

1 Pollution Control Agency

2

3 Water Quality Division

4

5 Adopted Rules Governing Standards for the Protection of the  
6 Quality and Purity of the Waters of the State; and Adopted Rules  
7 Governing Classification of Waters of the State

8

9 Rules as Adopted

10 7050.0110 SCOPE.

11 Parts 7050.0130 to 7050.0220 apply to all waters of the  
12 state and include general provisions applicable to the  
13 maintenance of water quality; definitions of water use classes;  
14 standards for dischargers of sewage, industrial, and other  
15 wastes; and standards of quality and purity for specific water  
16 use classes. Other water quality rules of general or specific  
17 application that include any more stringent water quality or  
18 effluent standards or prohibitions are preserved.

19 7050.0130 DEFINITIONS.

20 The terms "waters of the state," "sewage," "industrial  
21 wastes," and "other wastes," as well as any other terms for  
22 which definitions are given in the Water Pollution Control  
23 statutes, as used herein have the meanings ascribed to them in  
24 Minnesota Statutes, sections 115.01 and 115.41, with the  
25 exception that disposal systems or treatment works operated  
26 under permit of the agency shall not be construed to be "waters  
27 of the state".

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

33 7050.0140 USES OF WATERS OF THE STATE.

34 The classifications are listed separately in accordance  
35 with the need for water quality protection, considerations of

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1 best use in the interest of the public, and other  
2 considerations, as indicated in Minnesota Statutes, section  
3 115.44. The classifications should not be construed to be an  
4 order of priority, nor considered to be exclusive or prohibitory  
5 of other beneficial uses.

6 7050.0150 DETERMINATION OF COMPLIANCE.

7 In making tests or analyses of the waters of the state,  
8 sewage, industrial wastes, or other wastes to determine  
9 compliance with the standards, samples shall be collected in  
10 such manner and place, and of such type, number, and frequency  
11 as may be considered necessary by the agency from the viewpoint  
12 of adequately reflecting the condition of the waters, the  
13 composition of the effluents, and the effects of the pollutants  
14 upon the specified uses. Reasonable allowance will be made for  
15 dilution of the effluents, which are in compliance with part  
16 7050.0210, subpart 6, following discharge into waters of the  
17 state. The agency by allowing dilution may consider the effect  
18 on all uses of the waters of the state into which the effluents  
19 are discharged. The extent of dilution allowed regarding any  
20 specific discharge shall not violate the applicable water  
21 quality standards. The samples shall be preserved and analyzed  
22 in accordance with procedures given in the 1971 edition of  
23 Standard Methods for the Examination of Water and Waste-Water,  
24 by the American Public Health Association, American Water Works  
25 Association, and the Water Pollution Control Federation, and any  
26 revisions or amendments thereto. The agency may accept or may  
27 develop other methods, procedures, guidelines, or criteria for  
28 measuring, analyzing, and collecting samples.

29 7050.0170 NATURAL WATER QUALITY.

30 The waters of the state may, in a state of nature, have  
31 some characteristics or properties approaching or exceeding the  
32 limits specified in the water quality standards. The standards  
33 shall be construed as limiting the addition of pollutants of  
34 human activity to those of natural origin, where such be  
35 present, so that in total the specified limiting concentrations

1 will not be exceeded in the waters by reason of such  
2 controllable additions. Where the background level of the  
3 natural origin is reasonably definable and normally is higher  
4 than the specified standard the natural level may be used as the  
5 standard for controlling the addition of pollutants of human  
6 activity which are comparable in nature and significance with  
7 those of natural origin. The natural background level may be  
8 used instead of the specified water quality standard as a  
9 maximum limit of the addition of pollutants, in those instances  
10 where the natural level is lower than the specified standard and  
11 reasonable justification exists for preserving the quality to  
12 that found in a state of nature.

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

20 7050.0180 NONDEGRADATION POLICY.

21 Subpart 1. Policy. The agency recognizes that the  
22 maintenance of existing high quality in some waters of  
23 outstanding resource value to the state is essential to their  
24 function as exceptional recreational, cultural, aesthetic, or  
25 scientific resources. To preserve the value of these special  
26 waters, the agency will prohibit or stringently control new or  
27 expanded discharges to outstanding resource value waters.

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

30 A. "Outstanding resource value waters" are waters  
31 within the Boundary Waters Canoe Area Wilderness, Voyageur's  
32 National Park, and Department of Natural Resources designated  
33 scientific and natural areas, wild, scenic, and recreational  
34 river segments, Lake Superior, those portions of the Mississippi  
35 River from Lake Itasca to the southerly boundary of Morrison  
36 County that are included in the Mississippi Headwaters Board

1 comprehensive plan dated February 12, 1981, and other waters of  
 2 the state with high water quality, wilderness characteristics,  
 3 unique scientific or ecological significance, exceptional  
 4 recreational value, or other special qualities which warrant  
 5 stringent protection from pollution.

6 B. "New discharge" means a discharge that was not in  
 7 existence on the effective date of these amendments to chapter  
 8 7050.

