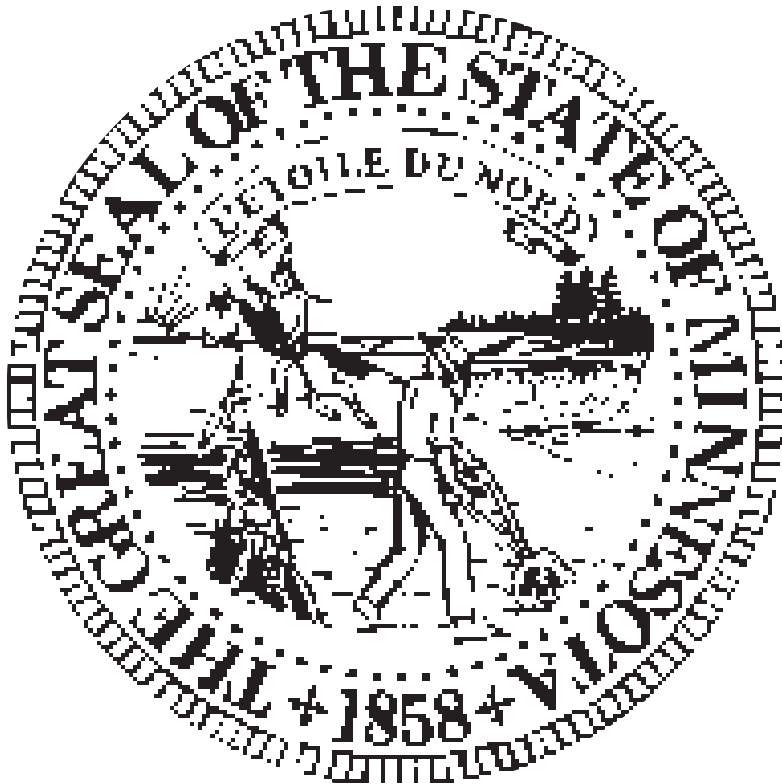


State of Minnesota

# State Register

Rules and Official Notices Edition



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**Pages 1-100**

# State Register

## Judicial Notice Shall Be Taken of Material Published in the *State Register*

The *State Register* is the official publication of the State of Minnesota, published weekly to fulfill the legislative mandate set forth in *Minnesota Statutes* § 14.46. The *State Register* contains:

- proposed, adopted, exempt, expedited emergency and withdrawn rules
- executive orders of the governor
- appointments
- proclamations and commendations
- commissioners' orders
- revenue notices
- official notices
- state grants and loans
- contracts for professional, technical and consulting services
- non-state public bids, contracts and grants
- certificates of assumed name, registration of insignia and marks

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#1	Tuesday 6 July	Noon Wednesday 23 June	Noon Tuesday 29 June
#2	Monday 12 July	Noon Wednesday 30 June	Noon Tuesday 6 July
#3	Monday 19 July	Noon Wednesday 7 July	Noon Tuesday 13 July
#4	Monday 26 July	Noon Wednesday 14 July	Noon Tuesday 20 July

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## FOR LEGISLATIVE NEWS

Publications containing news and information from the Minnesota Senate and House of Representatives are available free to concerned citizens and the news media. To be placed on the mailing list, write or call the offices listed below:

Contact: Senate Public Information Office (651) 296-0504  
Room 231 State Capitol, St. Paul, MN 55155

Contact: House Information Office (651) 296-2146  
Room 175 State Office Building, St. Paul, MN 55155

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# Minnesota Rules: Amendments and

**NOTICE: How to Follow State Agency Rulemaking in the State Register**

The *State Register* is the official source, and only complete listing, for all state agency rulemaking in its various stages. State agencies are required to publish notice of their rulemaking action in the *State Register*. Published every Monday, the *State Register* makes it easy to follow and participate in the important rulemaking process. Approximately 80 state agencies have the authority to issue rules. Each agency is assigned specific **Minnesota Rule** chapter numbers. Every odd-numbered year the **Minnesota Rules** are published. The current 1997 set is a 13-volume bound collection of all adopted rules in effect at the time. Supplements are published to update this set of rules. Generally speaking, proposed and adopted exempt rules do not appear in this set because of their short-term nature, but are published in the *State Register*.

An agency must first solicit **Comments on Planned Rules** or **Comments on Planned Rule Amendments** from the public on the subject matter of a possible rulemaking proposal under active consideration within the agency (*Minnesota Statutes* §§ 14.101). It does this by publishing a notice in the *State Register* at least 60 days before publication of a notice to adopt or a notice of hearing, or within 60 days of the effective date of any new statutory grant of required rulemaking.

When rules are first drafted, state agencies publish them as **Proposed Rules**, along with a notice of hearing, or a notice of intent to adopt rules without a hearing in the case of noncontroversial rules. This notice asks for comment on the rules as proposed. Proposed emergency rules and withdrawn proposed rules are also published in the *State Register*. After proposed rules have gone through the comment period, and have been rewritten into their final form, they again appear in the *State Register* as **Adopted Rules**. These final adopted rules are not printed in their entirety in the *State Register*, only the changes made since their publication as Proposed Rules. To see the full rule, as adopted and in effect, a person simply needs two issues of the *State Register*, the issue the rule appeared in as proposed, and later as adopted. For a more detailed description of the rulemaking process, see the most current edition of the *Minnesota Guidebook to State Agency Services*.

The *State Register* features partial and cumulative listings of rules in this section on the following schedule: issues #1-13 inclusive; issues #14-25 inclusive; issue #26 cumulative for issues #1-26; issues #27-38 inclusive; issue #39, cumulative for issues #1-39; issues #40-51 inclusive; and issues #1-52 (or 53 in some years), cumulative for issues #1-52 (or 53). An annual subject matter index for rules was separately printed usually in August, but starting with Volume 19 now appears in the final issue of each volume. For copies or subscriptions to the *State Register*, contact Minnesota's Bookstore, 117 University Avenue, St. Paul, MN 55155 (651) 297-3000, or toll-free 1-800-657-3757.

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# Proposed Rules

## Comments on Planned Rules or Rule Amendments

An agency must first solicit **Comments on Planned Rules** or **Comments on Planned Rule Amendments** from the public on the subject matter of a possible rulemaking proposal under active consideration within the agency (*Minnesota Statutes* §§ 14.101). It does this by publishing a notice in the *State Register* at least 60 days before publication of a notice to adopt or a notice of hearing, and within 60 days of the effective date of any new statutory grant of required rulemaking.

## Rules to be Adopted After a Hearing

After receiving comments and deciding to hold a public hearing on the rule, an agency drafts its rule. It then publishes its rules with a notice of hearing. All persons wishing to make a statement must register at the hearing. Anyone who wishes to submit written comments may do so at the hearing, or within five working days of the close of the hearing. Administrative law judges may, during the hearing, extend the period for receiving comments up to 20 calendar days. For five business days after the submission period the agency and interested persons may respond to any new information submitted during the written submission period and the record then is closed. The administrative law judge prepares a report within 30 days, stating findings of fact, conclusions and recommendations. After receiving the report, the agency decides whether to adopt, withdraw or modify the proposed rule based on consideration of the comments made during the rule hearing procedure and the report of the administrative law judge. The agency must wait five days after receiving the report before taking any action.

## Rules to be Adopted Without a Hearing

Pursuant to *Minnesota Statutes* § 14.22, an agency may propose to adopt, amend, suspend or repeal rules without first holding a public hearing. An agency must first solicit **Comments on Planned Rules** or **Comments on Planned Rule Amendments** from the public. The agency then publishes a notice of intent to adopt rules without a public hearing, together with the proposed rules, in the *State Register*. If, during the 30-day comment period, 25 or more persons submit to the agency a written request for a hearing of the proposed rules, the agency must proceed under the provisions of §§ 14.14-14.20, which state that if an agency decides to hold a public hearing, it must publish a notice of intent in the *State Register*.

## Pollution Control Agency Policy Planning Division

### Proposed Permanent Rules Relating to Water Quality Standards

**DUAL NOTICE: Notice of Intent to Adopt a Rule Without a Public Hearing Unless 25 or More Persons Request a Hearing, and Notice of Hearing if 25 or More Requests for Hearing Are Received**

**Proposed Amendment to Rule Governing State Water Quality Standards, *Minnesota Rules* Chapter 7050.**

**Introduction.** The Minnesota Pollution Control Agency (MPCA) intends to amend a rule without a public hearing following the procedures set forth in the Administrative Procedure Act, *Minnesota Statutes* sections 14.22 to 14.28. If, however, 25 or more persons submit a written request for a hearing on the rule within 30 days or by August 5, 1999, a public hearing will be held at the Minnesota Pollution Control Agency Central Office, in the Board Room at 520 Lafayette Road North, St. Paul, Minnesota starting at 9:00 a.m. on August 25, 1999, continuing until all parties are heard. The hearing will continue on August 26 at 6:30 p.m. The focus of this second day of hearings will be to acquire comments from greater Minnesota. Therefore, this portion of the hearing will be conducted using video-conference equipment. Satellite video-conference locations will be available in the following MPCA offices:

- **Duluth Office**, Duluth Government Services Center, Room 704, 320 West 2nd Street, Duluth, Minnesota 55802
- **Brainerd Office**, 1601 Minnesota Drive, Brainerd, Minnesota 56401.
- **Detroit Lakes Office**, Lake Avenue Plaza, 714 Lake Avenue, Suite 220, Detroit Lakes, Minnesota 56501.
- **Rochester Office**, 18 Wood Lake Drive S.E., Rochester, Minnesota 55904.

To find out whether the rule will be adopted without a hearing or if the hearing will be held, you should contact the MPCA contact person after August 5, 1999, and before August 25, 1999.

**KEY: PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material." **ADOPTED RULES SECTION** — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language.

## Proposed Rules

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**MPCA Contact Person.** Comments or questions on the rule and written requests for a public hearing on the rule must be submitted to:

**David E. Maschwitz**

Minnesota Pollution Control Agency

Environmental Research Section

Environmental Outcomes Division

520 Lafayette Road North

St. Paul, MN 55155-4194

Telephone: 651-296-7255

FAX: 651-297-7709

MN Toll Free: 1-800-657-3864

E-mail: [david.maschwitz@pca.state.mn.us](mailto:david.maschwitz@pca.state.mn.us)

TTY users may call the MPCA teletypewriter at 651-282-5332 or 800-657-3864.

**Subject of Rule and Statutory Authority.** *Minnesota Rules* chapter 7050 includes general standards applicable to all waters of the state, numerical water quality standards for the protection of specific beneficial uses such as swimming and fishing, effluent limitations for dischargers, and a use classification system for all waters of the state. This chapter is used by the MPCA to establish limits for permits that regulate discharges into state waters.

The MPCA formed a Water Quality Standards Advisory Committee (WQSAC) in September 1996 to provide a broad-based forum for the discussion and resolution, if possible, of a variety of water quality standard issues. Most of the issues considered by the committee were of interest to cities in Minnesota that discharge treated municipal wastewater. The recommendations from the committee form the basis for many of the amendments being proposed by the MPCA. However, there are two issues discussed by the advisory committee that are not included in this rule amendment effort: the water quality standards for ammonia and silver.

**Ammonia.** On August 18, 1998, the U.S. Environmental Protection Agency (EPA) published a draft update of the national ammonia criterion in the *Federal Register* (63 Fed. Reg. 44256). The MPCA considered amending the Minnesota ammonia standard based on the updated EPA criterion. However, the EPA is in the process of evaluating public comments on the updated criterion, and has not yet completed that process. Because the date that the criterion will be finalized is unknown, and beyond the control of the MPCA, the MPCA Environmental Outcomes Division decided to move forward with proposed amendments without proposing a change to the ammonia standard at this time.

**Silver.** One of the recommendations from the WQSAC was to review and revise, if necessary, the current Minnesota standard for silver. However, because defining the toxicity of silver in natural waters is complex and the EPA plans to reissue the national silver criterion in the future, and because very few discharges in Minnesota deal with silver at all, the MPCA Environmental Outcomes Division decided to postpone proposing a new state-wide standard for silver. In lieu of a new silver standard, the MPCA proposes to use a site-specific approach for those dischargers that deal with silver.

The MPCA is proposing to amend Chapter 7050 to address the following issues.

### A. The Proposed Changes Based on WQSAC Recommendations

- 1. Dissolved metal standards.** *Minnesota Rules* part 7050.0220, subparts 3 through 5, and part 7050.0222. The MPCA is proposing to change the standards for certain trace metals from "total" to "dissolved." This will bring Chapter 7050 metal standards into agreement with EPA guidance and the metal standards in *Minnesota Rules* chapter 7052 (the Great Lakes Initiative rule).
- 2. Stream design flow.** *Minnesota Rules* part 7050.0210, subpart 7. Currently Chapter 7050 defines stream design flow, which is the allowable dilution for discharges of all pollutants, as the seven-day average low flow with a once in ten year recurrence interval (7Q10) flow. The MPCA is proposing to change this to allow a 30-day average low flow with a once in ten year recurrence interval (30Q10) stream design flow for implementing the ammonia standard. The MPCA is not proposing to change the 7Q10 stream design flow for implementing other pollutants, including dissolved oxygen.
- 3. Fecal coliform standard.** *Minnesota Rules* parts 7050.0220 and 7050.0222. The MPCA is proposing to shorten the period during which the standard applies by one month, from the current March through October to April through October.
- 4. Numerical standard determination methods and revision of eight standards.** *Minnesota Rules* parts 7050.0220 and 7050.0222. Chapter 7050 contains two methods to calculate toxicity-based standards. One method is used when a lot of toxicity data are available for the chemical (Tier I method), and another is used when very little data are available (Tier II method). The MPCA adopted an improved, statistically-based, Tier II method into Chapter 7052 in 1998 as part of the Great Lakes Initiative, and is proposing to replace the existing Tier II method in Chapter 7050 with the new method. The MPCA is proposing to revise the eight existing "Tier II" standards currently in Chapter 7050 using the updated Tier II method.

5. **Designation of the basis for all Class 2 standards.** *Minnesota Rules* part 7050.0222. The MPCA is proposing to specify in Chapter 7050 the basis for each Class 2 numerical standard; that is whether they are based on, 1) direct toxicity to aquatic life, or 2) impacts on human health. This change will bring Chapter 7050 into agreement with the standards in Chapter 7052.
6. **Chlorine standard:** *Minnesota Rules* parts 7050.0220 and 7050.0222. The MPCA is proposing to change the current Minnesota chronic standard of 6 micrograms per liter or parts per billion ( $\mu\text{g/L}$ ), adopted in 1980, to agree with the EPA chronic criterion of 11  $\mu\text{g/L}$ , issued in 1985.

#### **B. Proposed Change Based on WQSAC Discussions**

Class 2B/C dissolved oxygen (DO) standard. *Minnesota Rules* parts 7050.0220 and 7050.0222. The WQSAC deliberated in considerable detail various proposals for changing the current dissolved oxygen standard for warm water fisheries but was unable to agree on a specific proposal. Based on the extensive discussion, however, the MPCA is proposing to add narrative to the current 5 milligrams per liter or parts per million (mg/L) daily minimum, year-round, dissolved oxygen standard, that will allow a seasonal site-specific modification to the standard. Following an assessment of the local fisheries data, a 5 mg/L daily average/4 mg/L daily minimum standard could be allowed during the times of the year when sensitive early life stages of warm water fish are not present in the local stream or river. The proposed change would mean a site-specific dissolved oxygen standard of not less than 5 mg/L DO averaged over one day, and no less than 4 mg/L at any time during the day, during the appropriate seasons.

#### **C. Other Proposed Changes**

1. **Averaging period for the total phosphorus limitation:** *Minnesota Rules* part 7050.0211, subpart 1. The MPCA is proposing an alternative averaging period for meeting the total phosphorus effluent limitation of 1 mg/L expressed as a monthly average in Chapter 7050. The purpose of the change is to allow the MPCA flexibility in defining the averaging period for the phosphorus limitation. Issuing phosphorus limits with averaging periods longer than a monthly average will facilitate the use of promising new wastewater technologies that remove phosphorus in a cost effective manner.
2. **Class 2A (trout) waters:** *Minnesota Rules* parts 7050.0420 and 7050.0470. MPCA is proposing to update the list of Class 2A waters listed in Chapter 7050 to reflect the most recent list of waters designated as trout streams or trout lakes by the Minnesota Department of Natural Resources. The effective date of this most recent listing will be identified by the MPCA in *Minnesota Rules* part 7050.0420.
3. **Class 7, Limited Resource Value Waters.** *Minnesota Rules* part 7050.0470. Since the last statewide revision of Chapter 7050, the MPCA received a number of reclassification requests to evaluate the designated uses assigned to certain surface waters of the state. These requests came from both outside parties as well as MPCA staff. These waters were individually field assessed in order to evaluate their existing and potential uses. Based on the information gathered during these use attainment assessments, MPCA staff proposes that the following water reaches be reclassified as Class 7, Limited Resource Value Waters:
  - a) Branch No. 3, Lateral No. 2 of County Ditch 67 and 13 at East Bethel, Anoka Co.  
(Note: the alternate name for Co. Ditch 67 and 13 is Crooked Brook. No portion of this watercourse is being proposed by MPCA staff for Class 7 reclassification.)
  - b) Trout Brook, at St. Paul, Ramsey Co.
  - c) Unnamed Ditch, near Owatonna, Steele Co.
  - d) Unnamed Ditch and High Island Ditch, near Arlington, Sibley Co.
  - e) County Ditch No. 17, near St. Cloud, Stearns Co.
  - f) Unnamed Creek, Laketown Township, Carver Co.
  - g) Lateral 5 of Judicial Ditch No. 3, at Green Isle, Sibley Co.
  - h) County Ditch No. 28, near Ham Lake, Anoka Co.
  - i) Unnamed Ditch and Unnamed Creek near Blooming Prairie, Steele Co.  
(Note: The unnamed ditch drains to the unnamed creek. Only a short segment of the unnamed creek is being proposed for Class 7 reclassification.)

<p><b>KEY: PROPOSED RULES SECTION</b> — <u>Underlining</u> indicates additions to existing rule language. <del>Strike outs</del> indicate deletions from existing rule language. If a proposed rule is totally new, it is designated “all new material.” <b>ADOPTED RULES SECTION</b> — <u>Underlining</u> indicates additions to proposed rule language. <del>Strike outs</del> indicate deletions from proposed rule language.</p>
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## Proposed Rules

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### D. Editorial or "housekeeping" changes

The MPCA is proposing to make about 33 minor, non-substantive changes to *Minnesota Rules* chapter 7050 to correct errors, update citations, and clarify wording. Note: The rule as proposed contains major editorial changes in Parts 7050.0220 and 7050.0222. The tables of numerical standards in Part 7050.0220 are being reformatted from landscape to portrait format for rule publication purposes. Part 7050.0222 is being reformatted so as to include the bases for the Class 2 numeric water quality standards. These reformatting changes are not considered as substantive changes. The substantive numerical standard changes in Part 7050.0222 are identified in Statement of Need and Reasonableness Exhibit 99.

Statutory authority to amend and adopt rules under Chapter 7050 comes from *Minnesota Statutes* section 115.03, subdivision 1, and section 115.44, which authorizes the MPCA to adopt water quality standards for waters of the state. Section 115.03, subdivision 1 provides broad authority to develop standards and other water quality programs. Section 115.44 provides more explicit authority to establish a classification system of beneficial uses for waters of the state, both surface and ground, and to set water quality standards to protect those uses.

A copy of the proposed rules is published in the *State Register* or can be viewed on the MPCA Internet web site at [www.pca.state.mn.us/news/publicnotice/index.html](http://www.pca.state.mn.us/news/publicnotice/index.html) under the "News/Public Notice" menu selection. A free copy of the rules is available upon request by calling Linda Grant at 651-296-8326.

**Comments.** You have until 4:30 p.m. on August 5, 1999, to submit written comments in support of or in opposition to the proposed rule or any part or subpart of the rule. Your comment must be in writing and received by the MPCA contact person, David Maschwitz, by the due date. Comment is encouraged. Your comments should identify the portion of the proposed rule addressed, the reason for the comment, and any change proposed. You are encouraged to propose any change desired including alternative rule language. Any comments that you would like to make on the legality of the proposed rule must also be made during this comment period.

**Request for Hearing.** In addition to submitting comments, you may also request that a hearing be held on the rule. Your request for a public hearing must be in writing and must be received by the MPCA contact person by 4:30 p.m. on August 5, 1999. Your written request for a public hearing must include your name and address. You must identify the portion of the proposed rule to which you object or state that you oppose the entire rule. Any request that does not comply with these requirements is not valid and cannot be counted by the MPCA for determining whether a public hearing must be held. You are also encouraged to state the reason for the request and any changes you want made to the proposed rule.

**Withdrawal of Requests.** If 25 or more persons submit a written request for hearing, a public hearing will be held unless a sufficient number withdraw their requests in writing. If enough requests for hearing are withdrawn to reduce the number below 25, the MPCA must give written notice of this to all persons who requested a hearing, explain the actions the MPCA took to effect the withdrawal, and ask for written comments on this action. If a public hearing is required, the MPCA will follow the procedures in *Minnesota Statutes* sections 14.131 to 14.20.

**Accommodation.** If you need an accommodation to make this hearing accessible, please contact the MPCA contact person at the address or telephone number listed above.

**Modifications.** The proposed rule may be modified, either as a result of public comment or as a result of the rule hearing process. Modifications must be supported by data and views submitted to the MPCA or presented at the hearing and the adopted rule may not be substantially different than this proposed rule. If the proposed rule affects you in any way, you are encouraged to participate in the rulemaking process.

**Cancellation of Hearing.** The hearing scheduled for August 25 and 26, 1999, will be canceled if the MPCA does not receive requests from 25 or more persons that a hearing be held on the rule. If you requested a public hearing, the MPCA will notify you before the scheduled hearing whether the hearing will be held. You may also call the MPCA contact person after August 5, 1999, but before August 25, 1999, to find out whether the hearing will be held.

**Notice of Hearing.** If 25 or more persons submit written requests for a public hearing on the rule, a hearing will be held following the procedures in *Minnesota Statutes* sections 14.14 to 14.20. The hearing will be held on the date and at the time and place listed above. The hearing will continue until all interested persons have been heard. An Administrative Law Judge is assigned to conduct the hearing. The judge can be reached at:

Steve Mihalchick  
Administrative Law Judge  
Office of Administrative Hearings  
100 Washington Square, Suite 1700  
100 Washington Avenue South  
Minneapolis, Minnesota 55401-2138  
612-349-2544  
Facsimile Machine: 612-349-2665



**Hearing Procedure.** If a hearing is held, you and all interested or affected persons including representatives of associations or other interested groups, will have an opportunity to participate. You may present your views either orally at the hearing or in writing at any time before the close of the hearing record. All evidence presented should relate to the proposed rule. You may also submit written material to the Administrative Law Judge to be recorded in the hearing record for five working days after the public hearing ends. This five-day comment period may be extended for a longer period not to exceed 20 calendar days if ordered by the Administrative Law Judge at the hearing. Following the comment period, there is a five-working-day response period during which the MPCA and any interested person may respond in writing to any new information submitted. No additional evidence may be submitted during the five-day response period. All comments and responses submitted to the Administrative Law Judge must be received at the Office of Administrative Hearings no later than 4:30 p.m. on the due date. All comments or responses received will be available for review at the Office of Administrative Hearings. This rule hearing procedure is governed by *Minnesota Rules* 1400.2000 to 1400.2240, and *Minnesota Statutes* sections 14.14 to 14.20. Questions about procedure may be directed to the Administrative Law Judge.

The MPCA requests that any person submitting written views or data to the Administrative Law Judge prior to the hearing or during the comment or response period also submit a copy of the written views or data to the MPCA contact person at the address stated above.

**Statement of Need and Reasonableness.** A Statement of Need and Reasonableness is now available for review at the MPCA's St. Paul office and at the Office of Administrative Hearings. This statement contains a summary of the justification for the proposed rules, including a description of who will be affected by the proposed rules and an estimate of the probable cost of the proposed rules. Copies of the statement may be obtained at the cost of reproduction from either the MPCA or the Office of Administrative Hearings. MPCA's costs are \$20 for a paper copy and \$8 for an electronic copy in Microsoft Word (6.0 version) on 3 1/2 inch computer disk. The statement can also be viewed on the MPCA web page at: [www.pca.state.mn.us/news/publicnotice/index.html](http://www.pca.state.mn.us/news/publicnotice/index.html).

**Lobbyist Registration.** *Minnesota Statutes* Chapter 10A requires each lobbyist to register with the Campaign Finance and Public Disclosure Board. Questions regarding this requirement may be directed to the Campaign Finance and Public Disclosure Board at the Centennial Office Building, 658 Cedar Street, St. Paul, Minnesota 55155 or by calling 651-296-5148.

**Request to Have MPCA Citizens' Board Make Decision on Rule if No Hearing is Required.** If a hearing is required, the MPCA Citizens' Board will make the final decision on whether to adopt the rule. However, even if no hearing is required, you may submit a request to the MPCA Commissioner or an MPCA Board member to have the MPCA Board make the decision on whether to adopt the proposed rule. Your request must be in writing, must state to whom it is directed and must be received by the MPCA contact person by 4:30 p.m. on August 5, 1999. Under *Minnesota Statutes* section 116.02, where a hearing is not required the MPCA Board will only make the decision on the rule if the MPCA Commissioner grants your request or if an MPCA Board member makes a timely request that the decision be made by the MPCA Board.

**Adoption Procedure if No Hearing.** If no hearing is required, and if the decision is not required to be made by the MPCA Board, the MPCA Commissioner may adopt the rule after the end of the comment period. The rule and supporting documents will then be submitted to the Office of Administrative Hearings for review for legality. You may ask to be notified of the date the rule is submitted to the office. If you want to be so notified, or want to receive a copy of the adopted rule, or want to register with the MPCA to receive notice of future rule proceedings, submit your request to the MPCA contact person listed above.

**Adoption Procedure After the Hearing.** If a hearing is held, after the close of the hearing record the Administrative Law Judge will issue a report on the proposed rule. You may ask to be notified of the date when the judge's report will become available, and can make this request at the hearing or in writing to the Administrative Law Judge. After the report is issued, the MPCA Board will make the final decision on whether to adopt the rule. You may also ask to be notified of the date on which the MPCA adopts the rule and files it with the Secretary of State, and can make this request at the hearing or in writing to the MPCA contact person stated above.

**Order.** I order that the rulemaking hearing be held at the date, time and location listed above.

Dated: 21 June 1999

Gordon E. Wegwart P.E.  
Assistant Commissioner

<p><b>KEY: PROPOSED RULES SECTION</b> — <u>Underlining</u> indicates additions to existing rule language. <del>Strike outs</del> indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material." <b>ADOPTED RULES SECTION</b> — <u>Underlining</u> indicates additions to proposed rule language. <del>Strike outs</del> indicate deletions from proposed rule language.</p>
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## Proposed Rules

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### 7050.0185 NONDEGRADATION FOR ALL WATERS.

[For text of subs 1 to 3, see M.R.]

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 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 in subpart 3, 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 industrial and 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.

[For text of subs 6 to 9, see M.R.]

### 7050.0200 WATER USE CLASSIFICATIONS FOR WATERS OF THE STATE.

[For text of subs 1 to 7, see M.R.]

Subp. 8. **Class 7 waters, limited resource value waters.** Limited resource value waters include surface waters of the state which have been subject to a use attainability analysis and have been found to have limited value as a water resource. Water quantities in these waters 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. The use attainability analysis must take into consideration 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 be used use this information to determine the extent to which the waters of the state demonstrate:

[For text of items A to C, see M.R.]

### 7050.0210 GENERAL STANDARDS FOR DISCHARGERS TO WATERS OF THE STATE.

[For text of subs 1 to 6c, see M.R.]

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), except for the purpose of setting ammonia effluent limits. Dischargers of ammonia in sewage, industrial waste, or other wastes shall be controlled so that the ammonia water quality standard will be maintained at all stream flows which are equal to or exceeded by 90 percent of the 30 consecutive daily average flows of record (the lowest 30-day 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, run-off, 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.

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

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~~ chapter 7151. 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.

[For text of subs 13 to 18, see M.R.]

**7050.0211 FACILITY STANDARDS.**

Subpart 1. **Minimum secondary treatment for municipal point source and other point source dischargers of sewage.** It is 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:

<b>Substance or Characteristic</b>	<b>Limiting Concentration or Range*</b>
Five-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**	<del>1 milligram per liter</del> <u>See subpart 1a</u>
pH range	6.0 - 9.0
Toxic or corrosive pollutants	Concentrations of toxic or corrosive pollutants shall not cause acute toxicity to humans or other animals or plant life or directly damage real property or exceed the final acute value unless the effluent satisfies the whole effluent toxicity test below. If a whole effluent toxicity test performed on the effluent results in less than 50 percent mortality of the test organisms, the effluent will not be considered acutely toxic unless the commissioner finds that the test species do not represent sensitive organisms in the affected surface water body or the whole effluent test was performed on a sample not representative of the effluent quality. The final acute value and whole effluent toxicity test are defined in part 7050.0218, subpart 3, items O and HH, respectively.

\*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. The arithmetic mean shall not exceed the stated value in any calendar month. 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.

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## Proposed Rules

~~\*\*~~Disinfection of wastewater effluents to reduce the levels of fecal coliform organisms to the stated value is required from ~~March~~ April 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. 1a. Total phosphorus effluent limits. Where the discharge of effluent is directly to or affects a lake or reservoir, phosphorus removal to one milligram per liter shall be required. The limit must be a calendar month arithmetic mean unless the commissioner finds, after considering the three criteria listed in items A to C, that a different averaging period is acceptable. In no case shall the one milligram per liter limit exceed a moving mean of 12 monthly values reported on a monthly basis, or a simple mean for a specified period, not to exceed 12 months. Calendar month effluent limits in effect on the effective date of this part must remain in effect unless an assessment of the following criteria indicates a different averaging period is acceptable:

A. the effects of the phosphorus loading on the downstream water resources;

B. the final recommendations to reduce total phosphorus loading to a watershed to achieve nutrient reduction goals established as part of a TMDL, or as part of an approved watershed plan, local water plan, or other equivalent planning process; and

C. the overall environmental, treatment process, financial, or other benefits offered by the relevant technologies.

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.

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

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

\*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.

The five milligram per liter limit shall not apply to discharges to surface waters classified as limited resource value waters pursuant to parts 7050.0200, subpart 8, and 7050.0400 to 7050.0470.

~~\*\*~~The concentrations specified in part 7050.0211, subpart 1, or, if applicable, part 7050.0212 may be used in lieu ~~thereof of this limit~~ 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, subpart 8, and 7050.0400 to 7050.0470.~~

**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, subpart 8, and 7050.0400 to 7050.0470, the agency shall require treatment facilities which will provide effluents conforming to the following limitations:\*

<b>Substance or Characteristic</b>	<b>Limiting Concentration*</b>
Five-day carbonaceous biochemical oxygen demand	15 milligrams per liter (arithmetic mean of all samples taken during any calendar month)

\*This limit shall not apply to discharges to limited resource value waters if the principal method of treatment is through stabilization ponds, in which case the limitations in parts 7050.0211, subpart 3, and 7050.0212, subpart 5, shall apply. All effluent limitations specified in part 7050.0211, subpart 1, shall also be applicable to dischargers of sewage to ~~Class 7 limited resource value~~ waters, provided that toxic or corrosive pollutants shall be limited to the extent necessary to protect the designated uses of the receiving water or affected downstream waters.

[For text of subps 2 to 4, see M.R.]

**7050.0218 METHODS FOR PROTECTION OF SURFACE WATERS FROM TOXIC POLLUTANTS FOR WHICH NUMERICAL STANDARDS NOT PROMULGATED.**

[For text of subps 1 to 4, see M.R.]

Subp. 5. **Toxicity-based criteria.** Toxicity-based aquatic life criteria shall be determined using the methods in this subpart when no USEPA criterion is available.

[For text of items A to F, see M.R.]

G. If the acute data available do not meet the requirements in items A and B, toxicity-based criteria can be determined by the method in this item. This method is not applicable to ionizable organic chemicals, or to bioaccumulative organic chemicals and pesticides with BCFs greater than 5,000 or log  $K_{ow}$  values greater than 5.19.

(1) Acute data are assembled. A minimum of ~~three~~ two acute values in the following groups must be available:

(a) a member of the class Osteichthyes (fish); and

(b) a member of one of the class Crustacea, ~~such as a water flea, amphipod, or crayfish; and~~

~~(c) a third animal species;~~ following genera in the family Daphnidae: *Daphnia*, *Ceriodaphnia*, *Simocephalus*.

(2) For insecticides, a ~~fourth~~ third acute value must be available for an insect species in addition to the acute values required in subitem (1).

(3) For herbicides, two acute values for plant species, one of which is an algal species, must be available in addition to the acute values required in subitem (1).

(4) Data for saltwater species ~~can be used for nonionizable organic chemicals, except that the lowest acute value must be for a North American freshwater species shall not be used except for purposes of determining ACRs.~~

(5) SMAVs are calculated as the geometric mean of all the acute values for one species.

(6) GMAVs are calculated as the geometric mean of the SMAVs.

(7) The lowest GMAV from among the available GMAVs is selected.

(8) The FAV is calculated by dividing the lowest GMAV by the appropriate factor listed below, depending on the number of GMAVs available that meet the minimum data requirements in subitems (2) and (3) and in item A.

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Number of GMAVs	Factor	Number of GMAVs	Factor
<del>3</del> 2	<del>11</del> 13.0	<del>12</del>	<del>3.6</del>
4 3	<del>10</del> 8.0	<del>13</del>	<del>3.4</del>
<del>5</del> 4	9 7.0	<del>14</del>	<del>3.2</del>
6 5	8 6.1	<del>15</del>	<del>3.0</del>
7 6	7 5.2	<del>16</del>	<del>2.8</del>
<del>8</del> 7	<del>6</del> 4.3	<del>17</del>	<del>2.6</del>
9	5	<del>18</del>	<del>2.4</del>
<del>10</del>	4	<del>19</del>	<del>2.2</del>
<del>11</del>	3.8	20 or more	2.0

(9) The MC is calculated by dividing the FAV by two.

