): 1B, 2A, 3B;
- (43) Castle Danger Creek (Campers), (T.54, R.9, S.30, 31, 32): 1B, 2A, 3B;
- (44) Cedar Creek, (T.56, R.8, S.13, 14, 23, 24, 26): 1B, 2A, 3B;
- (45) Cedar Creek, (T.59, R.5W, S.2; T.60, R.5W, S.14, 22, 23, 25, 26, 35, 36): 1B, 2A, 3B;
- (46) Cemetery Creek, (T.51, R.17, S.4, 5, 9): 1B, 2A, 3B;
- (47) Chellberg Creek, (T.51, R.16, S.7; T.51, R.17, S.1, 2, 3, 10, 12): 1B, 2A, 3B;
- (48) Chester Creek, (T.50, R.14, S.7, 8, 9, 14, 15, 16, 23): 1B, 2A, 3B;
- (49) Chester Creek, East Branch, (T.50, R.14, S.4, 5, 9, 15, 16): 1B, 2A, 3B;
- (50) Chicken Creek, (T.52, R.16, S.5, 7, 8, 18, 19; T.52, R.17, S.13, 24, 25; T.53, R.16, S.32): 1B, 2A, 3B;
- (51) Clear Creek, (T.46, R.17, S.9, 10, 11, 12, 16, 17, 20, 29): 1B, 2A, 3B;
- (52) Clear Creek, (T.47, R.15, S.7; T.47, R.16, S.1, 2, 3, 4, 12; T.48, R.16, S.33): 1B, 2A, 3B;
- (53) Cliff Creek, (T.61, R.2E, S.3, 4, 5, 9, 10; T.62, R.2E, S.29, 30, 31, 32): 1B, 2A, 3B;
- (54) Cloudy Spring Creek, (T.57, R.9, S.5, 6, 7, 18; T.57, R.10, S.12, 13, 24): 1B, 2A, 3B;
- (55) Colville Creek, East, (T.61, R.3E, S.5; T.62, R.2E, S.25; T.62, R.3E, S.30, 31, 32): 1B, 2A, 3B;
- (56) Coolidge Creek, (T.55, R.14, S.19, 29, 30; T.55, R.15, S.25, 26, 35, 36): 1B, 2A, 3B;
- (57) Cranberry Creek, (T.58, R.13): 2C;
- (58) Cross River, (T.60, R.6, S.13, 24, 25): 1B, 2A, 3B;
- (59) Cross River (Lake), (T.58, R.5W, S.1; T.59, R.5W, S.4, 5, 8, 9, 15, 16, 21, 22, 23, 25, 26, 35, 36; T.60, R.5W, S.30, 31, 32): 1B, 2A, 3B;
- (60) Crow Creek, (T.53, R.10, S.1, 2; T.54, R.10, S.15, 22, 23, 26, 35): 1B, 2A, 3B;
- (61) Crown Creek, (T.57, R.8, S.2, 3, 4, 5, 9, 10, 11; T.58, R.8, S.5, 6, 7, 18, 19, 20, 29, 30, 31, 32, 33; T.58, R.9, S.1, 12, 13, 14, 24, 36; T.59, R.8, S.31, 32): 1B, 2A, 3B;
- (62) Crystal Creek, (T.48, R.16, S.6; T.48, R.17, S.1): 1B, 2A, 3B;

- (63) Cutface Creek (Good Harbor Creek), (T.61, R.1W, S.27, 28, 29, 34): 1B, 2A, 3B;
- (64) Dago Creek, (T.54, R.9, S.18, 19; T.54, R.10, S.2, 11, 12, 13; T.55, R.10, S.27, 34, 35): 1B, 2A, 3B;
- (65) Deer Creek, (T.47, R.16, S.19, 20, 28, 29, 30; T.47, R.17, S.11, 12, 13, 24): 1B, 2A, 3B;
- (66) Deer Yard Creek (Spruce Creek), (T.60, R.2W, S.4, 5, 6, 7, 8, 9, 10, 15, 16, 17; T.61, R.2W, S.32): 1B, 2A, 3B;
- (67) Devil Track River, (T.61, R.1E, S.1, 2, 3, 10, 11, 12, 13; T.62, R.1E, S.26, 31, 32, 33, 34, 35, 36): 1B, 2A, 3B;
- (68) Devil Track River, Little, (T.61, R.1E, S.4, 5, 6, 7, 8, 9, 10; T.61, R.1W, S.1, 2, 11, 12): 1B, 2A, 3B;
- (69) Dragon Creek, (T.57, R.6, S.8, 9, 16, 17, 21): 1B, 2A, 3B;
- (70) Durfee Creek, (T.61, R.2E, S.5, 6, 8; T.62, R.1E, S.25, 36; T.62, R.2E, S.31): 1B, 2A, 3B;
- (71) Dutchess Slough Creek, (T.50, R.17, S.4, 9, 10, 13, 14, 15, 24): 1B, 2A, 3B;
- (72) Egge Creek, (T.57, R.7, S.2, 3, 4, 11): 1B, 2A, 3B;
- (73) Elbow Creek, (T.62, R.1E, S.3, 4, 9, 10, 15, 22, 27, 34; T.63, R.1E, S.33, 34): 1B, 2A, 3B;
- (74) Elbow Creek, Eveleth, (T.57, R.17, S.6; T.57, R.18, S.1): 7;
- (75) Elm Creek, (T.49, R.16, S.1, 2; T.50, R.16, S.35): 1B, 2A, 3B;
- (76) Encampment River, (T.53, R.10, S.3, 10, 11; T.54, R.10, S.8, 16, 17, 21, 27, 28, 34): 1B, 2A, 3B;
- (77) Farquhar Creek, (T.62, R.4E, S.2, 11; T.63, R.4E, S.34, 35): 1B, 2A, 3B;
- (78) *Fiddle Creek, [11/5/84P] (T.64, R.1W, S.34): 1B, 2A, 3B;
- (79) Fiddle Creek, (T.63, R.1W, S.2, 3, 10, 15; T.64, R.1W, S.35): 1B, 2A, 3B;
- (80) Flute Reed River, (T.62, R.3E, S.1, 2, 3, 10, 11, 12, 13, 14, 15; T.62, R.4E, S.17, 18, 19, 20; T.63, R.3E, S.26, 34, 35, 36): 1B, 2A, 3B;
- (81) Fourmile Creek, (T.60, R.5W, S.17, 18, 19; T.60, R.6, S.24): 1B, 2A, 3B;
- (82) Fox Farm Creek, (T.62, R.1E, S.19, 30): 1B, 2A, 3B;
- (83) French River, (T.51, R.12, S.7, 17, 18; T.51, R.13, S.1, 2, 3, 12; T.52, R.13, S.8, 9, 16, 17, 20, 21, 23, 26, 27, 28, 29, 34, 35): 1B, 2A, 3B;