9 C. "Expanded discharge" means a discharge that  
 10 changes in volume, quality, location, or any other manner after  
 11 the effective date of these amendments ~~except that a change that~~  
 12 ~~results in reduced loading of pollutants is not considered an~~  
 13 ~~expanded discharge~~ such that an increased loading of one or more  
 14 pollutants results. In determining whether an increased loading  
 15 of one or more pollutants would result from the proposed change  
 16 in the discharge, the agency shall compare the loading that  
 17 would result from the proposed discharge with the loading  
 18 allowed by the agency at the time these parts take effect.

19 Subp. 3. Prohibited discharges. No person may cause or  
 20 allow a new or expanded discharge of any sewage, industrial  
 21 waste, or other waste to waters within the Boundary Waters Canoe  
 22 Area Wilderness, Voyageur's National Park, or Department of  
 23 Natural Resources designated scientific and natural areas, or to  
 24 federal or state wild river segments.

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

- 28 A. Boot Lake, Anoka County;  
 29 B. Kettle River in sections 15, 22, 23, T 41 N, R 20,  
 30 Pine County;  
 31 C. Pennington Bog, Beltrami County;  
 32 D. Purvis Lake-Ober Foundation, St. Louis County;  
 33 E. Waters within the borders of Itasca Wilderness  
 34 Sanctuary, Clearwater County;  
 35 F. Iron Spring Bog, Clearwater County;  
 36 G. Wolsfeld Woods, Hennepin County;

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1 H. Green Water Lake, Becker County.

2 Subp. 5. State designated wild river segments. State  
3 designated wild river segments include but are not limited to:

4 A. Kettle River from dam at Sandstone to its  
5 confluence with the St. Croix River;

6 B. Rum River from Ogechie Lake spillway to the  
7 northernmost confluence with Lake Onamia.

8 Subp. 6. Restricted discharges. No person may cause or  
9 allow a new or expanded discharge of any sewage, industrial  
10 waste, or other waste to Lake Superior, those portions of the  
11 Mississippi River from Lake Itasca to the southerly boundary of  
12 Morrison County that are included in the Mississippi Headwaters  
13 Board comprehensive plan dated February 12, 1981, and federal or  
14 state designated scenic or recreational river segments unless  
15 there is no prudent and feasible alternative to the discharge.  
16 If a new or expanded discharge to these waters is permitted, the  
17 agency shall restrict the discharge as-to-duration, volume, and  
18 loading-to-the-extent-necessary-to-maintain-future-water-quality  
19 within-the-range-of-natural-background-quality to the extent  
20 necessary to preserve the existing high quality, or to preserve  
21 the wilderness, scientific, recreational, or other special  
22 characteristics that make the water an outstanding resource  
23 value water. Waters with a federal or state scenic or  
24 recreational designation include but are not limited to:

25 A. St. Croix River, entire length;

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

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

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

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

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

36 G. Rum River from state highway 27 bridge in Onamia

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1 to Madison and Rice Streets in Anoka.

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

10 Subp. 8. Public hearing. The agency shall provide an  
11 opportunity for a hearing before identifying and establishing  
12 additional outstanding resource value waters, before determining  
13 the existence or lack of prudent and feasible alternatives under  
14 subpart 6, and before prohibiting or restricting new or expanded  
15 discharges to outstanding resource value waters under subparts  
16 3, 6, and 7.

17 Subp. 9. Impact from upstream discharges. The agency  
18 shall require new or expanded discharges to waters that flow  
19 into outstanding resource value waters be controlled so as to  
20 assure no deterioration in the quality of the downstream  
21 outstanding resource value water.

22 Subp. 10. Thermal discharges. If a thermal discharge  
23 causes potential water quality impairment, the agency shall  
24 implement the nondegradation policy consistent with section 316  
25 of the Clean Water Act.

26 7050.0190 VARIANCE FROM STANDARDS.

27 In any case where, upon application of the responsible  
28 person or persons, the agency finds that by reason of  
29 exceptional circumstances the strict enforcement of any  
30 provision of these standards would cause undue hardship, that  
31 disposal of the sewage, industrial waste, or other waste is  
32 necessary for the public health, safety, or welfare; and that  
33 strict conformity with the standards would be unreasonable,  
34 impractical, or not feasible under the circumstances; the agency  
35 in its discretion may grant a variance therefrom upon such  
36 conditions as it may prescribe for prevention, control, or

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1 abatement of pollution in harmony with the general purposes of  
2 these classifications and standards and the intent of the  
3 applicable state and federal laws. The United States  
4 Environmental Protection Agency will be advised of any permits  
5 which may be issued under this clause together with information  
6 as to the need therefor.

7 7050.0200 WATER USE CLASSIFICATIONS FOR WATERS OF THE STATE.

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

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

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

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

27 4. Agriculture and wildlife includes all waters of the  
28 state which are or may be used for any agriculture purposes,  
29 including stock watering and irrigation, or by waterfowl or  
30 other wildlife, and for which quality control is or may be  
31 necessary to protect terrestrial life or the public health,  
32 safety, or welfare.

