

**F. The Notice of Hearing:**

- F.1. Dual Notice as mailed and posted on MPCA webpages.**
- F.2. Dual Notice as published in the December 19, 2016 *State Register*.**

**Minnesota Pollution Control Agency****Environmental Analysis and Outcomes Division**

**DUAL NOTICE: Notice of Intent to Adopt Rules 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; Revisor's Identification Number RD4237.**

**Proposed Amendments to *Minnesota Rules*, Chapters 7050 and 7052, relating to Tiered Aquatic Life Uses (TALU) and Modification of Class 2 Beneficial Use Designations**

**Introduction.** The Minnesota Pollution Control Agency (MPCA) intends to adopt rules, identified above, without a public hearing following the procedures set forth in the rules of the Office of Administrative Hearings, *Minnesota Rules*, parts 1400.2300 to 1400.2310, and 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 rules by 4:30 p.m. on February 2, 2017, one public hearing will be convened at 3:30 p.m. on Thursday, February 16, 2017. The hearing will continue until all parties are heard or until the Administrative Law Judge adjourns it. The public hearing will be held at the following locations:

- MPCA St. Paul Office, 520 Lafayette Road North, Saint Paul, Minnesota 55155
- MPCA Duluth Office, 525 Lake Avenue South, Suite 400, Duluth, MN 55802
- MPCA Detroit Lakes Office, 714 Lake Avenue, Suite 220, Detroit Lakes, MN 56501
- MPCA Marshall Office, 504 Fairgrounds Road, Suite 200, Marshall, MN 56258

Directions to these offices can be found at: <https://www.pca.state.mn.us/about-mpca/mpca-offices>.

The MPCA will hold the hearing simultaneously at the four locations listed above. The ALJ will conduct the hearing from the Saint Paul location. MPCA staff will be present at all four locations to facilitate the process and to ensure that all persons attending will be able to see, hear and speak during the hearing. For the convenience of the attendees at the videoconference locations, testimony from these locations will be heard first.

To find out whether the rules will be adopted without a hearing or if the hearing will be held, you should contact the MPCA contact person below after February 2, 2017, and before February 16, 2017.

**MPCA Contact Person.** Comments or questions on the rules and written requests for a public hearing on the rules must be submitted to the MPCA contact person. The MPCA contact person is: Will Bouchard, MPCA, Environmental Analysis and Outcomes Division, 520 Lafayette Road North, Saint Paul, MN 55155-4194; telephone: 651-757-2333; Fax: 651-297-7709; or email: [talurulemaking.pca@state.mn.us](mailto:talurulemaking.pca@state.mn.us).

**Subject of the Rules.** The MPCA proposes to amend *Minnesota Rules*, Chapter 7050: Waters of the State; and *Minnesota Rules*, Chapter 7052: Lake Superior Basin Water Standards. These amendments will establish a TALU framework, which will modernize the MPCA's existing Class 2 water quality standards from a "one-size-fits-all" classification system for aquatic life to one that more accurately reflects the biological diversity of Minnesota's streams, rivers and ditches. (Hereinafter, the term "streams" as it is used below includes streams, rivers and ditches.) The rule revisions will refine the protection of water quality for fish and invertebrates (e.g., insects, crayfish, mussels) in streams by creating tiers within the existing Class 2 water quality standards based on biological potential. The TALU framework will be used to designate these waters as Exceptional, General or Modified based on an assessment of their existing biological condition and habitat quality. Overall, this will improve how water quality goals are set and allow for more efficient use of resources to protect and restore waters for the benefit of aquatic life and Minnesota residents.

The MPCA evaluates the condition of aquatic life in streams as part of its monitoring and assessment work. Currently, all Minnesota streams that are protected for the aquatic life and recreation beneficial use (Class 2) have been protected to the same minimum level. This minimum level of water quality is described in the CWA as the interim goal:

*"... water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water"*  
(33 U.S.C. § 1251 [a] [2])

The MPCA has been using this interim goal to evaluate beneficial uses based on biological assessments for more than a decade. Over time, however, the MPCA has greatly advanced its ability to measure and assess the biological potential of any given water body. As this work has progressed, the diversity of biological conditions in the state has become increasingly apparent. Some streams support biological communities near their natural state and have far better water quality than the threshold established by the interim goal. Others cannot be expected to meet the goal because of legal activities in the surrounding area, such as drainage maintenance.