- (84) Gauthier Creek, (T.62, R.3E, S.16, 20, 21, 22, 27): 1B, 2A, 3B;
- (85) Gill Creek, (T.48, R.16, S.2): 1B, 2A, 3B;
- (86) Gooseberry River, (T.54, R.9, S.18, 19, 20, 21, 22, 27; T.54, R.10, S.4, 5, 6, 8, 9, 10, 11, 12, 13; T.55, R.10, S.4, 9, 16, 17, 20, 29, 30, 31, 32; T.56, R.10, S.33): 1B, 2A, 3B;
- (87) Gooseberry River, Little, (T.54, R.10, S.6; T.54, R.11, S.1; T.55, R.10, S.31; T.55, R.11, S.34, 35, 36): 1B, 2A, 3B;
- (88) Grand Portage Creek, (T.63, R.5E, S.1; T.63, R.6E, S.4, 5, 6; T.64, R.6E, S.31, 32, 33): 1B, 2A, 3B;
- (89) Greenwood River, (T.63, R.2E, S.1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24; T.63, R.3E, S.6; T.64, R.2E, S.34; T.64, R.3E, S.31): 1B, 2A, 3B;
- (90) Hay Creek, (T.49, R.16, S.3, 4, 9, 10, 15; T.50, R.16, S.20, 21, 28, 29, 32, 33): 1B, 2A, 3B;
- (91) Heartbreak Creek, (T.59, R.4W, S.18, 19; T.59, R.5W, S.2, 11, 12, 13; T.60, R.5W, S.27, 28, 33, 34, 35): 1B, 2A, 3B;
- (92) Hellwig Creek, (T.52, R.17, S.3, 10, 14, 15, 23, 26; T.53, R.16, S.16, 18, 19, 20, 30; T.53, R.17, S.13, 14, 23, 24, 25, 26, 34, 35): 1B, 2A, 3B;
- (93) Hockamin Creek, (T.57, R.7, S.17, 18, 19; T.57, R.8, S.13, 16, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 32, 33, 34): 1B, 2A, 3B;
- (94) Hollow Rock Creek, (T.63, R.5E, S.9, 10, 11, 14, 15, 16, 23, 24, 25): 1B, 2A, 3B;
- (95) Honeymoon Creek (Spring Creek), (T.61, R.4W, S.28, 31, 32, 33): 1B, 2A, 3B;
- (96) Hornby Junction Creek, (T.55, R.13, S.5, 6, 7; T.56, R.13, S.28, 32, 33): 1B, 2A, 3B;
- (97) Horn Creek, (T.62, R.4W): 1B, 2Bd, 3B;
- (98) Houghtaling Creek, (T.59, R.6, S.2, 3, 4, 5, 6; T.60, R.6, S.25, 32, 33, 35, 36): 1B, 2A, 3B;

- (99) Humphrey Creek, (T.54, R.14, S.23, 26, 27, 33, 34): 1B, 2A, 3B;
- (100) Hunter Creek, (T.46, R.18, S.2, 11, 12, 13; T.47, R.18, S.34, 35): 1B, 2A, 3B;
- (101) Indian Camp Creek, (T.60, R.2W, S.3, 10, 11; T.61, R.2W, S.34): 1B, 2A, 3B;
- (102) Indian Creek, (T.55, R.12, S.3; T.56, R.12, S.14, 22, 23, 27, 34): 1B, 2A, 3B;
- (103) Irish Creek, (T.63, R.3E, S.8, 9, 10, 13, 14, 15, 23, 24, 25, 26; T.63, R.4E, S.17, 18, 19): 1B, 2A, 3B;
- (104) Joe Martin Creek, (T.50, R.18, S.3, 4, 5, 7, 8; T.50, R.19, S.12): 1B, 2A, 3B;
- (105) Johnson Creek, (T.50, R.17, S.3, 10, 11, 14; T.51, R.17, S.34): 1B, 2A, 3B;
- (106) Johnson Creek, (T.55, R.12, S.35, 36): 1B, 2A, 3B;
- (107) Jonvick Creek, (T.60, R.2W, S.19; T.60, R.3W, S.12, 13, 14, 24): 1B, 2A, 3B;
- (108) Junco Creek, (T.62, R.1W, S.1, 2, 9, 10, 11, 12, 13, 14, 15, 16, 21, 28; T.62, R.1E, S.6, 7; T.63, R.1E, S.20, 29, 30, 31; T.63, R.1W, S.24, 25): 1B, 2A, 3B;
- (109) Kadunce Creek, (T.61, R.2E, S.2; T.62, R.2E, S.9, 10, 12, 13, 14, 15, 16, 22, 23, 24, 26, 35): 1B, 2A, 3B;
- (110) Keene Creek, (T.49, R.14, S.18; T.49, R.15, S.1, 12, 13; T.50, R.15, S.24, 25, 36): 1B, 2A, 3B;
- (111) Kehtel Creek, (T.51, R.15, S.8, 17, 18, 19, 20): 1B, 2A, 3B;
- (112) Kennedy Creek, (T.57, R.7, S.35, 36): 1B, 2A, 3B;
- (113) Kimball Creek, (T.61, R.2E, S.3, 4, 10; T.62, R.2E, S.7, 16, 17, 18, 19, 20, 21, 28, 29, 33, 34): 1B, 2A, 3B;
- (114) Kingsbury Creek, (T.49, R.15, S.4, 9, 10, 11, 13, 14; T.50, R.15, S.33, 34): 1B, 2A, 3B;
- (115) Kinney Creek, (T.57, R.10, S.15, 21, 22, 28, 33): 1B, 2A, 3B;
- (116) Kinney Creek, (T.58, R.19, S.11): 1B, 2A, 3B;
- (117) Knife River, (T.52, R.11, S.4, 5, 8, 9, 17, 18, 19, 31; T.53, R.11, S.4, 5, 7, 8, 17, 18, 20, 29, 32, 33; T.54, R.11, S.20, 29, 30, 32; T.52, R.12, S.24, 25, 36): 1B, 2A, 3B;
- (118) Knife River, Little, (T.52, R.12, S.16, 17, 21, 22, 23, 26, 27, 28, 35, 36): 1B, 2A, 3B;
- (119) Knife River, Little, East Branch, (T.53, R.11, S.17, 20, 21, 22, 27, 33, 34): 1B, 2A, 3B;