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

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1 health, safety, or welfare.

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

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

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

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

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

36 Conditions "a" and "c" or "b" and "c" must be established

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1 by the agency water assessment procedure before the waters can  
2 be classified as limited resource value waters.

3 7050.0210 STANDARDS FOR DISCHARGERS TO WATERS OF THE STATE.

4 Subpart 1. Untreated sewage. No untreated sewage shall be  
5 discharged into any waters of the state. Effective disinfection  
6 of any discharges, including combined flows of sewage and storm  
7 water, will be required where necessary to protect the specified  
8 uses of the waters of the state.

9 Subp. 2. Nuisance conditions prohibited. No sewage,  
10 industrial waste, or other wastes shall be discharged into any  
11 waters of the state so as to cause any nuisance conditions, such  
12 as the presence of significant amounts of floating solids, scum,  
13 oil slicks, excessive suspended solids, material discoloration,  
14 obnoxious odors, gas ebullition, deleterious sludge deposits,  
15 undesirable slimes or fungus growths, or other offensive or  
16 harmful effects.

17 Subp. 3. Inadequate treatment. Existing discharges of  
18 inadequately treated sewage, industrial waste, or other wastes  
19 shall be abated, treated, or controlled so as to comply with the  
20 applicable standards. Separation of sanitary sewage from  
21 natural runoff may be required where necessary to ensure  
22 continuous effective treatment of sewage.

23 Subp. 4. Highest levels of water quality. The highest  
24 levels of water quality, including, but not limited to,  
25 dissolved oxygen, which are attainable in the waters of the  
26 state by continuous operation at their maximum capability of all  
27 primary and secondary units of treatment works or their  
28 equivalent discharging effluents into the waters of the state  
29 shall be maintained in order to enhance conditions for the  
30 specified uses.

31 Subp. 5. Mixing zones. Means for expediting mixing and  
32 dispersion of sewage, industrial waste, or other waste effluents  
33 in the receiving waters are to be provided so far as practicable  
34 when deemed necessary by the agency to maintain the quality of  
35 the receiving waters in accordance with applicable standards.  
36 Mixing zones must be established by the agency on an individual

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1 basis, with primary consideration being given to the following  
2 guidelines:

3 A. mixing zones in rivers shall permit an acceptable  
4 passageway for the movement of fish;

5 B. the total mixing zone or zones at any transect of  
6 the stream should contain no more than 25 percent of the cross  
7 sectional area and/or volume of flow of the stream, and should  
8 not extend over more than 50 percent of the width;

9 C. mixing zone characteristics shall not be lethal to  
10 aquatic organisms;

11 D. for contaminants other than heat, the 96-hour  
12 median tolerance limit for indigenous fish and fish food  
13 organisms should not be exceeded at any point in the mixing zone;

14 E. mixing zones should be as small as possible, and  
15 not intersect spawning or nursery areas, migratory routes, water  
16 intakes, nor mouths of rivers; and

17 F. overlapping of mixing zones should be minimized  
18 and measures taken to prevent adverse synergistic effects.

19 This subpart applies in cases where a Class 7 water is  
20 tributary to a Class 2 water.

21 Subp. 6. Minimum secondary treatment. It is herein  
22 established that the agency shall require secondary treatment as  
23 a minimum for all municipal sewage and biodegradable industrial  
24 or other wastes to meet the adopted water quality standards. A  
25 comparable high degree of treatment or its equivalent also shall  
26 be required of all nonbiodegradable industrial or other wastes  
27 unless the discharger can demonstrate to the agency that a  
28 lesser degree of treatment or control will provide for water  
29 quality enhancement commensurate with present and proposed  
30 future water uses and a variance is granted under the provisions  
31 of the variance clause. Secondary treatment facilities are  
32 defined as works which will provide effective sedimentation,  
33 biochemical oxidation, and disinfection, or the equivalent,  
34 including effluents conforming to the following:

35 Substance or Characteristic	Limiting Concentration or Range*
36 37 5-Day Carbonaceous Biochemical 38 Oxygen Demand*	25 milligrams per liter

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1		
2	Fecal coliform group	200 organisms per
3	organisms ***	100 milliliters
4		
5	Total suspended solids*	30 milligrams per liter
6		
7	Oil	Essentially free of visible oil
8		
9	Phosphorus**	1 milligram per liter
10		
11	Turbidity	25
12		
13	pH range	6.0 - 9.0
14		
15	Unspecified toxic or	None at levels acutely toxic to
16	corrosive substances	humans or other animals or
17		plant life, or directly
18		damaging to real property.
19		

20       \*The arithmetic mean for concentrations of five-day  
 21 carbonaceous biochemical oxygen demand and total suspended  
 22 solids shall not exceed the stated values in any calendar month  
 23 and 45 milligrams per liter in any calendar week.

