CHAPTER 7050
MINNESOTA POLLUTION CONTROL AGENCY
WATER QUALITY DIVISION
WATERS OF THE STATE

7050.0110 SCOPE.

Parts 7050.0130 to 7050.0220 apply to all waters of the state, both surface and underground, and include general provisions applicable to the maintenance of water quality and aquatic habitats; definitions of water use classes; standards for dischargers of sewage, industrial, and other wastes; and standards of quality and purity for specific water use classes. This chapter shall apply to both point source and nonpoint source discharges. Other water quality rules of general or specific application that include any more stringent water quality or effluent standards or prohibitions are preserved.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0130 DEFINITIONS.

The terms "waters of the state," "sewage," "industrial wastes," and "other wastes," as well as any other terms for which definitions are given in the pollution control statutes, as used herein have the meanings ascribed to them in Minnesota Statutes, sections 115.01 and 115.41, with the exception that disposal systems or treatment works operated under permit or certificate of compliance of the agency shall not be construed to be "waters of the state."

"Nonpoint source" means a land management or land use activity that contributes or may contribute to ground and surface water pollution as a result of runoff, seepage, or percolation and that is not defined as a point source under Minnesota Statutes, section 115.01, subdivision 15.

Other terms and abbreviations used herein which are not specifically defined in applicable federal or state law shall be construed in conformance with the context, and in relation to the applicable section of the statutes pertaining to the matter at hand, and current professional usage.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0170 NATURAL WATER QUALITY.

The waters of the state may, in a state of nature, have some characteristics or properties approaching or exceeding the limits specified in the water quality standards. The standards shall be construed as limiting the addition of pollutants of human activity from either point or nonpoint source discharges to those of natural origin, where such be present, so that in total the specified limiting concentrations will not be exceeded in the waters by reason of such controllable additions. Where the background level of the natural origin is reasonably definable and normally of lower quality than the specified standard the natural level may be used as the standard for controlling the addition of pollutants of human activity which are comparable in nature and significance with those of natural origin. The natural background level may be used instead of the specified water quality standard as a maximum limit of the addition of pollutants, in those instances where the natural level is consistently of better quality than the specified standard and reasonable justification exists for preserving the quality to that found in a state of nature.

In the adoption of standards for individual waters of the state, the agency will be guided by the standards herein but may make reasonable modifications of the same on the basis of evidence brought forth at a public hearing if it is shown to be desirable and in the public interest to do so in order to encourage the best use of the waters of the state or the lands bordering such waters.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0180 NONDEGRADATION FOR OUTSTANDING RESOURCE VALUE WATERS.

Subpart 1. **Policy.** The agency recognizes that the maintenance of existing high quality in some waters of outstanding resource value to the state is essential to their function as exceptional recreational, cultural, aesthetic, or scientific resources. To preserve the value of these special waters, the agency will prohibit or stringently control new or expanded discharges from either point or nonpoint sources to outstanding resource value waters.

[For text of subps 2 and 3, see M.R. 1987]

Subp. 4. **DNR designated scientific and natural areas.** Department of Natural Resources designated scientific and natural areas include but are not limited to:

A. Boot Lake, Anoka County;

B. Kettle River in sections 15, 22, 23, T 41 N, R 20, Pine County;

C. Pennington Bog, Beltrami County;

D. Purvis Lake - Ober Foundation, Saint Louis County;

E. Waters within the borders of Itasca Wilderness Sanctuary, Clearwater County;

F. Iron Springs Bog, Clearwater County;

G. Wolsfeld Woods, Hennepin County;

H. Green Water Lake, Becker County;

I. Blackdog Preserve, Dakota County;

J. Prairie Bush Clover, Jackson County;

K. Black Lake Bog, Pine County; and

L. Pembina Trail Preserve, Polk County.

[For text of subp 5, see M.R. 1987]

Subp. 6. **Restricted discharges.** No person may cause or allow a new or expanded discharge of any sewage, industrial waste, or other waste to any of the

following waters unless there is not a prudent and feasible alternative to the discharge:

A. Lake Superior;

B. those portions of the Mississippi River from Lake Itasca to the southerly boundary of Morrison County that are included in the Mississippi Headwaters Board comprehensive plan dated February 12, 1981;

C. lake trout lakes, both existing and potential, as determined by the agency in conjunction with the Minnesota Department of Natural Resources, outside the boundaries of the Boundary Waters Canoe Area Wilderness and Voyageurs National Park and identified in parts 7050.0460 to 7050.0470;

D. federal or state designated scenic or recreational river segments; and

E. calcareous fens identified in part 7050.0180, subpart 6b.

If a new or expanded discharge to these waters is permitted, the agency shall restrict the discharge to the extent necessary to preserve the existing high quality, or to preserve the wilderness, scientific, recreational, or other special characteristics that make the water an outstanding resource value water.

Subp. 6a. **Federal or state designated scenic or recreational river segments.** Waters with a federal or state scenic or recreational designation include but are not limited to:

A. Saint Croix River, entire length;

B. Cannon River from northern city limits of Faribault to its confluence with the Mississippi River;

C. North Fork of the Crow River from Lake Koronis outlet to the Meeker - Wright county line;

D. Kettle River from north Pine County line to dam at Sandstone;

E. Minnesota River from Lac qui Parle dam to Redwood County state aid highway 11;

F. Mississippi River from county state aid highway 7 bridge in Saint Cloud to northwestern city limits of Anoka; and

G. Rum River from state highway 27 bridge in Onamia to Madison and Rice Streets in Anoka.

Subp. 6b. **Calcareous fens.** The following calcareous fens are hereby designated outstanding resource value waters:

A. Spring Creek fen, Becker County;

B. B-B Ranch fen, Clay County;

C. Barnesville WMA fen, Clay County;

D. Felton fen, Clay County;

E. Spring Prairie fen, Clay County;

F. Clearbrook fen, Clearwater County;

G. Fort Snelling State Park fen, Dakota County;

H. Minnesota Valley fen, Dakota County;

I. Nicols Meadow, Dakota County;

J. Perched Valley WMA fen, Goodhue County;

K. Heron Lake fen, Jackson County;

L. Thompson fen, Jackson County;

M. Fish Hatchery fen, LeSueur County;

N. St. Peter fen, Le Sueur County;

O. Waubun fen, Mahnomen County;

P. Truman fen, Martin County;

Q. Fort Ridgely fen, Nicollet County;

R. Le Sueur fen, Nicollet County;

S. Primula Meadow (Faith fen), Norman County;
T. Rock Dell fen, Olmsted County;
U. Chicog WMA fen, Polk County;
V. Kertsonville WMA fen, Polk County;
W. Pankratz fen (Svedarsky's fen), Polk County;
X. Ordway fen, Pope County;
Y. Cannon River fen, Rice County;
Z. Savage fen, Scott County;
AA. Kennedy fen, Winona County; and
BB. Sioux Nation fen, Yellow Medicine County.

Subp. 7. **Unlisted outstanding resource value waters.** The agency shall prohibit or stringently control new or expanded discharges to outstanding resource value waters not specified in subparts 3 to 6b to the extent that this stringent protection is necessary to preserve the existing high quality, or to preserve the wilderness, scientific, recreational, or other special characteristics that make the water an outstanding resource value water.

Subp. 8. **Public hearing.** The agency shall provide an opportunity for a hearing before identifying and establishing additional outstanding resource value waters, before determining the existence or lack of prudent and feasible alternatives under subpart 6, and before prohibiting or restricting new or expanded discharges to outstanding resource value waters under subparts 3, 6, 6a, 6b, and 7.

[For text of subps 9 and 10, see M.R. 1987]

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0185 NONDEGRADATION FOR ALL WATERS.

Subpart 1. **Policy.** The potential capacity of the water to assimilate additional wastes is a valuable public resource. It is the policy of the state of Minnesota to protect all waters from significant degradation from point and nonpoint sources and to maintain existing water uses, aquatic habitats, and the level of water quality necessary to protect these uses.

Subp. 2. **Definitions.** For the purpose of this part, the following terms have the meanings given them:

A. "New discharge" means a discharge that was not in existence before January 1, 1988.

B. "Expanded discharge" means a discharge that changes in volume, quality, location, or any other manner after January 1, 1988, such that an increased loading of one or more pollutants results. In determining whether an increased loading of one or more pollutants would result from the proposed change in discharge, the agency shall compare the loading that would result from the proposed discharge with the loading allowed by the agency on January 1, 1988.

C. "Baseline quality" means the quality consistently attained by January 1, 1988.

D. "Existing" means in existence before January 1, 1988.

E. "Economic or social development" means the jobs, taxes, recreational opportunities, and other impacts on the public at large that will result from a new or expanded discharge.

F. "Toxic pollutant" has the meaning given in part 7001.1020, subpart 30.

G. "Significant discharge" means:

(1) a new discharge of sewage, industrial, or other wastes greater than 200,000 gallons per day to any water other than a class 7, limited resource value water; or

(2) an expanded discharge of sewage, industrial, or other wastes that expands by more than 200,000 gallons per day and that discharges to any water other than a class 7, limited resource value water; or

(3) a new or expanded discharge containing any toxic pollutant at a mass loading rate likely to increase the concentration of the toxicant in the receiving water by greater than one percent over the baseline quality. This determination shall be made using:

(a) data collected from the receivmg water or from a water representative of the receiving water;

(b) the entire once in ten year, seven day low flow of the receiving water as defined in part 7050.0210, subpart 7; and

(c) a mass balance equation that treats all toxic pollutants as conservative substances.

Subp. 3. **Minimum treatment.** Any person authorized to maintain a new or expanded discharge of sewage, industrial waste, or other waste, whether or not the discharge is significant, shall comply with applicable effluent limitations and water quality standards of this chapter and shall maintain all existing, beneficial uses in the receiving waters.

Subp. 4. **Additional requirements for significant discharges.** If a person proposes a new or expanded significant discharge from either a point or nonpoint source, the agency shall determine whether additional control measures beyond those required by subpart 3 can reasonably be taken to minimize the impact of the discharge on the receiving water. In making the decision, the agency shall consider the importance of economic and social development and impacts of the project, the impact of the discharge on the quality of the receiving water, the characteristics of the receiving water, the cumulative impacts of all new or expanded discharges on the receiving water, the costs of additional treatment beyond what is required of nonsignificant dischargers, and other matters as shall be brought to the agency's attention.

Subp. 5. **Determination of significance.** A person proposing a new or expanded discharge of sewage, industrial waste, or other wastes shall submit to the commissioner the information required to determine whether the discharge is significant under subpart 2. If the discharge is sewage or industrial waste, the flow rate used to determine significance under this part is the design average wet weather flow for the wettest 30-day period. For discharges of other wastes, the flow rate to be used is the design maximum daily flow rate. In determining the significance of a discharge to a lake or other nonflowing receiving water, a mixing zone may be established under the guidelines of part 7050.0210, subpart 5.

Subp. 6. **Baseline quality.** If an existing discharge to a water of the state is eliminated or significantly reduced, baseline quality for purposes of this part shall be adjusted to account for the water quality impact associated with that particular discharge.

If no data are available to determine baseline quality or the data collected after January 1, 1988, are of better quality, then the commissioner shall authorize the use of data collected after January 1, 1988. If no data are available, the person proposing the discharge may collect new data in accordance with agency protocols.

Subp. 7. **Incremental expansions.** If a new or expanded discharge is proposed in increments, the increments must be added together to determine whether the discharge is a significant discharge. Once the criteria for a significant discharge are satisfied by adding together the increments, the requirements of this part shall apply to the discharge.

Subp. 8. **Determination of reasonable control measures for significant discharges.** The person proposing a new or expanded significant discharge of sewage, industrial waste, or other wastes shall submit to the commissioner information pertinent to those factors specified in subpart 4 for determining whether and what additional control measures are reasonable.

The commissioner shall provide notice and an opportunity for a public hearing in accordance with the permit requirements in chapter 7001 before establishing reasonable control requirements for a new or expanded significant discharge.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0190 VARIANCE FROM STANDARDS.

Subpart 1. **Standard.** In any case where, upon application of the responsible person or persons, the agency finds that by reason of exceptional circumstances the strict enforcement of any provision of these standards would cause undue hardship, that disposal of the sewage, industrial waste, or other waste is necessary for the public health, safety, or welfare; and that strict conformity with the standards would be unreasonable, impractical, or not feasible under the circumstances; the agency in its discretion may grant a variance therefrom upon such conditions as it may prescribe for prevention, control, or abatement of pollution in harmony with the general purposes of these classifications and standards and the intent of the applicable state and federal laws. The United States Environmental Protection Agency will be advised of any permits which may be issued under this clause together with information as to the need therefor.