- (120) Knife River, Little, West Branch, (T.52, R.11, S.5, 6; T.53, R.11, S.31; T.53, R.12, S.13, 14, 23, 24, 25, 26, 36): 1B, 2A, 3B;
- (121) Knife River, West Branch, (T.52, R.11, S.5, 6, 8; T.52, R.12, S.1; T.53, R.12, S.2, 3, 10, 15, 16, 22, 23, 27, 28, 34, 35, 36; T.54, R.12, S.35, 36): 1B, 2A, 3B;
- (122) Koski Creek, (T.61, R.4W, S.5, 8; T.62, R.4W, S.31, 32): 1B, 2A, 3B;
- (123) Last Creek, (T.58, R.5W, S.16, 17): 1B, 2A, 3B;
- (124) Lavi Creek, (T.52, R.15, S.21, 28): 1B, 2A, 3B;
- (125) Leppanen Creek, (T.57, R.7, S.15, 21, 22, 28): 1B, 2A, 3B;
- (126) Lester River, (T.50, R.13, S.4, 5, 8; T.51, R.13, S.5, 6, 7, 8, 16, 17, 18, 19, 20, 21, 28, 32, 33; T.51, R.14, S.1, 2, 10, 11, 12, 13, 15, 16, 24; T.52, R.13, S.31, 32; T.52, R.14, S.21, 22, 23, 27, 28, 34, 35): 1B, 2A, 3B;
- (127) Lindstrom Creek, (T.56, R.7, S.4; T.57, R.7, S.19, 30, 31, 32, 33; T.57, R.8, S.25): 1B, 2A, 3B;
- (128) Lullaby Creek, (T.63, R.1E, S.4, 5, 8, 9): 1B, 2A, 3B;
- (129) Manganika Creek, Virginia, (T.58, R.17, S.19; T.58, R.18, S.24): 7;
- (130) Manitou River, (T.57, R.6, S.3, 4, 10, 11; T.58, R.6, S.4, 5, 6, 7, 8, 16, 17, 18, 20, 21, 28, 29, 32, 33, 34): 1B, 2A, 3B;
- (131) Manitou River, Little, (T.57, R.6, S.2; T.58, R.6, S.34, 35): 1B, 2A, 3B;
- (132) Manitou River, North Branch, (T.58, R.6, S.6; T.58, R.7, S.1, 2; T.59, R.6, S.31; T.59, R.7, S.15, 16, 18, 19, 20, 21, 22, 25, 26, 27, 28, 33, 34, 35, 36; T.59, R.8, S.1, 2, 12, 13, 23, 24, 25, 26): 1B, 2A, 3B;
- (133) Manitou River, South Branch, (T.58, R.6, S.6; T.58, R.7, S.1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 16, 17, 18; T.58, R.8, S.1, 2; T.59, R.7, S.29, 30, 31, 32, 33): 1B, 2A, 3B;
- (134) Marais River, Little, (T.57, R.6, S.5, 8, 16, 17, 21): 1B, 2A, 3B;
- (135) Mark Creek, (T.61, R.2W, S.1, 2, 3, 4, 5, 6, 9): 1B, 2A, 3B;

- (136) Marshall Creek, (T.52, R.15, S.10, 15): 1B, 2A, 3B;
- (137) Martin Creek, (T.58, R.6, S.2, 3, 11): 1B, 2A, 3B;
- (138) McCarthy Creek, (T.53, R.11, S.18; T.53, R.12, S.12, 13): 1B, 2A, 3B;
- (139) Midway River, (T.49, R.15, S.5, 6; T.49, R.16, S.1, 12, 13, 14, 15, 21, 22; T.50, R.15, S.7, 8, 14, 15, 16, 17, 20, 21, 22, 23, 28, 29, 32, 33): 1B, 2A, 3B;
- (140) Mile Post Forty-Three Creek, (T.56, R.8, S.2, 3, 9, 10, 11, 13, 14, 15): 1B, 2A, 3B;
- (141) Miller Creek, (T.49, R.14, S.4; T.50, R.14, S.6, 18, 19, 29, 30, 32, 33; T.50, R.15, S.12, 13; T.51, R.14, S.31, 32): 1B, 2A, 3B;
- (142) Mink Creek, (T.54, R.9, S.4, 5, 9; T.55, R.9, S.30, 31, 32; T.55, R.10, S.25, 26, 36): 1B, 2A, 3B;
- (143) Mission Creek, (T.48, R.15, S.5, 6; T.49, R.15, S.31; T.49, R.16, S.25, 26, 36): 1B, 2A, 3B;
- (144) Mississippi Creek, (T.61, R.2W, S.1, 2, 3; T.61, R.3W, S.1; T.62, R.2W, S.31, 32, 33, 34, 35, 36; T.62, R.3W, S.24, 25, 35, 36): 1B, 2A, 3B;
- (145) Mississippi Creek, Little, (T.62, R.2W, S.20, 21, 26, 29, 32, 33, 34, 35): 1B, 2A, 3B;
- (146) Mistletoe Creek, (T.60, R.3W, S.3, 4; T.61, R.2W, S.7, 18, 19; T.61, R.3W, S.11, 13, 14, 15, 23, 24, 25, 26, 34, 35): 1B, 2A, 3B;
- (147) Monker Creek, (T.61, R.1E, S.6, 7; T.62, R.1E, S.31; T.62, R.1W, S.36): 1B, 2A, 3B;
- (148) Mons Creek, (T.62, R.3E, S.4; T.63, R.3E, S.28, 29, 33): 1B, 2A, 3B;
- (149) Moose Creek, (T.59, R.6, S.31, 32, 33, 34): 1B, 2A, 3B;
- (150) Mud Creek, (T.47, R.15, S.18; T.47, R.16, S.5, 6, 8, 9, 10, 11, 13, 14, 15, 16): 1B, 2A, 3B;
- (151) Mud Creek, (T.54, R.12, S.20, 21, 22, 29, 30): 1B, 2A, 3B;
- (152) Mud Creek, (T.62, R.1E, S.8, 9, 16, 17, 21, 22): 1B, 2A, 3B;
- (153) Mud Creek, Little, (T.57, R.11, S.11, 12, 14, 22, 23): 1B, 2A, 3B;
- (154) Murrur Creek, (T.61, R.2W, S.15, 20, 21, 22, 29, 30): 1B, 2A, 3B;
- (155) Murphy Creek, (T.56, R.11, S.4, 5, 8, 17, 18, 19; T.57, R.10, S.4, 7, 8, 9, 18; T.57, R.11, S.11, 12, 13, 14, 21, 22, 23, 24, 26, 27, 28, 33, 34): 1B, 2A, 3B;