24       \*\*Where the discharge of effluent is directly to or affects  
 25 a lake or reservoir, removal of nutrients from all wastes shall  
 26 be provided to the fullest practicable extent wherever sources  
 27 of nutrients are considered to be actually or potentially  
 28 detrimental to preservation or enhancement of the designated  
 29 water uses.

30       \*\*\*Disinfection of wastewater effluents to reduce the  
 31 levels of fecal coliform organisms to the stated value is  
 32 required from March 1 through October 31 (Class 2 waters) and  
 33 May 1 through October 31 (Class 7 waters) except that where the  
 34 effluent is discharged 25 miles or less upstream of a water  
 35 intake supplying a potable water system, the reduction to the  
 36 stated value is required year around. The stated value is not  
 37 to be exceeded in any calendar month as determined by the  
 38 logarithmic mean of a minimum of five samples, nor shall more  
 39 than ten percent of all samples taken during any calendar month  
 40 individually exceed 400 organisms per 100 milliliters. The  
 41 application of the fecal coliform group organism standards shall  
 42 be limited to sewage or other effluents containing admixtures of  
 43 sewage and shall not apply to industrial wastes except where the  
 44 presence of sewage, fecal coliform organisms, or viable  
 45 pathogenic organisms in such wastes is known or reasonably  
 46 certain. Analysis of samples for fecal coliform group organisms

1 by either the multiple tube fermentation or the membrane filter  
2 techniques is acceptable.

3 Subp. 6a. Other requirements preserved. The requirements  
4 of this chapter and specifically the requirement of secondary  
5 treatment as stated above are in addition to any requirement  
6 imposed on a discharge by the Clean Water Act, United States  
7 Code, title 33, sections 1251 et seq., and its implementing  
8 regulations. In the case of a conflict between the requirements  
9 of parts 7050.0100 to 7050.0220 and the requirements of the  
10 Clean Water Act or its implementing regulations, the more  
11 stringent requirement controls.

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

28 Allowance shall not be made in the design of treatment  
29 works for low stream flow augmentation unless such flow  
30 augmentation of minimum flow is dependable and controlled under  
31 applicable laws or regulations.

32 Subp. 8. Advanced wastewater treatment. In any instance  
33 where it is evident that the minimal treatment specified in  
34 subpart 6 and dispersion are not effective in preventing  
35 pollution, or if at the applicable flows it is evident that the  
36 specified stream flow is inadequate to protect the specified

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

8 Item*	Limits**
10 5-day Carbonaceous Biochemical 11 Oxygen Demand	5 milligrams per liter (arithmetic mean of all 12 samples taken during 13 any calendar month)

14  
 15 \*The concentrations specified in subpart 6 may be used in  
 16 lieu thereof if the discharge of effluent is restricted to the  
 17 spring flush or other high runoff periods when the stream flow  
 18 rate above the discharge point is sufficiently greater than the  
 19 effluent flow rate to insure that the applicable water quality  
 20 standards are met during such discharge period. If treatment  
 21 works are designed and constructed to meet the specified limits  
 22 given above for a continuous discharge, at the discretion of the  
 23 agency the operation of such works may allow for the effluent  
 24 quality to vary between the limits specified above and in  
 25 subpart 6, provided the water quality standards and all other  
 26 requirements of the agency and the United States Environmental  
 27 Protection Agency are being met. Such variability of operation  
 28 must be based on adequate monitoring of the treatment works and  
 29 the effluent and receiving waters as specified by the agency.

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

36 This section shall not apply to discharges to surface  
 37 waters classified as limited resource value waters pursuant to  
 38 parts 7050.0200, number 7 and 7050.0400 to 7050.0480.

39 Subp. 9. Water quality based effluent limitations.

40 Notwithstanding the provisions of subparts 8 and 16, the agency

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1 may require a specific discharger to meet effluent limitations  
2 which are necessary to maintain the water quality of the  
3 receiving water at the standards of quality and purity  
4 established by this part. Any effluent limitation determined to  
5 be necessary under this section shall only be required of a  
6 discharger after the discharger has been given notice of the  
7 specific effluent limitations and an opportunity for public  
8 hearing provided that compliance with the requirements of part  
9 7070.1400 regarding notice of National Pollutant Discharge  
10 Elimination System and State Disposal System permits shall  
11 satisfy the notice and opportunity for hearing requirements of  
12 this subpart.

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

21 Subp. 11. Discharge permit required. All sources of  
22 sewage, industrial waste, or other waste which do not at present  
23 have a valid operation and discharge permit, or an application  
24 for the same pending before the agency, shall apply for the same  
25 within 30 days of the adoption of this rule, or the agency may  
26 abate the source forthwith. The provisions of subpart 6  
27 relating to effluent quality standards, and the other provisions  
28 of this rule, are applicable to existing sewage, industrial  
29 waste, or other waste disposal facilities and the effluent  
30 discharged therefrom. Nothing herein shall be construed to  
31 prevent the agency subsequently from modifying any existing  
32 permits so as to conform with federal requirements and the  
33 requirements of this chapter.