(10) A final ACR is determined as described in item F, except that the default ACR shall be 18 for all chemicals for which this method is applicable as specified in this item.

(11) The CC is calculated by dividing the FAV by the appropriate ACR.

(12) If chronic data are available, they are used to determine measured ACRs as described in item F, and chronic data are compared to the CC.

[For text of subps 6 to 10, see M.R.]

### 7050.0220 SPECIFIC STANDARDS OF QUALITY AND PURITY BY ASSOCIATED USE CLASSES.

Subpart 1. **General.** The numerical and narrative water quality standards in parts 7050.0221 to 7050.0227 prescribe the qualities or properties of the waters of the state that are necessary for the designated public uses and benefits. If the standards in this part are exceeded, it is 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.

Standards for metals are expressed as total metal but must be converted to dissolved metal standards to determine water quality-based effluent limits. Water quality-based effluent limits for metals are expressed as total metal. Conversion factors for converting total to dissolved metal standards are listed in part 7050.0222, subpart 9. The conversion factor for metals not listed in part 7050.0222, subpart 9, is one. The dissolved metal standard equals the total metal standard times the conversion factor.

The standards are listed for associated classes in tables under subparts ~~3~~ 3a to ~~6~~ 6a:

- A. subpart ~~3~~ 3a, Classes 1B, 2A, 3A or 3B, 4A and 4B, and 5;
- B. subpart ~~4~~ 4a, Classes 1B or 1C, 2Bd, 3A or 3B, 4A and 4B, and 5;
- C. subpart ~~5~~ 5a, Classes 2B, 2C, or 2D; 3A, 3B, 3C, or 3D; 4A and 4B or 4C; and 5; and
- D. subpart ~~6~~ 6a, Classes 3C, 4A and 4B, 5, and 7.

Subp. 2. **Explanation of tables.** Class 1 standards listed in the tables in subparts ~~3~~ to 6 3a and 4a are the United States Environmental Protection Agency primary (maximum contaminant levels) and secondary drinking water standards, as contained in *Code of Federal Regulations*, title 40, part 141, subparts B and G, and part 143 (1992); and sections 141.61 and 141.62 as amended through July 17, 1992, excluding the bacteriological, radiological, treatment technological, and water treatment additive standards.

The tables include the following abbreviations and acronyms:

AN	means <u>aesthetic enjoyment and navigation, Class 5 waters</u>
(c)	means the chemical is assumed to be a human carcinogen
CS	or “chronic standard” means the highest water concentration of a toxicant to which organisms can be exposed indefinitely without causing chronic toxicity
DC	means <u>domestic consumption (drinking water), Class 1 waters</u>
exp. ()	means the natural antilogarithm (base e) of the expression in parenthesis
FAV	or “final acute value” means an estimate of the concentration of a pollutant corresponding to the cumulative probability of 0.05 in the distribution of all the acute toxicity values for the genera or species from the acceptable acute toxicity tests conducted on a pollutant

- IC means industrial consumption, Class 3 waters
- IR means agriculture irrigation use, Class 4A waters
- LS means agriculture livestock and wildlife use, Class 4B waters
- MS or “maximum standard” means the highest concentration of a toxicant in water to which aquatic organisms can be exposed for a brief time with zero to slight mortality. The MS equals the FAV divided by two
- (S) means the associated value is a secondary drinking water standard
- su means “standard unit.” It is the reporting unit for pH
- TH means total hardness in mg/l, which is the sum of the calcium and magnesium concentrations expressed as CaCO<sub>3</sub>
- TON means threshold odor number

For the FAV and MS values noted with an asterisk (\*), see part 7050.0222, subpart 7, item E.

Important synonyms or acronyms for some chemicals are listed in parentheses below the primary name. Standards that vary with total hardness or pH are in the form of formulas and are listed as numbered notes at the end of the tables.

When two or more use classes have standards for the same pollutant, the most stringent standard applies pursuant to part 7050.0450. All surface waters are protected for Class 6, but this class has no numerical standards so it is not included in the tables.

Subp. 3. [See repealer.]

**Subp. 3a. Water quality standards applicable to use Classes 1B, 2A, 3A or 3B, 4A and 4B, and 5.**

**Rules as Proposed (all new material)**

**A. MISCELLANEOUS SUBSTANCE OR CHARACTERISTIC**

	STANDARDS FOR USE CLASSES							
	2A CS	2A MS	2A FAV	1B DC	3A/3B IC	4A IR	4B LS	5 AN
(1) Ammonia, un-ionized as N - Units: µg/l	16	none	none	-	-	-	-	-
(2) Asbestos, >10 µm (c) - Units: fibers/l	-	-	-	7.0e+06	-	-	-	-
(3) Bicarbonates (HCO <sub>3</sub> ) - Units: meq/l	-	-	-	-	-	5	-	-
(4) Chloride - Units: mg/l	230	860	1720	250(S)	50/100	-	-	-
(5) Chlorine, total residual - Units: µg/l	11	19	38	-	-	-	-	-
(6) Color - Units: Pt-Co	30	none	none	15(S)	-	-	-	-
(7) Cyanide, free - Units: µg/l	5.2	22	45	200	-	-	-	-
(8) Dissolved oxygen - Units: mg/l	-	7 as a daily minimum	-	-	-	-	-	-
(9) Fecal coliform organisms - See Note No. 1 below								
(10) Fluoride - Units: mg/l	-	-	-	4	-	-	-	-
(11) Fluoride - Units: mg/l	-	-	-	2(S)	-	-	-	-
(12) Foaming agents - Units: µg/l	-	-	-	500(S)	-	-	-	-

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## Proposed Rules

	2A CS	2A MS	2A FAV	1B DC	3A/3B IC	4A IR	4B LS	5 AN
(13) Hardness, Ca+Mg as CaCO <sub>3</sub> - Units: mg/l	-	-	-	-	50/250	-	-	-
(14) Hydrogen sulfide - Units: mg/l	-	-	-	-	-	-	-	0.02
(15) Nitrate, as N - Units: mg/l	-	-	-	10	-	-	-	-
(16) Nitrite, as N - Units: mg/l	-	-	-	1	-	-	-	-
(17) Nitrate + Nitrite, as N - Units: mg/l	-	-	-	10	-	-	-	-
(18) Odor - Units: TON	-	-	-	3(S)	-	-	-	-
(19) Oil - Units: µg/l	500	5000	10000	-	-	-	-	-
(20) pH, low - Units: su	6.5	none	none	6.5(S)	6.5/6.0	6.0	6.0	6.0
(21) pH, high - Units: su	8.5	none	none	8.5(S)	8.5/9.0	8.5	9.0	9.0
(22) Radioactive materials - See Note No. 2 below								
(23) Salinity, total - Units: mg/l	-	-	-	-	-	-	1000	-
(24) Sodium - Units: meq/l	-	-	-	-	-	60% of total cations	-	-
(25) Sulfate - Units: mg/l	-	-	-	250(S)	-	-	-	-
(26) Sulfates, wild rice present - Units: mg/l	-	-	-	-	-	10	-	-
(27) Specific conductance, at 25°C - Units: µmhos/cm	-	-	-	-	-	1000	-	-
(28) Temperature - Units: °F - No material increase								
(29) Total dissolved salts - Units: mg/l	-	-	-	-	-	700	-	-
(30) Total dissolved solids - Units: mg/l	-	-	-	500(S)	-	-	-	-
(31) Turbidity - Units: NTU	10	none	none	1-5	-	-	-	-

### B. METALS AND ELEMENTS SUBSTANCE OR CHARACTERISTIC

#### STANDARDS FOR USE CLASSES

	2A CS	2A MS	2A FAV	1B DC	3A/3B IC	4A IR	4B LS	5 AN
(1) Aluminum - Units: µg/l	87	748	1496	50-200 (S)	-	-	-	-
(2) Antimony - Units: µg/l	5.5	90	180	6	-	-	-	-
(3) Arsenic - Units: µg/l	2.0	360	720	50	-	-	-	-
(4) Barium - Units: µg/l	-	-	-	2000	-	-	-	-
(5) Beryllium - Units: µg/l	-	-	-	4.0	-	-	-	-
(6) Boron - Units: µg/l	-	-	-	-	-	500	-	-
(7) Cadmium - Units: µg/l - See Note No. 3 below	-	-	-	5	-	-	-	-
(8) Chromium, +3 - Units: µg/l - See Note No. 4 below								
(9) Chromium, +6 - Units: µg/l	11	16	32	-	-	-	-	-
(10) Chromium, total - Units: µg/l	-	-	-	100	-	-	-	-



## Proposed Rules

	2A CS	2A MS	2A FAV	1B DC	3A/3B IC	4A IR	4B LS	5 AN
(11) Cobalt - Units: µg/l	2.8	436	872	-	-	-	-	-
(12) Copper - Units: µg/l - See Note No. 5 below	-	-	-	1000(S)	-	-	-	-
(13) Iron - Units: µg/l	-	-	-	300(S)	-	-	-	-
(14) Lead - Units: µg/l - See Note No. 6 below	-	-	-	-	-	-	-	-
(15) Manganese - Units: µg/l	-	-	-	50(S)	-	-	-	-
(16) Mercury - Units: µg/l	0.0069	2.4*	4.9*	2	-	-	-	-
(17) Nickel - Units: µg/l - See Note No. 7 below	-	-	-	100	-	-	-	-
(18) Selenium - Units: µg/l	5.0	20	40	50	-	-	-	-
(19) Silver - Units: µg/l - See Note No. 8 below	0.12	-	-	100(S)	-	-	-	-
(20) Thallium - Units: µg/l	0.28	64	128	2	-	-	-	-
(21) Zinc - Units: µg/l - See Note No. 9 below	-	-	-	5000(S)	-	-	-	-

### C. ORGANICS SUBSTANCE OR CHARACTERISTIC

#### STANDARDS FOR USE CLASSES

	2A CS	2A MS	2A FAV	1B DC	3A/3B IC	4A IR	4B LS	5 AN
(1) Acenaphthene - Units: µg/l	20	56	112	-	-	-	-	-
(2) Acrylonitrile (c) - Units: µg/l	0.38	1140*	2281*	-	-	-	-	-
(3) Alachlor (c) - Units: µg/l	3.8	800*	1600*	2	-	-	-	-
(4) Aldicarb - Units: µg/l	-	-	-	3	-	-	-	-
(5) Aldicarb sulfone - Units: µg/l	-	-	-	2	-	-	-	-
(6) Aldicarb sulfoxide - Units: µg/l	-	-	-	4	-	-	-	-
(7) Anthracene - Units: µg/l	0.035	0.32	0.63	-	-	-	-	-
(8) Atrazine (c) - Units: µg/l	3.4	323	645	3	-	-	-	-
(9) Benzene (c) - Units: µg/l	9.7	4487*	8974*	5	-	-	-	-
(10) Benzo(a)pyrene - Units: µg/l	-	-	-	0.2	-	-	-	-
(11) Bromoform - Units: µg/l	33	2900	5800	-	-	-	-	-
(12) Carbofuran - Units: µg/l	-	-	-	40	-	-	-	-
(13) Carbon tetrachloride (c) - Units: µg/l	1.9	1750*	3500*	5	-	-	-	-
(14) Chlordane (c) - Units: ng/l	0.073	1200*	2400*	2000	-	-	-	-
(15) Chlorobenzene (Monochlorobenzene) - Units: µg/l	20	423	846	100	-	-	-	-

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## Proposed Rules

	2A CS	2A MS	2A FAV	1B DC	3A/3B IC	4A IR	4B LS	5 AN
(16) Chloroform (c) - Units: µg/l	53	1392	2784	100	-	-	-	-
(17) Chlorpyrifos - Units: µg/l	0.041	0.083	0.17	-	-	-	-	-
(18) Dalapon - Units: µg/l	-	-	-	200	-	-	-	-
(19) DDT (c) - Units: ng/l	0.11	550*	1100*	-	-	-	-	-
(20) 1,2-Dibromo-3-chloropropane (c) - Units: µg/l	-	-	-	0.2	-	-	-	-
(21) Dichlorobenzene (ortho) - Units: µg/l	-	-	-	600	-	-	-	-
(22) 1,4-Dichlorobenzene (para) (c) - Units: µg/l	-	-	-	75	-	-	-	-
(23) 1,2-Dichloroethane (c) - Units: µg/l	3.5	45050*	90100*	5	-	-	-	-
(24) 1,1-Dichloroethylene - Units: µg/l	-	-	-	7	-	-	-	-
(25) 1,2-Dichloroethylene (cis) - Units: µg/l	-	-	-	70	-	-	-	-
(26) 1,2-Dichloroethylene (trans) - Units: µg/l	-	-	-	100	-	-	-	-
(27) 2,4-Dichlorophenoxyacetic acid (2,4-D) - Units: µg/l	-	-	-	70	-	-	-	-
(28) 1,2-Dichloropropane (c) - Units: µg/l	-	-	-	5	-	-	-	-
(29) Dieldrin (c) - Units: ng/l	0.0065	1300*	2500*	-	-	-	-	-
(30) Di-2-ethylhexyl adipate - Units: µg/l	-	-	-	400	-	-	-	-
(31) Di-2-ethylhexyl phthalate (c) - Units: µg/l	1.9	none*	none*	6	-	-	-	-
(32) Di-n-Octyl phthalate - Units: µg/l	30	825	1650	-	-	-	-	-
(33) Dinoseb - Units: µg/l	-	-	-	7	-	-	-	-
(34) Diquat - Units: µg/l	-	-	-	20	-	-	-	-
(35) Endosulfan - Units: µg/l	0.0076	0.084	0.17	-	-	-	-	-
(36) Endothall - Units: µg/l	-	-	-	100	-	-	-	-
(37) Endrin - Units: µg/l	0.0039	0.090	0.18	2	-	-	-	-
(38) Ethylbenzene (c) - Units: µg/l	68	1859	3717	700	-	-	-	-
(39) Ethylene dibromide - Units: µg/l	-	-	-	0.05	-	-	-	-
(40) Fluoranthene - Units: µg/l	1.9	3.5	6.9	-	-	-	-	-
(41) Glyphosate - Units: µg/l	-	-	-	700	-	-	-	-
(42) Heptachlor (c) - Units: ng/l	0.10	260*	520*	400	-	-	-	-
(43) Heptachlor epoxide (c) - Units: ng/l	0.12	270*	530*	200	-	-	-	-
(44) Hexachlorobenzene (c) - Units: ng/l	0.061	none*	none*	1000	-	-	-	-
(45) Hexachlorocyclopentadiene - Units: µg/l	-	-	-	50	-	-	-	-
(46) Lindane (c) (Hexachlorocyclohexane, gamma-) - Units: µg/l	0.0087	1.0*	2.0*	0.2	-	-	-	-
(47) Methoxychlor - Units: µg/l	-	-	-	40	-	-	-	-
(48) Methylene chloride (c) (Dichloromethane) - Units: µg/l	45	13875*	27749*	5	-	-	-	-
(49) Oxamyl (Vydate) - Units: µg/l	-	-	-	200	-	-	-	-
(50) Naphthalene - Units: µg/l	81	409	818	-	-	-	-	-

## Proposed Rules

	2A CS	2A MS	2A FAV	1B DC	3A/3B IC	4A IR	4B LS	5 AN
(51) Parathion - Units: µg/l	0.013	0.07	0.13	-	-	-	-	-
(52) Pentachlorophenol - Units: µg/l	0.93	See Note No. 10 below	-	1	-	-	-	-
(53) Phenanthrene - Units: µg/l	3.6	32	64	-	-	-	-	-
(54) Phenol - Units: µg/l	123	2214	4428	-	-	-	-	-
(55) Picloram - Units: µg/l	-	-	-	500	-	-	-	-
(56) Polychlorinated biphenyls (c) (PCBs, total) - Units: ng/l	0.014	1000*	2000*	500	-	-	-	-
(57) Simazine - Units: µg/l	-	-	-	4	-	-	-	-
(58) Styrene (c) - Units: µg/l	-	-	-	100	-	-	-	-
(59) 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD-dioxin) - Units: ng/l	-	-	-	0.03	-	-	-	-
(60) 1,1,2,2-Tetrachloroethane (c) - Units: µg/l	1.1	1127*	2253*	-	-	-	-	-
(61) Tetrachloroethylene (c) - Units: µg/l	3.8	428*	857*	5	-	-	-	-
(62) Toluene - Units: µg/l	253	1352	2703	1000	-	-	-	-
(63) Toxaphene (c) - Units: ng/l	0.31	730*	1500*	3000	-	-	-	-
(64) 2,4,5-TP (Silvex) - Units: µg/l	-	-	-	50	-	-	-	-
(65) 1,2,4-Trichlorobenzene - Units: µg/l	-	-	-	70	-	-	-	-
(66) 1,1,1-Trichloroethane - Units: µg/l	329	2957	5913	200	-	-	-	-
(67) 1,1,2-Trichloroethane - Units: µg/l	-	-	-	5	-	-	-	-
(68) 1,1,2-Trichloroethylene (c) - Units: µg/l	25	6988*	13976*	5	-	-	-	-
(69) 2,4,6-Trichlorophenol - Units: µg/l	2.0	102	203	-	-	-	-	-
(70) Trihalomethanes, total (c) (Bromodichloromethane) (Bromoform) (Chlorodibromomethane) (Chloroform) - Units: µg/l	-	-	-	100	-	-	-	-
(71) Vinyl chloride (c) - Units: µg/l	0.17	none*	none*	2	-	-	-	-
(72) Xylenes, total - Units: µg/l	166	1407	2814	10000	-	-	-	-

### Note No. 1, FECAL COLIFORM ORGANISMS

Not to exceed 200 organisms per 100 milliliters as a geometric mean of not less than five samples in any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 400 organisms per 100 milliliters. The standard applies only between April 1 and October 31.

### Note No. 2, RADIOACTIVE MATERIALS

See parts 7050.0221, subparts 2, 3, 4, and 5; 7050.0222, subparts 4, 5, and 6; and 7050.0224, subparts 2, 3, and 4.

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## Proposed Rules

### Note No. 3, CADMIUM

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN  $\mu\text{g/l}$   
AT TOTAL HARDNESS OF:

50	100	200	300	400
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CS =  
 $\text{exp.}(0.7852[\ln(\text{TH mg/l})]-3.49)$

0.66	1.1	2.0	2.7	3.4
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MS =  
 $\text{exp.}(1.128[\ln(\text{TH mg/l})]-3.828)$

1.8	3.9	8.6	14	19
-----	-----	-----	----	----

FAV =  
 $\text{exp.}(1.128[\ln(\text{TH mg/l})]-3.1349)$

3.6	7.8	17	27	37
-----	-----	----	----	----

### Note No. 4, CHROMIUM +3

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN  $\mu\text{g/l}$   
AT TOTAL HARDNESS OF:

50	100	200	300	400
----	-----	-----	-----	-----

CS =  
 $\text{exp.}(0.819[\ln(\text{TH mg/l})]+1.561)$

117	207	365	509	644
-----	-----	-----	-----	-----

MS =  
 $\text{exp.}(0.819[\ln(\text{TH mg/l})]+3.688)$

984	1737	3064	4270	5405
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FAV =  
 $\text{exp.}(0.819[\ln(\text{TH mg/l})]+4.380)$

1966	3469	6120	8530	10797
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### Note No. 5, COPPER

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN  $\mu\text{g/l}$   
AT TOTAL HARDNESS OF:

50	100	200	300	400
----	-----	-----	-----	-----

CS =  
 $\text{exp.}(0.620[\ln(\text{TH mg/l})]-0.57)$

6.4	9.8	15	19	23
-----	-----	----	----	----

MS =  
 $\text{exp.}(0.9422[\ln(\text{TH mg/l})]-1.464)$

9.2	18	34	50	65
-----	----	----	----	----

FAV =  
 $\text{exp.}(0.9422[\ln(\text{TH mg/l})]-0.7703)$

18	35	68	100	131
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Note. No. 6, LEAD

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN µg/l  
AT TOTAL HARDNESS OF:

	50	100	200	300	400
CS = exp.(1.273[ln(TH mg/l)]-4.705)	1.3	3.2	7.7	13	19
MS = exp.(1.273[ln(TH mg/l)]-1.460)	34	82	197	331	477
FAV = exp.(1.273[ln(TH mg/l)]-0.7643)	68	164	396	663	956

Note No. 7, NICKEL

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN µg/l  
AT TOTAL HARDNESS OF:

	50	100	200	300	400
CS = exp.(0.846[ln(TH mg/l)]+1.1645) not to exceed 297 µg/l	88	158	283	297	297
MS = exp.(0.846[ln(TH mg/l)]+3.3612)	789	1418	2549	3592	4582
FAV = exp.(0.846[ln(TH mg/l)]+4.0543)	1578	2836	5098	7185	9164

Note No. 8, SILVER

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN µg/l  
AT TOTAL HARDNESS OF:

	50	100	200	300	400
CS = 0.12	0.12	0.12	0.12	0.12	0.12
MS = exp.(1.72[ln(TH mg/l)]-7.2156)	0.61	2.0	6.7	13	22
FAV = exp.(1.72[ln(TH mg/l)]-6.520) The MS and FAV shall be no less than 0.12 µg/l	1.2	4.1	13	27	44

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# Proposed Rules

Note No. 9, ZINC

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN  $\mu\text{g/l}$   
AT TOTAL HARDNESS OF:

	50	100	200	300	400
CS = $\text{exp.}(0.8473[\ln(\text{TH mg/l})]+0.7615)$	59	106	191	269	343
MS = $\text{exp.}(0.8473[\ln(\text{TH mg/l})]+0.8604)$	65	117	211	297	379
FAV = $\text{exp.}(0.8473[\ln(\text{TH mg/l})]+1.5536)$	130	234	421	594	758

Note No. 10, PENTACHLOROPHENOL

STANDARD THAT VARIES WITH pH

EXAMPLE STANDARDS IN  $\mu\text{g/l}$   
AT pH OF:

	6.5	7.0	7.5	8.0	8.5
CS = 0.93	0.93	0.93	0.93	0.93	0.93
MS = $\text{exp.}(1.005(\text{pH})-4.830)$	5.5	9.1	15	25	41
FAV = $\text{exp.}(1.005(\text{pH})-4.1373)$	11	18	30	50	82

Subp. 4. [See repealer.]

Subp. 4a. Water quality standards applicable to use Classes 1B or 1C, 2Bd, 3A or 3B, 4A and 4B, and 5.

## Rules as Proposed (all new material)

### A. MISCELLANEOUS SUBSTANCE OR CHARACTERISTIC

	STANDARDS FOR USE CLASSES							
	2Bd CS	2Bd MS	2Bd FAV	1B/1C DC	3A/3B IC	4A IR	4B LS	5 AN
(1) Ammonia, un-ionized as N - Units: $\mu\text{g/l}$	40	none	none	-	-	-	-	-
(2) Asbestos, >10 $\mu\text{m}$ (c) - Units: fibers/l	-	-	-	7.0e+06	-	-	-	-
(3) Bicarbonates ( $\text{HCO}_3$ ) - Units: meq/l	-	-	-	-	-	5	-	-
(4) Chloride - Units: mg/l	230	860	1720	250(S)	50/100	-	-	-
(5) Chlorine, total residual - Units: $\mu\text{g/l}$	11	19	38	-	-	-	-	-
(6) Color - Units: Pt-Co	-	-	-	15(S)	-	-	-	-
(7) Cyanide, free - Units: $\mu\text{g/l}$	5.2	22	45	200	-	-	-	-
(8) Dissolved oxygen - Units: mg/l - See part 7050.0222, subp. 3								
(9) Fecal coliform organisms - See Note No. 1 below								
(10) Fluoride - Units: mg/l	-	-	-	4	-	-	-	-

## Proposed Rules

	2Bd CS	2Bd MS	2Bd FAV	1B/1C DC	3A/3B IC	4A IR	4B LS	5 AN
(11) Fluoride - Units: mg/l	-	-	-	2(S)	-	-	-	-
(12) Foaming agents - Units: µg/l	-	-	-	500(S)	-	-	-	-
(13) Hardness, Ca+Mg as CaCO <sub>3</sub> - Units: mg/l	-	-	-	-	50/250	-	-	-
(14) Hydrogen sulfide - Units: mg/l	-	-	-	-	-	-	-	0.02
(15) Nitrate, as N - Units: mg/l	-	-	-	10	-	-	-	-
(16) Nitrite, as N - Units: mg/l	-	-	-	1	-	-	-	-
(17) Nitrate + Nitrite, as N - Units: mg/l	-	-	-	10	-	-	-	-
(18) Odor - Units: TON	-	-	-	3(S)	-	-	-	-
(19) Oil - Units: µg/l	500	5000	10000	-	-	-	-	-
(20) pH, low - Units: su	6.5	none	none	6.5(S)	6.5/6.0	6.0	6.0	6.0
(21) pH, high - Units: su	9.0	none	none	8.5(S)	8.5/9.0	8.5	9.0	9.0
(22) Radioactive materials - See Note No. 2 below								
(23) Salinity, total - Units: mg/l	-	-	-	-	-	-	1000	-
(24) Sodium - Units: meq/l	-	-	-	-	-	60% of total cations	-	-
(25) Specific conductance, at 25°C - Units: µmhos/cm	-	-	-	-	-	1000	-	-
(26) Sulfate - Units: mg/l	-	-	-	250(S)	-	-	-	-
(27) Sulfates, wild rice present - Units: mg/l	-	-	-	-	-	10	-	-
(28) Temperature - Units: °F - See Note No. 3 below								
(29) Total dissolved salts - Units: mg/l	-	-	-	-	-	700	-	-
(30) Total dissolved solids - Units: mg/l	-	-	-	500(S)	-	-	-	-
(31) Turbidity - Units: NTU	25	none	none	1-5/25	-	-	-	-

### B. METALS AND ELEMENTS SUBSTANCE OR CHARACTERISTIC

#### STANDARDS FOR USE CLASSES

	2Bd CS	2Bd MS	2Bd FAV	1B/1C DC	3A/3B IC	4A IR	4B LS	5 AN
(1) Aluminum - Units: µg/l	125	1072	2145	50-200 (S)	-	-	-	-
(2) Antimony - Units: µg/l	5.5	90	180	6	-	-	-	-
(3) Arsenic - Units: µg/l	2.0	360	720	50	-	-	-	-
(4) Barium - Units: µg/l	-	-	-	2000	-	-	-	-

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## Proposed Rules

	2Bd CS	2Bd MS	2Bd FAV	1B/1C DC	3A/3B IC	4A IR	4B LS	5 AN
(5) Beryllium - Units: µg/l	-	-	-	4	-	-	-	-
(6) Boron - Units: µg/l	-	-	-	-	-	500	-	-
(7) Cadmium - Units: µg/l - See Note No. 4 below	-	-	-	5	-	-	-	-
(8) Chromium, +3 - Units: µg/l - See Note No. 5 below								
(9) Chromium, +6 - Units: µg/l	11	16	32	-	-	-	-	-
(10) Chromium, total - Units: µg/l	-	-	-	100	-	-	-	-
(11) Cobalt - Units: µg/l	2.8	436	872	-	-	-	-	-
(12) Copper - Units: µg/l - See Note No. 6 below	-	-	-	1000(S)	-	-	-	-
(13) Iron - Units: µg/l	-	-	-	300(S)	-	-	-	-
(14) Lead - Units: µg/l - See Note No. 7 below								
(15) Manganese - Units: µg/l	-	-	-	50(S)	-	-	-	-
(16) Mercury - Units: µg/l	0.0069	2.4*	4.9*	2	-	-	-	-
(17) Nickel - Units: µg/l - See Note No. 8 below	-	-	-	100	-	-	-	-
(18) Selenium - Units: µg/l	5.0	20	40	50	-	-	-	-
(19) Silver - Units: µg/l - See Note No. 9 below	1.0	-	-	100(S)	-	-	-	-
(20) Thallium - Units: µg/l	0.28	64	128	2	-	-	-	-
(21) Zinc - Units: µg/l - See Note No. 10 below	-	-	-	5000(S)	-	-	-	-

### C. ORGANICS SUBSTANCE OR CHARACTERISTIC

#### STANDARDS FOR USE CLASSES

	2Bd CS	2Bd MS	2Bd FAV	1B/1C DC	3A/3B IC	4A IR	4B LS	5 AN
(1) Acenaphthene - Units: µg/l	20	56	112	-	-	-	-	-
(2) Acrylonitrile (c) - Units: µg/l	0.38	1140*	2281*	-	-	-	-	-
(3) Alachlor (c) - Units: µg/l	4.2	800*	1600*	2	-	-	-	-
(4) Aldicarb - Units: µg/l	-	-	-	3	-	-	-	-
(5) Aldicarb sulfone - Units: µg/l	-	-	-	2	-	-	-	-
(6) Aldicarb sulfoxide - Units: µg/l	-	-	-	4	-	-	-	-
(7) Anthracene - Units: µg/l	0.035	0.32	0.63	-	-	-	-	-
(8) Atrazine (c) - Units: µg/l	3.4	323	645	3	-	-	-	-
(9) Benzene (c) - Units: µg/l	11	4487*	8974*	5	-	-	-	-
(10) Benzo(a)pyrene - Units: µg/l	-	-	-	0.2	-	-	-	-
(11) Bromoform - Units: µg/l	41	2900	5800	-	-	-	-	-
(12) Carbofuran - Units: µg/l	-	-	-	40	-	-	-	-
(13) Carbon tetrachloride (c) - Units: µg/l	1.9	1750*	3500*	5	-	-	-	-
(14) Chlordane (c) - Units: ng/l	0.29	1200*	2400*	2000	-	-	-	-
(15) Chlorobenzene (Monochlorobenzene) - Units: µg/l	20	423	846	100	-	-	-	-
(16) Chloroform (c) - Units: µg/l	53	1392	2784	100	-	-	-	-



## Proposed Rules

	2Bd CS	2Bd MS	2Bd FAV	1B/1C DC	3A/3B IC	4A IR	4B LS	5 AN
(17) Chlorpyrifos - Units: µg/l	0.041	0.083	0.17	-	-	-	-	-
(18) Dalapon - Units: µg/l	-	-	-	200	-	-	-	-
(19) DDT (c) - Units: ng/l	1.7	550*	1100*	-	-	-	-	-
(20) 1,2-Dibromo-3-chloropropane (c) - Units: µg/l	-	-	-	0.2	-	-	-	-
(21) Dichlorobenzene (ortho) - Units: µg/l	-	-	-	600	-	-	-	-
(22) 1,4-Dichlorobenzene (para) (c) - Units: µg/l	-	-	-	75	-	-	-	-
(23) 1,2-Dichloroethane (c) - Units: µg/l	3.8	45050*	90100*	5	-	-	-	-
(24) 1,1-Dichloroethylene - Units: µg/l	-	-	-	7	-	-	-	-
(25) 1,2-Dichloroethylene (cis) - Units: µg/l	-	-	-	70	-	-	-	-
(26) 1,2-Dichloroethylene (trans) - Units: µg/l	-	-	-	100	-	-	-	-
(27) 2,4-Dichlorophenoxyacetic acid (2,4-D) - Units: µg/l	-	-	-	70	-	-	-	-
(28) 1,2-Dichloropropane (c) - Units: µg/l	-	-	-	5	-	-	-	-
(29) Dieldrin (c) - Units: ng/l	0.026	1300*	2500*	-	-	-	-	-
(30) Di-2-ethylhexyl adipate - Units: µg/l	-	-	-	400	-	-	-	-
(31) Di-2-ethylhexyl phthalate (c) - Units: µg/l	1.9	none*	none*	6	-	-	-	-
(32) Di-n-Octyl phthalate - Units: µg/l	30	825	1650	-	-	-	-	-
(33) Dinoseb - Units: µg/l	-	-	-	7	-	-	-	-
(34) Diquat - Units: µg/l	-	-	-	20	-	-	-	-
(35) Endosulfan - Units: µg/l	0.029	0.28	0.56	-	-	-	-	-
(36) Endothall - Units: µg/l	-	-	-	100	-	-	-	-
(37) Endrin - Units: µg/l	0.016	0.090	0.18	2	-	-	-	-
(38) Ethylbenzene (c) - Units: µg/l	68	1859	3717	700	-	-	-	-
(39) Ethylene dibromide - Units: µg/l	-	-	-	0.05	-	-	-	-
(40) Fluoranthene - Units: µg/l	1.9	3.5	6.9	-	-	-	-	-
(41) Glyphosate - Units: µg/l	-	-	-	700	-	-	-	-
(42) Heptachlor (c) - Units: ng/l	0.39	260*	520*	400	-	-	-	-
(43) Heptachlor epoxide (c) - Units: ng/l	0.48	270*	530*	200	-	-	-	-
(44) Hexachlorobenzene (c) - Units: ng/l	0.24	none*	none*	1000	-	-	-	-
(45) Hexachlorocyclopentadiene - Units: µg/l	-	-	-	50	-	-	-	-
(46) Lindane (c) (Hexachlorocyclohexane, gamma-) - Units: µg/l	0.032	4.4*	8.8*	0.2	-	-	-	-
(47) Methoxychlor - Units: µg/l	-	-	-	40	-	-	-	-
(48) Methylene chloride (c) (Dichloromethane) - Units: µg/l	46	13875*	27749*	5	-	-	-	-

**KEY: PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated “all new material.” **ADOPTED RULES SECTION** — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language.