- (156) Myhr Creek, (T.62, R.3E, S.23, 24, 26): 1B, 2A, 3B;
- (157) Nemadji Creek, (T.46, R.17, S.7, 8, 9, 18; T.46, R.18, S.13, 14, 15, 16, 22): 1B, 2A, 3B;
- (158) Nemadji River, North Fork, (T.46, R.17, S.1, 2, 3, 8, 9, 10, 17, 18, 19, 31, 32, 33; T.46, R.18, S.24, 25, 36; T.47, R.15, S.19, 30; T.47, R.16, S.23, 24, 25, 26, 27, 28, 29, 31, 32; T.47, R.17, S.35, 36): 1B, 2A, 3B;
- (159) Nemadji River, South Fork, (T.46, R.16, S.4, 5, 6, 7; T.46, R.17, S.1, 11, 12; T.47, R.15, S.30; T.47, R.16, S.25, 33, 34, 35, 36): 1B, 2A, 3B;
- (160) Nestor, (T.61, R.1W, S.4, 5, 6; T.61, R.2W, S.1; T.62, R.1W, S.31, 32, 33): 1B, 2A, 3B;
- (161) Net River, (T.45, R.16, S.6; T.45, R.17, S.1; T.46, R.16, S.3, 4, 8, 9, 17, 20, 21, 29, 31, 32, 33; T.47, R.16, S.34): 1B, 2A, 3B;
- (162) Net River, Little, (T.46, R.16, S.3, 10, 15, 22, 26, 27, 34): 1B, 2A, 3B;
- (163) Nicadoo Creek, (T.56, R.7, S.7; T.56, R.8, S.1, 12; T.57, R.8, S.25, 35, 36): 1B, 2A, 3B;
- (164) Nine Mile Creek, (T.58, R.6, S.3, 4, 9, 16, 17; T.59, R.6, S.27, 28, 33, 34): 1B, 2A, 3B;
- (165) Oliver Creek (Silver), (T.57, R.7, S.5, 6; T.57, R.8, S.1; T.58, R.7, S.31, 32): 1B, 2A, 3B;
- (166) Onion Creek, (T.59, R.4W, S.1, 2, 3, 4, 12; T.60, R.4W, S.24, 25, 26, 35, 36): 1B, 2A, 3B;
- (167) Otter Creek, Big, (T.48, R.16, S.7; T.48, R.17, S.3, 4, 10, 11, 12; T.49, R.17, S.19, 20, 26, 27, 28, 29, 30, 32, 33, 34, 35; T.49, R.18, S.25, 26): 1B, 2A, 3B;
- (168) Otter Creek, Little, (T.48, R.17, S.7, 10, 15, 16, 17, 18; T.48, R.18, S.11, 12, 13, 14): 1B, 2A, 3B;
- (169) Palisade Creek, (T.56, R.7, S.16, 17, 18, 19, 20, 21, 22; T.56, R.8, S.24): 1B, 2A, 3B;
- (170) Pancake Creek, (T.54, R.22, S.20, 28, 29, 32, 33): 1B, 2A, 3B;
- (171) Pancake Creek, (T.60, R.4W, S.17, 18; T.60, R.5W, S.11, 13, 14): 1B, 2A, 3B;
- (172) Pecore Creek, (T.61, R.4W, S.19, 20, 21): 1B, 2A, 3B;
- (173) Peters Creek, (T.54, R.22, S.22, 23, 27, 28): 1B, 2A, 3B;
- (174) Pigeon River (South of Fowl Lake to Pigeon Bay of Lake Superior): 1B, 2Bd, 3A;

- (175) Pike Lake Creek, (T.61, R.2W, S.10, 11, 15): 1B, 2A, 3B;
- (176) Pine Mountain Creek, (T.63, R.1E, S.23, 26, 27, 28, 33): 1B, 2A, 3B;
- (177) Pine River (White Pine River), (T.50, R.16, S.4, 8, 9, 15, 16, 17, 18, 19, 20, 21, 29, 30, 32; T.50, R.17, S.23, 24, 26): 1B, 2A, 3B;
- (178) Plouff Creek, (T.61, R.4W, S.17, 18; T.61, R.5W, S.2, 3, 11, 13, 14, 15, 23; T.62, R.5W, S.26, 34, 35): 1B, 2A, 3B;
- (179) *Plouff Creek [11/5/84P] (T.62, R.5W, S.23): 1B, 2A, 3B;
- (180) Poplar River, (T.60, R.3W, S.3, 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 19, 20, 21, 28, 33; T.61, R.3W, S.30, 31; T.61, R.4W, S.10, 13, 14, 15, 22, 23, 25, 26, 36): 1B, 2A, 3B;
- (181) Portage Brook, (T.64, R.3E, S.24, 25, 26, 27, 28, 29, 32, 33, 34; T.64, R.4E, S.19, 20): 1B, 2A, 3B;
- (182) Railroad Creek, (T.50, R.17, S.1, 11, 12, 14): 1B, 2A, 3B;
- (183) Red River, (T.48, R.15, S.30; T.48, R.16, S.25, 26): 1B, 2A, 3B;
- (184) Red Rock Creek, (T.63, R.5E, S.21, 22, 26, 27, 28, 35): 1B, 2A, 3B;
- (185) Reservation River, (T.62, R.5E, S.6; T.63, R.4E, S.23, 25, 26, 36; T.63, R.5E, S.16, 17, 18, 19, 20, 21, 29, 30, 31): 1B, 2A, 3B;
- (186) Rock Creek, (T.47, R.16, S.7, 17, 18, 20, 21, 22, 23, 24; T.47, R.17, S.12): 1B, 2A, 3B;
- (187) Rock Cut Creek, (T.58, R.6, S.18, 19, 20; T.58, R.7, S.13): 1B, 2A, 3B;
- (188) Rocky Run Creek, (T.49, R.15, S.6; T.50, R.15, S.30, 31; T.50, R.16, S.11, 12, 13, 24, 25): 1B, 2A, 3B;
- (189) Rollins Creek, (T.59, R.3W, S.6; T.60, R.3W, S.29, 30, 31; T.60, R.4W, S.36): 1B, 2A, 3B;
- (190) Rosebush Creek (Fall River), (T.61, R.1W, S.13, 23, 24, 25; T.61, R.1E, S.18): 1B, 2A, 3B;
- (191) Ross Creek, (T.52, R.13, S.1, 2, 3, 4, 5; T.53, R.13, S.33): 1B, 2A, 3B;