34 Subp. 12. Liquid substances. Liquid substances which are  
35 not commonly considered to be sewage or industrial waste but  
36 which could constitute a pollution hazard shall be stored in

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1 accordance with parts 7100.0010 to 7100.0090, and any revisions  
2 or amendments thereto. Other wastes as defined by law or other  
3 substances which could constitute a pollution hazard shall not  
4 be deposited in any manner such that the same may be likely to  
5 gain entry into any waters of the state in excess of or contrary  
6 to any of the standards herein adopted, or cause pollution as  
7 defined by law.

8 Subp. 13. Pollution prohibited. No sewage, industrial  
9 waste, or other wastes shall be discharged into the waters of  
10 the state in such quantity or in such manner alone or in  
11 combination with other substances as to cause pollution thereof  
12 as defined by law. In any case where the waters of the state  
13 into which sewage, industrial waste, or other waste effluents  
14 discharge are assigned different standards than the waters of  
15 the state into which such receiving waters flow, the standards  
16 applicable to the waters into which such sewage, industrial  
17 waste, or other wastes discharged shall be supplemented by the  
18 following:

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

24 Subp. 14. Undefined toxic substances. Questions  
25 concerning the permissible levels, or changes in the same, of a  
26 substance, or combination of substances, of undefined toxicity  
27 to fish or other biota shall be resolved in accordance with the  
28 latest methods recommended by the United States Environmental  
29 Protection Agency. The agency shall consider the  
30 recommendations of the Quality Criteria for Water, US EPA 1976,  
31 in making determinations under this part. Toxic substances  
32 shall not exceed one-tenth of the 96-hour median tolerance limit  
33 (TLM) as a water quality standard except that other application  
34 factors shall be used when justified on the basis of available  
35 scientific evidence.

36 Subp. 15. Dischargers must report to agency. All persons

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1 operating or responsible for sewage, industrial waste, or other  
 2 waste disposal systems which are adjacent to or which discharge  
 3 effluents to these waters or to tributaries which affect the  
 4 same, shall submit regularly every month a report to the agency  
 5 on the operation of the disposal system, the effluent flow, and  
 6 the characteristics of the effluents and receiving waters.  
 7 Sufficient data on measurements, observations, sampling, and  
 8 analyses, and other pertinent information shall be furnished as  
 9 may be required by the agency to adequately evaluate the  
 10 condition of the disposal system, the effluent, and the waters  
 11 receiving or affected by the effluent.

12 Subp. 16. Limited resource value waters. Restrictions on  
 13 discharges to limited resource value waters include the  
 14 following:

15 A. For point source discharges to surface waters  
 16 classified as limited resource value waters pursuant to parts  
 17 7050.0200, number 7 and 7050.0400 to 7050.0480, the agency shall  
 18 require treatment facilities which will provide effluents  
 19 conforming to the following limitations:\*

20 Substance or Characteristic	Limiting Concentration
22 5-Day Carbonaceous Biochemical 23 Oxygen Demand	24 15 milligrams per liter 25 (arithmetic mean of all 26 samples taken during 27 any calendar month)

28 \*All effluent limitations specified in subpart 6 shall also  
 29 be applicable to dischargers to Class 7 waters, provided that  
 30 unspecified toxic or corrosive substances shall be limited to  
 31 the extent necessary to protect the designated uses of the  
 32 receiving water or affected downstream waters.

33 B. The agency shall allow treatment works to be  
 34 constructed and/or operated to produce effluents to limited  
 35 resource value waters at levels up to those stated in subpart 6  
 36 provided that it is demonstrated that the water quality  
 37 standards for limited resource value waters will be maintained  
 38 during all periods of discharge from the treatment facilities.

39 C. Notwithstanding the effluent limitations  
 40 established by this section the quality of limited resource  
 value waters shall not be such as to allow a violation of

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1 applicable water quality standards in waters of the state which  
2 are connected to or affected by water classified as limited  
3 resource value waters.

4 D. The classification of surface waters as limited  
5 resource value waters pursuant to parts 7050.0200, number 7 and  
6 7050.0400 to 7050.0480 shall not supersede, alter, or replace  
7 the classification and designation of such waters as public  
8 waters pursuant to applicable provisions and requirements of  
9 Minnesota Statutes, chapter 105.

10 Subp. 17. Compliance with permit conditions. No person  
11 who is in compliance with the terms and conditions of its permit  
12 issued pursuant to chapter 7070 shall be deemed in violation of  
13 any water quality standard in this rule for which a  
14 corresponding effluent limitation is established in the permit.  
15 However, exceedances of the water quality standards in a  
16 receiving water shall constitute grounds for modification of a  
17 permit(s) for any discharger(s) to the receiving water who is  
18 (are) causing or contributing to the exceedances. Chapter 7070  
19 shall govern the modification of any such permit.

20 Subp. 18. Water quality standard based ammonia effluent  
21 limitations. For the purpose of establishing limitations to  
22 meet the ammonia water quality standard, a statistic which  
23 estimates the central value (such as the mean or median) for  
24 ambient pH and temperature of the receiving water for the  
25 critical months shall be used.