## Proposed Rules

	2Bd CS	2Bd MS	2Bd FAV	1B/1C DC	3A/3B IC	4A IR	4B LS	5 AN
(49) Oxamyl (Vydate) - Units: µg/l	-	-	-	200	-	-	-	-
(50) Naphthalene - Units: µg/l	81	409	818	-	-	-	-	-
(51) Parathion - Units: µg/l	0.013	0.07	0.13	-	-	-	-	-
(52) Pentachlorophenol - Units: µg/l - See Note No. 11 below	1.9	-	-	1	-	-	-	-
(53) Phenanthrene - Units: µg/l	3.6	32	64	-	-	-	-	-
(54) Phenol - Units: µg/l	123	2214	4428	-	-	-	-	-
(55) Picloram - Units: µg/l	-	-	-	500	-	-	-	-
(56) Polychlorinated biphenyls (c) (PCBs, total) - Units: ng/l	0.029	1000*	2000*	500	-	-	-	-
(57) Simazine - Units: µg/l	-	-	-	4	-	-	-	-
(58) Styrene (c) - Units: µg/l	-	-	-	100	-	-	-	-
(59) 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD-dioxin) - Units: ng/l	-	-	-	0.03	-	-	-	-
(60) 1,1,2,2-Tetrachloroethane (c) - Units: µg/l	1.5	1127*	2253*	-	-	-	-	-
(61) Tetrachloroethylene (c) - Units: µg/l	3.8	428*	857*	5	-	-	-	-
(62) Toluene - Units: µg/l	253	1352	2703	1000	-	-	-	-
(63) Toxaphene (c) - Units: ng/l	1.3	730*	1500*	3000	-	-	-	-
(64) 2,4,5-TP (Silvex) - Units: µg/l	-	-	-	50	-	-	-	-
(65) 1,2,4-Trichlorobenzene - Units: µg/l	-	-	-	70	-	-	-	-
(66) 1,1,1-Trichloroethane - Units: µg/l	329	2957	5913	200	-	-	-	-
(67) 1,1,2-Trichloroethane - Units: µg/l	-	-	-	5	-	-	-	-
(68) 1,1,2-Trichloroethylene (c) - Units: µg/l	25	6988*	13976*	5	-	-	-	-
(69) 2,4,6-Trichlorophenol - Units: µg/l	2.0	102	203	-	-	-	-	-
(70) Trihalomethanes, total (c) (Bromodichloromethane) (Bromoform) (Chlorodibromomethane) (Chloroform) - Units: µg/l	-	-	-	100	-	-	-	-
(71) Vinyl chloride (c) - Units: µg/l	0.18	none*	none*	2	-	-	-	-
(72) Xylenes, total - Units: µg/l	166	1407	2814	10000	-	-	-	-

### Note No. 1, FECAL COLIFORM ORGANISMS

Not to exceed 200 organisms per 100 milliliters as a geometric mean of not less than five samples in any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 2,000 organisms per 100 milliliters. The standard applies only between April 1 and October 31.

### Note No. 2, RADIOACTIVE MATERIALS

See parts 7050.0221, subparts 2, 3, 4, and 5; 7050.0222, subparts 4, 5, and 6; and 7050.0224, subparts 2, 3, and 4.

### Note No. 3, TEMPERATURE

Five degrees Fahrenheit above natural in streams and three degrees Fahrenheit above natural in lakes, based on monthly average of maximum daily temperature, except in no case shall it exceed the daily average temperature of 86 degrees Fahrenheit.

Note No. 4, CADMIUM

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN µg/l  
AT TOTAL HARDNESS OF:

	50	100	200	300	400
CS = exp.(0.7852[ln(TH mg/l)]-3.490)	0.66	1.1	2.0	2.7	3.4
MS = exp.(1.128[ln(TH mg/l)]-1.685)	15	33	73	116	160
FAV = exp.(1.128[ln(TH mg/l)]-0.9919)	31	67	146	231	319

Note No. 5, CHROMIUM +3

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN µg/l  
AT TOTAL HARDNESS OF:

	50	100	200	300	400
CS = exp.(0.819[ln(TH mg/l)]+1.561)	117	207	365	509	644
MS = exp.(0.819[ln(TH mg/l)]+3.688)	984	1737	3064	4270	5405
FAV = exp.(0.819[ln(TH mg/l)]+4.380)	1966	3469	6120	8530	10797

Note No. 6, COPPER

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN µg/l  
AT TOTAL HARDNESS OF:

	50	100	200	300	400
CS = exp.(0.620[ln(TH mg/l)]-0.57)	6.4	9.8	15	19	23
MS = exp.(0.9422[ln(TH mg/l)]-1.464)	9.2	18	34	50	65
FAV = exp.(0.9422[ln(TH mg/l)]-0.7703)	18	35	68	100	131

**KEY: PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated “all new material.” **ADOPTED RULES SECTION** — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language.

## Proposed Rules

### Note. No. 7, LEAD

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN  $\mu\text{g/l}$   
AT TOTAL HARDNESS OF:

50	100	200	300	400
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CS =  
 $\text{exp.}(1.273[\ln(\text{TH mg/l})]-4.705)$

1.3	3.2	7.7	13	19
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MS =  
 $\text{exp.}(1.273[\ln(\text{TH mg/l})]-1.460)$

34	82	197	331	477
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FAV =  
 $\text{exp.}(1.273[\ln(\text{TH mg/l})]-0.7643)$

68	164	396	663	956
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### Note No. 8, NICKEL

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN  $\mu\text{g/l}$   
AT TOTAL HARDNESS OF:

50	100	200	300	400
----	-----	-----	-----	-----

CS =  
 $\text{exp.}(0.846[\ln(\text{TH mg/l})]+1.1645)$   
not to exceed 297  $\mu\text{g/l}$

88	158	283	297	297
----	-----	-----	-----	-----

MS =  
 $\text{exp.}(0.846[\ln(\text{TH mg/l})]+3.3612)$

789	1418	2549	3592	4582
-----	------	------	------	------

FAV =  
 $\text{exp.}(0.846[\ln(\text{TH mg/l})]+4.0543)$

1578	2836	5098	7185	9164
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### Note No. 9, SILVER

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN  $\mu\text{g/l}$   
AT TOTAL HARDNESS OF:

50	100	200	300	400
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CS = 1.0

1.0	1.0	1.0	1.0	1.0
-----	-----	-----	-----	-----

MS =  
 $\text{exp.}(1.72[\ln(\text{TH mg/l})]-7.2156)$

1.0	2.0	6.7	13	22
-----	-----	-----	----	----

FAV =  
 $\text{exp.}(1.72[\ln(\text{TH mg/l})]-6.520)$

1.2	4.1	13	27	44
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The MS and FAV shall be no less than 1.0  $\mu\text{g/l}$

Note No. 10, ZINC

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN µg/l  
AT TOTAL HARDNESS OF:

	50	100	200	300	400
CS = exp.(0.8473[ln(TH mg/l)]+0.7615)	59	106	191	269	343
MS = exp.(0.8473[ln(TH mg/l)]+0.8604)	65	117	211	297	379
FAV = exp.(0.8473[ln(TH mg/l)]+1.5536)	130	234	421	594	758

Note No. 11, PENTACHLOROPHENOL

STANDARD THAT VARIES WITH pH

EXAMPLE STANDARDS IN µg/l  
AT pH OF:

	6.5	7.0	7.5	8.0	8.5
CS = 1.9	1.9	1.9	1.9	1.9	1.9
MS = exp.(1.005(pH)-4.830)	5.5	9.1	15	25	41
FAV = exp.(1.005(pH)-4.1373)	11	18	30	50	82

Subp. 5. [See repealer.]

Subp. 5a. **Water quality standards applicable to use Classes 2B, 2C, or 2D; 3A, 3B, 3C, or 3D; 4A and 4B or 4C; and 5. See Note No. 1 below.**

**Rules as Proposed (all new material)**

**A. MISCELLANEOUS SUBSTANCE OR CHARACTERISTIC**

	STANDARDS FOR USE CLASSES						
	2B,C&D	2B,C&D	2B,C&D	3A/3B/3C	4A	4B	5
	CS	MS	FAV	IC	IR	LS	AN
(1) Ammonia, un-ionized as N - Units: µg/l	40	none	none	-	-	-	-
(2) Bicarbonates (HCO <sub>3</sub> ) - Units: meq/l	-	-	-	-	5	-	-
(3) Chloride - Units: mg/l	230	860	1720	50/100/250	-	-	-
(4) Chlorine, total residual - Units: µg/l	11	19	38	-	-	-	-
(5) Cyanide, free - Units: µg/l	5.2	22	45	-	-	-	-
(6) Dissolved oxygen - Units: mg/l - See Note No. 2 below							
(7) Fecal coliform organisms - See Note No. 3 below							
(8) Hardness, Ca+Mg as CaCO <sub>3</sub> - Units: mg/l	-	-	-	50/250/500	-	-	-
(9) Hydrogen sulfide - Units: mg/l	-	-	-	-	-	-	0.02
(10) Oil - Units: µg/l	500	5000	10,000	-	-	-	-

## Proposed Rules

	2B,C&D CS	2B,C&D MS	2B,C&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
(11) pH, low - Units: su - See Note No. 4 below	6.5	-	-	6.5/6.0/6.0	6.0	6.0	6.0
(12) pH, high - Units: su - See Note No. 4 below	9.0	-	-	8.5/9.0/9.0	8.5	9.0	9.0
(13) Radioactive materials - See Note No. 5 below							
(14) Salinity, total - Units: mg/l	-	-	-	-	-	1000	-
(15) Sodium - Units: meq/l	-	-	-	-	60% of total cations	-	-
(16) Specific conductance, at 25°C - Units: µmhos/cm	-	-	-	-	1000	-	-
(17) Sulfates, wild rice present - Units: mg/l	-	-	-	-	10	-	-
(18) Temperature - Units: °F - See Note No. 6 below							
(19) Total dissolved salts - Units: mg/l	-	-	-	-	700	-	-
(20) Turbidity - Units: NTU	25	none	none	-	-	-	-

### B. METALS AND ELEMENTS SUBSTANCE OR CHARACTERISTIC

#### STANDARDS FOR USE CLASSES

	2B,C&D CS	2B,C&D MS	2B,C&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
(1) Aluminum - Units: µg/l	125	1072	2145	-	-	-	-
(2) Antimony - Units: µg/l	31	90	180	-	-	-	-
(3) Arsenic - Units: µg/l	53	360	720	-	-	-	-
(4) Boron - Units: µg/l	-	-	-	-	500		
(5) Cadmium - Units: µg/l - See Note No. 7 below							
(6) Chromium, +3 - Units: µg/l - See Note No. 8 below							
(7) Chromium, +6 - Units: µg/l	11	16	32	-	-	-	-
(8) Cobalt - Units: µg/l	5.0	436	872	-	-	-	-
(9) Copper - Units: µg/l - See Note No. 9 below							
(10) Lead - Units: µg/l - See Note No. 10 below							
(11) Mercury - Units: µg/l	0.0069	2.4*	4.9*	-	-	-	-
(12) Nickel - Units: µg/l - See Note No. 11 below							
(13) Selenium - Units: µg/l	5.0	20	40	-	-	-	-
(14) Silver - Units: µg/l - See Note No. 12 below	1.0	-	-	-	-	-	-
(15) Thallium - Units: µg/l	0.56	64	128	-	-	-	-
(16) Zinc - Units: µg/l - See Note No. 13 below							

**C. ORGANICS SUBSTANCE OR CHARACTERISTIC**

**STANDARDS FOR USE CLASSES**

	2B,C&D CS	2B,C&D MS	2B,C&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
(1) Acenaphthene - Units: µg/l	20	56	112	-	-	-	-
(2) Acrylonitrile (c) - Units: µg/l	0.89	1140*	2281*	-	-	-	-
(3) Alachlor - Units: µg/l	59	800	1600	-	-	-	-
(4) Anthracene - Units: µg/l	0.035	0.32	0.63	-	-	-	-
(5) Atrazine - Units: µg/l	10	323	645	-	-	-	-
(6) Benzene - Units: µg/l	114	4487	8974	-	-	-	-
(7) Bromoform - Units: µg/l	466	2900	5800	-	-	-	-
(8) Carbon tetrachloride (c) - Units: µg/l	5.9	1750*	3500*	-	-	-	-
(9) Chlordane (c) - Units: ng/l	0.29	1200*	2400*	-	-	-	-
(10) Chlorobenzene (Monochlorobenzene) - Units: µg/l	20	423	846	-	-	-	-
(11) Chloroform - Units: µg/l	155	1392	2784	-	-	-	-
(12) Chlorpyrifos - Units: µg/l	0.041	0.083	0.17	-	-	-	-
(13) DDT (c) - Units: ng/l	1.7	550*	1100*	-	-	-	-
(14) 1,2-Dichloroethane (c) - Units: µg/l	190	45050*	90100*	-	-	-	-
(15) Dieldrin (c) - Units: ng/l	0.026	1300*	2500*	-	-	-	-
(16) Di-2-ethylhexyl phthalate (c) - Units: µg/l	2.1	none*	none*	-	-	-	-
(17) Di-n-Octyl phthalate - Units: µg/l	30	825	1650	-	-	-	-
(18) Endosulfan - Units: µg/l	0.031	0.28	0.56	-	-	-	-
(19) Endrin - Units: µg/l	0.016	0.090	0.18	-	-	-	-
(20) Ethylbenzene (c) - Units: µg/l	68	1859	3717	-	-	-	-
(21) Fluoranthene - Units: µg/l	1.9	3.5	6.9	-	-	-	-
(22) Heptachlor (c) - Units: ng/l	0.39	260*	520*	-	-	-	-
(23) Heptachlor epoxide (c) - Units: ng/l	0.48	270*	530*	-	-	-	-
(24) Hexachlorobenzene (c) - Units: ng/l	0.24	none*	none*	-	-	-	-
(25) Lindane (c) (Hexachlorocyclohexane, gamma-) - Units: µg/l	0.036	4.4*	8.8*	-	-	-	-
(26) Methylene chloride (c) (Dichloromethane) - Units: µg/l	1940	13875	27749	-	-	-	-
(27) Naphthalene - Units: µg/l	81	409	818	-	-	-	-
(28) Parathion - Units: µg/l	0.013	0.07	0.13	-	-	-	-
(29) Pentachlorophenol - Units: µg/l - See Note No. 14 below							
(30) Phenanthrene - Units: µg/l	3.6	32	64	-	-	-	-

**KEY: PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated “all new material.” **ADOPTED RULES SECTION** — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language.

## Proposed Rules

	2B,C&D CS	2B,C&D MS	2B,C&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
(31) Phenol - Units: µg/l	123	2214	4428	-	-	-	-
(32) Polychlorinated biphenyls (c) (PCBs, total) - Units: ng/l	0.029	1000*	2000*	-	-	-	-
(33) 1,1,2,2-Tetrachloroethane (c) - Units: µg/l	13	1127	2253	-	-	-	-
(34) Tetrachloroethylene (c) - Units: µg/l	8.9	428	857	-	-	-	-
(35) Toluene - Units: µg/l	253	1352	2703	-	-	-	-
(36) Toxaphene (c) - Units: ng/l	1.3	730*	1500*	-	-	-	-
(37) 1,1,1-Trichloroethane - Units: µg/l	329	2957	5913	-	-	-	-
(38) 1,1,2-Trichloroethylene (c) - Units: µg/l	120	6988	13976	-	-	-	-
(39) 2,4,6-Trichlorophenol - Units: µg/l	2.0	102	203	-	-	-	-
(40) Vinyl chloride (c) - Units: µg/l	9.2	none*	none*	-	-	-	-
(41) Xylenes, total - Units: µg/l	166	1407	2814	-	-	-	-

Note No. 1, CLASS 3D, 4C, and 5 STANDARDS, applicable to wetlands

In general, if Class 3, 4, or 5 standards are exceeded, background conditions shall be maintained. See parts 7050.0223, subpart 5; 7050.0224, subpart 4; and 7050.0225, subpart 2.

Note No. 2, DISSOLVED OXYGEN

See part 7050.0222, subparts 4 and 5 for the Class 2B and 2C Dissolved Oxygen standards, respectively. Class 2D standard: If background is less than 5 mg/l, as a daily minimum, maintain background.

Note No. 3, FECAL COLIFORM ORGANISMS

Not to exceed 200 organisms per 100 milliliters as a geometric mean of not less than five samples in any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 2,000 organisms per 100 milliliters. The standard applies only between April 1 and October 31.

Note No. 4, pH

Class 2D standard: Maintain background.

Note No. 5, RADIOACTIVE MATERIALS

See parts 7050.0222, subparts 4, 5, and 6; and 7050.0224, subparts 2, 3, and 4.

Note No. 6, TEMPERATURE

Class 2B standard: Five degrees Fahrenheit above natural in streams and three degrees Fahrenheit above natural in lakes, based on monthly average of maximum daily temperature, except in no case shall it exceed the daily average temperature of 86 degrees Fahrenheit. Class 2C standard: five degrees Fahrenheit above natural in streams and three degrees Fahrenheit above natural in lakes, based on monthly average of maximum daily temperature, except in no case shall it exceed the daily average temperature of 90 degrees Fahrenheit. Class 2D standard: Maintain background.

Note No. 7, CADMIUM

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN µg/l  
AT TOTAL HARDNESS OF:

	50	100	200	300	400
CS = exp.(0.7852[ln(TH mg/l)]-3.490)	0.66	1.1	2.0	2.7	3.4
MS = exp.(1.128[ln(TH mg/l)]-1.685)	15	33	73	116	160



FAV = exp.(1.128[ln(TH mg/l)]-0.9919)	31	67	146	231	319
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Note No. 8, CHROMIUM +3

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN µg/l  
AT TOTAL HARDNESS OF:

50	100	200	300	400
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---

CS = exp.(0.819[ln(TH mg/l)]+1.561)	117	207	365	509	644
MS = exp.(0.819[ln(TH mg/l)]+3.688)	984	1737	3064	4270	5405
FAV = exp.(0.819[ln(TH mg/l)]+4.380)	1966	3469	6120	8530	10797

Note No. 9, COPPER

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN µg/l  
AT TOTAL HARDNESS OF:

50	100	200	300	400
----	-----	-----	-----	-----

---

CS = exp.(0.620[ln(TH mg/l)]-0.570)	6.4	9.8	15	19	23
MS = exp.(0.9422[ln(TH mg/l)]-1.464)	9.2	18	34	50	65
FAV = exp.(0.9422[ln(TH mg/l)]-0.7703)	18	35	68	100	131

Note. No. 10, LEAD

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN µg/l  
AT TOTAL HARDNESS OF:

50	100	200	300	400
----	-----	-----	-----	-----

---

CS = exp.(1.273[ln(TH mg/l)]-4.705)	1.3	3.2	7.7	13	19
MS = exp.(1.273[ln(TH mg/l)]-1.460)	34	82	197	331	477
FAV = exp.(1.273[ln(TH mg/l)]-0.7643)	68	164	396	663	956

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## Proposed Rules

### Note No. 11, NICKEL

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN  $\mu\text{g/l}$   
AT TOTAL HARDNESS OF:

50	100	200	300	400
----	-----	-----	-----	-----

CS =  
 $\text{exp}(.0.846[\ln(\text{TH mg/l})]+1.1645)$

88	158	283	399	509
----	-----	-----	-----	-----

MS =  
 $\text{exp}(.0.846[\ln(\text{TH mg/l})]+3.3612)$

789	1418	2549	3592	4582
-----	------	------	------	------

FAV =  
 $\text{exp}(.0.846[\ln(\text{TH mg/l})]+4.0543)$

1578	2836	5098	7185	9164
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### Note No. 12, SILVER

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN  $\mu\text{g/l}$   
AT TOTAL HARDNESS OF:

50	100	200	300	400
----	-----	-----	-----	-----

CS = 1.0

1.0	1.0	1.0	1.0	1.0
-----	-----	-----	-----	-----

MS =  
 $\text{exp}(.1.72[\ln(\text{TH mg/l})]-7.2156)$

1.0	2.0	6.7	13	22
-----	-----	-----	----	----

FAV =  
 $\text{exp}(.1.72[\ln(\text{TH mg/l})]-6.520)$

1.2	4.1	13	27	44
-----	-----	----	----	----

The MS and FAV shall be no less than 1.0  $\mu\text{g/l}$

### Note No. 13, ZINC

STANDARDS THAT VARY WITH  
TOTAL HARDNESS (TH)

EXAMPLE STANDARDS IN  $\mu\text{g/l}$   
AT TOTAL HARDNESS OF:

50	100	200	300	400
----	-----	-----	-----	-----

CS =  
 $\text{exp}(.0.8473[\ln(\text{TH mg/l})]+0.7615)$

59	106	191	269	343
----	-----	-----	-----	-----

MS =  
 $\text{exp}(.0.8473[\ln(\text{TH mg/l})]+0.8604)$

65	117	211	297	379
----	-----	-----	-----	-----

FAV =  
 $\text{exp}(.0.8473[\ln(\text{TH mg/l})]+1.5536)$

130	234	421	594	758
-----	-----	-----	-----	-----

Note No. 14, PENTACHLOROPHENOL  
STANDARD THAT VARIES WITH pH

EXAMPLE STANDARDS IN µg/l  
AT pH OF:

	6.5	7.0	7.5	8.0	8.5
CS = exp.(1.005(pH)-5.290) not to exceed 5.5 µg/l	3.5	5.5	5.5	5.5	5.5
MS = exp.(1.005(pH)-4.830)	5.5	9.1	15	25	41
FAV = exp.(1.005(pH)-4.1373)	11	18	30	50	82

Subp. 6. [See repealer.]

Subp. 6a. **Water quality standards applicable to use Classes 3C, 4A and 4B, 5, and 7.**

**Rules as Proposed (all new material)**

**MISCELLANEOUS SUBSTANCE OR CHARACTERISTIC  
STANDARDS FOR USE CLASSES**

	7 LIMITED RESOURCES	3C IC	4A IR	4B LS	5 AN
(1) Bicarbonates (HCO <sub>3</sub> ) - Units: meq/l	-	-	5	-	-
(2) Boron - Units: µg/l	-	-	500	-	-
(3) Chloride - Units: mg/l	-	250	-	-	-
(4) Dissolved oxygen - Units: mg/l - See Note No. 1 below					
(5) Fecal coliform organisms - See Note No. 2 below					
(6) Hardness, Ca+Mg as CaCO <sub>3</sub> - Units: mg/l	-	500	-	-	-
(7) Hydrogen sulfide - Units: mg/l	-	-	-	-	0.02
(8) pH, low - Units: su	6.0	6.0	6.0	6.0	6.0
(9) pH, high - Units: su	9.0	9.0	8.5	9.0	9.0
(10) Radioactive materials - See Note No. 3 below					
(11) Salinity, total - Units: mg/l	-	-	-	1000	-
(12) Sodium - Units: meq/l	-	-	60% of total cations	-	-
(13) Specific conductance, at 25°C - Units: µmhos/cm	-	-	1000	-	-
(14) Sulfates, wild rice present - Units: mg/l	-	-	10	-	-

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## Proposed Rules

7	3C	4A	4B	5
LIMITED	IC	IR	LS	AN
RESOURCES				

(15) Total dissolved salts - Units: mg/l

- - 700 - -

(16) Toxic pollutants - See Note No. 4 below

Note No. 1, DISSOLVED OXYGEN

At concentrations which will avoid odors or putrid conditions in the receiving water or at concentrations at not less than 1 mg/l (daily average) provided that measurable concentrations are present at all times.

Note No. 2, FECAL COLIFORM ORGANISMS

Not to exceed 1,000 organisms per 100 milliliters in any calendar month as determined by a geometric mean of a minimum of five samples, nor shall more than ten percent of all samples taken during any calendar month individually exceed 2,000 organisms per 100 milliliters. The standard applies only between May 1 and October 31.

Note No. 3, RADIOACTIVE MATERIALS

See part 7050.0224, subparts 2, 3, and 4.

Note No. 4, TOXIC POLLUTANTS

Toxic pollutants shall not be allowed in such quantities or concentrations that will impair the specified uses.

### 7050.0221 SPECIFIC STANDARDS OF QUALITY AND PURITY FOR CLASS 1 WATERS OF THE STATE; DOMESTIC CONSUMPTION.

[For text of subs 1 to 3, see M.R.]

Subp. 4. **Class 1C waters.** The quality of Class 1C 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 both the primary (maximum contaminant levels) and secondary drinking water standards issued by the United States Environmental Protection Agency as contained in *Code of Federal Regulations*, title 40, part 141, subparts B and G, and part 143, (1992); and sections 141.61 and 141.62, as amended through July 17, 1992; except that the bacteriological standards shall not apply, and the turbidity standard shall be 25 ~~mg/l~~ NTU. These Environmental Protection Agency standards, as modified in this part, are adopted and incorporated by reference. These standards 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 or joints with surface connections, and coarse gravels subjected to surface water infiltration. These standards shall also apply to these waters in the untreated state.

[For text of subs 5 and 6, see M.R.]

### 7050.0222 SPECIFIC STANDARDS OF QUALITY AND PURITY FOR CLASS 2 WATERS OF THE STATE; AQUATIC LIFE AND RECREATION.

Subpart 1. **General.** The numerical and narrative water quality standards in this part prescribe the qualities or properties of the waters of the state that are necessary for the aquatic life and recreation designated public uses and benefits. If the standards in this part are exceeded in waters of the state that have the Class 2 designation, it is considered indicative of a polluted condition which is actually or potentially deleterious, harmful, detrimental, or injurious with respect to the designated uses.

Standards for metals are expressed as total metal but must be converted to dissolved metal standards to determine water quality-based effluent limits. Water quality-based effluent limits for metals are expressed as total metal. Conversion factors for converting total to dissolved metal standards are listed in subpart 9. The conversion factor for metals not listed in subpart 9 is one. The dissolved metal standard equals the total metal standard times the conversion factor.

Subp. 2. **Class 2A waters; aquatic life and recreation.** The quality of Class 2A surface waters shall be such as to permit the propagation and maintenance of a healthy community of cold water sport or commercial fish and associated aquatic life, and their habitats. These waters shall be suitable for aquatic recreation of all kinds, including bathing, for which the waters may be usable. This class of surface waters is also protected as a source of drinking water. The applicable standards are given below, with substances considered carcinogenic ~~and having human health-based standards~~ followed by a (c). The basis columns to the right of the chronic standards and to the right of the acute standards indicate whether the chronic and acute standards, respectively, are based on the protection of the aquatic community from adverse toxic effects (Tox.), or the protection of human consumers of drinking water and sport-caught fish (HH). "NA" means not applicable. Subpart 7, item E, should be referenced for FAV and MS values and "none" noted with an asterisk (\*):

Substance or Characteristic	Class 2A Standard		
	CS	MS	FAV
(e) = carcinogen			
Acenaphthene µg/l	12	41	81
Acrylonitrile (e) µg/l	0.38	1140*	2281*
Alachlor (e) µg/l	3.8	800*	1600*
Aluminum, total µg/l	87	748	1496
Ammonia un-ionized as N µg/l	16	none	none

The percent un-ionized ammonia can be calculated for any temperature and pH by using the following formula taken from Emerson, K., R.C. Russo, R.E. Lund, and R.V. Thurston, 1975. Aqueous ammonia equilibrium calculations; effect of pH and temperature. Journal of the Fisheries Board of Canada 32: 2379-2383.

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

where:

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

$$pk_a = 0.09 + \frac{2730}{T}$$

T

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

Class 2A Standards continued

	Class 2A Standards continued		
	CS	MS	FAV
Anthracene µg/l	0.029	0.78	1.6
Antimony µg/l	5.5	90	180
Arsenic, total µg/l	2.0	360	720
Atrazine (e) µg/l	3.4	323	645
Benzene (e) µg/l	9.7	4487*	8974*
Bromoform µg/l	33	2900	5800
Cadmium, total µg/l			

The CS shall not exceed:  
 The MS shall not exceed:  
 The FAV shall not exceed:

$\exp(0.7852[\ln(\text{total hardness mg/l}) - 3.49])$ .  
 $\exp(1.128[\ln(\text{total hardness mg/l}) - 3.828])$ .  
 $\exp(1.128[\ln(\text{total hardness mg/l}) - 3.1349])$ .

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# Proposed Rules

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

## Cadmium standards in µg/l at various hardness values

Hardness mg/l	CS	MS	FAV
50	0.66	1.8	3.6
100	1.1	3.9	7.8
200	2.0	8.6	17.1

### Class 2A Standards continued

	CS	MS	FAV
Carbon tetra- chloride (c) µg/l	1.9	1750*	3500*
Chlordane (c) µg/l	0.000073	1.2*	2.4*
Chloride mg/l	230	860	1720
Chlorine, total residual µg/l	6	19	38

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

### Class 2A Standards continued

	CS	MS	FAV
Chlorobenzene µg/l (Monochlorobenzene)	10	423	846
Chloroform (c) µg/l	49	2235	4471
Chlorpyrifos µg/l	0.041	0.083	0.17
Chromium +3, total µg/l			

The CS shall not exceed:  $\exp.(0.819[\ln(\text{total hardness mg/l})]+1.561)$ .  
 The MS shall not exceed:  $\exp.(0.819[\ln(\text{total hardness mg/l})]+3.688)$ .  
 The FAV shall not exceed:  $\exp.(0.819[\ln(\text{total hardness mg/l})]+4.380)$ .

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

## Chromium +3 standards in µg/l at various hardness values

Hardness mg/l	CS	MS	FAV
50	117	984	1966
100	207	1737	3469
200	365	3064	6120

### Class 2A Standards continued

	CS	MS	FAV
Chromium +6, total µg/l	11	16	32
Cobalt µg/l	2.8	436	872
Color value Pt.-Co. units	30	none	none
Copper, total µg/l			

The CS shall not exceed:  $\exp.(0.62[\ln(\text{total hardness mg/l})]-0.57)$ .  
 The MS shall not exceed:  $\exp.(0.9422[\ln(\text{total hardness mg/l})]-1.464)$ .  
 The FAV shall not exceed:  $\exp.(0.9422[\ln(\text{total hardness mg/l})]-0.7703)$ .

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

**Copper standards in µg/l at various hardness values**

Hardness mg/l

50	6.4	9.2	18
100	9.8	18	35
200	15	34	68

Class 2A Standards continued

	CS	MS	FAV
Cyanide, free µg/l	5.2	22	45
Dissolved oxygen mg/l	7 as a daily minimum	none	none

This dissolved oxygen standard requires 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).

Class 2A Standards continued

	CS	MS	FAV
DDT (e) µg/l	0.00011	0.55*	1.1*
1,2-Dichloroethane (e) µg/l	3.5	45050*	90100*
Dieldrin (e) µg/l	0.0000065	1.3*	2.5*
Di-2-Ethylhexyl phthalate (e) µg/l	1.9	none	none
Di-n-Octyl phthalate µg/l	30	825	1650
Endosulfan µg/l	0.0076	0.084	0.17
Endrin µg/l	0.0039	0.090	0.18
Ethylbenzene µg/l	68	1859	3717
Fecal coliform organisms			

Not to exceed 200 organisms per 100 milliliters as a geometric mean of not less than five samples in any calendar month; nor shall more than ten percent of all samples taken during any calendar month individually exceed 400 organisms per 100 milliliters. The standard applies only between March 1 and October 31.

Class 2A Standards continued

	CS	MS	FAV
Fluoranthene µg/l	7.1	199	398
Heptachlor (e) µg/l	0.00010	0.26*	0.52*
Heptachlor epoxide (e) µg/l	0.00012	0.27*	0.53*
Hexachlorobenzene (e) µg/l	0.000061	none	none
Lead, total µg/l			

The CS shall not exceed:  
 The MS shall not exceed:  
 The FAV shall not exceed:

$\exp.(1.273[\ln(\text{total hardness mg/l}) - 4.705])$ .  
 $\exp.(1.273[\ln(\text{total hardness mg/l}) - 1.460])$ .  
 $\exp.(1.273[\ln(\text{total hardness mg/l}) - 0.7643])$ .

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# Proposed Rules

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

### Lead standard in µg/l at various hardness values

Hardness mg/l	CS	MS	FAV
50	1.3	34	68
100	3.2	82	164
200	7.7	197	396

### Class 2A Standards continued

	CS	MS	FAV
Lindane (ε) µg/l (Hexachlorocyclohexane, gamma-)	0.0087	1.0*	2.0*
Mercury, total µg/l	0.0069	2.4*	4.9*
Methylene chloride (c) µg/l (Dichloro- methane)	45	9600*	19200*
Naphthalene µg/l	81	409	818
Nickel, total µg/l			

The CS shall not exceed the human health-based criterion of 297 µg/l.

For waters with total hardness values less than 212 mg/l, the CS

shall not exceed:

The MS shall not exceed:

The FAV shall not exceed:

$$\exp.(0.846[\ln(\text{total hardness mg/l})+1.1645]).$$

$$\exp.(0.846[\ln(\text{total hardness mg/l})+3.3612]).$$

$$\exp.(0.846[\ln(\text{total hardness mg/l})+4.0543]).$$

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

### Nickel standards in µg/l at various hardness values

Hardness mg/l	CS	MS	FAV
50	88	789	1578
100	158	1418	2836
200	283	2549	5098

### Class 2A Standards continued

	CS	MS	FAV
Oil µg/l	500	5000	10000
Parathion µg/l	0.013	0.07	0.13
Pentachlorophenol µg/l			

The CS shall not exceed:

The MS shall not exceed:

The FAV shall not exceed:

$$0.93.$$

$$\exp.(1.005[\text{pH}] - 4.830).$$

$$\exp.(1.005[\text{pH}] - 4.1373).$$

### Pentachlorophenol standards in µg/l at various pH values

pH	CS	MS	FAV
7.0	0.93	9.1	18
7.5	0.93	15	30
8.0	0.93	25	50



pH value not  
less than 6.5  
nor greater  
than 8.5

*Class 2A Standards continued*

	CS	MS	FAV
Phenanthrene µg/l	<u>2.1</u>	<u>29</u>	<u>58</u>
Phenol µg/l	<u>123</u>	<u>2214</u>	<u>4428</u>
Polychlorinated biphenyls, total (e) µg/l	<u>0.000014</u>	<u>1.0*</u>	<u>2.0*</u>
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.