- (192) Ryan Creek, (T.55, R.14, S.14, 15, 22): 1B, 2A, 3B;
- (193) Sargent Creek, (T.48, R.15, S.4, 5, 9, 10; T.49, R.15, S.28, 29, 32): 1B, 2A, 3B;
- (194) Sawbill Creek, (T.62, R.4W, S.7, 18, 19, 20, 28, 29, 30; T.62, R.5W, S.25): 1B, 2A, 3B;
- (195) Sawmill Creek, (T.57, R.6, S.18; T.57, R.7, S.1, 12, 13, 22, 23, 24, 26, 27, 34): 1B, 2A, 3B;
- (196) Scanlon Creek, (T.49, R.16, S.30; T.49, R.17, S.25): 1B, 2A, 3B;
- (197) Schmidt Creek, (T.51, R.12, S.17): 1B, 2A, 3B;
- (198) Schoolhouse Creek, (T.58, R.7, S.35, 36): 1B, 2A, 3B;
- (199) Section 15 Creek, (T.58, R.5W, S.9, 10, 15): 1B, 2A, 3B;
- (200) Section 16 Creek, (T.58, R.5W, S.16): 1B, 2A, 3B;
- (201) Section 29 Creek, (T.58, R.5W, S.29, 30): 1B, 2A, 3B;
- (202) Section 36 Creek, (T.46, R.16, S.1, 2, 11, 12, 13; T.47, R.16, S.36): 1B, 2A, 3B;
- (203) Silver Creek, (T.48, R.16, S.15, 16, 17, 21, 28, 29): 1B, 2A, 3B;
- (204) Silver Creek, (T.53, R.10, S.6, 7, 16, 17, 18, 21; T.53, R.11, S.1; T.54, R.10, S.18, 19, 30; T.54, R.11, S.11, 12, 13, 25, 36): 1B, 2A, 3B;
- (205) Silver Creek, Big, (T.46, R.17, S.14, 23, 24, 25, 36): 1B, 2A, 3B;
- (206) Silver Creek, East Branch, (T.53, R.10, S.5, 8, 9, 16, 21): 1B, 2A, 3B;
- (207) Sixmile Creek, (T.60, R.4W, S.13, 14, 15, 22, 23, 27, 28, 33): 1B, 2A, 3B;
- (208) Skunk Creek, (T.54, R.9, S.4, 9, 16, 17, 20; T.55, R.9, S.19, 29, 30, 32, 33; T.55, R.10, S.13, 14, 24): 1B, 2A, 3B;
- (209) Skunk Creek, (T.46, R.17, S.4, 5, 6; T.47, R.17, S.31, 33, 34, 35, 36; T.47, R.18, S.36): 1B, 2A, 3B;
- (210) Spider Creek, (T.52, R.18, S.19, 20, 21, 22, 27, 28, 29, 30; T.52, R.19, S.9, 10, 13, 14, 15, 24): 1B, 2A, 3B;
- (211) Split Rock River, (T.54, R.8, S.6, 7; T.54, R.9, S.1, 2, 12; T.55, R.9, S.26, 28, 34, 35, 36): 1B, 2A, 3B;
- (212) Split Rock River, East Branch, (T.55, R.9, S.4, 5, 6, 9, 10, 14, 15, 22, 23, 24, 25, 26; T.56, R.9, S.30, 31, 32; T.56, R.10, S.1, 11, 12, 13, 14, 23, 24, 25): 1B, 2A, 3B;

- (213) Split Rock River, West Branch, (T.55, R.9, S.6, 7, 8, 16, 17, 21, 22, 26, 27, 28; T.55, R.10, S.1; T.56, R.10, S.22, 26, 27, 33, 34, 35, 36): 1B, 2A, 3B;
- (214) Spring Creek, (T.46, R.17, S.3, 4, 5, 6): 1B, 2A, 3B;
- (215) Spring Creek, (T.54, R.12, S.1, 2): 1B, 2A, 3B;
- (216) Squaw Creek, (T.49, R.17, S.9, 16, 17, 18, 19, 20, 21): 1B, 2A, 3B;
- (217) Stanley Creek, (T.52, R.11, S.18, 19; T.52, R.12, S.4, 5, 8, 9, 10, 11, 12, 13): 1B, 2A, 3B;
- (218) State Line Creek, (T.46, R.15, S.6, 7, 18, 19, 30, 31; T.46, R.16, S.12, 13, 24, 25, 36; T.47, R.15, S.30, 31): 1B, 2A, 3B;
- (219) Stewart Creek, (T.49, R.15, S.21, 22, 26, 27): 1B, 2A, 3B;
- (220) Stewart River, (T.53, R.10, S.18, 19, 20, 29; T.53, R.11, S.2, 3, 10, 11, 13, 14, 15; T.54, R.11, S.3, 4, 10, 15, 22, 26, 27, 34, 35): 1B, 2A, 3B;
- (221) Stewart River, (T.55, R.11, S.7; T.55, R.12, S.12, 13): 1B, 2A, 3B;
- (222) Stewart River, Little, (T.53, R.10, S.19, 20, 29; T.53, R.11, S.9, 15, 16, 22, 23, 24): 1B, 2A, 3B;
- (223) Stickle Creek, (T.63, R.1W, S.1, 2, 11, 12, 14): 1B, 2A, 3B;
- (224) Stone Creek, (T.61, R.2E, S.2, 3; T.62, R.2E, S.21, 22, 27, 34, 35): 1B, 2A, 3B;
- (225) Stoney Creek (Rock), (T.55, R.9, S.30; T.55, R.10, S.20, 23, 24, 25, 27): 1B, 2A, 3B;
- (226) Stony Brook, (T.46, R.17, S.10, 11, 15, 16, 21): 1B, 2A, 3B;
- (227) Stony Creek, Little, (T.63, R.2E, S.4, 5, 9; T.64, R.2E, S.31, 32, 33): 1B, 2A, 3B;
- (228) Stream Number 30, (T.54, R.8, S.5, 6; T.55, R.8, S.19, 30, 31): 1B, 2A, 3B;
- (229) Stumble Creek, (T.59, R.5W, S.16, 21, 22, 26, 27, 28): 1B, 2A, 3B;
- (230) Sucker River, (T.51, R.12, S.3, 4, 10; T.52, R.12, S.18, 19, 29, 30, 31, 32, 33; T.52, R.13, S.1, 12, 13, 24, 25; T.53, R.12, S.19, 20, 30, 31; T.53, R.13, S.24, 25, 36): 1B, 2A, 3B;
- (231) Sucker River, Little, (T.51, R.12, S.2, 3): 1B, 2A, 3B;