Subp. 2. **Listing.** By October 1 each year, the commissioner shall prepare a list of the variances in effect granted by the agency under this part. This list shall be available for public inspection and shall be provided to the United States Environmental Protection Agency. This list shall identify the person granted the variance, the rule from which the variance was granted, the water affected, the year granted, and any restrictions that apply in lieu of the rule requirement.

Subp. 3. **Review.** Variances granted by the agency under this part shall be subject to agency and public review at least every three years. Variances may be modified or suspended under the procedures in part 7000.0700.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0200 WATER USE CLASSIFICATIONS FOR WATERS OF THE STATE.

Based on considerations of best usage in the interest of the public and in conformance with the requirements of the applicable statutes, the waters of the state shall be grouped into one or more of the following classes:

1. Domestic consumption includes all waters of the state which are or may be used as a source of supply for drinking, culinary or food processing use or other domestic purposes, and for which quality control is or may be necessary to protect the public health, safety, or welfare.

2. Fisheries and recreation includes all waters of the state which are or may be used for fishing, fish culture, bathing, or any other recreational purposes, and for which quality control is or may be necessary to protect aquatic or terrestrial life or their habitats, or the public health, safety, or welfare.

3. Industrial consumption includes all waters of the state which are or may be used as a source of supply for industrial process or cooling water, or any other industrial or commercial purposes, and for which quality control is or may be necessary to protect the public health, safety, or welfare.

4. Agriculture and wildlife includes all waters of the state which are or may be used for any agriculture purposes, including stock watering and irrigation, or

by waterfowl or other wildlife, and for which quality control is or may be necessary to protect terrestrial life and its habitat or the public health, safety, or welfare.

5. Aesthetic enjoyment and navigation includes all waters of the state which are or may be used for any form of water transportation or navigation, or fire prevention, and for which quality control is or may be necessary to protect the public health, safety, or welfare.

6. Other uses includes all waters of the state which are or may serve the above listed uses or any other beneficial uses not listed herein, including without limitation any such uses in this or any other state, province, or nation of any waters flowing through or originating in this state, and for which quality control is or may be necessary for the above declared purposes, or to conform with the requirements of the legally constituted state or national agencies having jurisdiction over such waters, or any other considerations the agency may deem proper.

7. Limited resource value waters includes surface waters of the state which are of limited value as a water resource and where water quantities are intermittent or less than one cubic foot per second at the once in ten year, seven day low flow as defined in part 7050.0210, subpart 7. These waters shall be protected so as to allow secondary body contact use, to preserve the groundwater for use as a potable water supply, and to protect aesthetic qualities of the water. It is the intent of the agency that very few waters be classified as limited resource value waters. In conjunction with those factors listed in Minnesota Statutes, section 115.44, subdivisions 2 and 3, the agency, in cooperation and agreement with the Department of Natural Resources with respect to determination of fisheries values and potential, shall determine the extent to which the waters of the state demonstrate the conditions set forth below:

a. the existing fishery and potential fishery are severely limited by natural conditions as exhibited by poor water quality characteristics, lack of habitat, or lack of water; or

b. the quality of the resource has been significantly altered by human activity and the effect is essentially irreversible; and

c. there are limited recreational opportunities (such as fishing, swimming, wading, or boating) in and on the water resource.

Conditions "a" and "c" or "b" and "c" must be established by the agency water assessment procedure before the waters can be classified as limited resource value waters.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0210 GENERAL STANDARDS FOR DISCHARGERS TO WATERS OF THE STATE.

[For text of subpart 1, see M.R. 1987]

Subp. 2. **Nuisance conditions prohibited.** No sewage, industrial waste, or other wastes shall be discharged from either point or nonpoint sources into any waters of the state so as to cause any nuisance conditions, such as the presence of significant amounts of floating solids, scum, oil slicks, excessive suspended solids, material discoloration, obnoxious odors, gas ebullition, deleterious sludge deposits, undesirable slimes or fungus growths, aquatic habitat degradation, excessive growths of aquatic plants, or other offensive or harmful effects.

[For text of subps 3 to 5, see M.R. 1987]

Subp. 6. [Renumbered 7050.0211, subpart 1]

Subp. 6a. [Renumbered 7050.0211, subpart 2]

Subp. 6b. [Renumbered 7050.0211, subpart 3]

Subp. 6c. **Other requirements preserved.** The requirements of this chapter and specifically the requirements in parts 7050.0211 to 7050.0212 are in addition to any requirement imposed on a discharge by the Clean Water Act, United States Code, title 33, sections 1251 et seq., and its implementing regulations. In the case of a conflict between the requirements of parts 7050.0110 to 7050.0220 and the requirements of the Clean Water Act or its implementing regulations, the more stringent requirement controls.

Subp. 7. **Minimum stream flow.** Dischargers of sewage, industrial waste, or other wastes shall be controlled so that the water quality standards will be maintained at all stream flows which are equal to or exceeded by 90 percent of the seven consecutive daily average flows of record (the lowest weekly flow with a once in ten year recurrence interval) for the critical month(s). The period of record for determining the specific flow for the stated recurrence interval, where records are available, shall include at least the most recent ten years of record, including flow records obtained after establishment of flow regulation devices, if any. The calculations shall not be applied to lakes and their embayments which have no comparable flow recurrence interval. Where stream flow records are not available, the flow may be estimated on the basis of available information on the watershed characteristics, precipitation, runoff, and other relevant data.

Allowance shall 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.

Subp. 8. [Renumbered 7050.0213]

Subp. 9. **Water quality based effluent limitations.** Notwithstanding parts 7050.0213 and 7050.0214, the agency may require a specific discharger to meet effluent limitations which are necessary to maintain the water quality of the receiving water at the standards of quality and purity established by this chapter. Any effluent limitation determined to be necessary under this section shall only be required of a discharger after the discharger has been given notice of the specific effluent limitations and an opportunity for public hearing provided that compliance with the requirements of chapter 7001 regarding notice of National Pollutant Discharge Elimination System and State Disposal System permits shall satisfy the notice and opportunity for hearing requirements of this subpart.

Subp. 10. **Alternative waste treatment.** After providing an opportunity for public hearing the agency shall accept effective loss prevention and/or water conservation measures or process changes or other waste control measures or arrangements if it finds that such measures, changes, or arrangements are equivalent to the waste treatment measures required for compliance with applicable effluent and/or water quality standards or load allocations.

Subp. 11. [Repealed, 12 SR 1810]

Subp. 12. **Liquid substances.** Liquid substances which are not commonly considered to be sewage or industrial waste but which could constitute a pollution hazard shall be stored in accordance with parts 7100.0010 to 7100.0090, and any revisions or amendments thereto. Other wastes as defined by law or other substances which could constitute a pollution hazards, including substances from nonpoint sources and households, shall not be deposited in any manner such that the same may be likely to gain entry into any waters of the state in excess of or contrary to any of the standards herein adopted, or cause pollution as defined by law.

Subp. 13. **Pollution prohibited.** No sewage, industrial waste, or other wastes shall be discharged from either a point or a nonpoint source into the waters of the state in such quantity or in such manner alone or in combination with other substances as to cause pollution thereof as defined by law. In any case where the waters of the state into which sewage, industrial waste, or other waste effluents

discharge are assigned different standards than the waters of the state into which such receiving waters flow, the standards applicable to the waters into which such sewage, industrial waste, or other wastes discharged shall be supplemented by the following:

The quality of any waters of the state receiving sewage, industrial waste, or other waste effluents shall be such that no violation of the standards of any waters of the state in any other class shall occur by reason of the discharge of such sewage, industrial waste, or other waste effluents.

Subp. 14. **Undefined toxic substances.** Questions concerning the permissible levels, or changes in the same, of a substance, or combination of substances, of undefined toxicity to fish or other biota shall be resolved in accordance with the latest methods recommended by the United States Environmental Protection Agency. The agency shall consider the recommendations of the Quality Criteria for Water, US EPA 1986, in making determinations under this part. Toxic substances shall not exceed one-tenth of the 96-hour median tolerance limit (TLM) as a water quality standard except that other application factors shall be used when justified on the basis of available scientific evidence.

Subp. 15. **Point source dischargers must report to agency.** All persons operating or responsible for sewage, industrial waste, or other waste disposal systems which are adjacent to or which discharge effluents to these waters or to tributaries which affect the same, shall submit a report to the agency upon request on the operation of the disposal system, the effluent flow, and the characteristics of the effluents and receiving waters. Sufficient data on measurements, observations, sampling, and analyses, and other pertinent information shall be furnished as may be required by the agency to adequately evaluate the condition of the disposal system, the effluent, and the waters receiving or affected by the effluent.

Subp. 16. [Renumbered 7050.0214]

Subp. 17. **Compliance with permit conditions.** No person who is in compliance with the terms and conditions of its permit issued under chapter 7001 shall be deemed in violation of any water quality standard in this rule for which a corresponding effluent limitation is established in the permit. However, exceedances of the water quality standards in a receiving water shall constitute grounds for modification of a permit(s) for any discharger(s) to the receiving water who is (are) causing or contributing to the exceedances. Chapter 7001 shall govern the modification of any such permit.

[For text of subp 18, see M.R. 1987]

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0211 FACILITY STANDARDS.

Subpart 1. **Minimum secondary treatment for municipal point source and other point source dischargers of sewage.** It is herein established that the agency shall require secondary treatment as a minimum for all municipal point source dischargers and other point source dischargers of sewage. For purposes of this part, municipal has the adjective meaning of municipality as defined in part 7001.1020, subpart 18. Secondary treatment facilities are defined as works which will provide effective sedimentation, biochemical oxidation, and disinfection, or the equivalent, including effluents conforming to the following:

Substance or Characteristic	Limiting Concentration or Range*
5-Day carbonaceous biochemical oxygen demand*	25 milligrams per liter
Fecal coliform group organisms ***	200 organisms per 100 milliliters
Total suspended solids*	30 milligrams per liter

Oil	Essentially free of visible oil
Phosphorus**	1 milligram per liter
pH range	6.0 - 9.0
Unspecified toxic or corrosive substances	None at levels acutely toxic to humans or other animals or plant life, or directly damaging to real property.

*The arithmetic mean for concentrations of five day carbonaceous biochemical oxygen demand and total suspended solids shall not exceed the stated values in any calendar month. In any calendar week, the arithmetic mean for concentrations of five day carbonaceous biochemical oxygen demand shall not exceed 40 milligrams per liter and total suspended solids shall not exceed 45 milligrams per liter.

**Where the discharge of effluent is directly to or affects a lake or reservoir, phosphorus removal to one milligram per liter shall be required. In addition, removal of nutrients from all wastes shall be provided to the fullest practicable extent wherever sources of nutrients are considered to be actually or potentially detrimental to preservation or enhancement of the designated water uses. Dischargers required to control nutrients by this subpart are subject to the variance provisions of part 7050.0190.

***Disinfection of wastewater effluents to reduce the levels of fecal coliform organisms to the stated value is required from March 1 through October 31 (Class 2 waters) and May 1 through October 31 (Class 7 waters) except that where the effluent is discharged 25 miles or less upstream of a water intake supplying a potable water system, the reduction to the stated value is required year around. The stated value is not to be exceeded in any calendar month as determined by the geometric mean of all the samples collected in a given calendar month. The application of the fecal coliform group organism standards shall be limited to sewage or other effluents containing admixtures of sewage and shall not apply to industrial wastes except where the presence of sewage, fecal coliform organisms, or viable pathogenic organisms in such wastes is known or reasonably certain. Analysis of samples for fecal coliform group organisms by either the multiple tube fermentation or the membrane filter techniques is acceptable.

Subp. 2. **Exception for existing trickling filter facilities.** The exception for existing trickling filter facilities is:

A. The secondary treatment effluent limitations in part 7050.0210, subpart 1, for 5-day carbonaceous biochemical oxygen demand and total suspended solids does not apply to municipal point source dischargers and other point source dischargers of sewage that meet all of the following conditions:

(1) The treatment facility was in operation on January 1, 1987;

(2) The treatment facility uses a trickling filter as the principal method of biologically treating the wastewater; and

(3) The discharger has been incapable of consistently meeting the effluent limitations for 5-day carbonaceous biochemical oxygen demand or total suspended solids contained in part 7050.0210, subpart 1.