*Class 2A Standards continued*

	CS	MS	FAV
Selenium, total µg/l	<u>5.0</u>	<u>20</u>	<u>40</u>
Silver, total µg/l			

The CS shall not exceed:  
The MS shall not exceed:  
The FAV shall not exceed:

0.12.  
exp.(1.72[ln(total hardness mg/l)]-7.2156) and  
exp.(1.72[ln(total hardness mg/l)]-6.52) provided that  
the MS and FAV shall be no less than 0.12 µg/l.

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

**Silver standards in µg/l at various hardness values**

Hardness mg/l	CS	MS	FAV
50	<u>n/a</u>	<u>0.61</u>	<u>1.2</u>
100	<u>n/a</u>	<u>2.0</u>	<u>4.1</u>
200	<u>n/a</u>	<u>6.7</u>	<u>13</u>

Temperature  
No material increase

*Class 2A Standards continued*

	CS	MS	FAV
1,1,2,2-Tetrachloroethane (e) µg/l	<u>1.1</u>	<u>1127*</u>	<u>2253*</u>
Tetrachloroethylene (e) µg/l	<u>3.8</u>	<u>428*</u>	<u>857*</u>
Thallium µg/l	<u>0.28</u>	<u>64</u>	<u>128</u>
Toluene µg/l	<u>253</u>	<u>1352</u>	<u>2703</u>
Toxaphene (e) µg/l	<u>0.00031</u>	<u>0.73*</u>	<u>1.5*</u>
1,1,1-Trichloroethane			

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# Proposed Rules

µg/l	263	2628	5256
1,1,2 Trichloroethylene (e) µg/l	25	6988*	13976*
2,4,6 Trichlorophenol x µg/l	2.0	102	203
Turbidity value NTUs	10	none	none
Vinyl chloride (e) µg/l	0.17	none	none
Xylene, total m, p, and o µg/l	166	1407	2814
Zinc, total µg/l			

The CS shall not exceed:  $\exp.(0.8473[\ln(\text{total hardness mg/l})+0.7615])$ .

The MS shall not exceed:  $\exp.(0.8473[\ln(\text{total hardness mg/l})+0.8604])$ .

The FAV shall not exceed:  $\exp.(0.8473[\ln(\text{total hardness mg/l})+1.5536])$ .

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

### Zinc standards in µg/l at various hardness values

Hardness mg/l			
50	59	65	130
100	106	117	234
200	191	211	421

Substance or Characteristic (c) ≡ carcinogen	Units	Class 2A	Basis	Class 2A	FAV	Basis
		Chronic Standard		Acute Standards		
Acenaphthene	µg/l	20	HH	56	112	Tox.
Acrylonitrile (c)	µg/l	0.38	HH	1140*	2281*	Tox.
Alachlor (c)	µg/l	3.8	HH	800*	1600*	Tox.
Aluminum, total	µg/l	87	Tox.	748	1496	Tox.
Ammonia un-ionized as N	µg/l	16	Tox.	None	None	NA

The percent un-ionized ammonia can be calculated for any temperature and pH by using the following formula taken from Emerson, K., R.C. Russo, R.E. Lund, and R.V. Thurston. 1975. Aqueous ammonia equilibrium calculations; effect of pH and temperature. Journal of the Fisheries Research Board of Canada 32: 2379-2383.

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

where:

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

$$pk_a = 0.09 \pm \frac{2730}{T}, \text{ dissociation constant for ammonia}$$

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

<u>Substance or Characteristic</u> (c) = carcinogen	<u>Units</u>	<u>Class 2A Chronic Standard</u>	<u>Basis</u>	<u>Class 2A Acute Standards</u>		<u>Basis</u>
		<u>CS</u>		<u>MS</u>	<u>FAV</u>	
<u>Anthracene</u>	<u>µg/l</u>	<u>0.035</u>	<u>Tox.</u>	<u>0.32</u>	<u>0.63</u>	<u>Tox.</u>
<u>Antimony</u>	<u>µg/l</u>	<u>5.5</u>	<u>HH</u>	<u>90</u>	<u>180</u>	<u>Tox.</u>
<u>Arsenic, total</u>	<u>µg/l</u>	<u>2.0</u>	<u>HH</u>	<u>360</u>	<u>720</u>	<u>Tox.</u>
<u>Atrazine (c)</u>	<u>µg/l</u>	<u>3.4</u>	<u>HH</u>	<u>323</u>	<u>645</u>	<u>Tox.</u>
<u>Benzene (c)</u>	<u>µg/l</u>	<u>9.7</u>	<u>HH</u>	<u>4487*</u>	<u>8974*</u>	<u>Tox.</u>
<u>Bromoform</u>	<u>µg/l</u>	<u>33</u>	<u>HH</u>	<u>2900</u>	<u>5800</u>	<u>Tox.</u>
<u>Cadmium, total</u>	<u>µg/l</u>	<u>Formula</u>	<u>Tox.</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>
<u>Cadmium, total</u>						
<u>The CS shall not exceed: exp (0.7852[ln(total hardness mg/l)]-3.490)</u>						
<u>The MS shall not exceed: exp.(1.128[ln(total hardness mg/l)]-3.828)</u>						
<u>The FAV shall not exceed: exp.(1.128[ln(total hardness mg/l)]-3.1349)</u>						
<u>For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.</u>						
<u>Cadmium standards in µg/l for three hardness values:</u>						
	<u>Hardness (mg/l)</u>		<u>50</u>	<u>100</u>	<u>200</u>	
	<u>Standard:</u>	<u>CS</u>	<u>0.66</u>	<u>1.1</u>	<u>2.0</u>	
		<u>MS</u>	<u>1.8</u>	<u>3.9</u>	<u>8.6</u>	
		<u>FAV</u>	<u>3.6</u>	<u>7.8</u>	<u>17</u>	
<u>Carbon tetra-chloride(c)</u>	<u>µg/l</u>	<u>1.9</u>	<u>HH</u>	<u>1750*</u>	<u>3500*</u>	<u>Tox.</u>
<u>Chlordane (c)</u>	<u>ng/l</u>	<u>0.073</u>	<u>HH</u>	<u>1200*</u>	<u>2400*</u>	<u>Tox.</u>
<u>Chloride</u>	<u>mg/L</u>	<u>230</u>	<u>Tox.</u>	<u>860</u>	<u>1720</u>	<u>Tox.</u>
<u>Chlorine, total residual</u>	<u>µg/l</u>	<u>11</u>	<u>Tox.</u>	<u>19</u>	<u>38</u>	<u>Tox.</u>

Chlorine standard applies to conditions of continuous exposure, where continuous exposure refers to chlorinated effluents that are discharged for more than a total of two hours in any 24-hour period.

<u>Substance or Characteristic</u> (c) = carcinogen	<u>Units</u>	<u>Class 2A Chronic Standard</u>	<u>Basis</u>	<u>Class 2A Acute Standards</u>		<u>Basis</u>
		<u>CS</u>		<u>MS</u>	<u>FAV</u>	
<u>Chlorobenzene (Monochlorobenzene)</u>	<u>µg/l</u>	<u>20</u>	<u>HH</u>	<u>423</u>	<u>846</u>	<u>Tox.</u>
<u>Chloroform (c)</u>	<u>µg/l</u>	<u>53</u>	<u>HH</u>	<u>1392</u>	<u>2784</u>	<u>Tox.</u>
<u>Chlorpyrifos</u>	<u>µg/l</u>	<u>0.041</u>	<u>Tox.</u>	<u>0.083</u>	<u>0.17</u>	<u>Tox.</u>
<u>Chromium +3, total</u>	<u>µg/l</u>	<u>Formula</u>	<u>Tox.</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>

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## Proposed Rules

### Chromium +3, total

The CS shall not exceed:  $\exp.(0.819[\ln(\text{total hardness mg/l})]+1.561)$

The MS shall not exceed:  $\exp.(0.819[\ln(\text{total hardness mg/l})]+3.688)$

The FAV shall not exceed:  $\exp.(0.819[\ln(\text{total hardness mg/l})]+4.380)$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Chromium +3 standards in µg/l for three hardness values:

<u>Hardness (mg/l)</u>		<u>50</u>	<u>100</u>	<u>200</u>
<u>Standard:</u>	<u>CS</u>	<u>117</u>	<u>207</u>	<u>365</u>
	<u>MS</u>	<u>984</u>	<u>1737</u>	<u>3064</u>
	<u>FAV</u>	<u>1966</u>	<u>3469</u>	<u>6120</u>

<u>Chromium +6, total</u>	<u>µg/l</u>	<u>11</u>	<u>Tox.</u>	<u>16</u>	<u>32</u>	<u>Tox.</u>
<u>Cobalt</u>	<u>µg/l</u>	<u>2.8</u>	<u>HH</u>	<u>436</u>	<u>872</u>	<u>Tox.</u>
<u>Color value</u>	<u>Pt/Co</u>	<u>30</u>	<u>NA</u>	<u>None</u>	<u>None</u>	<u>NA</u>
<u>Copper, total</u>	<u>µg/l</u>	<u>Formula</u>	<u>Tox.</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>

### Copper, total

The CS shall not exceed:  $\exp.(0.620[\ln(\text{total hardness mg/l})]-0.570)$

The MS shall not exceed:  $\exp.(0.9422[\ln(\text{total hardness mg/l})]-1.464)$

The FAV shall not exceed:  $\exp.(0.9422[\ln(\text{total hardness mg/l})]-0.7703)$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Copper standards in µg/l for three hardness values:

<u>Hardness (mg/l)</u>		<u>50</u>	<u>100</u>	<u>200</u>
<u>Standard:</u>	<u>CS</u>	<u>6.4</u>	<u>9.8</u>	<u>15</u>
	<u>MS</u>	<u>9.2</u>	<u>18</u>	<u>34</u>
	<u>FAV</u>	<u>18</u>	<u>35</u>	<u>68</u>

<u>Substance or Characteristic (c) = carcinogen</u>	<u>Units</u>	<u>Class 2A Chronic Standard</u>		<u>Class 2A Acute Standards</u>		<u>Basis</u>
		<u>CS</u>	<u>Basis</u>	<u>MS</u>	<u>FAV</u>	
<u>Cyanide, free</u>	<u>µg/l</u>	<u>5.2</u>	<u>Tox.</u>	<u>22</u>	<u>45</u>	<u>Tox.</u>
<u>DDT (c)</u>	<u>ng/l</u>	<u>0.11</u>	<u>HH</u>	<u>550*</u>	<u>1100*</u>	<u>Tox.</u>
<u>1,2-Dichloroethane (c)</u>	<u>µg/l</u>	<u>3.5</u>	<u>HH</u>	<u>45,050*</u>	<u>90,100*</u>	<u>Tox.</u>
<u>Dieldrin (c)</u>	<u>ng/l</u>	<u>0.0065</u>	<u>HH</u>	<u>1300*</u>	<u>2500*</u>	<u>Tox.</u>
<u>Di-2-ethylhexyl phthalate (c)</u>	<u>µg/l</u>	<u>1.9</u>	<u>HH</u>	<u>None*</u>	<u>None*</u>	<u>NA</u>
<u>Di-n-octyl phthalate</u>	<u>µg/l</u>	<u>30</u>	<u>Tox.</u>	<u>825</u>	<u>1650</u>	<u>Tox.</u>
<u>Dissolved oxygen</u>	<u>mg/l</u>	<u>7.0 as a daily minimum</u>				

This dissolved oxygen standard requires 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).

## Proposed Rules

<u>Endosulfan</u>	<u>µg/l</u>	<u>0.0076</u>	<u>HH</u>	<u>0.084</u>	<u>0.17</u>	<u>Tox.</u>
<u>Endrin</u>	<u>µg/l</u>	<u>0.0039</u>	<u>HH</u>	<u>0.090</u>	<u>0.18</u>	<u>Tox.</u>
<u>Ethylbenzene</u>	<u>µg/l</u>	<u>68</u>	<u>Tox.</u>	<u>1859</u>	<u>3717</u>	<u>Tox.</u>

Fecal coliform organisms                      Not to exceed 200 organisms per 100 milliliters as a geometric mean of not less than five samples in any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 400 organisms per 100 milliliters. The standard applies only between April 1 and October 31.

<u>Fluoranthene</u>	<u>µg/l</u>	<u>1.9</u>	<u>Tox.</u>	<u>3.5</u>	<u>6.9</u>	<u>Tox.</u>
<u>Heptachlor (c)</u>	<u>ng/l</u>	<u>0.10</u>	<u>HH</u>	<u>260*</u>	<u>520*</u>	<u>Tox.</u>
<u>Heptachlor epoxide (c)</u>	<u>ng/l</u>	<u>0.12</u>	<u>HH</u>	<u>270*</u>	<u>530*</u>	<u>Tox.</u>
<u>Hexachloro-benzene (c)</u>	<u>ng/l</u>	<u>0.061</u>	<u>HH</u>	<u>None*</u>	<u>None*</u>	<u>Tox.</u>

**Substance or Characteristic (c) ≡ carcinogen**

**Class 2A Chronic Standard**

**Class 2A Acute Standards**

	<u>Units</u>	<u>CS</u>	<u>Basis</u>	<u>MS</u>	<u>FAV</u>	<u>Basis</u>
<u>Lead, total</u>	<u>µg/l</u>	<u>Formula</u>	<u>Tox.</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>

Lead, total

The CS shall not exceed: exp.(1.273[ln(total hardness mg/l)]-4.705)

The MS shall not exceed: exp.(1.273[ln(total hardness mg/l)]-1.460)

The FAV shall not exceed: exp.(1.273[ln(total hardness mg/l)]-0.7643)

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Lead standards in µg/l for three hardness values:

<u>Hardness (mg/l)</u>		<u>50</u>	<u>100</u>	<u>200</u>
<u>Standard:</u>	<u>CS</u>	<u>1.3</u>	<u>3.2</u>	<u>7.7</u>
	<u>MS</u>	<u>34</u>	<u>82</u>	<u>197</u>
	<u>FAV</u>	<u>68</u>	<u>164</u>	<u>396</u>

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## Proposed Rules

<u>Lindane (c)</u> (Hexachlorocyclohexane, gamma-)	<u>µg/l</u>	<u>0.0087</u>	<u>HH</u>	<u>1.0*</u>	<u>2.0*</u>	<u>Tox.</u>
<u>Mercury, total</u>	<u>µg/l</u>	<u>0.0069</u>	<u>HH</u>	<u>2.4*</u>	<u>4.9*</u>	<u>Tox.</u>
<u>Methylene chloride (c)</u> (Dichloromethane)	<u>µg/l</u>	<u>45</u>	<u>HH</u>	<u>13,875*</u>	<u>27,749*</u>	<u>Tox.</u>
<u>Naphthalene</u>	<u>µg/l</u>	<u>81</u>	<u>Tox.</u>	<u>409</u>	<u>818</u>	<u>Tox.</u>
<u>Nickel, total</u>	<u>µg/l</u>	<u>Formula</u>	<u>Tox/HH</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>

### Nickel, total

The CS shall not exceed the human health-based standard of 297 µg/l. For waters with total hardness values less than 212 mg/l, the CS shall not exceed:  $\exp.(0.846[\ln(\text{total hardness mg/l})+1.1645])$

The MS shall not exceed:  $\exp.(0.846[\ln(\text{total hardness mg/l})+3.3612])$

The FAV shall not exceed:  $\exp.(0.846[\ln(\text{total hardness mg/l})+4.0543])$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Nickel standards in µg/l for three hardness values:

<u>Hardness (mg/l)</u>		<u>50</u>	<u>100</u>	<u>200</u>
<u>Standard:</u>	<u>CS</u>	<u>88</u>	<u>158</u>	<u>283</u>
	<u>MS</u>	<u>789</u>	<u>1418</u>	<u>2549</u>
	<u>FAV</u>	<u>1578</u>	<u>2836</u>	<u>5098</u>

### Substance or Characteristic (c) = carcinogen

	<u>Units</u>	<u>Class 2A Chronic Standard</u>	<u>Basis</u>	<u>Class 2A Acute Standards</u>		<u>Basis</u>
		<u>CS</u>		<u>MS</u>	<u>FAV</u>	
<u>Oil</u>	<u>µg/l</u>	<u>500</u>	<u>NA</u>	<u>5000</u>	<u>10,000</u>	<u>NA</u>
<u>Parathion</u>	<u>µg/l</u>	<u>0.013</u>	<u>Tox.</u>	<u>0.07</u>	<u>0.13</u>	<u>Tox.</u>
<u>Pentachlorophenol</u>	<u>µg/l</u>	<u>0.93</u>	<u>HH</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>

### Pentachlorophenol

The CS shall not exceed: 0.93

The MS shall not exceed:  $\exp.(1.005[\text{pH}]-4.830)$

The FAV shall not exceed:  $\exp.(1.005[\text{pH}]-4.1373)$

Pentachlorophenol standards in µg/l for three pH values:

<u>pH (su)</u>		<u>7.0</u>	<u>7.5</u>	<u>8.0</u>
<u>Standard:</u>	<u>CS</u>	<u>0.93</u>	<u>0.93</u>	<u>0.93</u>
	<u>MS</u>	<u>9.1</u>	<u>15</u>	<u>25</u>
	<u>FAV</u>	<u>18</u>	<u>30</u>	<u>50</u>

## Proposed Rules

pH (su)	<u>Not less than 6.5 nor greater than 8.5</u>					
Phenanthrene	<u>µg/l</u>	<u>3.6</u>	<u>Tox.</u>	<u>32</u>	<u>64</u>	<u>Tox.</u>
Phenol	<u>µg/l</u>	<u>123</u>	<u>Tox.</u>	<u>2214</u>	<u>4428</u>	<u>Tox.</u>
Polychlorinated biphenyls, total (c)	<u>ng/l</u>	<u>0.014</u>	<u>HH</u>	<u>1000*</u>	<u>2000*</u>	<u>Tox.</u>

Radioactive materials Not to exceed the lowest concentrations permitted to be discharged to an uncontrolled environment as permitted by the appropriate authority having control over their use.

Selenium	<u>µg/l</u>	<u>5.0</u>	<u>Tox.</u>	<u>20</u>	<u>40</u>	<u>Tox.</u>
Silver, total	<u>µg/l</u>	<u>0.12</u>	<u>Tox.</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>

Silver, total

The CS shall not exceed: 0.12

The MS shall not exceed:  $\exp.(1.720[\ln(\text{total hardness mg/l})]-7.2156)$

The FAV shall not exceed:  $\exp.(1.720[\ln(\text{total hardness mg/l})]-6.520)$  provided that the MS and FAV shall be no less than 0.12 µg/l

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Silver standards in µg/l for three hardness values:

	<u>Hardness (mg/l)</u>		<u>50</u>	<u>100</u>	<u>200</u>
			<hr/>		
<u>Standard:</u>	<u>CS</u>		<u>0.12</u>	<u>0.12</u>	<u>0.12</u>
	<u>MS</u>		<u>0.61</u>	<u>2.0</u>	<u>6.7</u>
	<u>FAV</u>		<u>1.2</u>	<u>4.1</u>	<u>13</u>

<u>Substance or Characteristic (c) = carcinogen</u>	<u>Units</u>	<u>Class 2Bd Chronic Standard</u>	<u>Basis</u>	<u>Class 2Bd Acute Standards</u>		<u>Basis</u>
		<u>CS</u>		<u>MS</u>	<u>FAV</u>	
<u>Temperature</u>		<u>No material increase</u>				
<u>1,1,2,2-Tetrachloroethane (c)</u>	<u>µg/l</u>	<u>1.1</u>	<u>HH</u>	<u>1127*</u>	<u>2253*</u>	<u>Tox.</u>
<u>Tetrachloroethylene (c)</u>	<u>µg/l</u>	<u>3.8</u>	<u>HH</u>	<u>428*</u>	<u>857*</u>	<u>Tox.</u>
<u>Thallium</u>	<u>µg/l</u>	<u>0.28</u>	<u>HH</u>	<u>64</u>	<u>128</u>	<u>Tox.</u>
<u>Toluene</u>	<u>µg/l</u>	<u>253</u>	<u>Tox.</u>	<u>1352</u>	<u>2703</u>	<u>Tox.</u>
<u>Toxaphene (c)</u>	<u>ng/l</u>	<u>0.31</u>	<u>HH</u>	<u>730*</u>	<u>1500*</u>	<u>Tox.</u>
<u>1,1,1-Trichloroethane</u>	<u>µg/l</u>	<u>329</u>	<u>Tox.</u>	<u>2957</u>	<u>5913</u>	<u>Tox.</u>

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## Proposed Rules

1,1,2 -Trichloroethylene (c)	µg/l	25	HH	6988*	13,976*	Tox.
2,4,6 -Trichlorophenol	µg/l	2.0	HH	102	203	Tox.
Turbidity value	NTU	10	NA	None	None	NA
Vinyl chloride (c)	µg/l	0.17	HH	None*	None*	NA
Xylene, total m,p,o	µg/l	166	Tox.	1407	2814	Tox.
Zinc, total	µg/l	Formula	Tox.	Formula	Formula	Tox.

Zinc, total

The CS shall not exceed:  $\exp.(0.8473[\ln(\text{total hardness mg/l})+0.7615])$

The MS shall not exceed:  $\exp.(0.8473[\ln(\text{total hardness mg/l})+0.8604])$

The FAV shall not exceed:  $\exp.(0.8473[\ln(\text{total hardness mg/l})+1.5536])$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Zinc standards in µg/l for three hardness values:

Hardness (mg/l)		50	100	200
Standard:	CS	59	106	191
	MS	65	117	211
	FAV	130	234	421

Subp. 3. **Class 2Bd waters.** The quality of Class 2Bd surface waters shall be such as to permit the propagation and maintenance of a healthy community of cool or warm water sport or commercial fish and associated aquatic life and their habitats. These waters shall be suitable for aquatic recreation of all kinds, including bathing, for which the waters may be usable. This class of surface waters are also protected as a source of drinking water. The applicable standards for waters listed in subpart 2 shall apply to these waters except as listed are given below, with substances considered carcinogenic and having human health-based standards followed by a (c). ~~Part 7050.0222, The basis columns to the right of the chronic standards and to the right of the acute standards indicate whether the chronic and acute standards, respectively, are based on the protection of the aquatic community from adverse toxic effects (Tox.), or the protection of human consumers of drinking water and sport-caught fish (HH). "NA" means not applicable.~~ Subpart 7, item E, should be referenced for FAV and MS values and "none" noted with an asterisk (\*):

Substance or Characteristic	Class 2Bd Standard		
(e) = carcinogen	CS	MS	FAV
Alachlor (e) µg/l	42	800*	1600*
Aluminum, total µg/l	125	1072	2145
Ammonia un-ionized as N µg/l	40	none	none

The percent un-ionized ammonia can be calculated for any temperature and pH as described in subpart 2:

### Class 2Bd Standards continued

	CS	MS	FAV
Benzene (e) µg/l	11	4487*	8974*
Bromoform µg/l	41	2900	5800
Cadmium, total µg/l			

The CS shall not exceed:  $\exp.(0.7852[\ln(\text{total hardness mg/l})-3.49])$

The MS shall not exceed:  $\exp.(1.128[\ln(\text{total hardness mg/l})-1.685])$

The FAV shall not exceed:  $\exp.(1.128[\ln(\text{total hardness mg/l})-0.9919])$



For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

**Cadmium standards in µg/l at various hardness values**

Hardness mg/l

50	0.66	15	31
100	1.1	33	67
200	2.0	73	146

Class 2Bd Standards continued

	CS	MS	FAV
Chlordane (e) µg/l	0.00029	1.2*	2.4*
Chloroform (e) µg/l	55	2235	4471
Color value	none	none	none
Dissolved oxygen mg/l	5 as a daily minimum	none	none

This dissolved oxygen standard requires 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).

Class 2Bd Standards continued

	CS	MS	FAV
DDT (e) µg/l	0.0017	0.55*	1.1*
1,2-Dichloroethane (e) µg/l	3.8	45050*	90100*
Dieldrin (e) µg/l	0.000026	1.3*	2.5*
Endosulfan µg/l	0.029	0.28	0.56
Endrin µg/l	0.016	0.090	0.18
Fecal coliform organisms			

Not to exceed 200 organisms per 100 milliliters as a geometric mean of not less than five samples in any calendar month; nor shall more than ten percent of all samples taken during any calendar month individually exceed 2,000 organisms per 100 milliliters. The standard applies only between March 1 and October 31.

Class 2Bd Standards continued

	CS	MS	FAV
Fluoranthene µg/l	20	199	398
Heptachlor (e) µg/l	0.00039	0.26*	0.52*
Heptachlor epoxide (e) µg/l	0.00048	0.27*	0.53*
Hexachlorobenzene (e) µg/l	0.00024	none	none
Lindane (e) µg/l (Hexachlorocyclohexane gamma-)	0.032	4.4*	8.8*
Methylene chloride (e) µg/l (Dichloromethane)	46	9600*	19200*
pH value			

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# Proposed Rules

Not less than 6.5  
 nor greater than 9.0  
 Pentachlorophenol  $\mu\text{g/l}$

The CS shall not exceed: 1.9  $\mu\text{g/l}$ .  
 The MS shall not exceed:  $\text{exp.}(1.005[\text{pH}] - 4.830)$ .  
 The FAV shall not exceed:  $\text{exp.}(1.005[\text{pH}] - 4.1373)$ .

### Pentachlorophenol standards in $\mu\text{g/l}$ at various pH values

pH	CS	MS	FAV
7.0	1.9	9.1	18
7.5	1.9	15	30
8.0	1.9	25	50

### Class 2Bd Standards continued

	CS	MS	FAV
Polychlorinated biphenyls, total (e) $\mu\text{g/l}$	0.000029	1.0*	2.0*
Silver, total $\mu\text{g/l}$			
The CS shall not exceed:	1.0:		
The MS shall not exceed:	$\text{exp.}(1.72[\ln(\text{total hardness mg/l})] - 7.2156)$ and		
The FAV shall not exceed:	$\text{exp.}(1.72[\ln(\text{total hardness mg/l})] - 6.52)$ provided that the MS and FAV shall be no less than 1.0 $\mu\text{g/l}$ .		

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

### Silver standards in $\mu\text{g/l}$ at various hardness values

Hardness mg/l	CS	MS	FAV
50	n/a	1.0	1.2
100	n/a	2.0	4.1
200	n/a	6.7	13

### 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.

### Class 2Bd Standards continued

	CS	MS	FAV
1,1,2,2-Tetrachloroethane (e) $\mu\text{g/l}$	1.5	1127*	2253*
Toxaphene (e) $\mu\text{g/l}$	0.0013	0.73*	1.5*
Turbidity value NTUs	25	none	none
Vinyl chloride (e) $\mu\text{g/l}$	0.18	none	none

<u>Substance or Characteristic</u> (c) = carcinogen	<u>Class 2Bd Chronic Standard</u>			<u>Class 2Bd Acute Standards</u>		
	<u>Units</u>	<u>CS</u>	<u>Basis</u>	<u>MS</u>	<u>FAV</u>	<u>Basis</u>
<u>Acenaphthene</u>	<u>µg/l</u>	<u>20</u>	<u>HH</u>	<u>56</u>	<u>112</u>	<u>Tox.</u>
<u>Acrylonitrile (c)</u>	<u>µg/l</u>	<u>0.38</u>	<u>HH</u>	<u>1140*</u>	<u>2281*</u>	<u>Tox.</u>
<u>Alachlor (c)</u>	<u>µg/l</u>	<u>4.2</u>	<u>HH</u>	<u>800*</u>	<u>1600*</u>	<u>Tox.</u>
<u>Aluminum, total</u>	<u>µg/l</u>	<u>125</u>	<u>Tox.</u>	<u>1072</u>	<u>2145</u>	<u>Tox.</u>
<u>Ammonia un-ionized as N</u>	<u>µg/l</u>	<u>40</u>	<u>Tox.</u>	<u>None</u>	<u>None</u>	<u>NA</u>

The percent un-ionized ammonia can be calculated for any temperature and pH as described in subpart 2.

<u>Anthracene</u>	<u>µg/l</u>	<u>0.035</u>	<u>Tox.</u>	<u>0.32</u>	<u>0.63</u>	<u>Tox.</u>
<u>Antimony</u>	<u>µg/l</u>	<u>5.5</u>	<u>HH</u>	<u>90</u>	<u>180</u>	<u>Tox.</u>
<u>Arsenic, total</u>	<u>µg/l</u>	<u>2.0</u>	<u>HH</u>	<u>360</u>	<u>720</u>	<u>Tox.</u>
<u>Atrazine (c)</u>	<u>µg/l</u>	<u>3.4</u>	<u>HH</u>	<u>323</u>	<u>645</u>	<u>Tox.</u>
<u>Benzene (c)</u>	<u>µg/l</u>	<u>11</u>	<u>HH</u>	<u>4487*</u>	<u>8974*</u>	<u>Tox.</u>
<u>Bromoform</u>	<u>µg/l</u>	<u>41</u>	<u>HH</u>	<u>2900</u>	<u>5800</u>	<u>Tox.</u>
<u>Cadmium, total</u>	<u>µg/l</u>	<u>Formula</u>	<u>Tox.</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>

Cadmium, total

The CS shall not exceed:  $\exp.(0.7852[\ln(\text{total hardness mg/l})]-3.490)$

The MS shall not exceed:  $\exp.(1.128[\ln(\text{total hardness mg/l})]-1.685)$

The FAV shall not exceed:  $\exp.(1.128[\ln(\text{total hardness mg/l})]-0.9919)$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Cadmium standards in µg/l for three hardness values:

<u>Hardness (mg/l)</u>		<u>50</u>	<u>100</u>	<u>200</u>
<u>Standard:</u>	<u>CS</u>	<u>0.66</u>	<u>1.1</u>	<u>2.0</u>
	<u>MS</u>	<u>15</u>	<u>33</u>	<u>73</u>
	<u>FAV</u>	<u>31</u>	<u>67</u>	<u>146</u>

<u>Substance or Characteristic</u> (c) = carcinogen	<u>Class 2Bd Chronic Standard</u>			<u>Class 2Bd Acute Standards</u>		
	<u>Units</u>	<u>CS</u>	<u>Basis</u>	<u>MS</u>	<u>FAV</u>	<u>Basis</u>
<u>Carbon tetra-chloride (c)</u>	<u>µg/l</u>	<u>1.9</u>	<u>HH</u>	<u>1750*</u>	<u>3500*</u>	<u>Tox.</u>
<u>Chlordane (c)</u>	<u>ng/l</u>	<u>0.29</u>	<u>HH</u>	<u>1200*</u>	<u>2400*</u>	<u>Tox.</u>
<u>Chloride</u>	<u>mg/l</u>	<u>230</u>	<u>Tox.</u>	<u>860</u>	<u>1720</u>	<u>Tox.</u>
<u>Chlorine, total residual</u>	<u>µg/l</u>	<u>11</u>	<u>Tox.</u>	<u>19</u>	<u>38</u>	<u>Tox.</u>

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## Proposed Rules

Chlorine standard applies to conditions of continuous exposure, where continuous exposure refers to chlorinated effluents that are discharged for more than a total of two hours in any 24-hour period.

Chlorobenzene (Monochlorobenzene)	$\mu\text{g/l}$	20	HH	423	846	Tox.
Chloroform (c)	$\mu\text{g/l}$	53	HH	1392	2784	Tox.
Chlorpyrifos	$\mu\text{g/l}$	0.041	Tox.	0.083	0.17	Tox.
Chromium +3, total	$\mu\text{g/l}$	Formula	Tox.	Formula	Formula	Tox.

Chromium +3, total

The CS shall not exceed:  $\exp.(0.819[\ln(\text{total hardness mg/l})]+1.561)$

The MS shall not exceed:  $\exp.(0.819[\ln(\text{total hardness mg/l})]+3.688)$

The FAV shall not exceed:  $\exp.(0.819[\ln(\text{total hardness mg/l})]+4.380)$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Chromium +3 standards in  $\mu\text{g/l}$  for three hardness values:

Hardness (mg/l)		50	100	200
Standard:	CS	117	207	365
	MS	984	1737	3064
	FAV	1966	3469	6120

Substance or Characteristic (c) $\equiv$ carcinogen	Units	Class 2Bd Chronic Standard	Basis	Class 2Bd Acute Standards		Basis
		CS		MS	FAV	
Chromium +6, total	$\mu\text{g/l}$	11	Tox.	16	32	Tox.
Cobalt	$\mu\text{g/l}$	2.8	HH	436	872	Tox.
Copper, total	$\mu\text{g/l}$	Formula	Tox.	Formula	Formula	Tox.

Copper, total

The CS shall not exceed:  $\exp.(0.620[\ln(\text{total hardness mg/l})]-0.570)$

The MS shall not exceed:  $\exp.(0.9422[\ln(\text{total hardness mg/l})]-1.464)$

The FAV shall not exceed:  $\exp.(0.9422[\ln(\text{total hardness mg/l})]-0.7703)$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Copper standards in  $\mu\text{g/l}$  for three hardness values:

Hardness (mg/l)		50	100	200
Standard:	CS	6.4	9.8	15
	MS	9.2	18	34
	FAV	18	35	68

Cyanide, free	$\mu\text{g/l}$	5.2	Tox.	22	45	Tox.
DDT (c)	$\text{ng/L}$	1.7	HH	550*	1100*	Tox.
1,2-Dichloro-	$\mu\text{g/l}$	3.8	HH	45,050*	90,100*	Tox.

ethane (c)						
<u>Dieldrin (c)</u>	<u>ng/l</u>	<u>0.026</u>	<u>HH</u>	<u>1300*</u>	<u>2500*</u>	<u>Tox.</u>
<u>Di-2-ethylhexyl phthalate (c)</u>	<u>µg/l</u>	<u>1.9</u>	<u>HH</u>	<u>None*</u>	<u>None*</u>	<u>NA</u>
<u>Di-n-octyl phthalate</u>	<u>µg/l</u>	<u>30</u>	<u>Tox.</u>	<u>825</u>	<u>1650</u>	<u>Tox.</u>
<u>Dissolved oxygen</u>	<u>mg/l</u>	<u>5 as a daily minimum</u>				

This dissolved oxygen standard may be modified on a site-specific basis according to subpart 8, except that no site-specific standard shall be less than 5 mg/l as a daily average and 4 mg/l as a daily minimum. Compliance with this standard is required 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).