- (232) Sugar Loaf Creek, (T.58, R.5W, S.17, 19, 20, 29): 1B, 2A, 3B;
- (233) Sullivan Creek, (T.56, R.11, S.1, 2, 10, 11, 15; T.57, R.10, S.19, 30; T.57, R.11, S.24, 25, 36): 1B, 2A, 3B;
- (234) Sundling Creek, (T.61, R.1W, S.10, 11, 14, 15, 16, 17, 18; T.61, R.2W, S.13): 1B, 2A, 3B;
- (235) Swamp River, (T.63, R.3E, S.25, 26, 36; T.63, R.4E, S.20, 29, 30; T.64, R.4E, S.21, 27, 28): 1B, 2A, 3B;
- (236) Swamper Creek, (T.64, R.1E, S.20, 29, 32): 1B, 2A, 3B;
- (237) Swan Creek, East, (T.56, R.20, S.3, 4, 5, 10, 11): 1B, 2A, 3B;
- (238) Swan Creek, Little, (T.56, R.19, S.17, 19, 20, 30; T.56, R.20, S.25, 26, 35): 1B, 2A, 3B;
- (239) Swan River, East, (T.55, R.19, S.18, 19, 30, 31; T.55, R.20, S.1, 2, 12, 13; T.56, R.20, S.2, 3, 11, 14, 23, 26, 27, 35; T.57, R.20, S.28, 33, 34): 1B, 2A, 3B;
- (240) Swan River, West, (T.55, R.20, 21): 2C;
- (241) Swanson Creek, (T.61, R.4W, S.6, 7, 8; T.61, R.5W, S.1): 1B, 2A, 3B;
- (242) Tait River, (T.60, R.3W, S.4; T.61, R.3W, S.28, 33): 1B, 2A, 3B;
- (243) Talmadge Creek, (T.51, R.12, S.19; T.51, R.13, S.9, 10, 13, 14, 15, 24): 1B, 2A, 3B;
- (244) Temperance River, (T.59, R.4W, S.5, 6, 7, 8, 18, 19, 30, 31, 32; T.60, R.4W, S.5, 6, 7, 8, 17, 20, 28, 29, 32, 33; T.61, R.4W, S.4, 8, 9, 16, 17, 19, 20, 30, 31): 1B, 2A, 3B;
- (245) Temperance River (excluding trout waters), (T.59, 60, 61, 62, R.4W): 1B, 2Bd, 3B;
- (246) Thirty-nine Creek, Big, (T.56, R.8, S.19, 30, 31; T.56, R.9, S.1, 2, 3, 9, 11, 12, 13, 14, 15, 22, 23, 24, 25; T.57, R.9, S.22, 26, 27, 35, 36): 1B, 2A, 3B;
- (247) Thirty-nine Creek, Little, (T.56, R.8, S.6, 7, 8, 17, 18, 19, 20, 29, 30; T.56, R.9, S.1, 12): 1B, 2A, 3B;
- (248) Thompson Creek, (T.62, R.1W, S.17, 19, 20; T.62, R.2W, S.24): 1B, 2A, 3B;
- (249) Tikkanen Creek, (T.57, R.7, S.5, 6, 8, 16, 17): 1B, 2A, 3B;
- (250) Timber Creek, (T.62, R.1E, S.1; T.63, R.1E, 2W, S.25, 36; T.63, R.2E, S.31): 1B, 2A, 3B;
- (251) Tischer Creek (Congdon Creek/Hartley), (T.50, R.14, S.2, 3, 4, 10, 11, 13, 14; T.51, R.14, S.29, 33, 34): 1B, 2A, 3B;

- (252) Torgenson Creek, (T.61, R.4W, S.30; T.61, R.5W, S.24, 25): 1B, 2A, 3B;
- (253) Tower Creek, (T.55, R.14, S.8, 9, 17, 18, 19; T.55, R.15, S.24, 25, 26): 1B, 2A, 3B;
- (254) Tower Creek, (T.57, R.7, S.9): 1B, 2A, 3B;
- (255) Trappers Creek, (T.56, R.11, S.2, 3, 9, 10, 16, 17, 19, 20; T.57, R.11, S.35): 1B, 2A, 3B;
- (256) Trout Brook, (T.54, R.22, S.1): 1B, 2A, 3B;
- (257) Twin Points Creek, (T.54, R.9, S.10, 11, 13, 14): 1B, 2A, 3B;
- (258) Two Island River, (T.58, R.5W, S.2, 3, 4, 11; T.59, R.5W, S.7, 8, 17, 18, 20, 21, 27, 28, 29, 31, 32, 33, 34; T.59, R.6, S.11, 12): 1B, 2A, 3B;
- (259) Ugstad Creek, (T.51, R.15, S.21, 22, 26, 27, 28): 1B, 2A, 3B;
- (260) Unnamed Creek, (T.46, R.16, S.19, 29, 30; T.47, R.17, S.13, 14, 21): 1B, 2A, 3B;
- (261) Unnamed Creek, (T.47, R.17, S.28, 29, 33, 34, 35): 1B, 2A, 3B;
- (262) Unnamed Creek, (T.47, R.17, S.31, 32, 33, 34): 1B, 2A, 3B;
- (263) Unnamed Creek, (T.55, R.8, S.20, 21, 29, 32, 33): 1B, 2A, 3B;
- (264) Unnamed Creek, Meadowlands, (T.53, R.19, S.22, 23): 7;
- (265) Unnamed Ditch, Gilbert, (T.58, R.17, S.23, 24, 25, 36): 7;
- (266) Us-kab-wan-ka (Rush), (T.52, R.16, S.2, 11, 14, 23; T.53, R.15, S.5, 6; T.53, R.16, S.1, 11, 12, 14, 15, 22, 23, 27, 34, 35; T.54, R.15, S.23, 24, 26, 27, 32, 33, 34): 1B, 2A, 3B;
- (267) Wanless Creek, (T.60, R.6, S.27, 33, 34, 35, 36): 1B, 2A, 3B;
- (268) Whyte Creek, (T.57, R.10, S.1, 2, 11, 14, 23, 26, 27, 34): 1B, 2A, 3B;
- (269) Woods Creek, (T.61, R.1E, S.1, 12, 13; T.62, R.1E, S.35, 36): 1B, 2A, 3B;
- (270) Wyman Creek, (T.58, R.14, S.3, 4; T.59, R.14, S.11, 13, 14, 23, 24, 26, 27, 34, 35): 1B, 2A, 3B;
and
- (271) *All other streams in the Boundary Waters Canoe Area Wilderness [11/5/84P]: 1B, 2Bd, 3B.