B. For those municipal point source dischargers and other point source dischargers of sewage that meet the conditions of item A, the following effluent limitations for 5-day carbonaceous biochemical oxygen demand and total suspended solids apply as the arithmetic mean of all samples collected during a calendar month.

5-day carbonaceous biochemical oxygen demand	40 milligrams per liter*
Total suspended solids	45 milligrams per liter**

*In any calendar week, the arithmetic mean for 5-day carbonaceous biochemical oxygen demand shall not exceed 60 milligrams per liter.

**The arithmetic mean for any calendar week shall not exceed 65 milligrams per liter for total suspended solids.

C. The other effluent limitations in part 7050.0210, subpart 1, apply to those municipal point source dischargers and other point source dischargers of sewage whose limitations for 5-day carbonaceous biochemical oxygen demand and total suspended solids are established by this subpart.

Subp. 3. **Exception for pond facilities.** The exception for pond facilities is:

A. The secondary treatment effluent limitations in part 7050.0210, subpart 1, for total suspended solids does not apply to municipal point source dischargers and other point source dischargers of sewage that operate stabilization ponds or aerated ponds as the principal method of biologically treating the wastewater.

B. For such treatment works the effluent limitation for total suspended solids for a discharge from the pond is as follows:

Total suspended solids	45 milligrams per liter* (arithmetic mean of all samples collected during any calendar month)

*The arithmetic mean for any calendar week shall not exceed 65 milligrams per liter for total suspended solids.

C. The other effluent limitations in part 7050.0210, subpart 1, apply to those municipal point source dischargers and other point source dischargers of sewage whose limitations for total suspended solids are established by this subpart.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0212 REQUIREMENTS FOR POINT SOURCE DISCHARGERS OF INDUSTRIAL OR OTHER WASTES.

Subpart 1. **Applicable effluent limitations.** Any person discharging industrial or other wastes from a point source shall comply with the following requirements:

A. Point source dischargers of industrial or other wastes shall comply with all applicable federal standards promulgated by the United States Environmental Protection Agency under sections 301, 306, and 307 of the Clean Water Act, United States Code, title 33, sections 1311, 1316, and 1317. Code of Federal Regulations, title 40, parts 401 through 469, are incorporated by reference.

B. If effluent limitations for five day carbonaceous biochemical oxygen demand, total suspended solids, pH, or oil are not established under item A for any point source discharger of industrial or other wastes, that point source discharger shall comply with the effluent limitations for those substances established in part 7050.0211, subpart 1, or with such other equivalent mass limitations established under part 7050.0210, subpart 9, if applicable.

C. Point source dischargers of industrial or other wastes shall comply with all additional effluent limitations established by the agency in any permit proceeding for that discharger through application of the criteria provided by Code of Federal Regulations, title 40, part 125, subpart A.

Subp. 2. **Feedlot exemption.** The requirements of subpart 1, items B and C, do not apply to animal feedlots.

Subp. 3. **Antibacksliding.**

A. Any point source discharger of industrial or other wastes for which a national pollutant discharge elimination system permit has been issued by the agency that contains effluent limitations more stringent than those that would be established by subparts 1 and 2 shall continue to meet the effluent limitations established by the permit, unless the permittee establishes that less stringent

effluent limitations are allowable pursuant to federal law, under section 402(o) of the Clean Water Act, United States Code, title 33, section 1342.

B. If a permittee establishes that it is entitled to less stringent effluent limitations under item A, the agency shall establish new effluent limitations in accordance with the following criteria:

(1) If past treatment performance data are representative of future performance, the new effluent limitations shall reflect the level of pollutant control that has been consistently achieved by the permittee in the past.

(2) If changes in the rate of production or in other operational aspects of the facility make past treatment performance data unrepresentative of future performance, in establishing new effluent limitations the agency shall consider (a) the performance capabilities of the existing treatment facility under the changed factors, and (b) the performance capabilities of any additional treatment facilities that may be required by the agency as a result of the changed factors. The new effluent limitations shall be as stringent as is reasonable applying good engineering design practices and operational and maintenance practices for the existing treatment facilities and any additional treatment facilities that may be required.

(3) The new effluent limitations shall reflect the performance capabilities of all treatment facilities under proper operation and maintenance practices.

(4) In no event shall the new effluent limitations be less stringent than the effluent limitations established under subparts 1 and 2.

(5) In all cases, the beneficial uses and the water quality standards shall be maintained in the receiving water.

(6) If less stringent effluent limitations are established in the permit, the agency may also establish other reasonable and necessary conditions for the new permit.

A request for less stringent effluent limitations in a permit shall be made in accordance with part 7001.0190, subpart 1. The agency shall follow the procedures in part 7001.0190, subpart 1, in acting upon a request for new effluent limitations.

Subp. 4. **Nutrient control requirements.** In addition to the requirements of subpart 1, a person discharging industrial or other wastes from a point source shall comply with the nutrient control requirements of part 7050.0211, subpart 1, if the discharge of effluent is directly to or affects a lake or reservoir.

Subp. 5. **Exception for total suspended solids limitations for ponds.** A point source discharger of industrial or other wastes that uses a stabilization or aerated pond as the principal method of biologically treating the waste shall comply with subparts 1 to 4, except that the total suspended solids effluent limitations applicable to a discharger under subpart 1, item B, shall be those limitations in part 7050.0211, subpart 3, rather than the total suspended solids limitations in part 7050.0211, subpart 1.

Subp. 6. **Unspecified toxic or corrosive substances.** In addition to the requirements of subpart 1, a person discharging industrial or other wastes from a point source shall comply with the control requirements of part 7050.0211, subpart 1, for unspecified toxic or corrosive substances.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0213 ADVANCED WASTEWATER TREATMENT REQUIREMENTS.

In any instance where it is evident that the minimal treatment specified in part 7050.0211, subpart 1, or 7050.0212 and dispersion are not effective in preventing pollution, or if at the applicable flows it is evident that the specified

stream flow is inadequate to protect the specified water quality standards, the specific standards may be interpreted as effluent standards for control purposes. In addition, the following effluent standards may be applied without any allowance for dilution where stream flow or other factors are such as to prevent adequate dilution, or where it is otherwise necessary to protect the waters of the state for the stated uses:

Item*	Limits**
5-day carbonaceous biochemical oxygen demand	5 milligrams per liter (arithmetic mean of all samples taken during any calendar month)

*The concentrations specified in part 7050.0211, subpart 1, or, if applicable, part 7050.0212 may be used in lieu thereof if the discharge of effluent is restricted to the spring flush or other high runoff periods when the stream flow rate above the discharge point is sufficiently greater than the effluent flow rate to insure that the applicable water quality standards are met during such discharge period. If treatment works are designed and constructed to meet the specified limits given above for a continuous discharge, at the discretion of the agency the operation of such works may allow for the effluent quality to vary between the limits specified above and in part 7050.0211, subpart 1, or, if applicable, part 7050.0212, provided the water quality standards and all other requirements of the agency and the United States Environmental Protection Agency are being met. Such variability of operation must be based on adequate monitoring of the treatment works and the effluent and receiving waters as specified by the agency.

**If a discharger is required by the commissioner to implement a pretreatment program for the control of toxic pollutants from industrial contributors and the program has not yet been implemented, the discharger's effluent limitation for total suspended solids shall be five milligrams per liter until such time as the program has been implemented.

This section shall not apply to discharges to surface waters classified as limited resource value waters pursuant to parts 7050.0200, number 7 and 7050.0400 to 7050.0470.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0214 REQUIREMENTS FOR POINT SOURCE DISCHARGERS TO LIMITED RESOURCE VALUE WATERS.

Subpart 1. **Effluent limitations.** For point source discharges of sewage, industrial, or other wastes to surface waters classified as limited resource value waters pursuant to parts 7050.0200, number 7 and 7050.0400 to 7050.0470, the agency shall require treatment facilities which will provide effluents conforming to the following limitations:*

Substance or Characteristic	Limiting Concentration
5-Day carbonaceous biochemical oxygen demand	15 milligrams per liter (arithmetic mean of all samples taken during any calendar month)

*All effluent limitations specified in part 7050.0211, subpart 1, shall also be applicable to dischargers of sewage to Class 7 waters, provided that unspecified toxic or corrosive substances shall be limited to the extent necessary to protect the designated uses of the receiving water or affected downstream waters.

Subp. 2. **Alternative secondary treatment effluent limitations.** The agency shall allow treatment works to be constructed and/or operated to produce effluents to limited resource value waters at levels up to those stated in part 7050.0211,

subpart 1, provided that it is demonstrated that the water quality standards for limited resource value waters will be maintained during all periods of discharge from the treatment facilities.

Subp. 3. **Protection of downstream waters.** Notwithstanding the effluent limitations established by this section the quality of limited resource value waters shall not be such as to allow a violation of applicable water quality standards in waters of the state which are connected to or affected by water classified as limited resource value waters.

Subp. 4. **Public waters designation unaffected.** The classification of surface waters as limited resource value waters pursuant to parts 7050.0200, number 7 and 7050.0400 to 7050.0470 shall not supersede, alter, or replace the classification and designation of such waters as public waters pursuant to applicable provisions and requirements of Minnesota Statutes, chapter 105.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0215 REQUIREMENTS FOR ANIMAL FEEDLOTS.

Subpart 1. **Definitions.** For the purpose of this part, the following terms have the meanings given them:

A. "Animal feedlot" has the meaning given in part 7020.0300, subpart 3.

B. "Animal manure" has the meaning given in part 7020.0300, subpart 4.

C. "Manure storage area" has the meaning given in part 7020.0300, subpart 14.

D. "Treatment works" has the meaning given in Minnesota Statutes, section 115.01, subdivision 7, and includes a vegetated filter or buffer strip located between an animal feedlot or a manure storage area and a receiving water.

Subp. 2. **Effluent limitations for a discharge.**

A. Any person discharging pollutants to surface waters of the state from an animal feedlot or manure storage area who is not regulated by federal requirements under part 7050.0212, subpart 1, shall comply with the following limitations after allowance for pollutant removal by a treatment works:

5-day biochemical oxygen demand	25 milligrams per liter (arithmetic mean of all samples taken during any calendar month)

If the discharge is directly to or affects a lake or reservoir, the person discharging the pollutants shall comply with the nutrient control requirements of part 7050.0211, subpart 1.

B. The effluent limitations in item A are not applicable whenever rainfall events, either chronic or catastrophic, cause an overflow from an animal feedlot or manure storage area designed, constructed, and operated:

(1) to meet the effluent limitations in item A for rainfall events less than or equal to a 25-year, 24-hour rainfall event for that location; or

(2) to collect and contain the runoff from a 25-year, 24-hour rainfall event for that location.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0220 SPECIFIC STANDARDS OF QUALITY AND PURITY FOR DESIGNATED CLASSES OF WATERS OF THE STATE.

Subpart 1. **General.** The standards in subparts 2 to 8 shall prescribe the qualities or properties of the waters of the state that are necessary for the

designated public use or benefit and which, if the limiting conditions given are exceeded, shall be considered indicative of a polluted condition which is actually or potentially deleterious, harmful, detrimental, or injurious with respect to designated uses or established classes of the waters of the state.

Subp. 2. **1. Domestic consumption.**

A. Class A. The quality of this class of the waters of the state shall be such that without treatment of any kind the raw waters will meet in all respects both the mandatory and recommended requirements of the Public Health Service Drinking Water Standards-1962 for drinking water as specified in Publication No. 956 published by the Public Health Service of the United States Department of Health, Education and Welfare, and any revisions, amendments, or supplements to it. This standard will ordinarily be restricted to underground waters with a high degree of natural protection. The basic requirements are given below:

Substance or Characteristic	Limit or Range
Total coliform organisms	1 most probable number per 100 milliliters
Turbidity value	5 NTUs
Color value	15 Pt.-Co. units
Threshold odor number	3
Methylene blue active substance (MBAS)	0.5 milligram per liter
Arsenic (As)	0.01 milligram per liter
Chlorides (Cl)	250 milligrams per liter
Copper (Cu)	1 milligram per liter
Carbon chloroform extract	0.2 milligram per liter
Cyanides (CN)	0.01 milligram per liter
Fluorides (F)	1.5 milligrams per liter
Iron (Fe)	0.3 milligram per liter
Manganese (Mn)	0.05 milligram per liter
Nitrates as N	10 milligrams per liter
Phenol as phenol	0.001 milligram per liter
Sulfates (SO_4)	250 milligrams per liter
Total dissolved solids	500 milligrams per liter
Zinc (Zn)	5 milligrams per liter
Barium (Ba)	1 milligram per liter
Cadmium (Cd)	0.01 milligram per liter
Chromium (Hexavalent, Cr)	0.05 milligram per liter
Lead (Pb)	0.05 milligram per liter
Selenium (Se)	0.01 milligram per liter
Silver (Ag)	0.05 milligram per liter
Radioactive material	Not to exceed the lowest concentrations permitted to be discharged to an uncontrolled environment as prescribed by the appropriate authority having control over their use.