<u>Substance or Characteristic (c) = carcinogen</u>	<u>Class 2Bd Chronic Standard</u>			<u>Class 2Bd Acute Standards</u>		
	<u>Units</u>	<u>CS</u>	<u>Basis</u>	<u>MS</u>	<u>FAV</u>	<u>Basis</u>
<u>Endosulfan</u>	<u>µg/l</u>	<u>0.029</u>	<u>HH</u>	<u>0.28</u>	<u>0.56</u>	<u>Tox.</u>
<u>Endrin</u>	<u>µg/l</u>	<u>0.016</u>	<u>HH</u>	<u>0.090</u>	<u>0.18</u>	<u>Tox.</u>
<u>Ethylbenzene</u>	<u>µg/l</u>	<u>68</u>	<u>Tox.</u>	<u>1859</u>	<u>3717</u>	<u>Tox.</u>
<u>Fecal coliform organisms</u>	<u>Not to exceed 200 organisms per 100 milliliters as a geometric mean of not less than five samples in any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 2000 organisms per 100 milliliters. The standard applies only between April 1 and October 31.</u>					
<u>Fluoranthene</u>	<u>µg/l</u>	<u>1.9</u>	<u>Tox.</u>	<u>3.5</u>	<u>6.9</u>	<u>Tox.</u>
<u>Heptachlor (c)</u>	<u>ng/l</u>	<u>0.39</u>	<u>HH</u>	<u>260*</u>	<u>520*</u>	<u>Tox.</u>
<u>Heptachlor epoxide (c)</u>	<u>ng/l</u>	<u>0.48</u>	<u>HH</u>	<u>270*</u>	<u>530*</u>	<u>Tox.</u>
<u>Hexachlorobenzene (c)</u>	<u>ng/l</u>	<u>0.24</u>	<u>HH</u>	<u>None*</u>	<u>None*</u>	<u>Tox.</u>
<u>Lead, total</u>	<u>µg/l</u>	<u>Formula</u>	<u>Tox.</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>

Lead, total

The CS shall not exceed:  $\exp.(1.273[\ln(\text{total hardness mg/l})]-4.705)$

The MS shall not exceed:  $\exp.(1.273[\ln(\text{total hardness mg/l})]-1.460)$

The FAV shall not exceed:  $\exp.(1.273[\ln(\text{total hardness mg/l})]-0.7643)$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Lead standards in µg/l for three hardness values:

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## Proposed Rules

<u>Hardness (mg/l)</u>		<u>50</u>	<u>100</u>	<u>200</u>
<u>Standard:</u>	<u>CS</u>	<u>1.3</u>	<u>3.2</u>	<u>7.7</u>
	<u>MS</u>	<u>34</u>	<u>82</u>	<u>197</u>
	<u>FAV</u>	<u>68</u>	<u>164</u>	<u>396</u>

<u>Substance or Characteristic</u> (c) = carcinogen	<u>Units</u>	<u>Class 2Bd Chronic Standard</u>	<u>Basis</u>	<u>Class 2Bd Acute Standards</u>		<u>Basis</u>
		<u>CS</u>		<u>MS</u>	<u>FAV</u>	
<u>Lindane (c)</u> (Hexachlorocyclohexane, gamma-)	<u>µg/l</u>	<u>0.032</u>	<u>HH</u>	<u>4.4*</u>	<u>8.8*</u>	<u>Tox.</u>
<u>Mercury, total</u>	<u>µg/l</u>	<u>0.0069</u>	<u>HH</u>	<u>2.4*</u>	<u>4.9*</u>	<u>Tox.</u>
<u>Methylene chloride (c)</u> (Dichloromethane)	<u>µg/l</u>	<u>46</u>	<u>HH</u>	<u>13,875*</u>	<u>27,749*</u>	<u>Tox.</u>
<u>Naphthalene</u>	<u>µg/l</u>	<u>81</u>	<u>Tox.</u>	<u>409</u>	<u>818</u>	<u>Tox.</u>
<u>Nickel, total</u>	<u>µg/l</u>	<u>Formula</u>	<u>Tox/HH</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>

### Nickel, total

The CS shall not exceed the human health-based standard of 297 µg/l. For waters with total hardness values less than 212 mg/l, the CS shall not exceed:  $\exp.(0.846[\ln(\text{total hardness mg/l})]+1.1645)$

The MS shall not exceed:  $\exp.(0.846[\ln(\text{total hardness mg/l})]+3.3612)$

The FAV shall not exceed:  $\exp.(0.846[\ln(\text{total hardness mg/l})]+4.0543)$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Nickel standards in µg/l for three hardness values:

<u>Hardness (mg/l)</u>		<u>50</u>	<u>100</u>	<u>200</u>
<u>Standard:</u>	<u>CS</u>	<u>88</u>	<u>158</u>	<u>283</u>
	<u>MS</u>	<u>789</u>	<u>1418</u>	<u>2549</u>
	<u>FAV</u>	<u>1578</u>	<u>2836</u>	<u>5098</u>

<u>Oil</u>	<u>µg/l</u>	<u>500</u>	<u>NA</u>	<u>5000</u>	<u>10,000</u>	<u>NA</u>
<u>Parathion</u>	<u>µg/l</u>	<u>0.013</u>	<u>Tox.</u>	<u>0.07</u>	<u>0.13</u>	<u>Tox.</u>
<u>Pentachlorophenol</u>	<u>µg/l</u>	<u>1.9</u>	<u>HH</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>

### Pentachlorophenol

The CS shall not exceed: 1.9

The MS shall not exceed:  $\exp.(1.005[\text{pH}]-4.830)$

The FAV shall not exceed:  $\exp.(1.005[\text{pH}]-4.1373)$

Pentachlorophenol standards in µg/l for three pH values:

## Proposed Rules

<u>pH (su)</u>		<u>7.0</u>	<u>7.5</u>	<u>8.0</u>		
<u>Standard:</u>	<u>CS</u>	<u>1.9</u>	<u>1.9</u>	<u>1.9</u>		
	<u>MS</u>	<u>9.1</u>	<u>15</u>	<u>25</u>		
	<u>FAV</u>	<u>18</u>	<u>30</u>	<u>50</u>		
<u>pH (su)</u>	<u>Not less than 6.5 nor greater than 9.0</u>					
<u>Phenanthrene</u>	<u>µg/l</u>	<u>3.6</u>	<u>Tox.</u>	<u>32</u>	<u>64</u>	<u>Tox.</u>
<u>Phenol</u>	<u>µg/l</u>	<u>123</u>	<u>Tox.</u>	<u>2214</u>	<u>4428</u>	<u>Tox.</u>
<u>Polychlorinated biphenyls, total (c)</u>	<u>ng/l</u>	<u>0.029</u>	<u>HH</u>	<u>1000*</u>	<u>2000*</u>	<u>Tox.</u>
<b><u>Substance or Characteristic (c) = carcinogen</u></b>		<b><u>Class 2Bd Chronic Standard</u></b>		<b><u>Class 2Bd Acute Standards</u></b>		
	<b><u>Units</u></b>	<b><u>CS</u></b>	<b><u>Basis</u></b>	<b><u>MS</u></b>	<b><u>FAV</u></b>	<b><u>Basis</u></b>
<u>Radioactive materials</u>	<u>Not to exceed the lowest concentrations permitted to be discharged to an uncontrolled environment as permitted by the appropriate authority having control over their use.</u>					
<u>Selenium</u>	<u>µg/l</u>	<u>5.0</u>	<u>Tox.</u>	<u>20</u>	<u>40</u>	<u>Tox.</u>
<u>Silver, total</u>	<u>µg/l</u>	<u>1.0</u>	<u>Tox.</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>
<u>Silver, total</u>	<u>The CS shall not exceed: 1.0</u>					
	<u>The MS shall not exceed: exp.(1.720[ln(total hardness mg/l)]-7.2156)</u>					
	<u>The FAV shall not exceed: exp.(1.720[ln(total hardness mg/l)]-6.520)</u>					
	<u>Provided that the MS and FAV shall be no less than 1.0 µg/l</u>					
	<u>For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.</u>					
	<u>Silver standards in µg/l for three hardness values:</u>					
	<u>Hardness (mg/l)</u>	<u>50</u>	<u>100</u>	<u>200</u>		
<u>Standard:</u>	<u>CS</u>	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>		
	<u>MS</u>	<u>1.0</u>	<u>2.0</u>	<u>6.7</u>		
	<u>FAV</u>	<u>1.2</u>	<u>4.1</u>	<u>13</u>		
<u>Temperature</u>	<u>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</u>					

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## Proposed Rules

<u>1,1,2,2</u> <u>-Tetrachloroethane</u> <u>(c)</u>	<u>µg/l</u>	<u>1.5</u>	<u>HH</u>	<u>1127*</u>	<u>2253*</u>	<u>Tox.</u>
<u>Tetrachloroethylene</u> <u>(c)</u>	<u>µg/l</u>	<u>3.8</u>	<u>HH</u>	<u>428*</u>	<u>857*</u>	<u>Tox.</u>
<u>Thallium</u>	<u>µg/l</u>	<u>0.28</u>	<u>HH</u>	<u>64</u>	<u>128</u>	<u>Tox.</u>
<u>Toluene</u>	<u>µg/l</u>	<u>253</u>	<u>Tox.</u>	<u>1352</u>	<u>2703</u>	<u>Tox.</u>
<u>Toxaphene (c)</u>	<u>ng/l</u>	<u>1.3</u>	<u>HH</u>	<u>730*</u>	<u>1500*</u>	<u>Tox.</u>
<u>1,1,1</u> <u>-Trichloroethane</u>	<u>µg/l</u>	<u>329</u>	<u>Tox.</u>	<u>2957</u>	<u>5913</u>	<u>Tox.</u>
<u>1,1,2</u> <u>-Trichloroethylene</u> <u>(c)</u>	<u>µg/l</u>	<u>25</u>	<u>HH</u>	<u>6988*</u>	<u>13,976*</u>	<u>Tox.</u>
<u>2,4,6</u> <u>-Trichlorophenol</u>	<u>µg/l</u>	<u>2.0</u>	<u>HH</u>	<u>102</u>	<u>203</u>	<u>Tox.</u>
<u>Turbidity value</u>	<u>NTU</u>	<u>25</u>	<u>NA</u>	<u>None</u>	<u>None</u>	<u>NA</u>

<u>Substance or</u> <u>Characteristic</u> <u>(c) ≡ carcinogen</u>	<u>Units</u>	<u>Class 2Bd</u>	<u>Basis</u>	<u>Class 2Bd</u>		<u>Basis</u>
		<u>Chronic</u> <u>Standard</u>		<u>Acute</u> <u>Standards</u>	<u>MS</u>	
<u>Vinyl chloride (c)</u>	<u>µg/l</u>	<u>0.18</u>	<u>HH</u>	<u>None*</u>	<u>None*</u>	<u>NA</u>
<u>Xylene, total m.p.o</u>	<u>µg/l</u>	<u>166</u>	<u>Tox.</u>	<u>1407</u>	<u>2814</u>	<u>Tox.</u>
<u>Zinc, total</u>	<u>µg/l</u>	<u>Formula</u>	<u>Tox.</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>

### Zinc, total

The CS shall not exceed:  $\exp(0.8473[\ln(\text{total hardness mg/l})+0.7615])$

The MS shall not exceed:  $\exp(0.8473[\ln(\text{total hardness mg/l})+0.8604])$

The FAV shall not exceed:  $\exp(0.8473[\ln(\text{total hardness mg/l})+1.5536])$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Zinc standards in µg/l for three hardness values:

<u>Hardness (mg/l)</u>	<u>50</u>	<u>100</u>	<u>200</u>	
<u>Standard:</u>	<u>CS</u>	<u>59</u>	<u>106</u>	<u>191</u>
	<u>MS</u>	<u>65</u>	<u>117</u>	<u>211</u>
	<u>FAV</u>	<u>130</u>	<u>234</u>	<u>421</u>

Subp. 4. **Class 2B waters.** The quality of Class 2B surface waters shall be such as to permit the propagation and maintenance of a healthy community of cool or warm water sport or commercial fish and associated aquatic life, and their habitats. These waters shall be suitable for aquatic recreation of all kinds, including bathing, for which the waters may be usable. This class of surface water is not protected as a source of drinking water. The applicable standards are given below, with substances considered carcinogenic ~~and having human health based standards~~ followed by a (c). ~~Part 7050.0222~~, The basis columns to the right of the chronic standards and to the right of the acute standards, indicate whether the chronic and acute standards, respectively, are based on the protection of the aquatic community from adverse toxic effects (Tox.), or the protection of human consumers of sport-caught fish (HH). "NA" means not applicable. Subpart 7, item E, should be referenced for FAV and MS values and "none" noted with an asterisk (\*):



Substance or Characteristic	Class 2B Standard		
	CS	MS	FAV
(e) = carcinogen			
Acenaphthene µg/l	12	41	81
Acrylonitrile (e) µg/l	0.89	1140*	2281*
Alachlor µg/l	59	800	1600
Aluminum, total µg/l	125	1072	2145
Ammonia un-ionized as N µg/l	40	none	none

The percent un-ionized ammonia can be calculated for any temperature and pH as described in subpart 2.

Class 2B Standards continued

	CS	MS	FAV
Anthracene µg/l	0.029	0.78	1.6
Antimony µg/l	31	90	180
Arsenic, total µg/l	53	360	720
Atrazine (e) µg/l	10	323	645
Benzene µg/l	114	4487	8974
Bromoform µg/l	466	2900	5800
Cadmium, total µg/l			

The CS shall not exceed:  $\exp(-0.7852[\ln(\text{total hardness mg/l}) - 3.49])$ .

The MS shall not exceed:  $\exp(-1.128[\ln(\text{total hardness mg/l}) - 1.685])$ .

The FAV shall not exceed:  $\exp(-1.128[\ln(\text{total hardness mg/l}) - 0.9919])$ .

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

Cadmium standards in µg/l at various hardness values

Hardness mg/l	CS	MS	FAV
50	0.66	15	31
100	1.1	33	67
200	2.0	73	146

Class 2B Standards continued

	CS	MS	FAV
Carbon tetrachloride (e) µg/l	5.9	1750*	3500*
Chlordane (e) µg/l	0.00029	1.2*	2.4*
Chloride mg/l	230	860	1720
Chlorine, total residual µg/l	6	19	38

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

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# Proposed Rules

## Class 2B Standards continued

	CS	MS	FAV
Chlorobenzene µg/l (Monochlorobenzene)	10	423	846
Chloroform µg/l	224	2235	4471
Chlorpyrifos µg/l	0.041	0.083	0.17
Chromium +3, total µg/l			
The CS shall not exceed:		$\exp.(0.819[\ln(\text{total hardness mg/l})+1.561])$	
The MS shall not exceed:		$\exp.(0.819[\ln(\text{total hardness mg/l})+3.688])$	
The FAV shall not exceed:		$\exp.(0.819[\ln(\text{total hardness mg/l})+4.38])$	

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

### Chromium +3 standards in µg/l at various hardness values

Hardness mg/l	CS	MS	FAV
50	117	984	1966
100	207	1737	3469
200	365	3064	6120

## Class 2B Standards continued

	CS	MS	FAV
Chromium +6, total µg/l	11	16	32
Cobalt µg/l	5	436	872
Copper, total µg/l			
The CS shall not exceed:		$\exp.(0.62[\ln(\text{total hardness mg/l})-0.57])$	
The MS shall not exceed:		$\exp.(0.9422[\ln(\text{total hardness mg/l})-1.464])$	
The FAV shall not exceed:		$\exp.(0.9422[\ln(\text{total hardness mg/l})-0.7703])$	

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

### Copper standards in µg/l at various hardness values

Hardness mg/l	CS	MS	FAV
50	6.4	9.2	18
100	9.8	18	35
200	15	34	68

## Class 2B Standards continued

	CS	MS	FAV
Cyanide, free µg/l	5.2	22	45
Dissolved oxygen mg/l	5 as a daily minimum	none	none

## Proposed Rules

This standard applies to all Class 2 waters 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.

This dissolved oxygen standard requires 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).

### Class 2B Standards continued

	CS	MS	FAV
DDT (e) µg/l	0.0017	0.55*	1.1*
1,2-Dichloroethane (e) µg/l	190	45050*	90100*
Dieldrin (e) µg/l	0.000026	1.3*	2.5*
Di-2-Ethylhexyl phthalate (e) µg/l	2.1	none	none
Di-n-Octyl phthalate µg/l	30	825	1650
Endosulfan µg/l	0.031	0.28	0.56
Endrin µg/l	0.016	0.090	0.18
Ethylbenzene µg/l	68	1859	3717
Fecal coliform organisms			

Not to exceed 200 organisms per 100 milliliters as a geometric mean of not less than five samples in any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 2,000 organisms per 100 milliliters. The standard applies only between March 1 and October 31.

### Class 2B Standards continued

	CS	MS	FAV
Fluoranthene µg/l	20	199	398
Heptachlor (e) µg/l	0.00039	0.26*	0.52*
Heptachlor epoxide (e) µg/l	0.00048	0.27*	0.53*
Hexachlorobenzene (e) µg/l	0.00024	none	none
Lead, total µg/l			

The CS shall not exceed:	$\exp(-1.273[\ln(\text{total hardness mg/l}) - 4.705])$ .
The MS shall not exceed:	$\exp(-1.273[\ln(\text{total hardness mg/l}) - 1.460])$ .
The FAV shall not exceed:	$\exp(-1.273[\ln(\text{total hardness mg/l}) - 0.7643])$ .

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

### Lead standards in µg/l at various hardness values

Hardness mg/l	CS	MS	FAV
50	1.3	34	68
100	3.2	82	164
200	7.7	197	396

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# Proposed Rules

## Class 2B Standards continued

	CS	MS	FAV
Lindane (ε) µg/l (Hexachlorocyclohexane gamma-)	0.036	4.4*	8.8*
Mercury, total µg/l	0.0069	2.4*	4.9*
Methylene chloride µg/l (Dichloromethane)	1561	9600	19200
Naphthalene µg/l	81	409	818

The CS shall not exceed:  $\exp.(0.846[\ln(\text{total hardness mg/l})+1.1645])$ .

The MS shall not exceed:  $\exp.(0.846[\ln(\text{total hardness mg/l})+3.3612])$ .

The FAV shall not exceed:  $\exp.(0.846[\ln(\text{total hardness mg/l})+4.0543])$ .

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

### Nickel standards in µg/l at various hardness values

Hardness mg/l	CS	MS	FAV
50	88	789	1578
100	158	1418	2836
200	283	2549	5098

## Class 2B Standards continued

	CS	MS	FAV
Oil µg/l	500	5000	10000
Parathion µg/l	0.013	0.07	0.13
Pentachlorophenol µg/l			

For waters with pH values greater than 6.95, the CS shall not exceed the human health-based criterion of 5.5 µg/l. For waters with pH values less than 6.96,

The CS shall not exceed:  $\exp.(1.005[\text{pH}] - 5.290)$ .

The MS shall not exceed:  $\exp.(1.005[\text{pH}] - 4.830)$ .

The FAV shall not exceed:  $\exp.(1.005[\text{pH}] - 4.1373)$ .

### Pentachlorophenol standards in µg/l at various pH values

pH	CS	MS	FAV
7.0	5.5	9.1	18
7.5	5.5	15	30
8.0	5.5	25	50

pH value  
not less than 6.5  
nor greater than 9.0

Class 2B Standards continued

	CS	MS	FAV
Phenanthrene µg/l	2.1	29	58
Phenol µg/l	123	2214	4428
Polychlorinated biphenyls, total (e) µg/l	0.000029	1.0*	2.0*
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.

Class 2B Standards continued

	CS	MS	FAV
Selenium, total µg/l	5.0	20	40
Silver, total µg/l			
The CS shall not exceed:		1.0:	
The MS shall not exceed:		exp.(1.72[ln(total hardness mg/l)] - 7.2156) and	
The FAV shall not exceed:		exp.(1.72[ln(total hardness mg/l)] - 6.52) provided that the MS and FAV shall be no less than 1.0 µg/l.	

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

Silver standards in µg/l at various hardness values

Hardness mg/l	CS	MS	FAV
50	n/a	1.0	1.2
100	n/a	2.0	4.1
200	n/a	6.7	13

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.

Class 2B Standards continued

	CS	MS	FAV
1,1,2,2 Tetrachloroethane (e) µg/l	13	1127	2253
Tetrachloroethylene (e) µg/l	8.9	428	857
Thallium µg/l	0.56	64	128
Toluene µg/l	253	1352	2703
Toxaphene (e) µg/l	0.0013	0.73*	1.5*
1,1,1 Trichloroethane µg/l	263	2628	5256

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## Proposed Rules

1,1,2-Trichloroethylene (c) µg/l	120	6988	13976
2,4,6-Trichlorophenol µg/l	2.0	102	203
Turbidity value NTUs	25	none	none
Vinyl chloride (c) µg/l	9.2	none	none
Xylene, total m, p, and o µg/l	166	1407	2814
Zinc, total µg/l			

The CS shall not exceed:  $\exp.(0.8473[\ln(\text{total hardness mg/l})+0.7615])$ .

The MS shall not exceed:  $\exp.(0.8473[\ln(\text{total hardness mg/l})+0.8604])$ .

The FAV shall not exceed:  $\exp.(0.8473[\ln(\text{total hardness mg/l})+1.5536])$ .

For hardness values greater than 400 mg/l, 400 mg/l shall be used in the calculation of the standard.

### Zinc standards in µg/l at various hardness values

Hardness mg/l

50	59	65	130
100	106	117	234
200	191	211	421

Substance or Characteristic (c) = carcinogen	Units	Class 2B Chronic Standard	Basis	Class 2B Acute Standards	FAV	Basis
		CS		MS		
Acenaphthene	µg/l	20	HH	56	112	Tox.
Acrylonitrile (c)	µg/l	0.89	HH	1140*	2281*	Tox.
Alachlor	µg/l	59	Tox.	800	1600	Tox.
Aluminum, total	µg/l	125	Tox.	1072	2145	Tox.
Ammonia un-ionized as N	µg/l	40	Tox.	None	None	NA

The percent un-ionized ammonia can be calculated for any temperature and pH as described in subpart 2.

Anthracene	µg/l	0.035	Tox.	0.32	0.63	Tox.
Antimony	µg/l	31	Tox.	90	180	Tox.
Arsenic, total	µg/l	53	HH	360	720	Tox.
Atrazine	µg/l	10	Tox.	323	645	Tox.
Benzene	µg/l	114	Tox.	4487	8974	Tox.
Bromoform	µg/l	466	HH	2900	5800	Tox.
Cadmium, total	µg/l	Formula	Tox.	Formula	Formula	Tox.

Cadmium, total

The CS shall not exceed:  $\exp.(0.7852[\ln(\text{total hardness mg/l})-3.490])$

The MS shall not exceed:  $\exp.(1.128[\ln(\text{total hardness mg/l})-1.685])$

The FAV shall not exceed:  $\exp.(1.128[\ln(\text{total hardness mg/l})-0.9919])$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Cadmium standards in µg/l for three hardness values:

## Proposed Rules

	<u>Hardness (mg/l)</u>	<u>50</u>	<u>100</u>	<u>200</u>
Standard:	<u>CS</u>	<u>0.66</u>	<u>1.1</u>	<u>2.0</u>
	<u>MS</u>	<u>15</u>	<u>33</u>	<u>73</u>
	<u>FAV</u>	<u>31</u>	<u>67</u>	<u>146</u>

<u>Substance or Characteristic</u> (c) = carcinogen	<u>Units</u>	<u>Class 2B Chronic Standard</u> <u>CS</u>	<u>Basis</u>	<u>Class 2B Acute Standards</u> <u>MS</u>	<u>FAV</u>	<u>Basis</u>
Carbon tetra-chloride (c)	<u>µg/l</u>	<u>5.9</u>	<u>HH</u>	<u>1750*</u>	<u>3500*</u>	<u>Tox.</u>
Chlordane (c)	<u>ng/l</u>	<u>0.29</u>	<u>HH</u>	<u>1200*</u>	<u>2400*</u>	<u>Tox.</u>
Chloride	<u>mg/l</u>	<u>230</u>	<u>Tox.</u>	<u>860</u>	<u>1720</u>	<u>Tox.</u>
Chlorine, total residual	<u>µg/l</u>	<u>11</u>	<u>Tox.</u>	<u>19</u>	<u>38</u>	<u>Tox.</u>

Chlorine standard applies to conditions of continuous exposure, where continuous exposure refers to chlorinated effluents that are discharged for more than a total of two hours in any 24-hour period.

Chlorobenzene (Monochlorobenzene)	<u>µg/l</u>	<u>20</u>	<u>HH</u>	<u>423</u>	<u>846</u>	<u>Tox.</u>
Chloroform	<u>µg/l</u>	<u>155</u>	<u>Tox.</u>	<u>1392</u>	<u>2784</u>	<u>Tox.</u>
Chlorpyrifos	<u>µg/l</u>	<u>0.041</u>	<u>Tox.</u>	<u>0.083</u>	<u>0.17</u>	<u>Tox.</u>
Chromium +3, total	<u>µg/l</u>	<u>Formula</u>	<u>Tox.</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>

Chromium +3, total

The CS shall not exceed:  $\exp.(0.819[\ln(\text{total hardness mg/l})+1.561])$

The MS shall not exceed:  $\exp.(0.819[\ln(\text{total hardness mg/l})+3.688])$

The FAV shall not exceed:  $\exp.(0.819[\ln(\text{total hardness mg/l})+4.380])$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Chromium +3 standards in µg/l for three hardness values:

	<u>Hardness (mg/l)</u>	<u>50</u>	<u>100</u>	<u>200</u>
Standard:	<u>CS</u>	<u>117</u>	<u>207</u>	<u>365</u>
	<u>MS</u>	<u>984</u>	<u>1737</u>	<u>3064</u>
	<u>FAV</u>	<u>1966</u>	<u>3469</u>	<u>6120</u>

<u>Substance or Characteristic</u> (c) = carcinogen	<u>Units</u>	<u>Class 2B Chronic Standard</u> <u>CS</u>	<u>Basis</u>	<u>Class 2B Acute Standards</u> <u>MS</u>	<u>FAV</u>	<u>Basis</u>
Chromium +6, total	<u>µg/l</u>	<u>11</u>	<u>Tox.</u>	<u>16</u>	<u>32</u>	<u>Tox</u>
Cobalt	<u>µg/l</u>	<u>5.0</u>	<u>Tox.</u>	<u>436</u>	<u>872</u>	<u>Tox.</u>
Copper, total	<u>µg/l</u>	<u>Formula</u>	<u>Tox.</u>	<u>Formula</u>	<u>Formula</u>	<u>Tox.</u>

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## Proposed Rules

### Copper, total

The CS shall not exceed:  $\exp.(0.6200[\ln(\text{total hardness mg/l})]-0.570)$

The MS shall not exceed:  $\exp.(0.9422[\ln(\text{total hardness mg/l})]-1.464)$

The FAV shall not exceed:  $\exp.(0.9422[\ln(\text{total hardness mg/l})]-0.7703)$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Copper standards in  $\mu\text{g/l}$  for three hardness values:

Hardness (mg/l)		50	100	200		
Standard:	CS	6.4	9.8	15		
	MS	9.2	18	34		
	FAV	18	35	68		
Cyanide, free	$\mu\text{g/l}$	5.2	Tox.	22	45	Tox.
DDT (c)	$\text{ng/l}$	1.7	HH	550*	1100*	Tox.
1,2-Dichloro-ethane (c)	$\mu\text{g/l}$	1.90	HH	45,050*	90,100*	Tox.
Dieldrin (c)	$\text{ng/l}$	0.026	HH	1300*	2500*	Tox.
Di-2-ethylhexyl phthalate (c)	$\mu\text{g/l}$	2.1	HH	None*	None*	NA
Di-n-octyl phthalate	$\mu\text{g/l}$	30	Tox.	825	1650	Tox.
Dissolved oxygen	$\text{mg/l}$	5.0 as a daily minimum				

This dissolved oxygen standard may be modified on a site-specific basis according to subpart 8, except that no site-specific standard shall be less than 5 mg/l as a daily average and 4 mg/l as a daily minimum. Compliance with this standard is required 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). This standard applies to all Class 2B waters except for those portions 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 5 mg/l as a daily average from April 1 through November 30, and not less than 4 mg/l at other times.

Substance or Characteristic (c) = carcinogen	Units	Class 2B Chronic Standard		Class 2B Acute Standards		Basis
		CS	Basis	MS	FAV	
Endosulfan	$\mu\text{g/l}$	0.031	HH	0.28	0.56	Tox.
Endrin	$\mu\text{g/l}$	0.016	HH	0.090	0.18	Tox.
Ethylbenzene	$\mu\text{g/l}$	68	Tox.	1859	3717	Tox.

Fecal coliform organisms

Not to exceed 200 organisms per 100 milliliters as a geometric mean of not less than five samples in any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 2,000 organisms per 100 milliliters. The standard applies only between April 1 and October 31.



## Proposed Rules

Fluoranthene	<u>µg/l</u>	1.9	Tox.	3.5	6.9	Tox.
Heptachlor (c)	<u>ng/l</u>	0.39	HH	260*	520*	Tox.
Heptachlor epoxide (c)	<u>ng/l</u>	0.48	HH	270*	530*	Tox.
Hexachloro-benzene (c)	<u>ng/l</u>	0.24	HH	None*	None*	Tox.
Lead, total	<u>µg/l</u>	Formula	Tox.	Formula	Formula	Tox.

Lead, total

The CS shall not exceed:  $\exp.(1.273[\ln(\text{total hardness mg/l})]-4.705)$

The MS shall not exceed:  $\exp.(1.273[\ln(\text{total hardness mg/l})]-1.460)$

The FAV shall not exceed:  $\exp.(1.273[\ln(\text{total hardness mg/l})]-0.7643)$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Lead standards in µg/l for three hardness values:

<u>Hardness (mg/l)</u>		50	100	200
Standard:	<u>CS</u>	1.3	3.2	7.7
	<u>MS</u>	34	82	197
	<u>FAV</u>	68	164	396

**Substance or Characteristic (c) = carcinogen**

	<u>Units</u>	<u>Class 2B Chronic Standard</u>	<u>Basis</u>	<u>Class 2B Acute Standards</u>		<u>Basis</u>
		<u>CS</u>		<u>MS</u>	<u>FAV</u>	
<u>Lindane (c) (Hexachlorocyclohexane, gamma-)</u>	<u>µg/l</u>	0.036	HH	4.4*	8.8*	Tox.
<u>Mercury, total</u>	<u>µg/l</u>	0.0069	HH	2.4*	4.9*	Tox.
<u>Methylene chloride (c) (Dichloromethane)</u>	<u>µg/l</u>	1940	HH	13,875	27,749	Tox.
<u>Naphthalene</u>	<u>µg/l</u>	81	Tox.	409	818	Tox.
<u>Nickel, total</u>	<u>µg/l</u>	Formula	Tox	Formula	Formula	Tox.

Nickel, total

The CS shall not exceed:  $\exp.(0.846[\ln(\text{total hardness mg/l})]+1.1645)$

The MS shall not exceed:  $\exp.(0.846[\ln(\text{total hardness mg/l})]+3.3612)$

The FAV shall not exceed:  $\exp.(0.846[\ln(\text{total hardness mg/l})]+4.0543)$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Nickel standards in µg/l for three hardness values:

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# Proposed Rules

Hardness (mg/l)		50	100	200
Standard:	CS	88	158	283
	MS	789	1418	2549
	FAV	1578	2836	5098

Oil	µg/l	500	NA	5000	10,000	NA
Parathion	µg/l	0.013	Tox.	0.07	0.13	Tox.
Pentachloro-phenol	µg/l	Formula	Tox./HH	Formula	Formula	Tox.

For waters with pH values greater than 6.95, the CS shall not exceed the human health-based standard of 5.5 µg/l. For waters with pH values less than 6.96, the CS shall not exceed:  $\exp.(1.005[\text{pH}]-5.290)$

The MS shall not exceed:  $\exp.(1.005[\text{pH}]-4.830)$

The FAV shall not exceed:  $\exp.(1.005[\text{pH}]-4.1373)$

Pentachlorophenol standards in µg/l for three pH values:

pH (su)		7.0	7.5	8.0
Standard:	CS	5.5	5.5	5.5
	MS	9.1	15	25
	FAV	18	30	50

pH (su)	Not less than 6.5 nor greater than 9.0					
Phenanthrene	µg/l	3.6	Tox.	32	64	Tox.
Phenol	µg/l	123	Tox.	2214	4428	Tox.
Polychlorinated biphenyls, total (c)	ng/l	0.029	HH	1000*	2000*	Tox.

Substance or Characteristic (c) ≡ carcinogen	Units	Class 2B Chronic Standard		Class 2B Acute Standards		Basis
		CS	Basis	MS	FAV	

Radioactive materials: Not to exceed the lowest concentrations permitted to be discharged to an uncontrolled environment as permitted by the appropriate authority having control over their use.