B. Lakes:

- (1) *Alder Lake, [11/5/84P] (T.64, R.1E): 1B, 2A, 3B;
- (2) *Alton Lake, [11/5/84P] (T.62, 63, R.4, 5): 1B, 2A, 3B;
- (3) Bath Lake, (T.62, R.1W, S.5, 6; T.63, R.1W, S.31, 32): 1B, 2A, 3B;
- (4) Bean Lake (Lower Twin), (T.56, R.8W, S.25, 26): 1B, 2A, 3B;
- (5) Bear Lake (Upper Twin), (T.56, R.8W, S.25): 1B, 2A, 3B;
- (6) Bearskin Lake, East, (T.64, R.1E, 1W): 1B, 2A, 3B;
- (7) *Bearskin Lake, West, [3/7/88R] (T.64, 65, R.1): 1B, 2A, 3B;
- (8) *Bench Lake, [11/5/84P] (T.64, 2E, S.6): 1B, 2A, 3B;
- (9) Benson Lake, (T.58, R.6W, S.29, 32): 1B, 2A, 3B;
- (10) *Birch Lake, [3/7/88R] (T.65, R.1, 2): 1B, 2A, 3B;
- (11) *Black Lake, [3/7/88P] (T.45, R.15): 1B, 2Bd, 3B;
- (12) Bogus Lake, (T.62, R.2E, S.12): 1B, 2A, 3B;
- (13) Bone Lake, (T.61, R.6W, S.13, 14): 1B, 2A, 3B;
- (14) Boys Lake, (T.62, R.2E, S.5, 8): 1B, 2A, 3B;
- (15) Briar Lake, (T.53, R.13W, S.14, 15, 23): 1B, 2A, 3B;
- (16) *Brule Lake, [11/5/84P] (T.63, R.2, 3): 1B, 2A, 3B;
- (17) Canton Mine Pit Lake, (T.58, R.16, S.2, 3): 1C, 2Bd, 3B;
- (18) Carrot Lake, (T.64, R.2E, S.17): 1B, 2A, 3B;
- (19) Cedar Lake, (T.58, R.15W, S.20): 1B, 2A, 3B;
- (20) Chester Lake, (T.64, R.3E, S.32, 33): 1B, 2A, 3B;
- (21) Clear Lake, (T.52, R.15W, S.23): 1B, 2A, 3B;
- (22) *Clearwater Lake (Emby Lake), [11/5/84P] (T.65, R.1E): 1B, 2A, 3B;
- (23) Colby Lake, (T.58, R.14): 1B, 2Bd, 3B;
- (24) *Cone Lake, North, [11/5/84P] (T.63, 64, R.3): 1B, 2A, 3B;

- (25) Corona Lake, (T.48, R.19W, S.11, 12): 1B, 2A, 3B;
- (26) Corsica Mine Pit Lake, (T.58, R.16, S.18): 1C, 2Bd, 3B;
- (27) *Crystal Lake, [11/5/84P] (T.64, R.1E, 2E): 1B, 2A, 3B;
- (28) *Daniels Lake, [11/5/84P] (T.65, R.1E, 1W): 1B, 2A, 3B;
- (29) *Davis Lake, [11/5/84P] (T.64, R.3): 1B, 2A, 3B;
- (30) Devilfish Lake, (T.64, R.3E): 1B, 2A, 3B;
- (31) Dislocation Lake, (T.63, R.1W, S.3): 1B, 2A, 3B;
- (32) Divide (Towhey) Lake, (T.59, R.7W, S.7, 8): 1B, 2A, 3B;
- (33) Duke Lake, (T.63, R.1E, S.30): 1B, 2A, 3B;
- (34) *Duncan Lake, [11/5/84P] (T.65, R.1): 1B, 2A, 3B;
- (35) *Dunn Lake, [11/5/84P] (T.65, R.1, 2): 1B, 2A, 3B;
- (36) Dyers Lake, (T.58, R.5W, S.4, 5, 8, 9): 1B, 2A, 3B;
- (37) *Echo Lake, [3/7/88R] (T.59, R.6): 1B, 2A, 3B;
- (38) Echo Lake, (T.59, R.6W, S.14, 15, 22, 23): 1B, 2A, 3B;
- (39) Elbow Lake, Little, (T.57, R.18W, S.9, 10, 16): 1B, 2A, 3B;
- (40) Embarrass Mine Pit (Lake Mine), (T.58, R.15W, S.5, 6): 1B, 2A, 3B;
- (41) Esther Lake, (T.63, R.3E, S.6; T.64, R.3E, S.31): 1B, 2A, 3B;
- (42) *Fan Lake, [11/5/84P] (T.65, R.2E): 1B, 2Bd, 3A;
- (43) Flour Lake, (T.64, R.1E, 1W): 1B, 2A, 3B;
- (44) Forsyth Mine Pit, (T.58, R.19W, S.11): 1B, 2A, 3B;
- (45) Fowl Lake, North, (T.64, 65, R.3E): 1B, 2Bd, 3A;
- (46) Fowl Lake, South, (T.64, 65, R.3E): 1B, 2Bd, 3A;
- (47) Fraser Mine Pit Lake, (T.58, R.20, S.23): 1C, 2Bd, 3B, until the city of Chisholm no longer uses Fraser Mine Pit Lake as a water supply source for its public water system, and then the classification is identified in part 7050.0430;
- (48) *Gadwall Lake, [11/5/84P] (T.64, R.2E, S.3): 1B, 2A, 3B;
- (49) *Gaskin Lake, [11/5/84P] (T.64, R.2): 1B, 2A, 3B;
- (50) *Gogebic Lake, [11/5/84P] (T.65, R.2E, S.30, 31): 1B, 2A, 3B;
- (51) Goldeneye (Duck) Lake, (T.59, R.6W, S.15): 1B, 2A, 3B;
- (52) *Greenwood Lake, [3/7/88R] (T.64, R.2E): 1B, 2A, 3B;
- (53) Hungry Jack Lake, (T.64, 65, R.1): 1B, 2A, 3B;
- (54) *Jake (Jackel) Lake, [11/5/84P] (T.64, R.1W, S.28): 1B, 2A, 3B;
- (55) Jim Lake (Jerry Lake), (T.64, R.1E): 1B, 2A, 3B;
- (56) Judson Mine Pit, (T.58, R.19W, S.20, 29): 1B, 2A, 3B;
- (57) Junco Lake, (T.62, R.1W, S.11, 12, 13): 1B, 2A, 3B;
- (58) *Kemo Lake, [3/7/88R] (T.63, R.1): 1B, 2A, 3B;
- (59) Kimball Lake, (T.62, R.2E, S.7, 8, 17): 1B, 2A, 3B;
- (60) Leo Lake, (T.64, R.1W, S.4, 5): 1B, 2A, 3B;
- (61) *Lily Lakes, [11/5/84P] (T.65, R.2E): 1B, 2Bd, 3A;
- (62) Lima Lake, (T.64, R.1W, S.35): 1B, 2A, 3B;
- (63) *Lizzie Lake, [11/5/84P] (T.64, R.1W, S.7, 18): 1B, 2A, 3B;
- (64) Loaine (Sand) Lake, (T.54, R.12W, S.16, 17): 1B, 2A, 3B;
- (65) Loft Lake, (T.64, R.3E, S.21): 1B, 2A, 3B;
- (66) Lost Lake, (T.63, R.3E, S.32): 1B, 2A, 3B;
- (67) Margaret Lake, (T.64, R.3E, S.27, 28, 33, 34): 1B, 2A, 3B;
- (68) McFarland Lake, (T.64, R.3E): 1B, 2A, 3B;