[For text of subp 2, item B, see M.R. 1987]

C. Class C. The quality of this class of the waters of the state shall be such that with treatment consisting of coagulation, sedimentation, filtration, storage, and chlorination, or other equivalent treatment processes, the treated water will meet in all respects both the mandatory and recommended requirements of the Public Health Service Drinking Water Standards-1962 for drinking water as specified in Publication No. 956 published by the Public Health Service of the United States Department of Health, Education and Welfare, and any

revisions, amendments, or supplements thereto. This standard will ordinarily be restricted to surface waters, and groundwaters in aquifers not considered to afford adequate protection against contamination from surface or other sources of pollution. Such aquifers normally would include fractured and channeled limestone, unprotected impervious hard rock where water is obtained from mechanical fractures, joints, etc., with surface connections, and coarse gravels subjected to surface water infiltration. The physical and chemical standards quoted above for Class A waters shall also apply to these waters in the untreated state, except as listed below:

Substance or Characteristic	Limit or Range
Turbidity value	25 NTUs

D. Class D. The quality of this class of the waters of the state shall be such that after treatment consisting of coagulation, sedimentation, filtration, storage, and chlorination, plus additional pre, post, or intermediate stages of treatment, or other equivalent treatment processes, the treated water will meet in all respects the recommended requirements of the Public Health Service Drinking Water Standards-1962 for drinking water as specified in Publication No. 956 published by the Public Health Service of the United States Department of Health, Education and Welfare, and any revisions, amendments, or supplements thereto. This standard will ordinarily be restricted to surface waters, and groundwaters in aquifers not considered to afford adequate protection against contamination from surface or other sources of pollution. Such aquifers normally would include fractured and channeled limestone, unprotected impervious hard rock where water is obtained from mechanical fractures, joints, etc., with surface connections, and coarse gravels subjected to surface water infiltration. The concentrations or ranges given below shall not be exceeded in the raw waters before treatment:

Substance or Characteristic	Limit or Range
Arsenic (As)	0.05 milligram per liter
Barium (Ba)	1 milligram per liter
Cadmium (Cd)	0.01 milligram per liter
Chromium (Hexavalent, Cr)	0.05 milligram per liter
Cyanide (CN)	0.2 milligram per liter
Fluoride (F)	1.5 milligrams per liter
Lead (Pb)	0.05 milligram per liter
Selenium (Se)	0.01 milligram per liter
Silver (Ag)	0.05 milligram per liter
Radioactive material	Not to exceed the lowest concentrations permitted to be discharged to an uncontrolled environment as prescribed by the appropriate authority having control over their use.

In addition to the above listed standards, no sewage, industrial waste, or other wastes from point or nonpoint sources, treated or untreated, shall be discharged into or permitted by any person to gain access to any waters of the state classified for domestic consumption so as to cause any material undesirable increase in the taste, hardness, temperature, chronic toxicity, corrosiveness, or nutrient content, or in any other manner to impair the natural quality or value of the waters for use as a source of drinking water.

Subp. 3. 2. Fisheries and recreation.

A. Class A. The quality of this class of the waters of the state shall be such as to permit the propagation and mamtenance of warm or cold water sport

or commercial fishes and their habitats and be suitable for aquatic recreation of all kinds, including bathing, for which the waters may be usable. Limiting concentrations or ranges of substances or characteristics which should not be exceeded in the waters are given below:

Substance or Characteristic	Limit or Range
Dissolved oxygen	Not less than 7 milligrams per liter at all times (instantaneous minimum concentration)***
Temperature	No material increase
Ammonia (N)*	0.016 milligram per liter (un-iomzed as N)
Chlorides (Cl)	50 milligrams per liter
Chromium (Cr)	0.02 milligram per liter
Copper (Cu)	0.01 milligram per liter or not greater than 1/10 the 96 hour TLM value
Cyanides (CN)	0.02 milligram per liter
Oil	0.5 milligram per liter
pH value	6.5 - 8.5
Phenols as phenol	0.01 milligram per liter and none that could impart odor or taste to fish flesh or other freshwater edible products such as crayfish, clams, prawns and like creatures. Where it seems probable that a discharge may result in tainting of edible aquatic products, bioassays and taste panels will be required to determine whether tainting is likely or present.
Turbidity value	10 NTUs
Color value	30 Pt.-Co. units
Fecal coliform organisms	200 organisms per 100 milliliters as a geometric mean measured in not less than five samples in any calendar month, nor shall more than 10% of all samples taken during any calendar month individually exceed 400 organisms per 100 milliliters. (Applies only between March 1 and October 31.)
Radioactive materials	Not to exceed the lowest concentrations permitted to be discharged to an uncontrolled environment as prescribed by the appropriate authority having control over their use.
Total residual chlorine**	0.005 milligram per liter

*The percent un-ionized ammonia can be calculated for any temperature

and pH by using the following formula taken from Thurston, R. V., R. C. Russo, and K. Emerson, 1974. Aqueous ammonia equilibrium calculations. Technical Report Number 74-1, Fisheries Bioassay Laboratory, Montana State University, Bozeman, MT. 18 p.

$$f = \frac{1}{10^{(pk_a - pH)} + 1} \times 100$$

where:

f = the percent of total ammonia in the un-ionized state

$pk_a = 0.0901821 + \frac{2729.92}{T}$, dissociation constant for ammonia

T = temperature in degrees Kelvin (273.16° Kelvin = 0° Celsius)

**Applies to conditions of continuous exposure, where continuous exposure refers to chlorinated effluents which are discharged for more than a total of two hours in any 24-hour period.

***This dissolved oxygen standard shall be construed to require compliance with the standard 50 percent of the days at which the flow of the receiving water is equal to the lowest weekly flow with a once in ten-year recurrence interval (7Q10).

B. Class B. The quality of this class of the waters of the state shall be such as to permit the propagation and maintenance of cool or warm water sport or commercial fishes and their habitats and be suitable for aquatic recreation of all kinds, including bathing, for which the waters may be usable. Limiting concentrations or ranges of substances or characteristics which should not be exceeded in the waters are given below:

Substance or Characteristic	Limit or Range
Dissolved oxygen*	Not less than 5 milligrams per liter at all times (instantaneous minimum concentration)****
Temperature	5°F above natural in streams and 3°F above natural in lakes, based on monthly average of the maximum daily temperature, except in no case shall it exceed the daily average temperature of 86°F.
Ammonia (N)**	0.04 milligram per liter (un-ionized as N)
Chromium (Cr)	0.05 milligram per liter
Copper (Cu)	0.01 milligram per liter or not greater than 1/10 the 96 hour TLM value.
Cyanides (CN)	0.02 milligram per liter
Oil	0.5 milligram per liter
pH value	6.5 - 9.0
Phenols as phenol	0.01 milligram per liter and none that could impart odor or taste to fish flesh or other freshwater edible

	products such as crayfish, clams, prawns and like creatures. Where it seems probable that a discharge may result in tainting of edible aquatic products, bioassays and taste panels will be required to determine whether tainting is likely or present.
Turbidity value	25 NTUs
Fecal coliform organisms	200 organisms per 100 milliliters as a geometric mean measured in not less than five samples in any calendar month, nor shall more than 10% of all samples taken during any calendar month individually exceed 2000 organisms per 100 milliliters. (Applies only between March 1 and October 31.)
Radioactive materials	Not to exceed the lowest concentration permitted to be discharged to an uncontrolled environment as prescribed by the appropriate authority having control over their use.
Total Residual Chlorine***	0.005 milligram per liter

*This standard applies to all waters of the state except for the reach of the Mississippi River from the outlet of the metro wastewater treatment works in Saint Paul (River Mile 835) to Lock and Dam No. 2 at Hastings (River Mile 815). For this reach of the Mississippi River the standard is not less than five milligrams per liter as a daily average from April 1 through November 30, and not less than four milligrams per liter at other times.

**See ammonia footnote for Class 2A waters.

***See chlorine footnote for Class 2A waters.

****See dissolved oxygen footnote for Class 2A waters.

C. Class C. The quality of this class of the waters of the state shall be such as to permit the propagation and maintenance of rough fish or species commonly inhabiting waters of the vicinity under natural conditions, maintain the habitat for such fisheries, and be suitable for boating and other forms of aquatic recreation for which the waters may be usable. Limiting concentrations or ranges of substances or characteristics which should not be exceeded in the waters are given below:

Substance or Characteristic	Limit or Range
Dissolved oxygen*	Not less than 5 milligrams per liter at all times (instantaneous minimum concentration.)****
Temperature	5°F above natural in streams and 3°F above natural in lakes, based on monthly average of the

	maximum daily temperature except in no case shall it exceed the daily average temperature of 90°F.
Ammonia (N)**	0.04 milligram per liter (un-ionized as N)
Chromium (Cr)	0.05 milligram per liter
Copper (Cu)	0.01 milligram per liter or not greater than 1/10 the 96 hour TLM value.
Cyanides (CN)	0.02 milligram per liter
Oil	10 milligrams per liter, and none in such quantities as to (1) produce a visible color film on the surface, (2) impart an oil odor to water or an oil taste to fish and edible invertebrates, (3) coat the banks and bottom of the watercourse or taint any of the associated biota, or (4) become effective toxicants according to the criteria recommended.
pH value	6.5 - 9.0
Phenols as phenol	0.1 milligram per liter and none that could impart odor or taste to fish flesh or other freshwater edible products such as crayfish, clams, prawns and like creatures. Where it seems probable that a discharge may result in tainting of edible aquatic products, bioassays and taste panels will be required to determine whether tainting is likely or present.
Turbidity value	25 NTUs
Fecal coliform organisms	200 organisms per 100 milliliters as a geometric mean measured in not less than five samples in any calendar month, nor shall more than 10% of all samples taken during any calendar month individually exceed 2000 organisms per 100 milliliters. (Applies only between March 1 and October 31.)
Radioactive materials	Not to exceed the lowest concentrations permitted to be discharged to an uncontrolled environment as prescribed by the appropriate authority having control over their use.

Total residual chlorine***	0.005 milligram per liter

*This standard applies to all waters of the state except for the reach of the Mississippi River from the outlet of the metro wastewater treatment works in Saint Paul (River Mile 835) to Lock and Dam No. 2 at Hastings (River Mile 815) and except for the reach of the Minnesota River from the outlet of the Blue Lake wastewater treatment works (River Mile 21) to the mouth at Fort Snelling. For this reach of the Mississippi River the standard is not less than five milligrams per liter as a daily average from April 1 through November 30, and not less than four milligrams per liter at other times. For the specified reach of the Minnesota River the standard shall be not less than five milligrams per liter as a daily average year round.

**See ammonia footnote for Class 2A waters.

***See chlorine footnote for Class 2A waters.

****See dissolved oxygen footnote for Class 2A waters.

For all classes of fisheries and recreation waters, the aquatic habitat, which includes the waters of the state and stream bed, shall not be degraded in any material manner, there shall be no material increase in undesirable slime growths or aquatic plants, including algae, nor shall there be any significant increase in harmful pesticide or other residues in the waters, sediments, and aquatic flora and fauna; the normal fishery and lower aquatic biota upon which it is dependent and the use thereof shall not be seriously impaired or endangered, the species composition shall not be altered materially, and the propagation or migration of the fish and other biota normally present shall not be prevented or hindered by the discharge of any sewage, industrial waste, or other wastes to the waters of the state.

No sewage, industrial waste, or other wastes from point or nonpoint sources shall be discharged into any of the waters of this category so as to cause any material change in any other substances or characteristics which may impair the quality of the waters of the state or the aquatic biota of any of the above listed classes or in any manner render them unsuitable or objectionable for fishing, fish culture, or recreational uses. Additional selective limits or changes in the discharge bases may be imposed on the basis of local needs.