Selenium	µg/l	5.0	Tox.	20	40	Tox.
Silver, total	µg/l	1.0	Tox.	Formula	Formula	Tox.

Silver, total

The CS shall not exceed: 1.0

The MS shall not exceed:  $\exp.(1.720[\ln(\text{total hardness mg/l})]-7.2156)$

The FAV shall not exceed:  $\exp.(1.720[\ln(\text{total hardness mg/l})]-6.520)$

Provided that the MS and FAV shall be no less than 1.0 µg/l

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

Silver standards in  $\mu\text{g/l}$  for three hardness values:

Hardness (mg/l)		50	100	200
Standard:	CS	1.0	1.0	1.0
	MS	1.0	2.0	6.7
	FAV	1.2	4.1	13

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

1.1.2.2 -Tetrachloroethane (c)	$\mu\text{g/l}$	13	HH	1127	2253	Tox.
Tetrachloroethylene (c)	$\mu\text{g/l}$	8.9	HH	428	857	Tox.

Substance or Characteristic (c) $\equiv$ carcinogen	Units	Class 2B Chronic Standard	Basis	Class 2B Acute Standards		Basis
		CS		MS	FAV	
Thallium	$\mu\text{g/l}$	0.56	HH	64	128	Tox.
Toluene	$\mu\text{g/l}$	253	Tox.	1352	2703	Tox.
Toxaphene (c)	ng/l	1.3	HH	730*	1500*	Tox.
1.1.1 -Trichloroethane	$\mu\text{g/l}$	329	Tox.	2957	5913	Tox.
1.1.2 -Trichloroethylene (c)	$\mu\text{g/l}$	120	HH	6988	13,976	Tox.
2.4.6 -Trichlorophenol	$\mu\text{g/l}$	2.0	HH	102	203	Tox.
Turbidity value	NTU	25	NA	None	None	NA
Vinyl chloride (c)	$\mu\text{g/l}$	9.2	HH	None*	None*	NA
Xylene, total m.p.o	$\mu\text{g/l}$	166	Tox.	1407	2814	Tox.
Zinc, total	$\mu\text{g/l}$	Formula	Tox.	Formula	Formula	Tox.

The CS shall not exceed:  $\exp.(0.8473[\ln(\text{total hardness mg/l})+0.7615])$

The MS shall not exceed:  $\exp.(0.8473[\ln(\text{total hardness mg/l})+0.8604])$

The FAV shall not exceed:  $\exp.(0.8473[\ln(\text{total hardness mg/l})+1.5536])$

For hardness values greater than 400 mg/l, 400 mg/l shall be used to calculate the standard.

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## Proposed Rules

Zinc standards in µg/l for three hardness values:

Hardness (mg/l)		50	100	200
Standard:	CS	59	106	191
	MS	65	117	211
	FAV	130	234	421

Subp. 5. **Class 2C waters.** The quality of Class 2C surface waters shall be such as to permit the propagation and maintenance of a healthy community of indigenous fish and associated aquatic life, and their habitats. These waters shall be suitable for boating and other forms of aquatic recreation for which the waters may be usable. The standards for Class 2B waters listed in subpart 4 shall apply to these waters except as listed below:

Substance or Characteristic	Class 2C Standard		
	CS	MS	FAV
Dissolved oxygen mg/l	5 as a daily minimum	none	none

Dissolved oxygen 5 mg/l as a daily minimum. This dissolved oxygen standard may be modified on a site-specific basis according to subpart 8, except that no site-specific standard shall be less than 5 mg/l as a daily average and 4 mg/l as a daily minimum. Compliance with this standard is required 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).

This dissolved oxygen standard applies to all Class 2C waters except for ~~the reach those portions~~ 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~~ 5 mg/l as a daily average from April 1 through November 30, and not less than ~~four milligrams per liter~~ 4 mg/l at other times. For the specified reach of the Minnesota River the standard shall be not less than ~~five milligrams per liter~~ 5 mg/l as a daily average year-round.

~~This dissolved oxygen standard requires 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).~~

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.

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

Subp. 7. **Additional standards.** The following additional standards and requirements apply to all Class 2 waters.

[For text of items A to D, see M.R.]

E. For carcinogenic or highly bioaccumulative chemicals with BCFs greater than 5,000 or log Kow values greater than 5.19, the human health-based CS may be two or more orders of magnitude smaller than the acute toxicity-based MS. If the commissioner finds that a very large MS and FAV, relative to the CS for such pollutants is not protective of the public health, the MS and FAV shall be reduced according to the following guidelines:

If the ratio of the MS to the CS is greater than 100, the CS times 100 should be substituted for the applicable MS, and the CS times 200 should be substituted for the applicable FAV. Any effluent limitation derived using the procedures of this item shall only be required after the discharger has been given notice of the specific proposed effluent limitations and an opportunity to request a hearing as provided in part 7000.1800. The relevant MS and FAV values, or if there is no MS or FAV, the word "none," are marked by an asterisk (\*) in subparts 2 to 4 and part 7050.0220.

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

**Subp. 9. Conversion factors for dissolved metal standards.**

<u>Metal</u>	<u>Chronic standard</u>	<u>Maximum standard and Final Acute Value</u>
<u>Cadmium*</u>	<u>0.909</u>	<u>0.946</u>
<u>Chromium III</u>	<u>0.860</u>	<u>0.316</u>
<u>Chromium VI</u>	<u>0.962</u>	<u>0.982</u>
<u>Copper</u>	<u>0.960</u>	<u>0.960</u>
<u>Lead*</u>	<u>0.791</u>	<u>0.791</u>
<u>Mercury</u>	<u>1.0</u>	<u>0.850</u>
<u>Nickel</u>	<u>0.997</u>	<u>0.998</u>
<u>Silver</u>	<u>0.850</u>	<u>0.850</u>
<u>Zinc</u>	<u>0.986</u>	<u>0.978</u>

\*Conversion factors for cadmium and lead are hardness dependent. The values shown in the table are for a total hardness of 100 mg/l (as CaCO<sub>3</sub>). The hardness dependent conversion factors for cadmium are calculated using the following formulas:

Chronic standard:  $1.101672 - [(\ln \text{ total hardness } (0.041838))]$

Maximum standard and final acute value:  $1.136672 - [(\ln \text{ total hardness } (0.041838))]$

The hardness dependent conversion factors for lead are calculated using the following formula:

Chronic and maximum standards and final acute value:  $1.46203 - [(\ln \text{ total hardness } (0.145712))]$

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

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

Subp. 2. **Class 4A waters; agriculture and wildlife.** The quality of Class 4A 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 standards 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	Class 4A Standard
Bicarbonates (HCO <sub>3</sub> )	5 milliequivalents per liter
Boron (B)	0.5 milligram per liter
pH value	6.0 - 8.5
Specific conductance	1,000 micromhos per centimeter at 25°C
Total dissolved salts	700 milligrams per liter
Sodium (Na)	60% of total cations as milliequivalents per liter
Sulfates (SO <sub>4</sub> )	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.

[For text of subps 3 and 4, see M.R.]

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## Proposed Rules

### 7050.0227 SPECIFIC STANDARDS OF QUALITY AND PURITY FOR CLASS 7 WATERS OF THE STATE; LIMITED RESOURCE VALUE WATERS.

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

Subp. 2. **Class 7 waters; limited resource value waters.** The quality of Class 7 waters of the state shall be such as to protect aesthetic qualities, secondary body contact use, and groundwater for use as a potable water supply. Standards of substances or characteristics given below shall not be exceeded in the waters:

Substance or Characteristic	Class 7 Standard
Fecal coliform organisms	Not to exceed 1,000 organisms per 100 milliliters in any calendar month as determined by <del>the logarithmic</del> a <u>geometric</u> mean of a minimum of five samples, nor shall more than ten percent of all samples taken during any calendar month individually exceed 2,000 organisms per 100 milliliters. The standard applies only between May 1 and October 31.
pH value	Not less than 6.0 nor greater than 9.0
Dissolved oxygen	At concentrations which will avoid odors or putrid conditions in the receiving water or at concentrations at not less than 1 mg/l (daily average) provided that measurable concentrations are present at all times.
Toxic Pollutants	Toxic pollutants shall not be allowed in such quantities or concentrations that will impair the specified uses.

### 7050.0420 TROUT WATERS.

Trout lakes identified in part ~~6262.0400~~ 6264.0050, subpart 2, as amended through ~~July 19, 1993~~ [Date Pending], are classified as trout waters and are listed under part 7050.0470. Trout streams and their tributaries within the sections specified that are identified in part ~~6262.0400~~ 6264.0050, subpart 4, as amended through ~~July 19, 1993~~ [Date Pending], are classified as trout waters. Trout streams are listed in part 7050.0470. Other lakes that are classified as trout waters are listed in part 7050.0470. All ~~trout~~ waters listed in part 7050.0470 as Class 1B, 2A, and 3B are also classified as Class ~~1B, 2A, 3B,~~ 3C, 4A, 4B, 5, and 6 waters.

### 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, B, and D.

#### A. Streams:

[For text of subitems (1) to (11), see M.R.]

(12) Baptism River, West Branch, (T.57, R.7, S.7, 17, 18, 20; T.57, R.8, S.1, 2, 12; T.58, R.8, S.2, 3, 4, 9, 10, 11, 15, 16, 20, 21, 22, 28, 33, 34, 35, 36; T.59, R.8, ~~S.27, S.~~ 34, 35): 1B, 2A, 3B;

[For text of subitems (13) to (23), see M.R.]

(24) Blind Temperance Creek, (T.60, R.4W, S.19, 29, 30, 32; T.60, R.5W, S.24, 25, 36): 1B, 2A, 3B;

[For text of subitems (25) to (34), see M.R.]

(35) Cabin Creek, (T.59, R.6W, S.19, 20; T.59, R.7, S.24): 1B, 2A, 3B;

(35) to (40) [Renumber as (36) to (41)]

~~(41)~~ (42) Cascade River, (T.60, R.2W, S.1; T.61, R.1W, S.19, 20, 21, 30, 31; T.61, R.2W, S.1, 12, 13, 14, 24, 25, 26, 35, 36; T.62, R.2W, S.10, 11, 14, 15, 16, 22, 23, 24, 25, 36): 1B, 2A, 3B;

(42) to (57) [Renumber as (43) to (58)]

~~(58) Cross River, (T.60, R.6, S.13, 24, 25): 1B, 2A, 3B;~~

(59) Cross River (~~Lake~~), (T.58, R.4W, S.6; T.58, R.5W, S.1; T.59, R.4W, S.31; T.59, R.5W, S.4, 5, 8, 9, 15, 16, 21, 22, 23, 25, 26, 35, 36; T.60, R.5W, S.30, 31, 32; T.60, R.6, S.13, 24, 25, 36): 1B, 2A, 3B;

(60) Crow Creek, (T.53, R.10, S.1, 2; T.54, R.10, S.15, 22, 23, 26, 35): 1B, 2A, 3B;

(61) Crown Creek, (T.57, R.8, S.2, 3, 4, 5, 9, 10, 11; T.58, R.8, S.5, 6, 7, 18, 19, 20, 29, 30, 31, 32, 33; T.58, R.9, S.1, 12, 13, 14, 24, 36; T.59, R.8, ~~S.31, S.32~~): 1B, 2A, 3B;

[For text of subitems (62) to (80), see M.R.]

~~(81) Fourmile Creek, (T.60, R.5W, S.17, 18, 19; T.60, R.6, S.24): 1B, 2A, 3B;~~

(82) and (83) [Renumber as (81) and (82)]

(83) Fry Creek, (T.62, R.2W, S.25; T.62, 1W, S.29, 30, 31): 1B, 2A, 3B;

[For text of subitems (84) to (92), see M.R.]

(93) Hockamin Creek, (T.57, R.7, S.17, 18, 19; T.57, R.8, S.13, 16, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 32, 33, ~~34~~): 1B, 2A, 3B;

[For text of subitems (94) to (106), see M.R.]

(107) Jonvick Creek, (T.60, R.2W, S.7, 19; T.60, R.3W, S.12, 13, 14, 24): 1B, 2A, 3B;

(108) Junco Creek, (T.62, R.1W, S.1, 2, 9, 10, 11, 12, 13, 14, 15, 16, 21, 28; T.62, R.1E, S.6, 7; T.63, R.1E, S.20, 29, 30, 31; T.63, R.1W, S.24, 25, ~~35~~): 1B, 2A, 3B;

[For text of subitems (109) to (111), see M.R.]

~~(112) Kennedy Creek, (T.57, R.7, S.35, 36): 1B, 2A, 3B;~~

(113) to (121) [Renumber as (112) to (120)]

~~(122) Last Creek, (T.58, R.5W, S.16, 17): 1B, 2A, 3B;~~

~~(123)~~ (121) Lavi Creek, (T.52, R.15, S.21, 28): 1B, 2A, 3B;

~~(124)~~ (122) Leppanen Creek (Leskinen Creek), (T.57, R.7, S.15, 21, 22, 28): 1B, 2A, 3B;

(125) to (130) [Renumber as (123) to (128)]

~~(131)~~ (129) Manitou River, North Branch, (T.58, R.6, S.6; T.58, R.7, S.1, 2; T.59, R.6, S.31; T.59, R.7, S.15, 16, 18, 19, 20, 21, 22, 25, 26, 27, 28, 33, 34, 35, 36; T.59, R.8, S.1, 2, 12, 13, ~~23~~, 24, 25, 26): 1B, 2A, 3B;

~~(132)~~ (130) Manitou River, South Branch, (T.58, R.6, S.6; T.58, R.7, S.1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 16, 17, 18; T.58, R.8, S.1, 2; T.59, R.7, S.29, 30, 31, 32, 33): 1B, 2A, 3B;

(133) to (138) [Renumber as (131) to (136)]

~~(139)~~ (137) Mile Post Forty-Three Creek, (T.56, R.8, S.2, 3, ~~9~~, 10, 11, 13, 14, 15): 1B, 2A, 3B;

(140) to (153) [Renumber as (138) to (151)]

~~(154)~~ (152) Murphy Creek, (T.56, R.11, S.4, 5, 8, 17, 18, 19; T.57, R.10, S.4, 7, 8, 9, 18; T.57, R.11, ~~S.11, 12~~, S.13, 14, 21, 22, 23, 24, 26, 27, 28, 33, 34): 1B, 2A, 3B;

(155) to (161) [Renumber as (153) to (159)]

~~(162)~~ (160) Nicadoo Creek (Nicado Creek), (T.56, R.7, S.7; T.56, R.8, S.1, 12; T.57, R.8, ~~S.25~~ S.27, 35, 36): 1B, 2A, 3B;

(163) to (194) [Renumber as (161) to (192)]

~~(195)~~ (193) Sawmill Creek, (T.57, R.6, S.18; T.57, R.7, ~~S.1, S.12~~, 13, 22, 23, 24, 26, 27, 34): 1B, 2A, 3B;

(196) to (198) [Renumber as (194) to (196)]

~~(199)~~ Section 15 Creek, (T.58, R.5W, S.9, 10, 15): 1B, 2A, 3B;

~~(200)~~ (197) Section 16 Creek, (T.58, R.5W, S.16): 1B, 2A, 3B;

~~(201)~~ Section 29 Creek, (T.58, R.5W, S.29, 30): 1B, 2A, 3B;

(202) to (211) [Renumber as (198) to (207)]

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## Proposed Rules

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~~(212)~~ (208) Split Rock River, East Branch, (T.55, R.9, S.4, 5, 6, 9, 10, 14, 15, 22, 23, 24, 25, 26; T.56, R.9, S.30, 31, 32; T.56, R.10, S.1, 11, 12, 13, 14, ~~23~~, 24, 25): 1B, 2A, 3B;

(213) to (229) [Renumber as (209) to (225)]

~~(226)~~ Stump River, (T.64, R.4E, S.18; T.64, R.3E, S.8, 9, 13, 14, 15, 16, 17, 21, 22, 23, 24): 1B, 2A, 3B;

(230) to (245) [Renumber as (227) to (242)]

~~(246)~~ (243) Thirty-nine Creek, Big, (T.56, R.8, S.19, 30, 31; T.56, R.9, S.1, 2, 3, ~~9~~, 11, 12, 13, 14, 15, 22, 23, 24, 25; T.57, R.9, S.22, 26, 27, 35, 36): 1B, 2A, 3B;

(247) to (259) [Renumber as (244) to (256)]

~~(260)~~ (257) Unnamed (Deer) Creek, (~~T.46~~ T.47, R.16, S.19, 29, 30; T.47, R.17, S.13, 14, ~~24~~ 24): 1B, 2A, 3B;

(261) to (264) [Renumber as (258) to (261)]

~~(262)~~ Unnamed Creek, (S-17-6), (T.53, R.11, S.30, 31, 32; T.53, R.12, S.25): 1B, 2A, 3B;

~~(263)~~ Unnamed Creek, (S-17-9), (T.53, R.11, S.5; T.54, R.11, S.20, 29, 30, 32): 1B, 2A, 3B;

(265) to (271) [Renumber as (264) to (270)]

### B. Lakes:

[For text of subitems (1) to (36), see M.R.]

~~(37)~~ Dislocation Lake, (~~T.63, R.1W, S.3~~): ~~1B, 2A, 3B~~;

(38) to (41) [Renumber as (37) to (40)]

~~(42)~~ Dyers Lake, (~~T.58, R.5W, S.4, 5, 8, 9~~): ~~1B, 2A, 3B~~;

~~(41)~~ East Lake, (T.59, R.6W, S.1, 2): 1B, 2A, 3B;

(43) to (48) [Renumber as (42) to (47)]

~~(48)~~ Feather Lake, (T.61, R.5W, S.35): 1B, 2A, 3B;

[For text of subitems (49) to (61), see M.R.]

~~(62)~~ \*Jake (Jaekel) Lake, [~~11/5/84P~~] (~~T.64, R.1W, S.28~~): ~~1B, 2A, 3B~~;

(63) to (75) [Renumber as (62) to (74)]

~~(76)~~ Lost Lake, (~~T.63, R.3E, S.32~~): ~~1B, 2A, 3B~~;

(77) to (80) [Renumber as (75) to (78)]

~~(79)~~ Mirror Lake, (T.52, R.14W, S.19, 30): 1B, 2A, 3B;

(81) to (85) [Renumber as (80) to (84)]

~~(86)~~ \*Morgan Lake, [~~11/5/84P~~] (~~T.64, R.1W, S.27, 28~~): ~~1B, 2A, 3B~~;

(87) to (120) [Renumber as (85) to (118)]

~~(119)~~ Sonju Lake, (T.58, R.7W, S.27, 28): 1B, 2A, 3B;

(121) to (137) [Renumber as (120) to (136)]

~~(137)~~ Trip Lake, (T.65, R.3W, S.32): 1B, 2A, 3B;

[For text of subitems (138) to (153), see M.R.]

[For text of items C and D, see M.R.]

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, B, and D.

### A. Streams:

[For text of subitems (1) to (16), see M.R.]

(17) Hill Creek, (T.60, R.8, S.19, 30; T.60, R.9, S.24, 25): 1B, 2A, 3B;

(18) Indian Sioux River, Little, (T.65, R.15): 1B, 2Bd, 3B;

(19) Inga Creek, (T.60, R.9, S.2, 3; T.61, R.9, S.14, 22, 23, 27, 34, 35): 1B, 2A, 3B;

(20) \*Inga Creek [11/5/84P] (T.61, R.9, S.11, 12): 1B, 2A, 3B;



(21) Isabella River, Little, (T.59, R.8, S.3, 4, 5, 6, 9, 10, 15, 16, 22; T.60, R.8, S.31, 32; T.60, R.9, S.5, 6, 8, 9, 10, 15, 16, 22, 25, 26, 27, 36; T.61, R.9, S.9, 16, 17, 20, 21, 22, 29, 32): 1B, 2A, 3B;

(22) \*Isabella River, Little, [11/5/84P] (T.61, R.9, S.3, 4, 9, 10; T.62, R.9, S.34);

(23) Island River, (T.61, R.7, 8): 1B, 2Bd, 3B;

~~(24) Jack Creek, (T.61, R.8, S.14, 23, 24, 25, 26, 36): 1B, 2A, 3B;~~

(25) to (31) [Renumber as (24) to (30)]

~~(32) McNiven Creek, (T.59, R.19, S.10, 16, 21, 28, 32, 33): 1B, 2A, 3B;~~

(33) to (51) [Renumber as (31) to (49)]

~~(52) (50) Snake Creek, (T.60, R.9, S.6; T.60, R.10, S.1; T.61, R.9, S.19, 30, 31; T.61, R.10, S.24, 25, 36): 1B, 2A, 3B;~~

~~(53) (51) Snake River, (T.60, R.10, S.3, 4; T.61, R.9, S.18, 19; T.61, R.10, S.23, 24, 26, 27, 33, 34): 1B, 2A, 3B;~~

(54) to (70) [Renumber as (52) to (68)]

B. Lakes:

[For text of subitems (1) to (13), see M.R.]

(14) Beaver Hut Lake, (T.61, R.10W, S.30, 31; T.61, R.11, S.25, 36): 1B, 2A, 3B;

(14) to (45) [Renumber as (15) to (46)]

(47) Extortion Lake, (T.65, R.3W, S.31, 32): 1B, 2A, 3B;

(46) to (76) [Renumber as (48) to (78)]

(79) Indian Lake, (T.60, R.8W, S.35): 1B, 2A, 3B;

(77) to (161) [Renumber as (80) to (164)]

(165) Trip Lake, (T.65, R.3W, S.32): 1B, 2A, 3B;

(162) to (171) [Renumber as (166) to (175)]

(176) Unnamed (Pear) Lake, (T.60, R.11W, S.4): 1B, 2A, 3B;

(172) to (177) [Renumber as (177) to (182)]

[For text of items C and D, see M.R.]

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, C, and D.

A. Streams:

[For text of subitems (1) to (10), see M.R.]

(11) County Ditch No. 6A-2, Rothsay, (T.135, R.45, S.21, 28, 33): 7 (see subitem (68));

[For text of subitems (12) to (18), see M.R.]

(19) Felton Creek, (T.141, R.44, S.7, 8, 17; T.141, R.45, S.7, 8, 12, 13, 14, 15, 16, 17, 18, 22; T.141, R.46, ~~S.8, 9~~, S.12, 13, 14, ~~15, 16~~): 1B, 2A, 3B;

[For text of subitems (20) to (59), see M.R.]

(60) Toad River, (T.138, R.38, S.6, 7, 18, 19, 30; T.139, R.38, S.30, 31; T.139, R.39, S.25, 36; T.138, R.39, S.25, ~~26~~ 36): 1B, 2A, 3B;

[For text of subitems (61) to (67), see M.R.]

(68) Unnamed Creek, Rothsay, (T.135, R.45, S.21, 22, 23, 25, 26): 7 (see subitem (11));

[For text of subitems (69) to (82), see M.R.]

**KEY: PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated “all new material.” **ADOPTED RULES SECTION** — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language.

## Proposed Rules

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[For text of items B to D, see M.R.]

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, B, and D.

A. Streams:

[For text of subitems (1) to (22), see M.R.]

(23) Branch No. 3, Lateral 2, East Bethel, (T.33, R.23, S.29, 32): 7;

(23) to (29) [Renumber as (24) to (30)]

~~(30)~~ (31) Camp Ripley Brook, (T.132, R.29, S.18, 19; T.132, R.30, S.13, 24): 1B, 2A, 3B;

(31) to (40) [Renumber as (32) to (41)]

(42) County Ditch No. 17, St. Cloud, (T.124, R.29, S.13, 24, 25): 7;

(41) and (42) [Renumber as (43) and (44)]

(45) County Ditch No. 28, Ham Lake, (T.32, R.23, S.4, 5, 6; T.33, R.23, S.29, 32): 7;

(43) to (125) [Renumber as (46) to (128)]

~~(126) Pickedee Creek, (T.144, R.32, S.29, 30; T.144, R.33, S.24, 25): 1B, 2A, 3B;~~

(127) to (134) [Renumber as (129) to (136)]

(137) Pokety (Pickedee Creek), (T.144, R.32, S.29, 30; T.144, R.33, S.24, 25): 1B, 2A, 3B;

(135) to (152) [Renumber as (138) to (155)]

~~(153) Shingobee River (Cass), (T.141, R.31, S.16, 17, 18, 19; T.141, R.32, S.24): 1B, 2A, 3B;~~

(154) to (180) [Renumber as (156) to (182)]

~~(181)~~ (183) Straight Creek, Upper, (T.140, R.36, S.6; T.141, R.36, S.30, 31; T.141, R.37, S.24, 25): 1B, 2A, 3B;

(182) to (196) [Renumber as (184) to (198)]

(199) Trout Brook, St. Paul, (T.29, R.22, S.18, 19): 7;

(197) to (228) [Renumber as (200) to (231)]

~~(229) Vermillion Creek, Little, (T.143, R.25, S.22, 27): 1B, 2A, 3B;~~

(230) to (240) [Renumber as (232) to (242)]

B. Lakes:

[For text of subitems (1) to (21), see M.R.]

~~(22) Little Mud Lake, (T.121, R.30W, S.22, 23): 1B, 2A, 3B;~~

(23) to (62) [Renumber as (22) to (61)]

[For text of items C and D, see M.R.]

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, C, and D.

A. Streams:

[For text of subitems (1) to (32), see M.R.]

(33) County Ditch No. 9 (see Hazel Creek);

(33) to (72) [Renumber as (34) to (73)]

~~(73)~~ (74) Hazel Run Creek (County Ditch No. 9), (T.115, R.39, 40, 41, 42): 2C;

(75) High Island Ditch, Arlington, (T.113, R.27, S.16, 17, 21, 22, 27): 7;

(74) to (89) [Renumber as (76) to (91)]

(92) Lateral 5 of Judicial Ditch No. 3, (see Unnamed Ditch, Green Isle);

(90) to (139) [Renumber as (93) to (142)]

(143) Unnamed Creek, Lake Town Township, (T.115, R.24, S.3, 10, 11; T.116, R.24, S.27, 34): 7;

(140) to (158) [Renumber as (144) to (162)]

(163) Unnamed Ditch, Arlington, (T.113, R.27, S.21): 7;

~~(159)~~ (164) Unnamed Ditch, Near Fernando, Round Grove Coop Cry., (T.113, R.30, S.5; T.114, R.29, S.19, 20, 30; T.114, R.30, S.25, 26, 27, 28, 29, 32): 7;

~~(160)~~ (165) Unnamed Ditch, (Lateral 5 of Judicial Ditch No. 3), Green Isle, (T.114, R.26, S.18, 19; T.114, R.27, S.11, 12, 13, 14, 24): 7;

(161) to (187) [Renumber as (166) to (192)]

B. Lakes:

[For text of subitems (1) to (14), see M.R.]

(15) Unnamed Swamp (Skauby Lake), Storden, (T.107, R.37, S.30): 7;

[For text of subitems (16) to (18), see M.R.]

[For text of items C and D, see M.R.]

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

A. Streams:

[For text of subitems (1) to (16), see M.R.]

(17) \*Kettle River, [11/5/84R] (From the north Pine County line to the site of the former dam at Sandstone, at quarter section line between the NW 1/4 and SW 1/4, S.22, T.42, R.20): 2B, 3B;

(18) \*Kettle River, [11/5/84P] (From the site of the former dam at Sandstone, at quarter section line between the NW 1/4 and SW 1/4, S.22, T.42, R.20 to its confluence with the Saint Croix River): 2B, 3B;

[For text of subitems (19) to (48), see M.R.]

[For text of items B to D, see M.R.]

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 subitems (1) to (3), see M.R.]

(4) Ballpark Creek, (T.102, R.4, S.19, 30; T.102, R.5, S.24): 1B, 2A, 3B;

(4) to (17) [Renumber as (5) to (18)]

~~(18)~~ (19) Burns Valley Creek, West Branch, (T.106, R.7, S.3, 4, 9, 16; T.107, R.7, S.34): 1B, 2A, 3B;

(19) to (27) [Renumber as (20) to (28)]

~~(28)~~ (29) Cedar Valley Creek, (T.105, R.6, S.6; T.106, R.6, S.1, 11, 12, 14, 15, 21, 22, 28, 29, 31, 32; T.107, R.6, S.1): 1B, 2A, 3B;

~~(29)~~ (30) Chub Creek, North Branch, (T.112, 113, R.19): 2C;

(31) Clear Creek, (T.111, R.14, S.3, 10, 15): 1B, 2A, 3B;

(30) to (45) [Renumber as (32) to (47)]

~~(46) Dry Run Creek, (T.108, R.14, S.4; T.109, R.14, S.33): 1B, 2A, 3B;~~

(47) to (55) [Renumber as (48) to (56)]

~~(56)~~ (57) Garvin Brook, (T.106, R.8, S.4, 5, 8, 17; T.107, R.8, R.14 S.10, 11, 14, 15, 23, 26, 27, 33, 34, 35): 1B, 2A, 3B;

~~(57)~~ (58) Gilbert Creek, (T.111, R.12, S.6; T.111, R.13, S.1, 2, 3, 4, 10, 11, 12; T.112, R.12, S.31): 1B, 2A, 3B;

(58) to (61) [Renumber as (59) to (62)]

**KEY: PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated “all new material.” **ADOPTED RULES SECTION** — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language.

## Proposed Rules

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~~(62)~~ (63) Hamilton Creek, (T.103, R.13, NW 1/4 S.6; T.103, R.14, NE 1/4 S.1): 1B, 2A, 3B;

(63) to (65) [Renumber as (64) to (66)]

~~(66)~~ (67) Hay Creek, (T.111, R.15, S.4; T.112, R.14, S.19; T.112, R.15, S.1, 12, 13, 23, 24, 26, 27, 33, 34; T.113, R.15, S.24, 25, 36): 1B, 2A, 3B;

(67) to (140) [Renumber as (68) to (141)]

(142) Straight Creek, (T.107, R.9, S.2, 11, 12): 1B, 2A, 3B;

(141) to (166) [Renumber as (143) to (168)]

~~(167)~~ Unnamed Creek (Richmond), (T.106, R.5, S.17, 20, 21): ~~1B, 2A, 3B~~;

(168) to (175) [Renumber as (169) to (176)]

(177) Unnamed Creek (Wells Creek Trib. #9), (T.111, R.14, S.8, 17): 1B, 2A, 3B;

~~(176)~~ (178) Unnamed Ditch, Claremont, (T.107, R.18, S.27, 34): 7;

(179) Unnamed Ditch, Owatonna, (T.108, R.20, S.33): 7;

(177) to (187) [Renumber as (180) to (190)]

(191) Wells Creek, (T.111, R.14, S.3, 4, 5, 6, 7, 8, 18; T.112, R.13, S.12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23; T.112, R.14, S.24, 25, 33, 34, 35, 36): 1B, 2A, 3B;

(188) to (198) [Renumber as (192) to (202)]

[For text of items B to D, see M.R.]

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, C, and D.

A. Streams:

[For text of subitems (1) to (7), see M.R.]

(8) County Ditch No. 53 (see Soldier Creek);

(8) to (20) [Renumber as (9) to (21)]

~~(21)~~ (22) Soldier Creek (Unnamed Stream and County Ditch No. 53), (T.101, R.32, 33): 2C, 3B;

~~(22)~~ (23) Turtle Creek, (T.103, R.18, 19, 20): 2C;

~~(23)~~ (24) Unnamed Creek, Emmons, (T.101, R.22, S.31): 7;

~~(24)~~ (25) Unnamed Creek, Brownsdale, (T.103, R.17, S.4, 9): 7;

~~(25)~~ (26) Unnamed Creek, Blooming Prairie, (T.104, R.18, S.5, 8, 9, 16; T.105, R.18, S.31): 7;

(27) Unnamed Creek, Blooming Prairie, (T.105, R.19, S.25): 7;

~~(26)~~ (28) Unnamed Creek, Iona, (T.105, R.41, S.3, 4, 9; T.106, R.40, S.19, 29, 30, 32; T.106, R.41, S.24, 25, 26, 34, 35):

7;

(29) Unnamed Ditch, Blooming Prairie, (T.105, R.19, S.25): 7;

(30) Unnamed Stream (see Soldier Creek);

~~(27)~~ (31) Wolf Creek, (T.103, R.16, 17, 18): 2C;

~~(28)~~ (32) Woodbury Creek, (T.101, 102, R.18, 19): 2C; and

~~(29)~~ (33) Woodson Creek, (T.102, R.18, S.14, 15): 1B, 2A, 3B.

[For text of items B to D, see M.R.]

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

**REPEALER.** Minnesota Rules, part 7050.0220, subparts 3, 4, 5, and 6, are repealed.

## Adopted Rules

A rule becomes effective after the requirements of *Minnesota Statutes* §§ 14.05-14.28 have been met and five working days after the rule is published in the *State Register*, unless a later date is required by statutes or specified in the rule.

If an adopted rule is identical to its proposed form as previously published, a notice of adoption and a citation to its previous *State Register* publication will be printed.

If an adopted rule differs from its proposed form, language which has been deleted will be printed with strikeouts and new language will be underlined. The rule's previous *State Register* publication will be cited.

### Exempt Rules

An exempt rule adopted under *Minnesota Statutes* §§ 14.386 or 14.388 is effective upon its publication in the *State Register*.

### Emergency Expedited Rules

Provisions for the Commissioner of Natural Resources to adopt emergency expedited Game and Fish Rules are specified in *Minnesota Statutes* §§ 84.027. The commissioner may adopt emergency expedited rules when conditions exist that do not allow the Commissioner to comply with the requirements for emergency rules. The Commissioner must submit the rule to the attorney general for review and must publish a notice of adoption that includes a copy of the rule and the emergency conditions. Emergency expedited rules are effective upon publication in the *State Register*, and may be effective up to seven days before publication under certain emergency conditions. Emergency expedited rules are effective for the period stated or up to 18 months.