- (69) Mink Lake, (T.62, R.2E, S.8): 1B, 2A, 3B;
- (70) *Misquah Lake, [11/5/84P] (T.64, R.1): 1B, 2A, 3B;
- (71) Missabe Mountain Mine Pit Lake, (T.58, R.17, S.8): 1C, 2Bd, 3B;
- (72) Moosehorn Lake, (T.63, R.3E, S.36; T.63, R.4E, S.31): 1B, 2A, 3B;

- (73) *Moose Lake, [11/5/84P] (T.65, R.2E, 3E): 1B, 2A, 3A;
- (74) *Morgan Lake, [11/5/84P] (T.64, R.1W, S.27, 28): 1B, 2A, 3B;
- (75) Morton Mine Pit Lake, (T.57, R.21, S.10, 11, 14): 1C, 2Bd, 3B;
- (76) *Moss Lake, [3/7/88R] (T.65, R.1): 1B, 2A, 3B;
- (77) *Mountain Lake, [11/5/84P] (T.65, R.1E, 2E): 1B, 2A, 3B;
- (78) Muckwa Lake, (T.63, R.1E, S.21, 28): 1B, 2A, 3B;
- (79) *Mulligan Lake, [11/5/84P] (T.63, R.3W, S.1, 12): 1B, 2A, 3B;
- (80) Musquash Lake, (T.63, R.1E, S.20, 28, 29): 1B, 2A, 3B;
- (81) Normanna Lake, (T.52, R.13W, S.7, 8): 1B, 2A, 3B;
- (82) Olson Lake, (T.62, R.1W, S.9, 16): 1B, 2A, 3B;
- (83) *Onega Lake (Omega Lake), [11/5/84P] (T.64, R.2, 3): 1B, 2A, 3B;
- (84) *Otto Lake, Lower, [11/5/84P] (T.64, R.2): 1B, 2A, 3B;
- (85) Pancore (Lost) Lake, (T.61, R.4W, S.22, 27): 1B, 2A, 3B;
- (86) *Partridge Lake, [11/5/84P] (T.65, R.1): 1B, 2A, 3B;
- (87) *Pemmican Lake, [11/5/84P] (T.65, R.2E, S.22): 1B, 2A, 3B;
- (88) *Pike Lake, West, [11/5/84P] (T.65, R.2E): 1B, 2A, 3B;
- (89) Pine Lake, (T.63, R.1W, S.35, 36): 1B, 2A, 3B;
- (90) *Pine Lake, [11/5/84P] (T.64, 65, R.1E, 2E, 3E): 1B, 2A, 3B;
- (91) Pine Mountain Lake, (T.63, R.1E, S.26, 27, 34, 35): 1B, 2A, 3B;
- (92) Poplar Lake, (T.64N, R.1, 2W): 1C, 2Bd, 3B;
- (93) *Ram Lake, [11/5/84P] (T.63, R.1W, S.9, 10): 1B, 2A, 3B;
- (94) *Rose Lake, [11/5/84P] (T.65, R.1): 1B, 2A, 3B;
- (95) St. James Mine Pit, (T.58, R.15W, S.3, 4): 1B, 2A, 3B;
- (96) Saint Mary's Lake, (T.57, R.17, S.9, 16, 17): 1C, 2Bd, 3B;
- (97) *Sawbill Lake, [11/5/84P] (T.62, 63, R.4): 1B, 2Bd, 3B;
- (98) Section 8 Lake, (T.59, R.7W, S.8): 1B, 2A, 3B;
- (99) Seven Beaver Lake, (T.58, R.11, 12): 2B, 3A;
- (100) Shady, North, Lake, (T.64, R.2E, S.21, 22): 1B, 2A, 3B;
- (101) Shoe Lake, (T.64, 2E, S.30): 1B, 2A, 3B;
- (102) Sled Lake, (T.63, R.1W, S.3): 1B, 2A, 3B;
- (103) *Sock Lake, [11/5/84P] (T.65, R.2W, S.26): 1B, 2A, 3B;
- (104) *South Lake, [11/5/84P] (T.65, R.1, 2): 1B, 2A, 3B;
- (105) Spring Hole Lake, (T.55, R.14W, S.14): 1B, 2A, 3B;
- (106) Squaw Lake, (T.63, R.3E, S.6; T.64, R.3E, S.31): 1B, 2A, 3B;
- (107) *State Lake, [11/5/84P] (T.63, 64, R.2): 1B, 2A, 3B;
- (108) Steer Lake, (T.60, R.6W, S.32): 1B, 2A, 3B;
- (109) *Superior, Lake, [11/5/84R] (T.49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, R.14W-7E): 1B, 2A, 3A;
- (110) *Swan Lake, [11/5/84P] (T.63, R.2): 1B, 2A, 3B;
- (111) Talus Lake, (T.63, R.1W, S.26, 27): 1B, 2A, 3B;
- (112) Thompson Lake, (T.62, R.1W, S.19, 20, 29, 30): 1B, 2A, 3B;
- (113) Thrasher Lake, (T.63, R.1W, S.31): 1B, 2A, 3B;
- (114) Thrush Lake, (T.63, R.1W, S.31): 1B, 2A, 3B;
- (115) *Topper Lake, [11/5/84P] (T.65, R.2W, S.27): 1B, 2A, 3B;
- (116) *Trout Lake, [3/7/88R] (T.62, R.2E): 1B, 2A, 3B;
- (117) *Trout Lake, Little, [11/5/84P] (T.63, R.1): 1B, 2A, 3B;
- (118) Turnip Lake, (T.64, R.1E, S.24): 1B, 2A, 3B;
- (119) Twin Lake, (T.50, R.14W, S.28, 33): 1B, 2A, 3B;
- (120) *Twin Lake, Upper (Bear Lake), [3/7/88R] (T.56, R.8): 1B, 2A, 3B;
- (121) Unnamed Lake, (T.63, R.3E, S.20, 21, 28, 29): 1B, 2A, 3B;

- (122) Unnamed Lake, (T.63, R.1W, S.31): 1B, 2A, 3B;
- (123) *Vale Lake, [11/5/84P] (T.64, R.2E, S.3): 1B, 2A, 3B;
- (124) *Vista Lake, [11/5/84P] (T.64, R.1): 1B, 2A, 3B;
- (125) *Wanihigan Lake (Trap Lake), [11/5/84P] (T.63, 64, R.2, 3): 1B, 2A, 3B;
- (126) *Wee Lake, [11/5/84P] (T.62, R.4W, S.13): 1B, 2A, 3B;
- (127) *Wench Lake, [11/5/84P] (T.63, R.3W, S.7, 18): 1B, 2A, 3B;
- (128) *Winchell Lake, [11/5/84P] (T.64, R.2, 3): 1B, 2A, 3B;
- (129) *All other lakes in the Boundary Waters Canoe Area Wilderness [11/5/84P]: 1B, 2Bd, 3B; and
- (130) *All wetlands in the Boundary Waters Canoe Area Wilderness [11/5/84P]: 2D.

C. **Calcareous Fens:** None currently listed.

D. **Scientific and Natural Areas:** *Black Lake Bog [3/7/88P] Waters within the Black Lake Bog Scientific and Natural Area, Pine County, (T.45, R.15, S.18, 19, 30; T.45, R.16, S.13, 24, 25): 2B, 3B, except wetlands which are 2D.