26 7050.0220 SPECIFIC STANDARDS OF QUALITY AND PURITY FOR  
27 DESIGNATED CLASSES OF WATERS OF THE STATE.

28 The following standards shall prescribe the qualities or  
29 properties of the waters of the state which are necessary for  
30 the designated public use or benefit and which, if the limiting  
31 conditions given are exceeded, shall be considered indicative of  
32 a polluted condition which is actually or potentially  
33 deleterious, harmful, detrimental, or injurious with respect to  
34 such designated uses or established classes of the waters of the  
35 state.

36 1. Domestic consumption.

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

12 Substance or Characteristic	Limit or Range
13	
14 Total coliform organisms	1 most probable number per
15	100 milliliters
16	
17 Turbidity value	5
18	
19 Color value	15
20	
21 Threshold odor number	3
22	
23 Methylene blue active	0.5 milligram per liter
24 substance (MBAS)	.
25	
26 Arsenic (As)	0.01 milligram per liter
27	
28 Chlorides (Cl)	250 milligrams per liter
29	
30 Copper (Cu)	1 milligram per liter
31	
32 Carbon chloroform extract	0.2 milligram per liter
33	
34 Cyanides (CN)	0.01 milligram per liter
35	
36 Fluorides (F)	1.5 milligrams per liter
37	
38 Iron (Fe)	0.3 milligram per liter
39	
40 Manganese (Mn)	0.05 milligram per liter
41	
42 Nitrates (NO <sub>3</sub> )	45 milligrams per liter
43	
44 Phenol	0.001 milligram per liter
45	
46 Sulfates (SO <sub>4</sub> )	250 milligrams per liter
47	
48 Total dissolved solids	500 milligrams per liter
49	
50 Zinc (Zn)	5 milligrams per liter
51	
52 Barium (Ba)	1 milligram per liter
53	
54 Cadmium (Cd)	0.01 milligram per liter
55	
56 Chromium (Hexavalent, Cr)	0.05 milligram per liter
57	
58 Lead (Pb)	0.05 milligram per liter
59	
60 Selenium (Se)	0.01 milligram per liter
61	

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- 1 Silver (Ag) 0.05 milligram per liter
- 2
- 3 Radioactive material Not to exceed the lowest
- 4 concentrations permitted to be
- 5 discharged to an uncontrolled
- 6 environment as prescribed by
- 7 the appropriate authority
- 8 having control over their use.
- 9

10 Class B. The quality of this class of the waters of the  
 11 state shall be such that with approved disinfection, such as  
 12 simple chlorination or its equivalent, the treated water will  
 13 meet in all respects both the mandatory and recommended  
 14 requirements of the Public Health Service Drinking Water  
 15 Standards -- 1962 for drinking water as specified in Publication  
 16 No. 956 published by the Public Health Service of the United  
 17 States Department of Health, Education and Welfare, and any  
 18 revisions, amendments, or supplements thereto. This standard  
 19 will ordinarily be restricted to surface and underground waters  
 20 with a moderately high degree of natural protection. The  
 21 physical and chemical standards quoted above for Class A waters  
 22 shall also apply to these waters in the untreated state.

23 Class C. The quality of this class of the waters of the  
 24 state shall be such that with treatment consisting of  
 25 coagulation, sedimentation, filtration, storage, and  
 26 chlorination, or other equivalent treatment processes, the  
 27 treated water will meet in all respects both the mandatory and  
 28 recommended requirements of the Public Health Service Drinking  
 29 Water Standards -- 1962 for drinking water as specified in  
 30 Publication No. 956 published by the Public Health Service of  
 31 the United States Department of Health, Education and Welfare,  
 32 and any revisions, amendments, or supplements thereto. This  
 33 standard will ordinarily be restricted to surface waters, and  
 34 groundwaters in aquifers not considered to afford adequate  
 35 protection against contamination from surface or other sources  
 36 of pollution. Such aquifers normally would include fractured  
 37 and channeled limestone, unprotected impervious hard rock where  
 38 water is obtained from mechanical fractures, joints, etc., with  
 39 surface connections, and coarse gravels subjected to surface  
 40 water infiltration. The physical and chemical standards quoted  
 41 above for Class A waters shall also apply to these waters in the

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1 untreated state, except as listed below:

2	Substance or Characteristic	Limit or Range
3		
4	Turbidity value	25

5  
6 Class D. The quality of this class of the waters of the  
7 state shall be such that after treatment consisting of  
8 coagulation, sedimentation, filtration, storage, and  
9 chlorination, plus additional pre, post, or intermediate stages  
10 of treatment, or other equivalent treatment processes, the  
11 treated water will meet in all respects the recommended  
12 requirements of the Public Health Service Drinking Water  
13 Standards -- 1962 for drinking water as specified in Publication  
14 No. 956 published by the Public Health Service of the United  
15 States Department of Health, Education and Welfare, and any  
16 revisions, amendments, or supplements thereto. This standard  
17 will ordinarily be restricted to surface waters, and  
18 groundwaters in aquifers not considered to afford adequate  
19 protection against contamination from surface or other sources  
20 of pollution. Such aquifers normally would include fractured  
21 and channeled limestone, unprotected impervious hard rock where  
22 water is obtained from mechanical fractures, joints, etc., with  
23 surface connections, and coarse gravels subjected to surface  
24 water infiltration. The concentrations or ranges given below  
25 shall not be exceeded in the raw waters before treatment:

26	Substance or Characteristic	Limit or Range
27		
28	Arsenic (As)	0.05 milligram per liter
29		
30	Barium (Ba)	1 milligram per liter
31		
32	Cadmium (Cd)	0.01 milligram per liter
33		
34	Chromium (Hexavalent, Cr)	0.05 milligram per liter
35		
36	Cyanide (CN)	0.2 milligram per liter
37		
38	Fluoride (F)	1.5 milligrams per liter
39		
40	Lead (Pb)	0.05 milligram per liter
41		
42	Selenium (Se)	0.01 milligram per liter
43		
44	Silver (Ag)	0.05 milligram per liter
45		
46	Radioactive material	Not to exceed the lowest con-
47		centrations permitted to be
48		discharged to an uncontrolled
49		environment as prescribed
50		by the appropriate authority
51		having control over their

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use.

In addition to the above listed standards, no sewage, industrial waste, or other wastes, 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, 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.

2. Fisheries and recreation.

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

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

8 Substance or Characteristic	Limit or Range
9 10 Dissolved oxygen*	Not less than 5 milligrams per liter at all times (instantaneous minimum concentration)****
15 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 temper- ature of 86°F.
25 Ammonia (N)**	0.04 milligram per liter (un-ionized as N)
28 Chromium (Cr)	0.05 milligram per liter
30 Copper (Cu)	0.01 milligram per liter or not greater than 1/10 the 96 hour TLM value.
35 Cyanides (CN)	0.02 milligram per liter
37 Oil	0.5 milligram per liter
39 pH value	6.5 - 9.0
41 Phenols	0.01 milligram per liter and none that could impart odor or taste to fish flesh or other freshwater edible products such as cray- fish, 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.
59 Turbidity value	25
61 Fecal coliform organisms	200 organisms per 100 milli- liters as a logarithmic mean measured in not less than five samples in any calendar month, nor shall more than

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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 St. 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 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.

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, 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)

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1		
2	Chromium (Cr)	0.05 milligram per liter
3		
4	Copper (Cu)	0.01 milligram per liter or
5		not greater than 1/10 the
6		96 hour TLM value.
7		
8	Cyanides (CN)	0.02 milligram per liter
9		
10	Oil	10 milligrams per liter, and
11		none in such quantities as
12		to (1) produce a visible
13		color film on the surface,
14		(2) impart an oil odor to
15		water or an oil taste to
16		fish and edible inverte-
17		brates, (3) coat the banks
18		and bottom of the water-
19		course or taint any of the
20		associated biota, or (4)
21		become effective toxicants
22		according to the criteria
23		recommended.
24		
25	pH value	6.5 - 9.0
26		
27	Phenols	0.1 milligram per liter and
28		none that could impart odor or
29		taste to fish flesh or other
30		freshwater edible products
31		such as crayfish, clams,
32		prawns and like creatures.
33		Where it seems probable that
34		a discharge may result in
35		tainting of edible aquatic
36		products, bioassays and
37		taste panels will be required
38		to determine whether tainting
39		is likely or present.
40		
41	Turbidity value	25
42		
43	Fecal coliform organisms	200 organisms per 100 milli-
44		liters as a logarithmic mean
45		measured in not less than
46		five samples in any calendar
47		month, nor shall more than
48		10% of all samples taken
49		during any calendar month
50		individually exceed 2000
51		organisms per 100 milliliters.
52		(Applies only between
53		March 1 and October 31.)
54		
55	Radioactive materials	Not to exceed the lowest con-
56		centrations permitted to be
57		discharged to an uncontrolled
58		environment as prescribed by
59		the appropriate authority
60		having control over their use.
61		
62	Total residual chlorine***	0.005 milligram per
63		liter
64		

65 \*This standard applies to all waters of the state except  
66 for the reach of the Mississippi River from the outlet of the  
67 metro wastewater treatment works in St. Paul (River Mile 835) to  
68 Lock and Dam No. 2 at Hastings (River Mile 815). For this reach

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1 of the Mississippi River the standard is not less than five  
2 milligrams per liter from April 1 through November 30, and not  
3 less than four milligrams per liter at other times.

4 \*\*See ammonia footnote for Class 2A waters.

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

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

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

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

30 3. Industrial consumption.