For example, under the CWA interim goal, streams with near natural biological communities in the Boundary Waters Canoe Area Wilderness are evaluated according to the same criteria as drainage ditches with legally-altered habitat in agricultural regions. Applying the same goal to all streams incorrectly assumes that the same biological potential exists for all of them.

The proposed TALU framework amendments correct this limitation by refining the way water quality in streams is protected for aquatic life by creating tiers within the existing Class 2 water quality standards. The TALU framework represents a significant change to the existing water quality standards that protect aquatic life by more precisely classifying streams based on the biological condition that is possible for a particular stream. Under the TALU framework, waters may be classified as Exceptional, General or Modified based on a review of biological condition and habitat quality.

Additionally, the TALU framework advances the ability to identify "stressors" and develop effective mechanisms to improve and maintain the condition of surface waters.

Ultimately, implementation of the TALU framework will improve the way water quality goals are set and allow more efficient use of resources to protect and restore waters for the benefit of aquatic life and Minnesota residents.

It is important to highlight that the TALU framework amendments will not create additional authority to regulate drainage ditches. Ditches created under Minnesota Drainage Law are currently, and will continue to be, protected for aquatic life and recreation uses (Class 2). This rule does not change drainage law or affect how drainage ditches can be repaired, maintained or cleaned. Rather, it provides reasonable aquatic life goals that recognize the limitations that exist in areas with legally-altered habitat.

As comprehensively explained in the SONAR, which is available as stated below, the proposed amendments will meet the following needs:

**1. Incorporate subcategories or tiers in the aquatic life beneficial use (Class 2)**

**classification to address the diversity of aquatic resources in Minnesota.** Minnesota's aquatic resources are varied and diverse. The existing "one-size-fits-all" approach fails to recognize critical differences, which can result in less effective management of these waters. The proposed TALU framework will result in attainable and appropriate goals for aquatic life beneficial uses in streams. This is consistent with the concept of protecting existing uses while simultaneously providing higher goals for waters with demonstrated exceptional biological quality, maintaining current goals for General Use waters, and setting attainable aquatic life goals for waters previously modified by legal human activities (e.g., maintaining channels for drainage). To accomplish this, Class 2 aquatic life beneficial uses will be refined by the addition of Exceptional, General, and Modified TALU tiers to the base Class 2 designation.

- a. **Exceptional Use:** Exceptional Use streams are those that are closest to natural or undisturbed conditions. There is a need to protect and maintain high quality streams in Minnesota. Establishing an Exceptional Use tier will help ensure that existing water quality rules, such as antidegradation, can adequately protect high quality streams.
- b. **General Use:** The General Use maintains the current default aquatic life use goal (Class 2B).
- c. **Modified Use:** Some streams in Minnesota are unable to meet the current aquatic life use goal due to legal legacy activities (e.g., ditching, impoundments). These limitations are related to poor habitat and not chemical pollutants. A reasonable and attainable goal is needed so that water quality management activities can be tailored to the biological potential of these waters.

**2. Improve standards by incorporating numeric biological criteria directly into rule.** Water quality standards can be either narrative or numeric. Narrative standards describe water quality conditions that are not allowed because the conditions negatively affect beneficial uses (e.g., "the species composition shall not be altered materially" [Minn. R. 7050.0150 subp. 3](#)). Numeric standards establish numeric thresholds for pollutants that, when violated, indicate a polluted condition (e.g., a minimum of 5 milligrams per liter of

dissolved oxygen). The MPCA currently uses biological criteria to quantitatively translate the narrative biological standards in [Minn. R. 7050.0150, subp. 3](#). The TALU framework amendments bring biological criteria directly into rule as a clear numeric standard. Numeric biological criteria stratified by stream class and TALU tier will be added to [Minn. R. 7050.0222](#) to better clarify the biological expectations for Minnesota's streams. Such added clarity about biological expectations provides greater certainty to stakeholders and regulated parties.