Subp. 4. 3. **Industrial consumption.**

A. Class A. The quality of this class of the waters of the state shall be such as to permit their use without chemical treatment, except softening for groundwater, for most industrial purposes, except food processing and related uses, for which a high quality of water is required. The quality shall be generally comparable to Class B waters for domestic consumption, except for the following:

Substance or Characteristic	Limit or Range
Chlorides (Cl)	50 milligrams per liter
Hardness, Ca + Mg as $CaCO_3$	50 milligrams per liter
pH value	6.5 - 8.5

B. Class B. The quality of this class of the waters of the state shall be such as to permit their use for general industrial purposes, except for food processing, with only a moderate degree of treatment. The quality shall be generally comparable to Class D waters of the state used for domestic consumption, except the following:

Substance or Characteristic	Limit or Range
Chlorides (Cl)	100 milligrams per liter
Hardness, Ca + Mg as $CaCO_3$	250 milligrams per liter
pH value	6.0 - 9.0

C. Class C. The quality of this class of the waters of the state shall be such as to permit their use for industrial cooling and materials transport without

a high degree of treatment being necessary to avoid severe fouling, corrosion, scaling, or other unsatisfactory conditions. The following shall not be exceeded in the waters of the state:

Substance or Characteristic	Limit or Range
Chlorides (Cl)	250 milligrams per liter
Hardness, Ca + Mg as $CaCO_3$	500 milligrams per liter
pH value	6.0 - 9.0

Additional selective limits may be imposed for any specific waters of the state as needed.

In addition to the above listed standards, no sewage, industrial waste, or other wastes from point or nonpoint sources, treated or untreated, shall be discharged into or permitted by any person to gain access to any waters of the state classified for industrial purposes so as to cause any material impairment of their use as a source of industrial water supply.

Subp. 5. **4. Agriculture and wildlife.**

A. Class A. The quality of this class of the waters of the state shall be such as to permit their use for irrigation without significant damage or adverse effects upon any crops or vegetation usually grown in the waters or area, including truck garden crops. The following concentrations or limits shall be used as a guide in determining the suitability of the waters for such uses, together with the recommendations contained in Handbook 60 published by the Salinity Laboratory of the United States Department of Agriculture, and any revisions, amendments, or supplements to it:

Substance or Characteristic	Limit or Range
Bicarbonates (HCO_3)	5 milliequivalents per liter
Boron (B)	0.5 milligram per liter
pH value	6.0 - 8.5
Specific conductance	1,000 micromhos per centimeter
Total dissolved salts	700 milligrams per liter
Sodium (Na)	60% of total cations as milliequivalents per liter
Sulfates (SO_4)	10 milligrams per liter, applicable to water used for production of wild rice during periods when the rice may be susceptible to damage by high sulfate levels.
Radioactive materials	Not to exceed the lowest concentrations permitted to be discharged to an uncontrolled environment as prescribed by the appropriate authority having control over their use.

B. Class B. The quality of this class of the waters of the state shall be such as to permit their use by livestock and wildlife without inhibition or injurious effects. The limits or concentrations of substances or characteristics given below shall not be exceeded in the waters of the state:

Substance or Characteristic	Limit or Range
pH value	6.0 - 9.0
Total salinity	1,000 milligrams per liter
Radioactive materials	Not to exceed the lowest concentrations permitted to be discharged to an

	uncontrolled environment as prescribed by the appropriate authority having control over their use.
Unspecified toxic substances	None at levels harmful either directly or indirectly.

Additional selective limits may be imposed for any specific waters of the state as needed.

Subp. 6. **5. Aesthetic enjoyment and navigation.** The quality of this class of the waters of the state shall be such as to be suitable for aesthetic enjoyment of scenery and to avoid any interference with navigation or damaging effects on property. The following limits or concentrations shall not be exceeded in the waters of the state:

Substance or Characteristic	Limit or Range
pH value	6.0 - 9.0
Hydrogen sulfide as S	0.02 milligram per liter

Additional selective limits may be imposed for any specific waters of the state as needed.

[For text of subps 7 and 8, see M.R. 1987]

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0400 PURPOSE.

Parts 7050.0400 to 7050.0470 classify all surface waters within or bordering Minnesota and designate appropriate beneficial uses for these waters. The use classifications are defined in part 7050.0200.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0420 TROUT WATERS.

Trout streams and trout lakes described in Department of Natural Resources Commissioner's orders 2089 (dated June 26, 1981) and 2230 (dated December 24, 1985) respectively are hereby classified as trout waters. Other lakes that are classified as trout waters are listed in part 7050.0470. All trout waters are classified 1B, 2A, 3B, 3C, 4A, 4B, 5, and 6.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0430 UNLISTED WATERS.

All surface waters of the state that are not listed in part 7050.0470 are hereby classified as 2B, 3B, 4A, 4B, 5, and 6 class waters.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0440 OTHER CLASSIFICATIONS SUPERSEDED.

Parts 7050.0400 to 7050.0470 supersede any other previous classifications and any classifications in other rules including parts 7056.0010 to 7056.0040.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0460 WATERS SPECIFICALLY CLASSIFIED.

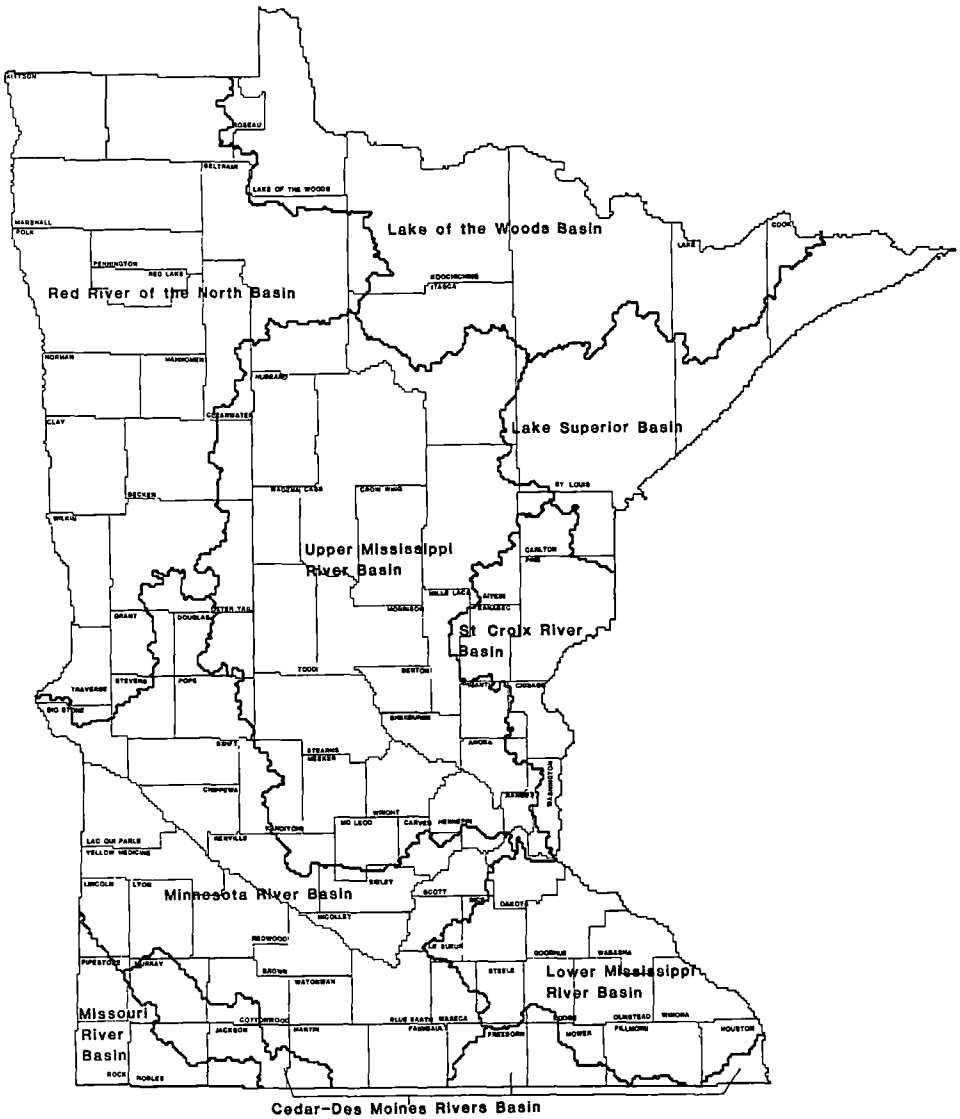
The waters of the state listed in part 7050.0470 are hereby classified as

specified. The specific stretch of watercourse or the location of a waterbody is described by township, range, and section, abbreviated as T., R., S., respectively. Any community listed in part 7050.0470 is the community nearest the water classified, and is included solely to assist in identifying the water. An asterisk (*) indicates the water is designated as an outstanding resource value water.

Statutory Authority: *MS s 115.03; 115.44*

History: *12 SR 1810*

7050.0465 MAP: MAJOR SURFACE WATER DRAINAGE BASINS.



Statutory Authority: *MS s 115.03; 115.44*
History: *12 SR 1810*

7050.0470 CLASSIFICATIONS FOR WATERS IN MAJOR SURFACE WATER DRAINAGE BASINS.

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

[For text of subpart 1, item A, see M.R. 1987]

B. Lakes:

(1) *Alder Lake, (T.64, R.1E): 1B, 2A, 3B;
(2) *Alton Lake, (T.62, 63, R.4, 5): 1B, 2A, 3B;
(3) Bearskin Lake, East, (T.64, R.1E, 1W): 1B, 2A, 3B;
(4) *Bearskin Lake, West, (T.64, 65, R.1): 1B, 2A, 3B;
(5) *Birch Lake, (T.65, R.1, 2): 1B, 2A, 3B;
(6) Black Lake, (T.45, R.15): 1B, 2B, 3B;
(7) *Brule Lake, (T.63, R.2, 3): 1B, 2A, 3B;
(8) Chester Lake, (T.64, R.3E): 1B, 2A, 3B;
(9) *Clearwater Lake (Emby Lake), (T.65, R.1E): 1B, 2A, 3B;
(10) Colby Lake, (T.58, R.14): 1B, 2B, 3B;
(11) *Cone Lake, North, (T.63, 64, R.3): 1B, 2A, 3B;
(12) *Crystal Lake, (T.64, R.1E, 2E): 1B, 2A, 3B;
(13) *Daniels Lake, (T.65, R.1E, 1W): 1B, 2A, 3B;
(14) *Davis Lake, (T.64, R.3): 1B, 2A, 3B;
(15) *Devilfish Lake, (T.64, R.3E): 1B, 2A, 3B;
(16) *Duncan Lake, (T.65, R.1): 1B, 2A, 3B;
(17) *Dunn Lake, (T.65, R.1, 2): 1B, 2A, 3B;
(18) *Echo Lake, (T.59, R.6): 1B, 2A, 3B;
(19) *Esther Lake, (T.63, 64, R.3E): 1B, 2A, 3B;
(20) *Fan Lake, (T.65, R.2E): 1B, 2B, 3A;
(21) Flour Lake, (T.64, R.1E, 1W): 1B, 2A, 3B;
(22) Fowl Lake, North, (T.64, 65, R.3E): 1B, 2B, 3A;
(23) Fowl Lake, South, (T.64, 65, R.3E): 1B, 2B, 3A;
(24) *Gaskin Lake, (T.64, R.2): 1B, 2A, 3B;
(25) *Greenwood Lake, (T.64, R.2E): 1B, 2A, 3B;
(26) *Hungry Jack Lake, (T.64, 65, R.1): 1B, 2A, 3B;
(27) *Jim Lake (Jerry Lake), (T.64, R.1E): 1B, 2A, 3B;
(28) *Kemo Lake, (T.63, R.1): 1B, 2A, 3B;
(29) *Lily Lakes, (T.65, R.2E): 1B, 2B, 3A;
(30) McFarland Lake, (T.64, R.3E): 1B, 2A, 3B;
(31) *Misquah Lake, (T.64, R.1): 1B, 2A, 3B;
(32) *Moose Lake, (T.65, R.2E, 3E): 1B, 2A, 3A;
(33) *Morgan Lake, (T.64, R.1): 1B, 2A, 3B;
(34) *Moss Lake, (T.65, R.1): 1B, 2A, 3B;
(35) *Mountain Lake, (T.65, R.1E, 2E): 1B, 2A, 3B;
(36) *Musquash Lake, (T.63, R.1E): 1B, 2A, 3B;
(37) *Onega Lake (Omega Lake), (T.64, R.2, 3): 1B, 2A, 3B;
(38) *Otto Lake, Lower, (T.64, R.2): 1B, 2A, 3B;
(39) *Partridge Lake, (T.65, R.1): 1B, 2A, 3B;
(40) *Pike Lake, West, (T.65, R.2E): 1B, 2A, 3B;
(41) *Pine Lake, (T.64, 65, R.1E, 2E, 3E): 1B, 2A, 3B;
(42) *Ram Lake, (T.63, R.1): 1B, 2A, 3B;