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

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1 except for the following:

2 Substance or Characteristic	Limit or Range
3 Chlorides (Cl)	50 milligrams per liter
4 Hardness	50 milligrams per liter
5 pH value	6.5 - 8.5

6  
7  
8  
9  
10 Class B. The quality of this class of the waters of the  
11 state shall be such as to permit their use for general  
12 industrial purposes, except for food processing, with only a  
13 moderate degree of treatment. The quality shall be generally  
14 comparable to Class D waters of the state used for domestic  
15 consumption, except the following:

16 Substance or Characteristic	Limit or Range
17 Chlorides (Cl)	100 milligrams per liter
18 Hardness	250 milligrams per liter
19 pH value	6.0 - 9.0

20  
21  
22  
23  
24 Class C. The quality of this class of the waters of the  
25 state shall be such as to permit their use for industrial  
26 cooling and materials transport without a high degree of  
27 treatment being necessary to avoid severe fouling, corrosion,  
28 scaling, or other unsatisfactory conditions. The following  
29 shall not be exceeded in the waters of the state:

30 Substance or Characteristic	Limit or Range
31 Chlorides (Cl)	250 milligrams per liter
32 Hardness	500 milligrams per liter
33 pH value	6.0 - 9.0

34  
35  
36  
37  
38 Additional selective limits may be imposed for any specific  
39 waters of the state as needed.

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

46 4. Agriculture and wildlife.

47 Class A. The quality of this class of the waters of the  
48 state shall be such as to permit their use for irrigation

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1 without significant damage or adverse effects upon any crops or  
 2 vegetation usually grown in the waters or area, including truck  
 3 garden crops. The following concentrations or limits shall be  
 4 used as a guide in determining the suitability of the waters for  
 5 such uses, together with the recommendations contained in  
 6 Handbook 60 published by the Salinity Laboratory of the United  
 7 States Department of Agriculture, and any revisions, amendments,  
 8 or supplements thereto:

9	Substance or Characteristic	Limit or Range
10		
11	Bicarbonates (HCO <sub>3</sub> )	5 milliequivalents per liter
12		
13	Boron (B)	0.5 milligram per liter
14		
15	pH value	6.0 - 8.5
16		
17	Specific conductance	1,000 micromhos per centimeter
18		
19	Total dissolved salts	700 milligrams per liter
20		
21	Sodium (Na)	60% of total cations as milli-
22		equivalents per liter
23		
24	Sulfates (SO <sub>4</sub> )	10 milligrams per liter, appli-
25		cable to water used for produc-
26		tion of wild rice during periods
27		when the rice may be susceptible
28		to damage by high sulfate levels.
29		
30	Radioactive materials	Not to exceed the lowest con-
31		centrations permitted to be
32		discharged to an uncontrolled
33		environment as prescribed
34		by the appropriate authority
35		having control over their use.
36		

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

42	Substance or Characteristic	Limit or Range
43		
44	pH value	6.0 - 9.0
45		
46	Total salinity	1,000 milligrams per liter
47		
48	Radioactive materials	Not to exceed the lowest
49		concentrations permitted, to
50		be discharged to an un-
51		controlled environment as
52		prescribed by the appropriate
53		authority having control over
54		their use.
55		
56	Unspecified toxic substances	None at levels harmful either
57		directly or indirectly.
58		

59 Additional selective limits may be imposed for any specific

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1 waters of the state as needed.

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

8 Substance or Characteristic	Limit or Range
9 pH value	6.0 - 9.0
10 Hydrogen sulfide	0.02 milligram per liter

11  
12 Additional selective limits may be imposed for any specific  
13 waters of the state as needed.

14  
15  
16 6. Other uses. The uses to be protected in this class may  
17 be under other jurisdictions and in other areas to which the  
18 waters of the state are tributary, and may include any or all of  
19 the uses listed in the foregoing categories, plus any other  
20 possible beneficial uses. The agency therefore reserves the  
21 right to impose any standards necessary for the protection of  
22 this class, consistent with legal limitations.

23 7. Limited resource value waters. The quality of this  
24 class of waters of the state shall be such as to protect  
25 aesthetic qualities, secondary body contact use, and groundwater  
26 for use as a potable water supply. The limits or concentrations  
27 of substances or characteristics given below shall not be  
28 exceeded in the waters:

29 Substance or Characteristic	Limit or Range
30 Fecal coliform organisms	1,000 organisms per 100 milli- liters* (Applies only between May 1 and October 31.)
31 pH	6.0 - 9.0
32 Dissolved oxygen	At concentrations which will avoid odors or putrid con- ditions in the receiving water or at concentrations at not less than 1 mg/l (daily average) provided that measurable con- centrations are present at all times.
33 Unspecified Substances	Unspecified substances shall not be allowed in such quan- tities or concentrations that will impair the specified uses.

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1       \*The stated value is not to be exceeded in any calendar  
2 month as determined by the logarithmic mean of a minimum of five  
3 samples, nor shall more than ten percent of all samples taken  
4 during any calendar month individually exceed 2,000 organisms  
5 per 100 milliliters.

6  
7 REPEALER. Minnesota Rules, parts 7050.0100, 7050.0120,  
8 7050.0160, 7050.0300, 7050.0310, 7050.0320, 7050.0330,  
9 7050.0340, 7050.0350, 7050.0360, 7050.0370, and 7050.0380 are  
10 repealed.

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