## Department of Children, Families, and Learning

### Adopted Permanent Rules Relating to Desegregation

The rules proposed and published at *State Register*, Volume 23, Number 23, pages 1344-1352, December 7, 1998 (23 SR 1344), are adopted with the following modifications:

#### 3535.0100 PURPOSE.

The purpose of parts 3535.0100 to 3535.0180 is to:

A. ~~recognize that there are societal benefits from schools that are racially integrated as the result of the voluntary choice of parents and students, while also recognizing that many factors beyond the control of the commissioner and the control of districts, including housing, jobs, and transportation, can impact the ability to racially integrate schools;~~ recognize that the primary goal of public education is to enable all students to have opportunities to achieve academic success;

B. reaffirm the state of Minnesota's commitment to the importance of integration in its public schools;

C. recognize that while there are societal benefits from schools that are racially balanced, there are many factors which can impact the ability of school districts to provide racially balanced schools, including housing, jobs, and transportation;

D. recognize that providing parents a choice regarding where their children should attend school is an important component of Minnesota's education policy;

E. recognize that there are parents for whom having their children attend integrated schools is an essential component of their children's education;

~~B-F.~~ prevent segregation, as defined in part 3535.0110, subpart 9, in public schools;

~~C-G.~~ encourage districts to provide opportunities for students to attend schools that are racially balanced when compared to other schools within the district;

~~D-H.~~ provide a system that identifies the presence of racially isolated districts and encourage adjoining districts to work cooperatively to improve cross-district integration, while giving parents and students meaningful choices; and

~~E-I.~~ work with rules that address academic achievement, including graduation standards under chapter 3501 and inclusive education under part 3500.0550, by providing equitable access to resources.

#### 3535.0110 DEFINITIONS.

Subp. 4. **Protected students.** "Protected students" means:

B. multiracial students who self-identify or are identified as having origins in more than one of the categories described in item A or as having origins in one of the categories described in item A and in the category of Caucasian.

**KEY: PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material." **ADOPTED RULES SECTION** — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language.

## Adopted Rules

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### 3535.0130 DUTIES OF COMMISSIONER.

Subp. 3. **Integrated alternatives.** If the enrollment of protected students at a school is more than 25 percent above the enrollment of protected students in the entire district, or if the enrollment of protected students exceeds 90 percent at any given school, whichever is less, the district must provide affirmative evidence to the commissioner that all students in that school have alternatives to attend schools with a protected student enrollment that is comparable to the districtwide average.

### 3535.0150 DEVELOPMENT OF PLAN FOR MANDATORY DESEGREGATION; ENFORCEMENT.

Subpart 1. **District plan.** If the commissioner determines that segregation exists, the district shall provide a plan within 60 days that proposes how it shall remedy the segregation. The plan shall address the specific actions that were found by the commissioner to contribute to the segregation. The plan shall be developed in consultation with the commissioner. If the commissioner rejects any or all of the plan, the commissioner shall provide technical assistance to help the district revise the plan. However, if the district and the commissioner cannot agree on a plan within 45 days after the original plan was rejected, the commissioner shall develop a revised plan to remedy the segregation that the district shall implement in the time frame specified by the commissioner. A finding of segregation, or a finding that the district's initial plan is inadequate, shall be based on written findings of fact and conclusions of law issued by the commissioner.

Subp. 3. **Extension.** The commissioner may extend the time for response from a district under parts 3535.0140 and 3535.0150 if ~~it~~ compliance with the deadline for response would impose an undue hardship on the district, for example, if the information is not easily ascertainable or the plan requires a complex remedy that includes consultation with outside sources.

### 3535.0160 INTEGRATION OF RACIALLY IDENTIFIABLE SCHOOLS NOT THE RESULT OF SEGREGATION.

Subp. 2. **Community collaboration council.** The district shall establish and use a community collaboration council to assist in developing the district's plan under this part. The council shall be reasonably representative of the diversity of the district. In communities with ten or more American Indian students, representation from the American Indian parent committee under *Minnesota Statutes*, section 126.51 is required on the community collaboration council. If a district has an existing committee whose composition reasonably reflects the diversity of the district, for example, school site councils or district curriculum advisory councils, that committee may be used to provide the planning required by this part. ~~The community collaboration council shall identify integration issues at each racially identifiable school and action goals designed to address those integration issues. After identifying the issues and goals for each school, the council shall develop a plan for integration at each school that may include, for example, options under subpart 3.~~ The community collaboration council shall identify ways of creating increased opportunities for interracial contact, and establish goals for meeting this objective. After identifying these opportunities and goals, the council shall develop a plan for integration at each school that may include, for example, options under subpart 3.

#### Subp. 3. **District plan.**

A. After receiving the plan required under subpart 2 from its community collaboration council, the district shall provide a plan to the commissioner that describes how the goal of increased opportunities for interracial contact between students will be met, and the integration efforts the district plans to implement at each racially identifiable school. The plan shall be written and adopted by the end of the academic year in which the district received notice under subpart 1, or six months later, whichever is longer. The plan shall include:

#### Subp. 4. **Commissioner's duties.**

A. The commissioner shall:

(1) evaluate any plans developed under this part at the end of each academic year after which a plan is implemented to determine whether the collaboration plan was implemented and whether the goals have been substantially met;

Subp. 6. **Schools that did not meet earlier goals.** Schools that were included in a plan under this part but remain racially identifiable after three years from the date of review by the commissioner shall work in consultation with the commissioner to develop a new plan that shall include an analysis of why the previous plan did not achieve its goals, a list and explanation of new or continuing barriers to achieving the plan's goals, and a new plan and rationale for achieving the goals of the plan.

### 3535.0170 INTEGRATION OF RACIALLY ISOLATED SCHOOL DISTRICTS.

#### Subpart 1. **Evaluation.**

A. The commissioner shall annually evaluate the enrollment of protected students in each district to determine whether the district as a whole is racially isolated. If the commissioner determines that a district is racially isolated, as defined in part 3535.0110, subpart 8 Z, the commissioner shall immediately notify the district and its adjoining districts. The commissioner may also send notice to other districts that are not adjoining if the commissioner determines that it would be geographically feasible for such districts to participate in cross-district planning. Districts that are not adjoining may choose whether to participate in the cross-district planning.

Subp. 5. **Council cooperation and plan.** ~~The multidistrict collaboration council shall identify interdistrict integration issues resulting from the condition of racial isolation and action goals designed to address those integration issues. After identifying the issues and goals of cross-district integration~~ The multidistrict collaboration council shall identify ways of creating increased opportunities for interracial contact and establish goals for meeting this objective. ~~After identifying these opportunities and goals,~~ the council shall develop a joint collaboration plan for cross-district integration that may include the incentives contained in subpart 6, item ~~D~~ B.

Subp. 6. **District plan.**

A. After receiving the plan required in subpart 5 from its council, each district shall review, modify if necessary, and ratify the integration plan. Each district shall provide a plan to the commissioner that describes how the goal of greater opportunities for interracial contact between students will be met ~~and~~ that describes the interdistrict integration efforts the district plans to implement. The plan shall be completed and ratified no longer than 12 months after the district receives notice under part 3535.0180, subpart 1. The plan shall include:

## Exempt Rules

Exempt rules are excluded from the normal rulemaking procedures (*Minnesota Statutes* §§ 14.386 and 14.388). They are most often of two kinds. One kind is specifically exempted by the Legislature from rulemaking procedures, but approved for form by the Revisor of Statutes, reviewed for legality by the Office of Administrative Hearings, and then published in the *State Register*. These exempt rules are effective for two years only.

The second kind of exempt rule is one adopted where an agency for good cause finds that the rulemaking provisions of *Minnesota Statutes*, Chapter 14 are unnecessary, impracticable, or contrary to the public interest. This exemption can be used only where the rules:

- (1) address a serious and immediate threat to the public health, safety, or welfare, or
- (2) comply with a court order or a requirement in federal law in a manner that does not allow for compliance with *Minnesota Statutes* §§ 14.14-14.28, or
- (3) incorporate specific changes set forth in applicable statutes when no interpretation of law is required, or
- (4) make changes that do not alter the sense, meaning, or effect of the rules.

These exempt rules are also reviewed for form by the Revisor of Statutes, for legality by the Office of Administrative Hearings and then published in the *State Register*. In addition, the Office of Administrative Hearings must determine whether the agency has provided adequate justification for the use of this exemption. Rules adopted under clauses (1) or (2) above are effective for two years only.

The Legislature may also exempt an agency from the normal rulemaking procedures and establish other procedural and substantive requirements unique to that exemption.

## Minnesota State Retirement System

### Adopted Exempt Permanent Rules Relating to State Employment; Minnesota State Deferred Compensation Plan

#### 7905.0100 DEFINITIONS.

[For text of subs 1 to 6, see M.R.]

Subp. 7. **Deferred compensation account.** “Deferred compensation account” means the account established for the investment of deferred compensation. It includes ~~the supplemental investment account and any fixed and variable product approved by the board~~ any approved investment, as provided by *Minnesota Statutes*, section 352.96, subdivision 2.

[For text of subs 8 to 10, see M.R.]

Subp. 11. [See repealer.]

[For text of subs 12 to 16, see M.R.]

Subp. 17. **Plan.** “Plan” means the Minnesota ~~public employee’s~~ state deferred compensation plan as set forth in this chapter and as it may be amended from time to time.

Subp. 18. [See repealer.]

**KEY: PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated “all new material.” **ADOPTED RULES SECTION** — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language.

## Exempt Rules

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[For text of subs 18a to 22, see M.R.]

### 7905.0200 ESTABLISHMENT OF PLAN.

The plan shall be known as the "Minnesota state deferred compensation plan" ("plan") and is created according to *Minnesota Statutes*, section 352.96 and section 457 of the *Internal Revenue Code*. ~~The plan shall constitute a continuation of the Minnesota deferred compensation plan, approved by the attorney general and filed with the secretary of state and the commissioner of administration, November 24, 1975.~~

### 7905.0800 COPIES OF PLAN, PAMPHLETS, AND ACCOUNT STATEMENTS.

Pamphlets describing the plan and outlining the options and opportunities available shall be prepared under the direction of the director and made available to eligible employees. Copies of the plan will be made available upon request. Individual account statements shall be made available to each participant at least ~~semiannually~~ quarterly.

### 7905.0900 ELIGIBILITY.

All employees who are receiving compensation who have not received a distribution based on an unforeseeable emergency as provided in part 7905.2300 within the last 12 months shall be eligible to become participants in accordance with part 7905.1000. ~~If an employee received a distribution based on an unforeseeable emergency in the last 12 months and is eligible for an employer matching contribution under *Minnesota Statutes*, section 356.24, employee contributions can be made only up to the amount matched by employer contributions.~~

### 7905.1100 MINIMUM DEFERRAL.

The minimum amount which may be deferred is \$10 per pay period ~~per product provider~~. The amounts to be deferred must be stated in whole dollars. If the application indicates an amount including cents, the cents will be disregarded.

### 7905.1700 DEFERRED COMPENSATION ACCOUNTS AND VALUATION.

Subpart 1. **Participants' accounts.** An investment account shall be established for each participant which shall be the basis for any distributions payable to the participants under parts 7905.2000 to 7905.2400. Each participant's account shall be credited with the amount of any compensation deferred and received, and shall be further credited or debited, as applicable, with any increase or decrease resulting from investments under part 7905.1900, and credited or debited with any investment expenses; if applicable, debited for the amount of any distribution; and credited initially with the value, on December 19, 1983, of any bookkeeping account maintained under the prior plan. All amounts in a participant's account are held in trust for the exclusive benefit of the participant.

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

Subp. 3. **Account and fund valuation.** The supplemental investment account is to be valued by the board as of each accounting date according to *Minnesota Statutes*, section 11A.17. Any withdrawals or distributions shall be based upon the account's value as of the accounting date, except if withdrawn under part 7905.2300, subpart 3.

The ~~fixed and variable annuity account is approved investments provided by *Minnesota Statutes*, section 352.96, subdivision 2, are~~ to be valued at current market value as of each accounting date on a reasonable and consistent basis and according to the terms of the contract as approved by the board under *Minnesota Statutes*, section 352.96.

Subp. 4. **Administrative expense.** The administrative expenses of the plan ~~will be paid under *Minnesota Statutes*, section 11A.17, administrative costs for the fixed and variable annuity account shall be established by the contract as approved by the board under *Minnesota Statutes*, section 352.96.~~

### 7905.1900 INVESTMENT OF FUNDS.

Subpart 1. **Investment allowed.** Any compensation deferred by employees may be invested by the director for the participant.

Subp. 2. **Investment options.** The participant may select an investment preference from among the ~~options provided in the deferred compensation account approved investments as provided by *Minnesota Statutes*, section 352.96, subdivision 2.~~

The supplemental investment account shall provide the options available under *Minnesota Statutes*, chapter 11A.

~~The fixed or variable annuity account shall provide the options of a fixed annuity or a variable annuity as provided in the contract approved by the board under *Minnesota Statutes*, section 352.96.~~

~~A participant may select a combination of the investment account preferences by specifying on the application the amount to be deferred under each investment preference. The amount to be deferred cannot be less than \$10 per pay period per product provider.~~

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

Subp. 4. **Investment preference requests for past deferred compensation.** A participant may also change an investment preference request with respect to all or part of previously deferred compensation subject to account transfer limitations. ~~Changes are limited to a change within the fixed or variable annuity account according to the terms of the annuity contracts or within the supple-~~



mental investment account. Changes are also permitted between the fixed or variable annuity accounts according to the terms of the contract and the supplemental investment account. These changes in investment preference shall be effected as soon as practical as cash flow to an account permits, but not later than six months after the requested change.

### 7905.2100 METHODS OF DISTRIBUTION.

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

Subp. 2. ~~Supplemental investment account~~ **Payout options.** A participant in the supplemental investment account will have deferred compensation distributed over a period of 60 months, unless the participant elects to have distribution made in one of the following methods:

A. in a lump sum; or partial lump sum. ~~Partial lump sum payments are subject to restrictions on subsequent payments as provided by section 457 of the Internal Revenue Code;~~

B. in a lump sum purchase by the director of a ~~fixed or variable~~ an annuity contract with one of the companies approved by the board under *Minnesota Statutes*, section 352.96, subdivision 2; ~~including the availability of the options in subpart 3;~~ or

C. for distribution beginning before the death of the participant, in ~~monthly installments over a period of months~~ periodic payments at least annually over a specified period of time or specific dollar amount specified by the participant; provided, however, that the amounts payable to the participant will be paid at times that are not later than the time determined under section 401(a)(9)(G) of the *Internal Revenue Code* relating to incidental death benefits as prescribed by the federal tax regulations. Any amount not distributed to the participant during the participant's lifetime will continue to the beneficiary at least as rapidly as was made to the participant before death.

The monthly installment payment ~~from the supplemental investment account~~ shall be specified by the participant as long as it conforms to the minimum distribution requirements as specified in the *Internal Revenue Code*; ~~or shall be determined by dividing the number of shares held by the months to be paid according to the withdrawal period selected. If the computation results in a monthly payment of less than \$100, the number of shares that equal approximately \$100 shall be determined and shall be redeemed and distributed to the employee or beneficiary each month until the deferred compensation is depleted in its entirety. If the value of the participant's account is \$1,000 or less, distribution shall be made in a lump sum.~~

If an acceptable application for a lump sum withdrawal and the information necessary to process the withdrawal is received in the office of the system prior to the end of any month, the lump sum payment should be processed within the first ten working days of the following month. If not processed within ten working days, the participant will be paid interest at the rate set by the commissioner of revenue in accordance with *Minnesota Statutes*, section 270.75, subdivision 5. Interest will be calculated from the day after the tenth working day to the date payment is processed.

Subp. 3. ~~Fixed or variable annuity account~~ **Default method; beneficiary payments.** A participant in the fixed or variable annuity account will have deferred compensation distributed in the form of an annuity or systematic withdrawal payments unless, before distribution, the participant elects a lump sum distribution. The annuity or systematic withdrawal payments shall be based on one of the following methods, as selected by the participant:

A. the life of the participant;

B. the joint lifetime of the participant and spouse; or

C. a period certain in which the amounts payable to the participant will be paid at times not later than the time determined under section 401(a)(9)(G) of the *Internal Revenue Code* relating to incidental death benefits as prescribed by the federal tax regulations. Any amount not distributed to the participant during the participant's lifetime will continue to the beneficiary at least as rapidly as was made to the participant before death.

If no election is made, the participant's deferred compensation will be paid on the basis of a ~~five-year period certain annuity~~ 60-month periodic payment.

Notwithstanding any other rule to the contrary, if a ~~fixed or variable annuity~~ an account is equal to or less than \$1,000, the account shall be distributed in a lump sum within 60 days following the close of the taxable year during which the distribution event occurs.

**KEY: PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material." **ADOPTED RULES SECTION** — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language.

## Exempt Rules

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Once payments have begun on an annuity or systematic withdrawal basis, any future payments to a beneficiary will depend on the terms of the annuity or systematic withdrawal payments agreed to by the participant and the employer. If a participant dies before the end of a period certain, any remaining distributions will be paid to the beneficiary determined under part 7905.2500. If annuity payments have begun on a joint and last survivor basis, any payments due after the death of the participant will be due only to the other person on which the annuity payments have been based and not any other beneficiary.

### **7905.2200 DATE OF DISTRIBUTION.**

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

Subp. 2. **Electing distribution date.** A participant may designate a distribution date ~~in accordance with section 457 of the Internal Revenue Code~~ within 60 days following separation from service.

A participant who has elected to defer benefits under subpart 1 may, subsequent to the initial election, and prior to the commencement of benefits, elect to further defer payment of benefits to a later date as allowed by the plan. A participant is only permitted to make one such election.

[For text of subps 3 and 4, see M.R.]

Subp. 5. **When distribution begins.** Distribution may not begin before 60 days following separation from service or death, except for unforeseeable emergency distributions as provided in part 7905.2300 or as listed in subpart 7.

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

Subp. 7. **Distribution election.** If, prior to separation from service, the value of a participant's benefits under the plan does not exceed ~~\$3,500~~ \$5,000, the participant may elect at any time to receive the value in a lump sum if:

A. the participant has not deferred any compensation under the plan during the two-year period ending on the date of distribution; and

B. the participant has not previously received a distribution under this subpart.

### **7905.2300 UNFORESEEABLE EMERGENCY.**

Subpart 1. **Conditions permitting distribution.** A distribution of all or a part of a participant's deferred compensation account or a change in method of distribution to a participant notwithstanding the fact that distribution has begun, unless the distribution is in the form of an annuity, shall be permitted if the participant is faced with an unforeseeable emergency. Deferrals under the plan shall cease as soon as possible for one year for any participant granted a distribution because of an unforeseeable emergency ~~except for the minimum employee deferral to allow an employer match as specified under part 7905.0900.~~

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

### **7905.2400 DESIGNATION OF BENEFICIARY.**

A participant may designate a beneficiary or beneficiaries to receive payment of the participant's deferred compensation in the event of the participant's death. If the designated beneficiary predeceases the employee and a new beneficiary has not been named or the designated beneficiary dies before receiving payment, a lump sum payment shall be made to the surviving spouse or, if none, to the participant's estate. The beneficiary designation shall be in writing and must be filed ~~with the director or company approved by the board under Minnesota Statutes, section 352.96, subdivision 2; as the case may be,~~ before the death of the participant. If no designation of beneficiary is filed ~~with the director,~~ the beneficiary shall be the surviving spouse, or if none, a lump sum payment shall be made to the participant's estate.

**REPEALER.** *Minnesota Rules*, parts 7905.0100, subparts 11 and 18; and 7905.3000, are repealed.

## Commissioners' Orders

Various agency commissioners are authorized to issue "commissioner's orders" on specified activities governed by their agency's enabling laws. See the *Minnesota Statutes* governing each agency to determine the specific applicable statutes. Commissioners' orders are approved by assistant attorneys general as to form and execution and published in the *State Register*. These commissioners' orders are compiled in the year-end subject matter index for each volume of the *State Register*.

### Pollution Control Agency

#### Findings of Fact, Conclusions, and Order in the Matter of the Petition to Create the Garrison, Kathio, West Mille Lacs Lake Sanitary Sewer District

The Garrison City Council, the Garrison Township Board of Supervisors, and the Kathio Township Board of Supervisors filed a petition with the Minnesota Pollution Control Agency (MPCA) requesting the formation of the Garrison, Kathio, West Mille Lacs Lake Sanitary Sewer District. The Mayor of the City of Garrison and the Chairmen of the Garrison and Kathio Township Board of Supervisors were authorized to sign the petition pursuant to resolutions passed by their respective bodies of government.

The MPCA published notification of the intent to approve the creation of the Garrison, Kathio, West Mille Lacs Lake Sanitary Sewer District in the *State Register* on May 3, 1999. The MPCA also notified all property owners in the affected area by mail of the notification published in the *State Register*.

The MPCA, after having considered the petition, publishing notice of intent to approve creation of the sanitary sewer district in the *State Register*, having notified the property owners of the intent to create the district, having reviewed the comment letters during the notice period, having not received 25 or more hearing requests requisite for a hearing, having contact with those who did request a hearing, and being fully advised in this matter, hereby makes the following:

#### FINDINGS OF FACT

1. The City of Garrison is located within Garrison Township, Crow Wing County, Minnesota. Kathio Township is located within Mille Lacs County, Minnesota. The proposed sanitary sewer district is located along the west side of Mille Lacs Lake extending from Garrison Bay south to approximately the middle of Wigwam Bay.
2. The area proposed for formation of the sanitary sewer district is specifically described in the attached legal description [Attachment 1] and shown on the attached map (Attachment 2).
3. On October 21, 1998, a public meeting was held at the Garrison City Council Chambers to consider the proposed creation of a sanitary sewer district. Notification of the public meeting was published at least once each week for two weeks in the *Mille Lacs Messenger*, a qualified newspaper published in the area. Notices of the meeting were published by each of the sponsoring bodies of government on October 7, 1998, on October 14, 1998, and on October 21, 1998. Attendees of the meeting were given information on the proposed creation of the district, including a description of the district's proposed structure, bylaws, territory, ordinances, budget and charges.
4. On October 1, 1998, the Garrison City Council adopted a resolution authorizing the Mayor of the City of Garrison to petition the MPCA for establishment of the Garrison, Kathio, West Mille Lacs Lake Sanitary Sewer District. The resolution was published in the *Mille Lacs Messenger* on October 7, 1998, and became effective forty (40) days after the date of publication.
5. On October 22, 1998, the Garrison Township Board of Supervisors adopted a resolution authorizing the Chairman to petition the MPCA for establishment of the Garrison, Kathio, West Mille Lacs Lake Sanitary Sewer District. The resolution was published in the *Mille Lacs Messenger* on October 28, 1998, and became effective forty (40) days after the date of publication.
6. On October 21, 1998, the Kathio Township Board of Supervisors adopted a resolution authorizing the Chairman to petition the MPCA for establishment of the Garrison, Kathio, West Mille Lacs Lake Sanitary Sewer District. The resolution was published in the *Mille Lacs Messenger* on November 4, 1998, and became effective forty (40) days after the date of publication.
7. On January 11, 1999, a petition was filed with the MPCA requesting approval for the formation of the Garrison, Kathio, West Mille Lacs Lake Sanitary Sewer District. The Mayor of the City of Garrison and the Chairmen of the Garrison Township Board of Supervisors and the Kathio Township Board of Supervisors each signed the petition for creation of the district as authorized by the resolutions. The petition requesting approval for formation of the sanitary district has met all the requirements of *Minnesota Statutes* § 115.20, subd. 1(a).
8. The proposed sanitary district will not be within twenty-five (25) miles of the boundary of any city of the first class.
9. On May 3, 1999, the MPCA published the Notice of Intent to Approve Creation of the Garrison, Kathio, West Mille Lacs Lake Sanitary Sewer District in the *State Register* at 23 SR 2115 and mailed the notice to each of the property owners in the area of the proposed district using addresses provided by the county auditors. The public notice period lasted for 30 days and ended June 2, 1999.

## Commissioner's Orders

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10. By June 2, 1999, the end of the public notice period, the MPCA had received four (4) letters requesting a public hearing on the matter. *Minnesota Statutes* § 115.20, subd. 4 (b), requires the MPCA to hold a contested case hearing if 25 or more written requests are received by the end of the public notice period. In addition to the four (4) hearing requests, the MPCA received ten (10) letters expressing opposition to the district, four (4) letters in support of creation of the district, one (1) letter requesting additional information, and 73 telephone calls concerning the proposed creation of the district.
11. Currently, all homes and businesses located within the proposed district boundaries utilize a form of on-site wastewater treatment system. All drinking water wells located within the proposed district boundaries are individually owned.
12. Mille Lacs Lake is a prime historical and recreational resource valuable to local residents and regional visitors.
13. The Mille Lacs County soil survey indicates that soils in the area of the proposed district are generally poor for placing on-site wastewater treatment systems. The Crow Wing County soil survey indicates that a majority of the soils located within the area of the proposed district are rated as having severe limitations for placing on-site wastewater treatment systems. As evidenced by the larger number of wetlands and lakes located within the proposed district boundaries, the ground water table is very high throughout most of the area.
14. A Needs Survey Assessment conducted in 1989 for the city of Garrison indicated that approximately 47 percent of the residential on-site systems and 55 percent of the commercial on-site systems were failing.
15. There is a need throughout the proposed district for an adequate and efficient means of treating and disposing of domestic sewage. The high ground water tables and slow infiltration rates of the soils in the area limit the potential effectiveness of individual on-site wastewater treatment systems. Poorly functioning on-site systems may provide little or no treatment of domestic wastewater and may cause degradation of the ground water and lakes in the area. Of primary concern with poorly functioning on-site systems is the contamination of drinking water wells. Other potential problems within the proposed district boundaries include the presence of small lot sizes for the existing residences around the lake areas and within the City of Garrison, the presence of septic tank/drainfield systems in close proximity to private drinking water wells, the presence of numerous aging septic tank/drainfield systems, and the increasing amount of commercial development in the area.
16. The creation and maintenance of the sanitary district will be administratively feasible, and will further the public health, safety and welfare. The district will be administered by a five-member governing board who are voters within the sanitary district and who will be elected by the voters residing within the sanitary district. When formed, the Garrison, Kathio, West Mille Lacs Lake Sanitary Sewer District will adopt sewer use ordinances and a sewer service charge system to adequately and equitably fund the wastewater treatment operation throughout the district. The record contains a proposed ordinance establishing sewer use regulation and proposed by-laws of the sanitary sewer district.

### CONCLUSIONS

1. The Commissioner has subject matter jurisdiction over the petition and proposed establishment of the district pursuant to *Minnesota Statutes* § 115.18 to 115.37 (1998).
2. The petitioners have complied with all the procedural requirements of *Minnesota Statutes* § 115.20 (1998), as well as other substantive and procedural requirements of law and rule. This matter is, therefore, properly before the Commissioner.
3. The conditions described in *Minnesota Statutes* § 115.19 (1998) for the creation of a sanitary district do exist within the area identified in the legal description. (Attachment 1).
4. Any of the foregoing Findings of Fact that might properly be termed Conclusions and Conclusions that might properly be termed Findings are hereby adopted as such.

NOW THEREFORE, the Commissioner hereby makes the following:

### ORDER

It is ORDERED that the Garrison, Kathio, West Mille Lacs Lake Sanitary Sewer District is hereby created to include the City of Garrison, and portions of Garrison and Kathio Township as described in the legal description attached to the petition filed with the MPCA.

Dated: 25 June 1999

Lisa J. Thorvig  
Deputy Commissioner

**Attachment 1: Legal Description for Garrison, Kathio, West Mille Lacs Lake Sanitary Sewer District**

Those parts of Sections 11, 12, 13, 14, 23, 24, 25, 26, 27, 35, and 36, Township 44, Range 28, and also that part of Section 31, Township 44, Range 27, Crow Wing County, Minnesota, and also those parts of Sections 5, 6, 7, 8, and 18, Township 43, Range 27, Mille Lacs County, Minnesota, described as follows:

Beginning at the Northeast corner of said Section 12; thence Southerly, along the East line of said Section 12, to its intersection with the Northwesterly shoreline of Mille Lacs Lake; thence generally Southerly, along said Northwesterly and Westerly shoreline, to its intersection with the East line of said Section 18; thence Southerly, along the East line of said Section 18, to the Southeast corner of said Section 18; thence Westerly, along the South line of said Section 18, to the Southwest corner of said Section 18; thence Northerly, along the West line of said Section 18 to the Northwest corner of said Section 18; thence Northerly, along the West line of said Section 7 to the Northwest corner of said Section 7; thence Northerly, along the West line of said Section 6, to the Northwest corner of said Section 6; thence Westerly along the South line of said Section 36, to the Southwest corner of said Section 36; thence Westerly, along the South line of said Section 35, to the Southwest corner of said Section 35; thence Northerly, along the West line of said Section 35, to the Northwest corner of said Section 35; thence Westerly, along the South line of said Section 27, to the Southwest corner of said Section 27; thence Northerly, along the West line of said Section 27, to the Northwest corner of said Section 27; thence Easterly, along the North line of said Section 27, to the Northeast corner of said Section 27; thence Northerly, along the West line of said Section 23, to the Northwest corner of said Section 23; thence Northerly, along the West line of said Section 14, to its intersection with the Southerly shoreline of Borden Lake; thence generally Northeasterly and Northerly, along said shoreline of Borden Lake, to its intersection with the Northerly line of said Section 11; thence Easterly, along said Northerly line of Section 11, to the Northeast corner of said Section 11; thence Easterly, along the North line of said Section 12, to the Northeast corner of said Section 12 and the point of beginning.

Except those parts of said Sections 7 and 18 held by the USA in trust for the Mille Lacs Band of Ojibwe Tribe,

And also except that part of said Section 18 which lies within the Whitefish State Wildlife Area.

And also except those parts of said Section 35 and 36 which lie within the Crow Wing County Memorial Forest.

## Official Notices

Pursuant to *Minnesota Statutes* §§ 14.101, an agency must first solicit comments from the public on the subject matter of a possible rule-making proposal under active consideration within the agency by publishing a notice in the *State Register* at least 60 days before publication of a notice to adopt or a notice of hearing, and within 60 days of the effective date of any new statutory grant of required rulemaking.

The *State Register* also publishes other official notices of state agencies and non-state agencies, including notices of meetings and matters of public interest.

## Department of Administration Real Estate Management Division

### Notice of Sale of Public Property

**NOTICE IS HEREBY GIVEN** that the Minnesota Department of Administration is accepting sealed bids for the sale, removal and site cleanup of a single-family residential home together with all improvements located at 1456 Maryland Avenue East in Saint Paul.

The bid may include all buildings and improvements or any portion thereof. The award will be based on the bid or combination of bids resulting in the highest value to the State as determined by the State in its sole discretion.

All bids must be received by 1:30 p.m., July 28, 1999, at the Department of Administration, Real Estate Management Division, 50 Sherburne Avenue, Room 309, Saint Paul, MN 55155. The bids will be opened and publicly read at that time, day and place.

All bids must be on the official bid form. For bid information, form and envelope, contact the Real Estate Management Division at 651-296-6674.

Any announcements made at the bid opening shall take precedence over any materials published about this event. The State reserves the right to accept any bid or to reject any and all bids or parts of such bids, and to waive any informality in bidding.

The home will be open for inspection between the hours of 3:00 p.m. and 4:00 p.m. on July 12, 1999.

## Official Notices

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### Auto Theft Prevention Board

#### Meetings of the Board in July and August, 1999

Auto Theft Prevention Board announces the Board meeting dates of: Thursday, July 22, 1999 at 9:00 AM, and Thursday, August 19, 1999 at 9:00 AM. The Board meetings are located at the Auto Theft Prevention Office, 1110 Centre Point Curve, Suite 405, Mendota Heights, Minnesota.

The Board also announces a vacancy on the Auto Theft Prevention Board beginning approximately August 1, 1999. This Board appointment is designated as filling the Board position that represents the Department of Public Safety. To qualify for this vacancy, a person must be an employee of the Department of Public Safety. Interested persons may contact Denny Roske at the Auto Theft Prevention Board office at 651-405-6153 for additional information and a copy of the open appointments application for Service on State Agency form.

### Higher Education Facilities Authority

#### Notice of Public Hearing on Revenue Obligations

**NOTICE IS HEREBY GIVEN** that a public hearing will be held by the Minnesota Higher Education Facilities Authority (the "Authority") with respect to a proposal to issue revenue bonds or other obligations on behalf of the University of St. Thomas, a Minnesota nonprofit corporation and institution of higher education (the "University"), at the Authority's offices at Suite 450 Galtier Plaza, 175 East Fifth Street, St. Paul, Minnesota on July 21, 1999 at 3:00 p.m. Under the proposal, the Authority would issue its revenue bonds or other obligations in an original aggregate principal amount of up to approximately \$11,300,000 to finance a project generally described as the renovation, furnishing and equipping of Albert Magnus Hall for use as an office and classroom facility (the "Project"), owned or to be owned and operated by the University and located on its main St. Paul campus, the principal street address of which is 2115 Summit Avenue, St. Paul, Minnesota, 55105

At said time and place the Authority shall give all parties who appear or have submitted written comments an opportunity to express their views with respect to the proposal to undertake and finance the Project.

Dated: 6 July 1999

By Order Of The Minnesota Higher  
Education Facilities Authority  
J. Luther Anderson  
Executive Director

### Department of Human Services

#### Division of Family and Children's Services

#### **REQUEST FOR COMMENTS on Planned Amendment to Rules Governing Administration and Provision of Child Protective Services by Local Social Service Agencies, Minnesota Rules, parts 9560.0210 to 9560.0234 (informally known as DHS Rule 207)**

**Subject of Rules.** The Minnesota Department of Human Services requests comments on its planned amendments to rules governing administration and provision of child protective services by local social service agencies. The Department is considering rule amendments that bring the rule parts into conformity with statutory changes made in recent legislative sessions.