(43) *Rose Lake, (T.65, R.1): 1B, 2A, 3B;
(44) Saint Mary's Lake, (T.57, R.17, S.9, 16, 17): 1C, 2B, 3B;
(45) *Sawbill Lake, (T.62, 63, R.4): 1B, 2B, 3B;
(46) Seven Beaver Lake, (T.58, R.11, 12): 2B, 3A;
(47) *South Lake, (T.65, R.1, 2): 1B, 2A, 3B;
(48) *State Lake, (T.63, 64, R.2): 1B, 2A, 3B;
(49) *Superior, Lake, (T.49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, R.14W-7E): 1B, 2A, 3A;
(50) *Swan Lake, (T.63, R.2): 1B, 2A, 3B;
(51) *Trout Lake, (T.62, R.2E): 1B, 2A, 3B;
(52) *Trout Lake, Little, (T.63, R.1): 1B, 2A, 3B;
(53) *Twin Lake, Upper (Bear Lake), (T.56, R.8): 1B, 2A, 3B;
(54) *Vista Lake, (T.64, R.1): 1B, 2A, 3B;
(55) *Wanihigan Lake (Trap Lake), (T.63, 64, R.2, 3): 1B, 2A, 3B;
(56) *Winchell Lake, (T.64, R.2, 3): 1B, 2A, 3B;
(57) *Black Lake Bog (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; and
(58) *All other lakes in the Boundary Waters Canoe Area Wilderness: 1B, 2B, 3B.

Subp. 2. **Lake of the Woods Basin.** The water use classifications for the listed waters in Lake of the Woods Basin are as identified in items A and B:

[For text of subp 2, item A, see M.R. 1987]

B. Lakes:
(1) *Adams Lake, (T.64, R.6): 1B, 2A, 3B;
(2) *Agamok Lake, (T.65, R.5, 6): 1B, 2A, 3B;
(3) *Ahmakose Lake, (T.64, R.7): 1B, 2A, 3B;
(4) *Alpine Lake, (T.65, R.5): 1B, 2A, 3B;
(5) *Amoeber Lake, (T.65, R.6, 7): 1B, 2A, 3B;
(6) *Arkose Lake, (T.64, 65, R.7): 1B, 2A, 3B;
(7) *Ashdick Lake (Caribou Lake), (T.66, R.6): 1B, 2A, 3B;
(8) *Basswood Lake, (T.64, 65, R.9, 10): 1B, 2A, 3B;
(9) *Bat Lake, (T.64, 65, R.5): 1B, 2A, 3B;
(10) *Beartrack Lake, (T.67, R.15): 1B, 2A, 3B;
(11) *Beaver Lake (Elbow Lake), (T.63, 64, R.6, 7): 1B, 2A, 3B;
(12) *Bingshick Lake, (T.65, R.4, 5): 1B, 2A, 3B;
(13) *Brandt Lake, (T.65, R.4): 1B, 2A, 3B;
(14) *Burntside Lake, (T.63, 64, R.12, 13, 14): 1B, 2A, 3B;
(15) *Camp Lake, (T.64, R.11): 1B, 2B, 3B;
(16) *Caribou Lake, (T.58, R.26): 1B, 2A, 3B;
(17) *Cash Lake, (T.64, R.3): 1B, 2A, 3B;
(18) *Cherokee Lake, (T.63, 64, R.4): 1B, 2A, 3B;
(19) *Cherry Lake, (T.65, R.6): 1B, 2A, 3B;
(20) *Crab Lake, (T.63, R.13, 14): 1B, 2A, 3B;
(21) Crab Lake, (T.65, R.2, 3): 1B, 2A, 3B;
(22) Crane Lake, (T.67, 68, R.16, 17): 1B, 2A, 3A;
(23) *Crooked Lake, (T.64, R.5): 1B, 2A, 3B;
(24) *Crooked Lake, (T.66, R.11, 12): 1B, 2A, 3B;

(25) *Cruiser Lake (Trout Lake), (T.69, 70, R.19): 1B, 2A, 3B;
(26) *Eddy Lake, (T.65, R.6): 1B, 2A, 3B;
(27) *Ester Lake (Gnig Lake), (T.65, 66, R.6): 1B, 2A, 3B;
(28) *Eugene Lake, (T.67, R.15): 1B, 2A, 3B;
(29) *Explorer Lake (South Three Lake), (T.64, R.7, 8): 1B, 2A, 3B;
(30) Fall Lake, (T.63, 64, R.11, 12): 1B, 2B, 3B;
(31) *Fat Lake, (T.67, R.15): 1B, 2A, 3B;
(32) *Fay Lake, (T.65, R.5): 1B, 2A, 3B;
(33) *Fern Lake, (T.64, R.5): 1B, 2A, 3B;
(34) *Fern Lake, West, (T.64, R.5): 1B, 2A, 3B;
(35) *Finger Lake, (T.67, R.14): 1B, 2A, 3B;
(36) *Fishdance Lake, (T.63, R.7): 1B, 2A, 3B;
(37) *Fraser Lake, (T.64, R.7): 1B, 2A, 3B;
(38) *French Lake, (T.64, 65, R.5): 1B, 2A, 3B;
(39) *Frost Lake, (T.64, R.4): 1B, 2A, 3B;
(40) *Gabimichigami Lake, (T.64, 65, R.5, 6): 1B, 2A, 3B;
(41) *Ge-Be-On-Equat Lake, (T.67, R.14): 1B, 2A, 3B;
(42) *Gijikiki Lake (Cedar Lake), (T.65, 66, R.6): 1B, 2A, 3B;
(43) *Gillis Lake, (T.64, 65, R.5): 1B, 2A, 3B;
(44) *Gordon Lake, (T.64, R.4): 1B, 2A, 3B;
(45) *Gun Lake, (T.67, 68, R.15): 1B, 2A, 3B;
(46) *Gunflint Lake, (T.65, R.2, 3, 4): 1B, 2A, 3B;
(47) Gunflint Lake, Little, (T.65, R.2): 1B, 2B, 3B;
(48) *Hanson Lake, (T.65, 66, R.6): 1B, 2A, 3B;
(49) *Holt Lake, (T.65, R.6): 1B, 2A, 3B;
(50) *Howard Lake, (T.65, R.5): 1B, 2A, 3B;
(51) *Hustler Lake, (T.66, 67, R.14): 1B, 2A, 3B;
(52) *Ima Lake (Slate Lake), (T.64, R.7, 8): 1B, 2A, 3B;
(53) *Jasper Lake, (T.65, R.5): 1B, 2A, 3B;
(54) *Johnson Lake, (T.67, 68, R.17, 18): 1B, 2A, 3B;
(55) *Kabetogama Lake, (T.69, 70, R.20, 21, 22): 1B, 2B, 3A;
(56) *Karl Lake, (T.64, R.3, 4): 1B, 2A, 3B;
(57) *Kek Lake, Little, (T.65, R.6, 7): 1B, 2A, 3B;
(58) *Kekekabic Lake, (T.64, 65, R.6, 7): 1B, 2A, 3B;
(59) *Knife Lake, (T.65, R.7, 8): 1B, 2A, 3B;
(60) *Lake of the Clouds Lake (Dutton Lake), (T.65, R.6): 1B, 2A, 3B;
(61) *Larson Lake, (T.61, R.24): 1B, 2A, 3B;
(62) *Long Island Lake, (T.64, R.3, 4): 1B, 2A, 3B;
(63) *Loon Lake, (T.65, R.3): 1B, 2A, 3B;
(64) *Loon Lake, (T.66, 67, R.15): 1B, 2A, 3B;
(65) *Lunar Lake (Moon Lake), (T.65, R.6): 1B, 2A, 3B;
(66) *Lynx Lake, (T.66, R.14, 15): 1B, 2A, 3B;
(67) *Magnetic Lake, (T.65, R.3, 4): 1B, 2A, 3B;
(68) *Makwa Lake (Bear Lake), (T.64, R.6): 1B, 2A, 3B;
(69) *Marble Lake, (T.64, R.6): 1B, 2A, 3B;
(70) *Mayhew Lake, (T.65, R.2): 1B, 2A, 3B;
(71) *Mesaba Lake, (T.63, R.5): 1B, 2A, 3B;

(72) *Missionary Lake (East Three Lake), (T.64, R.7, 8): 1B, 2A, 3B;
(73) *Moose Lake, (T.64, R.9, 10): 1B, 2B, 3B;
(74) *Mora Lake, (T.64, R.5): 1B, 2A, 3B;
(75) *Mukooda Lake, (T.68, R.17): 1B, 2A, 3B;
(76) *Namakan Lake, (T.69, R.17, 18, 19): 1B, 2B, 3A;
(77) *North Lake, (T.65, R.2): 1B, 2A, 3B;
(78) North Lake, Little, (T.65, R.2): 1B, 2B, 3B;
(79) *Ogishkemuncie Lake, (T.65, R.6): 1B, 2A, 3B;
(80) *Ojibway Lake (Upper Twin), (T.63, R.9, 10): 1B, 2A, 3B;
(81) *Owl Lake, (T.64, R.5): 1B, 2A, 3B;
(82) *Oyster Lake, (T.66, R.14): 1B, 2A, 3B;
(83) *Peter Lake, (T.64, 65, R.5): 1B, 2A, 3B;
(84) *Portage Lake, (T.65, R.8): 1B, 2A, 3B;
(85) *Powell Lake, (T.64, 65, R.5): 1B, 2A, 3B;
(86) *Rabbit Lake, (T.66, R.6): 1B, 2A, 3B;
(87) *Rainy Lake, (T.70, 71, R.18, 19, 20, 21, 22, 23): 1B, 2B, 3A;
(88) *Raven Lake (Lynx Lake), (T.64, R.6): 1B, 2A, 3B;
(89) *Red Rock Lake, (T.65, 66, R.5): 1B, 2A, 3B;
(90) *Ruby Lake, Big, (T.66, R.14): 1B, 2A, 3B;
(91) *Saganaga Lake, (T.66, 67, R.4, 5): 1B, 2A, 3B;
(92) *Saganaga Lake, Little, (T.64, R.5, 6): 1B, 2A, 3B;
(93) *Sand Point Lake, (T.68, 69, R.16, 17): 1B, 2A, 3A;
(94) *Sea Gull Lake, (T.65, 66, R.4, 5): 1B, 2A, 3B;
(95) *Sema Lake (Coon Lake), (T.65, R.7): 1B, 2A, 3B;
(96) *Snowbank Lake, (T.63, 64, R.8, 9): 1B, 2A, 3B;
(97) *Spoon Lake (Fames Lake), (T.65, R.7): 1B, 2A, 3B;
(98) *Spring Lake, (T.68, R.18): 1B, 2A, 3B;
(99) *Strup Lake, (T.64, R.7): 1B, 2A, 3B;
(100) *Sumpet Lake, (T.61, R.7): 1B, 2B, 3B;
(101) *Takucmich Lake, (T.67, 68, R.14): 1B, 2A, 3B;
(102) *Tarry Lake, (T.64, R.5): 1B, 2A, 3B;
(103) *Thomas Lake, (T.63, 64, R.7): 1B, 2A, 3B;
(104) *Thumb Lake, (T.67, R.14): 1B, 2A, 3B;
(105) *Topaz Lake (Star Lake), (T.65, R.6): 1B, 2A, 3B;
(106) *Town Lake, (T.63, 64, R.3, 4): 1B, 2A, 3B;
(107) *Trout Lake, Big, (T.63, 64, R.15, 16): 1B, 2A, 3B;
(108) *Trout Lake, Little (Pocket Lake), (T.68, R.17): 1B, 2A, 3B;
(109) *Tucker Lake, (T.64, R.3): 1B, 2B, 3B;
(110) *Tuscarora Lake, (T.64, R.4, 5): 1B, 2A, 3B;
(111) *Vera Lake, (T.64, R.8): 1B, 2A, 3B;
(112) *Virgin Lake, (T.64, R.5): 1B, 2A, 3B;
(113) *Wine Lake, (T.63, R.5): 1B, 2A, 3B;
(114) *Wisini Lake, (T.64, R.7): 1B, 2A, 3B;
(115) Lake of the Woods, (T.161, 162, 163, 164, 165, 166, 167, 168, R.30, 31, 32, 33, 34, 35): 1B, 2B, 3A;
(116) Unnamed Swamp, Winton, (T.63, R.11, S.19; T.63, R.12, S.24): 7;
(117) *All other lakes in the Boundary Waters Canoe Area Wilderness: 1B, 2B, 3B; and

(118) *All other lakes in the Voyageurs National Park: 2B, 3B.

Subp. 3. **Red River of the North Basin.** The water use classifications for the listed waters in the Red River of the North Basin are as identified in items A, B, and C:

[For text of subp 3, item A, see M.R. 1987]

B. Lakes:

(1) Lake Bronson, (T.160, 161, R.46): 1C, 2B, 3B;

(2) Twin Lake, East, (T.138, R.41): 1B, 2A, 3B;

(3) Unnamed Slough, Vergas, (T.137, R.40, S.18; T.137, R.41, S.13, 24): 7; and

(4) *Green Water Lake, (Waters withm the Green Water Lake Scientific and Natural Area, Becker County, T.141, R.38, S.28, 33, 34): 2B, 3B.

C. Fens:

(1) *B-B Ranch Fen, (T.141, R.46, S.13): 2B, 3B;

(2) *Barnesville WMA Fen, (T.137, R.45, S.1): 2B, 3B;

(3) *Chicog WMA Fen, (T.148, R.45, S.20, 29, 33): 2B, 3B;

(4) *Clearbrook Fen, (T.149, R.37, S.17): 2B, 3B;

(5) *Felton Fen, (T.142, R.46, S.36): 2B, 3B;

(6) *Kertsonville WMA Fen, (T.149, R.45, S.16): 2B, 3B;

(7) *Pankratz Fen (Svedarsky's Fen), (T.149, R.45, S.17): 2B, 3B;

(8) *Pembina Trail Preserve, (Waters within the Pembina Trail Preserve Scientific and Natural Area, Polk County, S.1, 2, T.148, R.45; S.18, 19, 30, 31, T.149, R.44; S.13, 24, 25, 36, T.149, R.45): 2B, 3B;

(9) *Primula Meadow (Faith Fen), (T.144, R.43, S.25): 2B, 3B;

(10) *Spring Creek Fen, (T.142, R.42, S.13): 2B, 3B;

(11) *Spring Prairie Fen, (T.140, R.46, S.11): 2B, 3B; and

(12) *Waubun Fen, (T.143, R.42, S.25): 2B, 3B.

Subp. 4. **Upper Mississippi River Basin.** The water use classifications for the listed waters in the Upper Mississippi River Basin are as identified in items A and B:

A. Streams:

[For text of subp 4, item A, subitems (1) to (19), see M.R 1987]

(20) Cat River (excluding trout waters), (T.136, 137, R.33, 34, 35): 2C;

(21) Chase Brook, (T.38, 39, R.27): 2C;

(22) Clearwater Creek, (T.56, 57, R.24, 25): 2C;

(23) Coon Creek, (T.43, R.29, 30): 2C;

(24) County Ditch No. 15 (Bear Creek), Bertha, (T.132, R.35, S.2; T.133, R.34, S.7; T.133, R.35, S.12, 13, 24, 25, 26, 35): 7;

(25) County Ditch No. 23, Garfield, (T.129, R.38, S.26, 27): 7;

(26) County Ditch No. 23A, Willmar, (T.119, R.34, S.29, 30; T.119, R.35, S.23, 25, 26): 7;

(27) County Ditch No. 42, McGregor, (T.48, R.23, S.29, 32): 7;

(28) County Ditch No. 63, Near Hutchinson, West Lynn Coop Cry., (T.116, R.30, S.19, 20, 21, 28, 33): 7;

(29) County Ditch No. 132, Lakeside, Lakeside Coop Cry., (T.116, R.31, S.16, 21): 7;

(30) Crane Creek (excluding Class 7 segment), (T.116, 117, R.26, 27): 2C;

(31) Crane Creek, Winsted, (T.117, R.27, S.14, 20, 21, 22, 23, 24, 25): 7;

(32) *Crow River, North Fork, (From the Lake Koronis outlet to the Meeker - Wright County line): 2B, 3B;

(33) Dagget Brook, (T.43, R.29, 30): 2C;

(34) Eagle Creek, (T.120, R.29): 2C;

(35) Elk River, Little, (T.130, 131, R.30, 31): 2C;

(36) Elk River, South Branch, Little, (T.130, R.30, 31, 32): 2C;

(37) Estes Brook, (T.36, 37, 38, R.27, 28): 2C;

(38) Everton Creek, (T.149, R.30): 2C;

(39) Farley Creek, (T.147, R.28): 2C;

(40) Fish Creek, (T.28, R.22): 2C;

(41) Fletcher Creek, (T.42, R.31): 2C;

(42) Foley Brook, (T.141, R.25): 2C;

(43) Frederick Creek, (T.119, R.25): 2C;

(44) Frontenac Creek, (T.145, R.34): 2C;

(45) Hanson Brook, (T.40, R.27): 2C;

(46) Hay Creek, (T.43, 44, R.30, 31): 2C;

(47) Hazel Creek, (T.127, R.29, 30): 2C;

(48) Hennepin Creek (excluding trout waters), (T.144, 145, 146, R.34, 35): 2C;

(49) Indian Creek, (T.141, 142, R.36, 37): 2C;

(50) Irish Creek, (T.129, R.31): 2C;

(51) Iron Creek, (T.135, R.32): 2C;

(52) Jewett Creek, (T.119, 120, R.30, 31): 2C;

(53) Johnson Creek, (T.137, R.28): 2C;

(54) Judicial Ditch No. 1, Lakeside, Lakeside Coop Cry., (T.116, R.31, S.28, 33): 7;

(55) Judicial Ditch No. 15, Buffalo Lake, Iowa Pork Industries, Hector, (T.115, R.31, S.15, 16, 20, 21, 29, 30; T.115, R.32, S.22, 25, 26, 27, 28, 32, 33): 7;

(56) Kettle Creek, (T.138, R.35, 36, 37): 2C;

(57) Kitchi Creek, (T.146, 147, R.29, 30): 2C;

(58) Kitten Creek, (T.137, R.34, 35): 2C;

(59) LaSalle Creek (excluding trout waters), (T.143, 144, R.35): 2C;

(60) LaSalle River, (T.144, 145, R.35): 2C;

(61) Laura Brook, (T.141, R.26): 2C;

(62) Meadow Creek, (T.128, R.30): 2C;

(63) Mike Drew Brook, (T.38, 39, R.26, 27): 2C;

(64) Mink Creek, Big, (T.41, 42, R.30, 31): 2C;

(65) Mink Creek, Little, (T.41, 42, R.29, 30, 31): 2C;

(66) *Mississippi River, (From Lake Itasca to Fort Ripley): 2B, 3B;

(67) *Mississippi River, (From Fort Ripley to the southerly border of Morrison County): 1C, 2B, 3B;

(68) Mississippi River, (From the southerly boundary of Morrison County to County State Aid Highway 7 bridge in Saint Cloud): 1C, 2B, 3B;

(69) *Mississippi River, (County State Aid Highway 7 bridge in Saint Cloud to the northwestern city limits of Anoka): 1C, 2B, 3B;

(70) Mississippi River, (From the northwestern city limits of Anoka to the Upper Lock and Dam at Saint Anthony Falls in Minneapolis): 1C, 2B, 3B;

(71) Mississippi River, (Outlet of Metro Wastewater Treatment Works in Saint Paul to river mile 830, Rock Island RR Bridge): 2C, 3B;

(72) Northby Creek, (T.140, R.27): 2C;

(73) Norway Brook, (T.139, R.30): 2C;

(74) O'Brien Creek, (T.56, 57, R.22): 2C;

(75) O'Neill Brook, (T.38, R.26): 2C;

(76) Oak Ridge Creek (Oak Creek), (T.133, 134, R.36): 2C;

(77) Pigeon River, (T.147, R.27): 2C;

(78) Pike Creek (except Class 7 segment), (T.129, R.30): 2C;

(79) Pike Creek, Flensburg, (T.129, R.30, S.17, 18, 19, 20): 7;

(80) Pillager Creek, (T.133, R.30): 2C;

(81) Pioneer Creek, (T.118, R.24): 2C;

(82) Prairie Brook, (T.36, R.27): 2C;

(83) Rat Creek, (T.144, 145, R.34): 2C;

(84) Rice Creek, (T.30, 31, 32, R.22, 23, 24): 1C, 2B, 3B;

(85) Rice Creek, (T.35, R.29): 2C;

(86) *Rum River, (From the Ogechie Lake spillway to the northernmost confluence with Lake Onamia): 2B, 3B;

(87) *Rum River, (From the State Highway 27 bridge in Onamia to Madison and Rice Streets in Anoka): 2B, 3B;

(88) Seven Mile Creek, (T.133, 134, R.30, 31): 2C;

(89) Six Mile Brook, (T.143, 144, R.26, 27): 2C;

(90) Skimmerhorn Creek, (T.149, R.30): 2C;

(91) Skunk Creek, (T.144, R.34): 2C;

(92) Skunk River (Co. Dt. No. 37) (Co. Dt. No. 29), Brooten, (T.123, R.35, S.4, 5, 9; T.123, R.35, S.9, 10, 11, 12; T.123, R.34, S.3, 4, 5, 6, 7, 8): 7;

(93) Snowball Creek, (T.56, R.23): 2C;

(94) Split Hand Creek, (T.53, R.24): 2C;

(95) Stag Brook, (T.121, 122, R.30, 31): 2C;

(96) Stanchfield Brook, Lower Braham, (T.37, R.23, S.3, 10, 15, 22): 7;

(97) Stocking Creek, (T.138, R.35): 2C;

(98) Stony Brook (Stoney Brook), Foley, (T.36, R.29, S.2, 9, 10, 11, 16; T.37, R.29, S.35, 36): 7;

(99) Stony Creek, (T.140, R.28): 2C;

(100) Stony Point Brook, (T.147, R.28): 2C;

(101) Sucker Creek (Gould Creek) (excluding trout waters), (T.143, 144, R.36): 2C;

(102) Swamp Creek, Big, (T.137, 138, 139, R.32, 33): 2C;

(103) Swamp Creek, Little, (T.136, 137, R.33): 2C;

(104) Swan Creek, (T.134, 135, R.32): 2C;

(105) Swan Creek, Little, (T.135, R.32): 2C;

(106) Swift River, (T.142, R.27): 2C;

(107) Taylor Creek, (T.128, R.31): 2C;

(108) Ted Brook Creek, (T.130, R.31): 2C;

(109) Tibbits Brook, (T.33, 34, R.26, 27): 2C;

(110) Tibbetts Creek (Tibbetts Brook), (T.39, 40, R.27, 28): 2C;

(111) Tower Creek, (T.135, R.32, 33): 2C;

(112) Two Rivers, South Branch, Albany, (T.125, R.31, S.21, 22, 23): 7;

(113) Unnamed Creek, Calumet, (T.56, R.23, S.21): 7;

(114) Unnamed Creek, Hiller Mobile Home Court, (T.119, R.26, S.22, 26, 27, 35): 7;

(115) Unnamed Creek, Grove City, (T.120, R.32, S.34, 35, 36): 7;

(116) Unnamed Creek, Albertville, (T.121, R.23, S.30; T.121, R.24, S.25, 36): 7;

(117) Unnamed Creek, Eden Valley, Ruhland Feeds, (T.121, R.31, S.2; T.122, R.31, S.35): 7;

(118) Unnamed Creek, Lake Henry, (T.123, R.33, S.11, 14): 7;

(119) Unnamed Creek, Miltona, (T.129, R.36, S.6; T.130, R.36, S.30, 31): 7;