Specifically, the amendments update rule provisions related to conflict of interest in conducting assessments or investigations; the agency responsible for conducting maltreatment investigations in specific facilities; information collection procedures, including information on domestic violence and substance abuse; protocol and format for conducting and recording interviews; interviewing alleged offenders; early determination of no maltreatment; criteria for determining whether an individual or facility is responsible for the maltreatment in a facility investigation; notice required in cases of finding no maltreatment or need for protective services; placement consideration or preference; appeals of maltreatment determinations; information provided to reporters, within ten days of filing report and after assessment or investigation is completed; notice of determinations; record retention; and training requirements.

**Persons Affected.** The amendments to the rules would most directly affect county staff responsible for assessing, reviewing, and otherwise acting on reports of child maltreatment. The effect of the amendments would be to put all current requirements of statute and rule in one document where they can easily be consulted. The amendments also clarify the respective roles and responsibilities of county staff and state licensing agencies.

**Statutory Authority.** *Minnesota Statutes*, section 256.01, subdivision 2, clause 2 directs the commissioner of human services to inform county agencies of changes in statute, rule, federal law, regulation, and policy necessary to county agency administration of programs. *Minnesota Statutes*, section 256.991 authorizes the commissioner to promulgate rules as necessary to implement section 256.01, subdivision 2.

**Public Comment.** Interested persons or groups may submit comments or information on these planned amendments in writing or orally until further notice is published in the *State Register* that the Department intends to adopt or to withdraw the amendments. The Department does not contemplate appointing an advisory committee to comment on the planned amendments because the amendments make only technical or editorial changes required by recent statutory changes.

**Rules Drafts.** The Department has prepared a draft of the planned amendments and free copies can be obtained from the agency contact person shown below.

**Agency Contact Person.** Written or oral comments, questions, requests to receive a draft of the amendments, and requests for more information on these planned amendments should be directed to: Alice Weck, Department of Human Services, 444 Lafayette Road, St. Paul, MN 55155-3816. Her phone number is 651-297-4302 and her fax number is 651-297-3173. TTY users may call the Department at 651-296-7385.

**Alternative Format.** Upon request, this Request for Comments can be made available in an alternative format, such as large print, Braille, or cassette tape. To make such a request, please contact the agency contact person at the address or telephone number listed above.

**Note:** Comments received in response to this notice will not necessarily be included in the formal rulemaking record submitted to the administrative law judge when a proceeding to adopt rules is started. The agency is required to submit to the judge only those written comments received in response to the rules after they are proposed.

Dated: 29 June 1999

Michael O'Keefe, Commissioner  
Department of Human Services

## Metropolitan Council

### Transportation Advisory Board

#### Open House and Public Hearing on Proposed 2000-2002 Transportation Improvement Program (TIP) for the Twin Cities Metropolitan Area

The Transportation Advisory Board of the Metropolitan Council will hold an open house and a public hearing to receive public reaction to the 2000-2002 Transportation Improvement Program (TIP) for the Twin Cities Metropolitan Area. The program will include highway, transit, bikeway, pedestrian enhancements, and air quality projects that are proposed for federal funding in the seven-county metropolitan area in the next three years. The program is prepared annually in accordance with federal requirements and must contain all projects that are to be implemented with federal funding assistance. The open house will offer opportunity for discussion of the proposed program; the public hearing is for public comment on it. **Both the open house and public hearing will be held at the Metropolitan Council offices, Mears Park Centre, 230 E. Fifth St., St. Paul.**

- **Open House for TIP Discussion**  
Wednesday, July 14, 1999, 4-6 p.m., Room 1A
- **Public Hearing for Comments on TIP**  
Wednesday, July 21, 1999, 4 p.m., Metropolitan Council Chambers

The TIP is prepared jointly by the Metropolitan Council and the Minnesota Department of Transportation. Projects contained in the TIP reflect the region's priorities and help implement the region's transportation plan. Projects will be analyzed to determine impact on regional air quality. The program will be adopted by the Transportation Advisory Board and approved by the Metropolitan Council. In the TIP and at the public hearing the progress made on implementing the region's transportation plan will be reported.

## Official Notices

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Upon request, the Council will provide reasonable accommodations to persons with disabilities. In addition to providing oral or written comments at the public hearing, comments may be made several ways:

- Written comments to: Emil Brandt, Metropolitan Council, Mears Park Centre, 230 E. Fifth St., St. Paul, MN 55101
- Fax comments to Mr. Brandt at 651-602-1739
- Record comments on the Council's Public Information Line: 651-602-1500
- Send comments electronically to: *data.center@metc.state.mn.us*

**Comments must be received by Friday, August 13, 1999.** Free copies of the draft 2000-2002 Transportation Improvement Program will be available on June 30, 1999 at the Council's Regional Data Center. Call 651-602-1140 or 651-291-0904 (TTY) to request a copy. Other materials describing the Council's transportation efforts also are available. Questions about the hearings or transportation issues may be directed to: Emil Brandt, 651-602-1721 or Carl Ohrn, 651-602-1719, Metropolitan Council, 230 E. Fifth St., St. Paul, MN 55101.

## Metropolitan Council

### Notice of Public Hearing on Amending the Aviation Policy Plan - Land Use Compatibility Guidelines for Aircraft Noise

The Metropolitan Council will hold public hearings on its proposed amendment of the Land Use Compatibility Guidelines for Aircraft Noise found in the Aviation Policy Plan of the Metropolitan Development Guide. The public hearings will be held at the following times & locations:

**South Suburban Hennepin County Technical College**

9200 Flying Cloud Drive (Highway 212)

Eden Prairie, Minnesota

August 9, 1999

6:30-8:30 p.m., Main Conference Room

**Oakland Jr. High School**

820 Manning Av. North (Washington County Road 15)

Lake Elmo, Minnesota

August 10, 1999

6:30-8:30 p.m., Library

**Spring Lake Park High School**

8001 NE Able Street (off Highway 65/Central Ave.)

Spring Lake Park, Minnesota

August 12, 1999

6:30-8:30 p.m., Room 125 North

Persons wishing to speak at a specific hearing may register in advance by calling Jan Martin at 651-602-1758. The public hearing record will remain open through August 26, 1999, and interested parties may submit written comments on the proposed amendment to the project manager at the address listed below.

The proposed amendment is being initiated by the Council and involves a change to the Land Use Compatibility Guidelines for Aircraft Noise for the region's reliever airports. The airports affected are Airlake, Anoka Co.-Blaine, Crystal, Flying Cloud, Lake Elmo, and South St. Paul. The proposed amendment does not change existing policies; rather it:

- **Changes the designated aircraft noise contour** at which the land use compatibility guidelines begin to be applied. The guidelines currently start at the DNL55 noise level. The amendment would apply the guidelines at the higher DNL60 noise level.
- **Modifies descriptive text associated with the noise level change** and modifies existing approved noise contours or incorporates new airport noise contours as they are updated.

Key objectives of the amendment are to maintain an adequate margin of noise safety in the land use compatibility guidelines, make the reliever airports consistent with policy and practices as applied at the region's Major and Intermediate airports, and simplify interpretation and implementation for local communities. Changes may affect the standards for determining projects of metropolitan significance in the metropolitan significance rules.



All comments must be received by 4:30 p.m., Thursday, August 26, 1999. Public input can occur through meetings of the Council and its Committees, and the public hearing process. Upon request, the Council will make reasonable accommodations for people with disabilities.

Copies of the draft amendment document (publication no. 35-99-016) are available from the Council's Regional Data Center at 651-602-1140 or 651-291-0904 (TTY). Copies are also available for review at major public libraries in the Twin Cities area.

In addition, comments can be conveyed to the Council as follows:

- Written comments to: Chauncey Case, Metropolitan Council, 230 East Fifth St., St. Paul, MN 55101;
- FAX comments to 651-602-1739;
- Record comments on Council's Public Comment Line at 651-602-1500;
- E-Mail comments to: [data.center@metc.state.mn.us](mailto:data.center@metc.state.mn.us)

## Metropolitan Council

### Public Hearing on 2000 Metropolitan Council Environmental Services Annual Budget

On **Wednesday, July 28, 1999**, the Metropolitan Council will hold a public hearing on the proposed 2000 Annual Budget for the Council's Environmental Services Division. This hearing will be part of the regular Metropolitan Council meeting, which convenes at 3 p.m. in the Council Chambers, Mears Park Centre, 230 East Fifth St., St. Paul.

All interested persons are encouraged to attend the hearing and offer comments. People may register in advance to speak by calling Terri Cleveland at 651-602-1700 or 651-229-3760 (TTY). Upon request, the Council will provide reasonable accommodations to persons with disabilities.

Comments also may be submitted as follows:

- Written comments to: Dale Ulrich, Office of Business Planning, Metropolitan Council Environmental Services, 230 East Fifth St., St. Paul, MN 55101-1633
- Fax comments to Dale Ulrich at 651-602-1130
- Record comments on the Council's Public Comment Line: 651-602-1500
- Send comments electronically to: [dale.ulrich@metc.state.mn.us](mailto:dale.ulrich@metc.state.mn.us)

**Comments must be received by 4 p.m., August 11, 1999.**

A free informational packet of the proposed 1999 Environmental Services Annual Budget may be obtained by calling Dale Ulrich at 651-602-1020.

## Office of the Secretary of State

### Notice of Vacancies in Multi-Member Agencies

**NOTICE IS HEREBY GIVEN** to the public that vacancies in multi-member state agencies will be published once a month on the Secretary of State's World Wide Web site at [www.sos.state.mn.us](http://www.sos.state.mn.us) as provided in *Minnesota Statutes* 15.0597, subdivision 4. A copy of the monthly listing of vacancies and application form may be obtained from the Office of the Secretary of State, Election Division, 180 State Office Building, 100 Constitution Ave., St. Paul, MN 55155-1299; 651-297-5845, or in person at Room 174 of the State Office Building.

In accordance with the Minnesota Open Appointments Law, the Secretary of State acts as an administrator in publishing vacancies, receiving applications, and recording appointments. Applications will be reviewed and appointments made by the Appointing Authorities for these various agencies. Completed applications are to be submitted to the Secretary of State. The deadline date for applications will be indicated in the monthly listing of vacancies and on the Secretary of State's Web Site. Appointing Authorities for these agencies may also choose to review applications received by the Secretary of State after that date. Applications are kept on file for a one year period.

The Annual Compilation is available from the Minnesota Bookstore. This publication includes a complete listing of state boards and councils that follow the Open Appointments process, descriptions of these agencies and their memberships, and statistical information about appointments and vacancies made during the fiscal year. The Annual Compilation information is also available on the Secretary of State's Web Site.

To order copies of the Annual Compilation please call the Minnesota Bookstore at 651-297-3000 or 1-800-657-3757.

## State Grants & Loans

In addition to requests by state agencies for technical/professional services (published in the State Contracts section), the *State Register* also publishes notices about grants and loans available through any agency or branch of state government. Although some grant and loan programs specifically require printing in a statewide publication such as the *State Register*, there is no requirement for publication in the *State Register* itself.

Agencies are encouraged to publish grant and loan notices, and to provide financial estimates as well as sufficient time for interested parties to respond.

### Department of Agriculture Dairy and Food Inspection

#### Notice of availability of grant funds for dairy diagnostic teams

The Minnesota Department of Agriculture announces the availability of \$190,000 in grant funds for dairy diagnostic teams for the period through June 30, 2000. The purpose of this grant is to establish an educational delivery team system to provide appropriate new technologies and information, including rotational grazing and other sustainable agriculture methods, applicable to small and medium sized dairy farms throughout the dairy producing areas of the state to enhance the financial success and long-term sustainability of dairy farms in the state.

To receive a grant application contact:

Katy Kulesa  
Dairy and Food Inspection Division  
Minnesota Department of Agriculture  
90 West Plato Boulevard  
St. Paul, MN 55107  
Phone: 651-215-3946  
FAX: 651-297-5176

All grant applications must be received by Ms. Kulesa at the address above by 4:30 p.m., August 20, 1999.

### Department of Agriculture Agricultural Marketing & Development

#### Notice of Availability of Zero Interest Loans

The Minnesota Department of Agriculture has announced the availability of \$50,000 for zero-interest loans to farmers or other individuals demonstrating farm anaerobic manure digestion / biogas technology. This technology involves adapting manure storage and treatment practices to collect biogas, which may either be burned off or used as a source of heat and electrical cogeneration. The process has the additional benefits of reducing odor and biologically stabilizing the digestion byproducts for such uses as fertilizer, feed, or bedding. These competitive loans are available in amounts of up to the entire \$50,000.

Applications will be accepted until September 1, 1999. Projects must be implemented in Minnesota by Minnesota residents and must meet additional eligibility criteria. An independent panel of farmers and agricultural specialists will review applications. For more information or an application, please contact:

Robert Iwan  
Minnesota Department of Agriculture  
90 West Plato Boulevard  
Saint Paul, MN 55107-2094  
*robert.iwan@state.mn.us*  
651-296-3820

## Department of Human Services

### Health Care Purchasing and Service Delivery Division

#### Notice of Request for Proposals from Nonprofit Dental Provider Groups In Clay County

The Minnesota Department of Human Services (DHS) is seeking proposals to increase access to dental services for recipients of Medical Assistance (MA), General Assistance Medical Care (GAMC) or MinnesotaCare in the northwestern area of the state. An entity qualified to submit a proposal must be a nonprofit dental provider group that is operating a dental clinic in Clay County. A single proposal will be selected for a grant award of \$75,000.00. The funds may be made available immediately upon award. The Commissioner reserves the right to reject any proposal.

Interested parties may receive a copy of the RFP by contacting:

Thomas Fields, Development Manager  
Purchasing and Service Delivery Division  
Minnesota Department of Human Services  
444 Lafayette Road  
St. Paul, Minnesota, 55155-3854  
Telephone: 651-297-7303 Fax: 651-297-3230  
E-mail: [tom.fields@state.mn.us](mailto:tom.fields@state.mn.us)

Prospective respondents with questions regarding this RFP may call, write or e-mail Thomas Fields at the above address. Mr. Fields is the only person at the Department of Human Services who is authorized to answer questions regarding this document.

All responses to this RFP are due at the Department of Human Services, Purchasing and Service Delivery Division, ATTN: Thomas Fields, 444 Lafayette Road, St. Paul, MN 55155, by 12:00 noon, July 27, 1999.

## Department of Transportation

### Office of Freight, Railroads and Waterways

#### Mn/DOT Criteria for Regional Railroad Authorities to Obtain 1998 Commuter Rail Grants

The Minnesota Department of Transportation (Mn/DOT) Office of Freight, Railroads and Waterways announces the availability of 1998 Commuter Rail Grants to eligible regional railroad authorities to conduct major investment studies to develop engineering documents for commuter rail lines as identified in Mn/DOT's Twin Cities Commuter Rail Feasibility Study. These grants are made available by the *Minnesota 1998 Legislature Session Laws*, Chapter 404, Section 17, Subdivision 3, paragraph (c), subparagraph 4 and paragraph (d).

#### Available Grants:

- \$500,000 to develop engineering documents for a commuter rail line from Minneapolis to downtown St. Paul through southern Washington County to Hastings.
- \$1,000,000 to conduct major investment studies and to develop engineering documents for commuter rail lines in the following corridors:
- Norwood-Young America corridor from Carver County to Minneapolis and St. Paul;
- Bethel corridor linking Cambridge with the Northstar corridor in Anoka county;
- Northwest corridor from downtown Minneapolis to the Northwest suburbs of Hennepin county; and,
- Lakeville and Forest Lake Corridors

#### General Guidance:

Applies to Tier One and Tier Two Corridors:

- Application must be consistent with Twin Cities Commuter Rail feasibility Study findings.
- Disbursement of funds will be done through a State of Minnesota Grant Contract.
- Demonstrate a coordinated implementation strategy.
- Consistent with federal guidelines for potential federal funding.
- Application includes work plan elements, time lines, a decision matrix, public involvement activities, a budget and a cash flow statement that indicates how and when the funds will be expended.

## Professional, Technical & Consulting Contracts

### Eligible Tier One Corridor Activities:

Conduct capacity modeling activities; prepare major investment studies and engineering documents; identify location, length and termini of route; maintenance facility locations; safety improvements; station locations and design; related park and ride, parking, and other transportation facilities; specific track and signal improvements; address handicapped access; specific intermodal coordination and connections with bus and LRT operations and routes; projects ridership, capital costs, operating costs, and revenues; identify sources of funds for operating subsidies and funding for final design, construction, and operation; an implementation method; a plan for public involvement and public information; anticipated agreements with the railroads; and land use impacts.

### Eligible Tier Two Corridor Activities:

Identify and develop plans and/or policies that support land use planning and transit-oriented development; corridor preservation; access management; and economic development opportunities.

**Please send work plan to:** Ms. Sam Khan, Senior Transportation Planner, MS 470, Kelly Inn Annex, 395 John Ireland Boulevard, St. Paul, MN 55155-1899, Phone: 651-296-4888.

## Professional, Technical & Consulting Contracts

Department of Administration procedures require that notice of any consultant services contract or professional and technical services contract which has an estimated cost of over \$10,000 be printed in the *State Register*. These procedures also require that the following information be included in the notice: name of contact person, agency name and address, description of project and tasks, cost estimate, and final submission date of completed contract proposal. Certain quasi-state agencies are exempted from some of the provisions of this statute.

In accordance with *Minnesota Rules* Part 1230.1910, certified Targeted Group Businesses and individuals submitting proposals as prime contractors shall receive the equivalent of a 6% preference in the evaluation of their proposal. For information regarding certification, call the Materials Management Helpline (651) 296-2600 or [TTY (651) 297-5353 and ask for 296-2600].

## Department of Administration

### Notice of Request for Proposals for Telecommunications Regulatory Reform Study

The Department of Administration, in cooperation with Minnesota Planning, the Department of Public Service and the Department of Trade and Economic Development, is issuing a request for proposal for master professional/technical services contracts to assist the commissioners in the study, analysis and evaluation of issues related to the reform of the State's telecommunications regulatory framework. The department anticipates issuing multiple contracts and beginning work around August 1, 1999. The resulting contracts would be for the period through June 30, 2001, with the potential for three 1 year extensions. Responses will be due back by 2:30 p.m. CDT, July 12, 1999.

#### The objectives of these contracts are to:

- a. provide the State with external analysis and expertise relevant to the entire range of issues related to telecommunications regulatory reform at the state level, including but not limited to network element unbundling, collocation, universal service, right-of-way, local number portability, rate regulation, consumer protection, area code/number conservation, Year 2000 compliance, extended area service, depreciation, high speed data, reciprocal compensation, anti-trust regulation, cable television regulation, cable and telecommunications taxation and fees, interconnection and interoperability, privacy, access charges, mergers and acquisitions, construction standards, and service quality; and
- b. create a pool of expertise and knowledge to assist in the development and implementation of telecommunications regulatory reform.

In compliance with *Minnesota Statutes* § 16C.08, the availability of this contracting opportunity is being offered to state employees. We will evaluate the responses of any state employee, along with other responses to this Request for Proposal.

If you would like a copy of the complete Request for Proposal, please contact:

Jack Ries, Manager  
Technology Management Bureau  
Voice: 651-296-7515  
Fax: 651-296-5800  
E-Mail: [jack.ries@state.mn.us](mailto:jack.ries@state.mn.us)

## **Department of Administration**

### **Notice of Request for Proposals for Upgrade of the Data Warehouse Systems for the Minnesota Department of Human Services**

Request for Proposal for a contract to upgrade the data warehouse systems for the Minnesota Department of Human Services. The system is an NCR 5100 database machine running the Teradata database.

A non-mandatory pre-proposal conference will be held on July 16, 1999.

Proposals will be due on August 2, 1999, at 3:00 p.m.

Contact the Materials Management Division

50 Sherburne Ave.  
St. Paul, MN 55155  
Phone: 651-296-2600  
FAX: 651-297-3996

to request a copy of the complete Request for Proposal.

## **Colleges and Universities, Minnesota State (MnSCU)**

### **St. Paul Technical College**

### **Notice of Request for Proposals to Develop a Postsecondary Education Programs Network (PEPNet) Web-based Data Base**

The purpose of this project is to develop a web-based database for the Postsecondary Education Programs Network (PEPNET) with ease of updating and future expansion in mind. The on-line database will allow for consistent collection of data and uniform reporting of technical assistance services and products delivered by the four regional technical assistance centers and their affiliated outreach sites. The goal of the project is to integrate four existing databases into one integrated web-based database with common fields, on-line data entry capabilities for multiple users and uniform as well as customized reporting capabilities.

#### **Product Requirements**

- Overall database design, structure, security and access model Individual Region Database Integration
- Customized screens and administrative interface to match existing data base screens and interface
- Customized report capabilities
- Administrative Interface(s) for Data Entry and Content Updates
- Monthly hosting costs
- Training of PEPNet staff to use on-line database
- Monthly cost technical support
- Technical assistance when data base is moved to purchaser's server at undetermined future date

#### **Delivery System/Platform Requirement**

The development products and technologies will include:

- Microsoft Windows NT Server version 4.0 or later as the operating system,
- Microsoft Internet Information Server version 4.0 or later as the web-based platform,
- Microsoft SQL server version 7.0 or later as our database engine,
- Microsoft Active Server Pages to allow the browser to manipulate the database,
- Microsoft Index Server to access and search global collection of electronic information, and
- Microsoft Visual InterDev to integrate SQL database with dynamic web applications.

## Professional, Technical & Consulting Contracts

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### Security

PEPNet requires use of either protocol SSL (Secure Socket Layer) or SHTTP (Secure Hyper Text Transfer Protocol).

### Deadline to submit proposals

July 16, 1999

### Proposed Project Timeline

August 1, 1999 - October 31, 1999 for MCPO only database conversion

August 1, 1999 - December 31, 1999 for conversion of all four databases: MCPO, NETAC, PEC and WROCC

### Contact:

Richard Swenson  
Buyer  
St. Paul Technical College  
235 Marshall Avenue  
St. Paul, MN 55102  
612-228-2947

## Colleges and Universities, Minnesota State (MnSCU)

### St. Paul Technical College

### Notice of Request for Proposals to Better Connect Computer Software/Information Technology Industry Managers and MnSCU Faculty and Administrators

#### A Request for Proposal

St. Paul Technical College and the Minnesota State Colleges and Universities System (MnSCU) Computer Software Education Industry Partnership is making a Request for Proposal (RFP) to better connect Computer Software (CS)/Information Technology (IT) industry managers and MnSCU CS faculty and administrators. In general, the respondent must address how they intend to help MnSCU build communication and networking processes and procedures that match the CS/IT industry workforce training needs. Specifically, the RFP should address how the respondent shall create within the MnSCU system an anytime anywhere just-in-time-just-enough CS/IT education and training process.

#### Project Description

The project has four components:

1. Construct a *Survey Instrument and Design Process* that shall be used to facilitate face-to-face interactions between CS/IT workers and key industry managers with MnSCU CS faculty and administrators.
2. Establish criteria and procedure for conducting *Focus Group Interviews* throughout the state of Minnesota. Criteria should ensure that the interests of all stakeholders be taken into consideration, specifically the education and training capacity of MnSCU and the training needs of the CS/IT industry.
3. Assimilate results from the focus group interviews by developing:
  - An *Assessment Process and Tools* enabling key informants in the CS/IT education to respond continuously and proactively to current and future training needs;
  - Develop and recommend an *Action Plan* to MnSCU that provides the framework for establishing communication and networking processes and procedures for just-in-time-just-enough training and education in CS/IT.
4. Prepare a Final Report and Formal Presentation to MnSCU and the Minnesota High Tech Association (MHTA).

#### Criteria for a Successful RFP

The following criteria has been established to judge a successful RFP:

1. Emphasizing work in the area of CS/IT, the respondent should have previous experience in survey instrument and design process, focus group interviews, assessment process and tools, and strategic action planning.
2. Demonstrate the employment of best practices and technology leadership modeling.

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## Professional, Technical & Consulting Contracts

3. Has had prior experience in the CS/IT industry, a clear ability to understand CS/IT technical language, and with extensive contacts with the CS/IT industry, including CS/IT trade associations.
4. Thorough knowledge of MnSCU academic programs and customized training offerings in CS/IT as well as connections with the IT programs in the K-12 community.
5. Extensive previous work with non-metropolitan, rural and out-state communities in Minnesota.
6. The ability to meet and deliver project outcomes on time and within budget constraints.

### Project Timeline

The project will begin August 1, 1999 and will be completed December 31, 1999.

### Other Information

Call Dick Swenson at 651-228-2947 for MnSCU's General Proposal/Bid Conditions. They will be mailed to your company. Questions concerning this proposal should be addressed to: Pradeep Kotamraju, 651-423-8277, FAX 651-423-8762. Proposal close date is July 22, 1999, 10:00 a.m. Proposals will be opened at 10:30 a.m.

Send Proposal to:

St. Paul Technical College  
Attn: Dick Swenson  
235 Marshall Ave.  
St. Paul, MN 55102

## Department of Corrections

### Notice of Request for Proposals for Management Development and Organizational Development Services

The Minnesota Department of Corrections is requesting proposals for the provision of management development and organizational development services for individual managers and management teams throughout the department. The services requested include: 1) evaluating the management development needs of individual managers or management teams; 2) establishing management development goals and plans for individual managers and management teams; 3) delivering or recommending training or other developmental opportunities for individual managers and management teams; 4) evaluating on-going and final management development results; 5) analyzing organizational or business effectiveness; 6) recommending changes in organization structure, business processes, staffing patterns or levels, etc.; 7) assisting, coaching or advising individual managers or management teams on organizational change or development; and 8) evaluating on-going and final results of organizational change.

The facilities and locations participating in this proposal are located in Faribault, Lino Lakes, Oak Park Heights, Red Wing, St. Cloud, Shakopee, Stillwater, Togo (Thistledeew Camp), Moose Lake/Willow River, Rush City (a new facility) and St. Paul.

The contract cost for all facilities/locations and for all services is estimated to not exceed \$85,000 for the contract period of 1 July 1999 through 30 June 2000 and the contract may be renewed for an additional year.

For a complete Request for Proposal or additional information, please call or write

Ed Jones, Human Resources Management  
Minnesota Department of Corrections  
1450 Energy Park Drive, Suite 200  
St. Paul, MN 55108-5219  
Phone: 651-642-0228

In accordance with *Minnesota Statutes*, the availability of this contracting opportunity is being offered to state employees. The response of any state employee will be evaluated along with other responses.

Proposals are due no later than Wednesday, August 4, 1999.

No late proposals will be considered.

## **Non-State Public Bids, Contracts & Grants**

The *State Register* also serves as a central marketplace for contracts let out on bid by the public sector. The *Register* meets state and federal guidelines for statewide circulation of public notices. Any tax-supported institution or government jurisdiction may advertise contracts and requests for proposals from the private sector.

It is recommended that contracts and RFPs include the following: 1) name of contact person; 2) institution name, address, and telephone number; 3) brief description of project and tasks; 4) cost estimate; and 5) final submission date of completed contract proposal. Allow at least three weeks from publication date (four weeks from date article is submitted for publication). Surveys show that subscribers are interested in hearing about contracts for estimates as low as \$1,000. Contact the editor for further details.

## **Metropolitan Airports Commission**

### **Notice of Request for Bid for Contract Cleaning Services for the West Terminal Area Buildings**

The Metropolitan Airports Commission will receive bids at its office at 6040 28th Avenue South, Minneapolis, MN 55450, until 3:00 p.m., Minnesota time on Monday, July 19, 1999 for the cleaning services described above and as outlined in the bid statement of work. At that time and place the bids will be publicly opened and read aloud. If mailed, the mailing address is as stated above. Late bids will not be accepted. **BE CERTAIN TO HAVE BIDS TIME STAMPED AT THE FRONT RECEPTION DESK AT THE ABOVE ADDRESSES IF YOU ARE CARRYING YOUR DOCUMENT TO THE BID OPENING BY 3:00 P.M.**

Bids shall be submitted with one original and three duplicates. Bids shall be submitted on MAC forms as included with the bid documents. Bids are NOT to include Federal or State taxes. The MAC will assume and pay to the successful bidder, in addition to the bid price, such taxes determined to be due and owing.

The bid of the lowest responsible bidder meeting the specification, will be accepted on or before the expiration of sixty (60) days after the date of the bid opening, except that a 6% preference shall be given to certified, responsible TGB proposers. TGB bidders must be certified by the Minnesota Department of Administration at 651-296-2600, prior to bidding. The Commission however, reserves the right to accept/reject any and all bids and to waive any minor irregularities, informalities or discrepancies.

Copies of bid documents may be obtained at the office of the Commission at: 6040 28th Avenue South, Minneapolis, MN 55450.

Dated: 25 June 1999

Metropolitan Airports Commission  
Donald H. Olson, Purchasing Manager

## **Metropolitan Council**

### **Invitation for Bids on Compaq Computer Equipment - Hardware**

Sealed bids for miscellaneous Compaq computer equipment for work stations will be received at the offices of the Metropolitan Council, Mears Park Centre, 230 East 5th Street, St. Paul, Minnesota 55101, on July 20, 1999, at 2:00 P.M., at which time and place they will be publicly read.

Copies of specifications and bid instructions may be obtained from the offices of the Metropolitan Council or by calling 612-602-1499 or via FAX request at 612-602-1083. All bids to be considered must be submitted on Metropolitan Council approved forms.

Award(s) will be made to the low, responsive, responsible bidder(s), who meet criteria outlined in bid documents supplied by the Metropolitan Council.

The Metropolitan Council reserves the right to accept or reject any and all bids, or any part of any bid, and to waive any minor irregularities and deviations from requirements outlined in the technical specifications.



## **Metropolitan Council**

### **Invitation for Bids on Generators**

Sealed bids for new generators will be received at the offices of the Metropolitan Council, Mears Park Centre, 230 East 5th Street, St. Paul, Minnesota 55101, on July 20, 1999, at 3:00 P.M., at which time and place they will be publicly read.

Copies of specifications and bid instructions may be obtained from the offices of the Metropolitan Council or by calling 612-602-1499 or via FAX request at 612-602-1083. All bids to be considered must be submitted on Metropolitan Council approved forms.

Award(s) will be made to the low, responsive, responsible bidder(s), who meet criteria outlined in bid documents supplied by the Metropolitan Council.

The Metropolitan Council reserves the right to accept or reject any and all bids, or any part of any bid, and to waive any minor irregularities and deviations from requirements outlined in the technical specifications.

## **Metropolitan Council**

### **Public Notice for Design-Build, Statements of Qualifications, South Washington County Plant (WWTP) MCES Project Number 910500**

**NOTICE IS HEREBY GIVEN** that the Metropolitan Council (Council) is soliciting qualifications from Design/Builders interested in delivering facilities at the South Washington County Plant WWTP through a Design-Build delivery process. Interested Design/Builders will be required to submit Statements of Qualifications. All qualified Design/Builders will be able to submit a proposal(s). Proposals will be evaluated based on life cycle cost data, technical merit, qualifications and experience, and other factors in the best interest of the Council.

The proposed facility is an initial 10 million gallons per day (mgd) wastewater treatment plant which will replace an old 2.5 mgd plant on a small constrained site. The project design year is 2020 and the future ultimate facility size on the site is a minimum 15 mgd. Design/Builder shall be required at a minimum to provide technical support for and otherwise complete obtaining permits, approvals and licenses. Substantial completion of all facilities shall be within 2 years of Notice to Proceed.

The constrained site requires construction of retaining walls and meeting Mississippi River critical area requirements. The new facility is required to provide advanced secondary treatment with an activated sludge process including biological phosphorus removal and nitrification plus the capability to add on future denitrification. A new effluent discharge pipe into the Mississippi River is required. The base concept includes solids thickening for truck loading and transport to another processing location.

Request for Qualifications documents may be obtained from the Metropolitan Council, Attn: Jan Bevins, Mears Park Centre, 230 East 5th Street, St. Paul, MN 55101 by submitting a Letter of Interest.

A tour of the existing Cottage Grove WWTP and site will be available on Tuesday, July 20, 1999 beginning at 9:30 a.m. The site tour will meet in the Administration Building Conference Room at the Cottage Grove Plant, in Cottage Grove, MN. A pre-Statement of Qualifications submittal conference and general informational meeting will be held following the site tour (approximately 11:00 a.m.) at the Cottage Grove City Hall, 7516 - 80th Street South, Cottage Grove, MN.

The tentative schedule for selecting a Design/Builder for this project is as follows:

<b>Receive Letters of Interest:</b>	June/July, 1999
<b>Request for Qualifications issued:</b>	June/July, 1999
<b>Statement of Qualifications received:</b>	July, 1999
<b>Qualified Design/Builders identified:</b>	August, 1999
<b>Request for Proposals issued:</b>	September, 1999
<b>Pre-proposal conference(s):</b>	September, 1999
<b>Proposals Due:</b>	January, 2000
<b>Evaluate and Rank Design/Builders:</b>	March, 2000
<b>Negotiate Final Agreement:</b>	April, 2000
<b>Notice to Proceed:</b>	May, 2000

Direct inquiries to the Council's Project Manager, Craig Christenson at 651-602-1176.

## **Non-State Public Bids, Contracts & Grants**

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### **University of Minnesota**

#### **Notice of Bid Information Service (BIS) Available for All Potential Vendors**

The University of Minnesota offers 24 hour/day, 7 day/week access to all Requests for Bids/Proposals through its fax back Bid Information Service (BIS). Subscriptions to BIS are \$75/per fiscal year (not prorated). Call 612-625-5534 for information or visit our web site at <http://purchserv.finop.umn.edu>. Choose BID Information Service.

Requests for Bids/Proposals are available to the public at no charge each business day from 8:00 a.m. - 4:30 p.m. in Purchasing Services lobby, Suite 560, 1300 S. 2nd Street, Mpls, MN 55454.





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