(120) Unnamed Ditch, Braham, (T.37, R.23, S.2, 3): 7;

(121) Unnamed Ditch, Ramey, Ramey Farmers Coop Cry., (T.38, R.28, S.4, 5; T.39, R.28, S.29, 30, 32; T.39, R.29, S.25, 26, 27, 28): 7;

(122) Unnamed Ditch, McGregor, (T.48, R.23, S.31, 32): 7;

(123) Unnamed Ditch, Nashwauk, (T.56, R.22, S.4, 5; T.57, R.22, S.32): 7;

(124) Unnamed Ditch, Taconite, (T.56, R.24, S.22): 7;

(125) Unnamed Ditch, Glencoe, Green Giant, (T.115, R.28, S.21, 22, 27, 28): 7;

(126) Unnamed Ditch, Glencoe, Green Giant, (T.115, R.28, S.14, 23): 7;

(127) Unnamed Ditch, Winsted, Green Giant, (T.117, R.27, S.10, 11): 7;

(128) Unnamed Ditch, Hiller Mobile Home Court, (T.119, R.26, S.34, 35): 7;

(129) Unnamed Ditch, Kandiyohi, (T.119, R.34, S.10, 15, 21, 22, 28, 29, 32): 7;

(130) Unnamed Ditch, Belgrade, (T.123, R.34, S.19, 30): 7;

(131) Unnamed Ditch, Flensburg, (T.129, R.30, S.30; T.129, R.31, S.25): 7;

(132) Unnamed Ditch, Miltona, (T.130, R.36, S.30; T.130, R.37, S.25, 36): 7;

(133) Unnamed Stream, Winsted, (T.117, R.27, S.11, 12): 7;

(134) Unnamed Stream, Flensburg, (T.129, R.30, S.19, 30): 7;

(135) Vandell Brook, (T.37, 38, R.26): 2C;

(136) Welcome Creek, (T.56, 57, R.22): 2C;

(137) Whitney Brook, (T.39, R.26, 27): 2C;

(138) Willow River, North Fork, (T.142, R.25): 2C;

(139) Willow River, South Fork, (T.142, R.25): 2C;

(140) Wilson Creek, (T.137, R.30): 2C;

(141) Wolf Creek, (T.42, R.30): 2C;

(142) *Itasca Wilderness Sanctuary, (Waters within the Itasca Wilderness Sanctuary, Clearwater County, T.143, R.36): 2B, 3B;

(143) *Iron Springs Bog, (Waters within the Iron Springs Bog Scientific and Natural Area, Clearwater County, T.144, R.36): 2B, 3B;

(144) *Pennington Bog, (Waters within the Pennington Bog Scientific and Natural Area, Beltrami County, T.146, R.30): 2B, 3B; and

(145) *Wolsfeld Woods, (Waters within the Wolsfeld Woods Scientific and Natural Area, Hennepin County, T.118, R.23): 2B, 3B.

B. Lakes:

(1) Bald Eagle Lake, (T.30, 31, R.21, 22): 1C, 2B, 3B;
(2) Benedict Lake, (T.142, R.32): 1B, 2A, 3B;
(3) *Blue Lake, (T.46, 47, R.27): 1B, 2A, 3B;
(4) *Blue Lake, (T.141, R.34): 1B, 2A, 3B;
(5) *Bluewater Lake, (T.57, R.25): 1B, 2A, 3B;
(6) Centerville Lake, (T.31, R.22): 1C, 2B, 3B;
(7) Charley Lake, (T.30, R.23): 1C, 2B, 3B;
(8) Deep Lake, (T.30, R.22): 1C, 2B, 3B;
(9) Hay Lake, Lower, (T.137, R.28, 29): 1B, 2A, 3B;
(10) *Kabekona Lake, (T.142, 143, R.32, 33): 1B, 2A, 3B;
(11) Kennedy Lake, (T.58, R.23): 1B, 2A, 3B;
(12) LaSalle Lake, Lower, (T.145, R.35): 1B, 2A, 3B;
(13) Otter Lake, (T.30, 31, R.22): 1C, 2B, 3B;
(14) Pleasant Lake, (T.30, R.22, 23): 1C, 2B, 3B;
(15) *Pokegama Lake, (T.54, 55, R.25, 26): 1B, 2A, 3B;
(16) *Roosevelt Lake, (T.138, 139, R.26): 1B, 2A, 3B;
(17) Sucker Lake, (T.30, R.22): 1C, 2B, 3B;
(18) *Trout Lake, (T.55, 56, R.24): 1B, 2A, 3B;
(19) *Trout Lake, Big, (T.57, 58, R.25): 1B, 2A, 3B;
(20) *Trout Lake, Big, (T.137, 138, R.27, 28): 1B, 2A, 3B;
(21) *Trout Lake, Little, (T.57, R.25): 1B, 2A, 3B;
(22) Unnamed Swamp, Flensburg, (T.129, R.31, S.25): 7;
(23) Unnamed Slough, Miltona, (T.130, R.37, S.26, 35, 36): 7;
(24) Unnamed Swamp, Staples, (T.133, R.33, S.1): 7;
(25) Unnamed Swamp, Taconite, (T.56, R.24, S.22): 7;
(26) Vadnais Lake, (T.30, R.22): 1C, 2B, 3B;
(27) Wabana Lake, (T.57, R.25): 1B, 2A, 3B;
(28) Watab Lake, Big, (T.124, R.30): 1B, 2A, 3B; and
(29) Wilkinson Lake, (T.30, R.22): 1C, 2B, 3B.

Subp. 5. **Minnesota River Basin.** The water use classifications for the listed waters in the Minnesota River Basin are as identified in items A, B, and C:

A. Streams:

[For text of subp 5, item A, subitems (1) to (21), see M.R. 1987]

(22) Cottonwood Creek (excluding trout waters), (T.119, 120, 121, R.41, 42): 2C;

[For text of subp 5, item A, subitems (23) to (160), see M.R. 1987]

[For text of subp 5, item B, see M.R. 1987]

C. Fens:

(1) *Blackdog Preserve, (Waters within the Blackdog Preserve Scientific and Natural Area, Dakota County, T.27, R.24, S.27, 34): 2B, 3B;
(2) *Fish Hatchery Fen, (T.110, R.26, S.14): 2B, 3B;
(3) *Fort Ridgely Fen, (T.111, R.32, S.6): 2B, 3B;
(4) *Fort Snelling State Park Fen, (T.27, R.23, S.4): 2B, 3B;
(5) *Le Sueur Fen, (T.111, R.26, S.16): 2B, 3B;
(6) *Minnesota Valley Fen, (T.27, R.24, S.27, 34): 2B, 3B;

(7) *Nicols Meadow Fen, (T.27, R.23, S.18): 2B, 3B;
(8) *Ordway Fen, (T.123, R.36, S.30): 2B, 3B;
(9) *St. Peter Fen, (T.110, R.26, S.11): 2B, 3B;
(10) *Savage Fen, (T.115, R.21, S.16, 17): 2B, 3B;
(11) *Sioux Nation Fen, (T.114, R.46, S.17): 2B, 3B; and
(12) *Truman Fen, (T.104, R.30, S.7): 2B, 3B.

Subp. 6. **Saint Croix River Basin.** The water use classifications for the listed waters in the Saint Croix River Basin are as identified in items A and B:

[For text of subp 6, item A, see M.R. 1987]

B. Lakes:
(1) *Grindstone Lake, (T.42, R.21): 1B, 2A, 3B;
(2) Unnamed Swamp, Shafer, (T.34, R.19, S.31, 32): 7; and
(3) *Boot Lake, (Waters within the Boot Lake Scientific and Natural Area, Anoka County, T.33, R.22): 2B, 3B.

Subp. 7. **Lower Mississippi River Basin.** The water use classifications for the listed waters in the Lower Mississippi River Basin are as identified in items A, B, and C:

A. Streams:

[For text of subp 7, item A, subitems (1) to (16), see M.R. 1987]

(17) Judicial Ditch No. 1, Hayfield, (T.105, R.17, S.4, 5; T.106, R.17, S.31, 32; T.106, R.18, S.25, 26, 27, 36): 7;
(18) King Creek, (T.111, R.11, 12): 2C;
(19) Long Creek, (T.108, 109, R.12): 2C;
(20) MacKenzie Creek, (T.108, 109, R.21): 2C;
(21) Mahoney Creek, (T.103, R.10): 2C;
(22) Mound Prairie Creek, (T.104, R.5): 2C;
(23) Mud Creek, (T.108, 109, R.20, 21): 2C;
(24) Pine Creek, (T.112, 113, R.17, 18): 2C;
(25) Pleasant Valley Creek, (T.106, 107, R.6, 7): 2C;
(26) Plum Creek, (T.108, R.15): 2C;
(27) Prairie Creek, (T.110, 111, 112, R.18, 19, 20): 2C;
(28) Riceford Creek, Mabel, (T.101, R.8, S.24, 25, 26): 7;
(29) Salem Creek, (T.106, R.15, 16): 2C;
(30) Shingle Creek, (T.109, 110, R.17): 2C;
(31) Silver Creek (excluding trout waters), (T.104, 105, R.6): 2C;
(32) Silver Spring Creek, (T.108, 109, R.13): 2C;
(33) Snake Creek, (T.109, R.10): 2C;
(34) Sugar Creek (Sugarloaf Creek), (T.111, 112, R.12, 13): 2C;
(35) Sullivan Creek, (T.103, R.5): 2C;
(36) Trout Brook (Mazeppa Creek), Goodhue, (T.110, R.15, S.3, 4; T.111, R.15, S.28, 33, 34): 7;
(37) Trout Creek, Little, (T.106, R.5, 6): 2C;
(38) Trout Run Creek (Trout Creek) (excluding trout waters), (T.104, 105, R.10): 2C;
(39) Unnamed Creek, Canton, (T.101, R.9, S.20): 7;
(40) Unnamed Creek, Byron, (T.107, R.15, S.17, 20, 29): 7;
(41) Unnamed Creek, Plainview, (T.108, R.11, S.16, 17, 20, 21, 22, 27, 34): 7;

(42) Unnamed Creek, West Concord, (T.108, R.17, S.17, 20, 21): 7;

(43) Unnamed Creek, Hayfield, (T.105, R.17, S.3, 4): 7;

(44) Unnamed Ditch, Claremont, (T.107, R.18, S.27, 34): 7;

(45) Unnamed Ditch, Lonsdale, (T.112, R.22, S.25, 35, 36): 7;

(46) Unnamed Ditch, Hampton, (T.113, R.18, S.5, 6; T.114, R.18, S.31): 7;

(47) Unnamed Dry Run, Altura, (T.107, R.9, S.7, 18): 7;

(48) Unnamed Dry Run, Owatonna, Owatonna Canning Company, (T.107, R.20, S.6; T.107, R.21, S.1): 7;

(49) Unnamed Dry Run, Owatonna, Owatonna Canning Company, (T.107, R.20, S.6; T.107, R.21, S.1): 7;

(50) Unnamed Stream, Dodge Center, Owatonna Canning Company, (T.107, R.17, S.27, 34): 7; and

(51) Whitewater River, North Fork, Elgin, (T.108, R.12, S.25, 26, 27): 7.

B. Lakes:

(1) Unnamed Marsh, Kilkenny, (T.110, R.23, S.22, 23): 7; and

(2) Unnamed Swamp, Hampton, (T.113, R.18, S.8): 7.

C. Fens:

(1) *Cannon River Fen, (T.111, R.20, S.34): 2B, 3B;

(2) *Kennedy Fen, (T.105, R.7, S.15): 2B, 3B;

(3) *Rock Dell Fen, (T.105, R.15, S.16): 2B, 3B; and

(4) *Perched Valley WMA Fen, (T.112, R.13, S.8): 2B, 3B.

Subp. 8. **Cedar - Des Moines Rivers Basin.** The water use classifications for the listed waters in the Cedar - Des Moines Rivers Basin are as identified in items A and B:

[For text of subp 8, item A, see M.R. 1987]

B. Fens:

(1) *Heron Lake Fen, (T.103, R.36, S.29): 2B, 3B;

(2) *Prairie Bush Clover, (Waters within the Prairie Bush Clover Scientific and Natural Area, Jackson County, T.103, R.35, S.17): 2B, 3B; and

(3) *Thompson Fen, (T.103, R.35, S.7): 2B, 3B.

[For text of subp 9, see M.R. 1987]

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