- 3. Create more clarity in rule by documenting the methods used to establish biological conditions and biological criteria.** For clarity, consistency in application, and transparency, the TALU framework amendments include descriptions of each tiered aquatic life use (i.e. Exceptional, General, and Modified). The amendments also provide an explanation of the specific scientific methods used to measure biological condition and derive the biological criteria. This includes documentation of the development of Minnesota's fish and benthic macroinvertebrate Indices of Biological Integrity and the Biological Condition Gradients, which together support biological condition determinations and biological criteria.
- 4. Improve targeting of water management resources.** Water-body assessments are used to make decisions about water quality management activities. Greater assessment accuracy leads to increased water quality management efficiency because resources are not used to restore waters beyond what is currently attainable nor are high quality waters under-protected. The proposed TALU framework refines Minnesota's existing aquatic life use classification framework and improves the management of streams by assigning appropriate and attainable beneficial use classifications. The TALU framework thereby recognizes the diversity of attainable conditions in Minnesota streams so that management of these waters can be tailored to these conditions. This results in better use of protection and restoration resources with a goal of maintaining and improving conditions.
- 5. Improve identification of impaired waters and the stressors that are responsible for these impairments.** The proposed TALU framework is part of a broader evolution and modernization of water quality standards, both in Minnesota and nationally, to better tailor water quality standards to the different characteristics of water bodies. Historically, the protection of aquatic life has focused on chemical and physical water quality standards. Although these regulations are based on sound science, they are a surrogate for measuring attainment of aquatic life goals (i.e., it is assumed that if a chemical standard is attained the aquatic life is protected). However, chemical and physical sampling is generally limited to a small suite of parameters over a relatively short period of time. This means that pollution or stressors may be missed by sampling chemical and physical parameters alone. By directly measuring biological communities, there is much greater confidence in the assessment of attainment or nonattainment of aquatic life use goals. Biological data can then be used to determine the stressors that are contributing to nonattainment. In addition, this information can be used to identify stressors that are not pollutants (e.g., habitat, altered hydrology).

The MPCA has also identified three additional needs that are appropriately being addressed as part of this rulemaking. These are as follows:

**1. 141 stream reaches will be reclassified based on 2012 and 2013 Intensive Watershed**

**Monitoring (IWM) efforts in 14 watersheds.** The MPCA is proposing to reclassify specific streams using the TALU framework, where existing intensive monitoring data have demonstrated the need for a more accurate use designation. Based on monitoring data from fourteen (8-digit Hydrological Unit Code) watersheds representing the 2012 and 2013 IWM efforts, the MPCA is proposing to reclassify 141 stream reaches from the existing General Use to either Exceptional or Modified Use. The MPCA anticipates that future TALU reclassifications will occur annually following the IWM schedule.

**2. Remove redundancy.** The water quality standards for Classes 2B and 2C are nearly identical; removing Class 2C will simplify the rules without impacting water quality management. The MPCA is removing all references to Class 2C and reclassifying all Class 2C waters as Class 2B.

**3. Make reference lists more complete, understandable, and readily updated than is currently possible.** [Minn. R. 7050.0470](#) identifies several hundred waters that are specifically classified as:

- Cold water aquatic life and habitat (Class 2A);
- Surface waters protected for drinking (Class 1 and 2Bd);
- Limited resource value waters (Class 7);
- Outstanding resource value waters (prohibited and restricted categories); or,
- Wild rice waters.

This extensive list of very specifically listed waters, identified by township, range and section numbers, is of limited practical use. The current form of the list includes only a fraction of the waters in Minnesota, is difficult to read, and does not provide information other than the use class or special designation. In addition, the list as it is currently formatted is difficult to amend, which can cause problems and delays for the MPCA and for the community of regulated or interested parties.

The MPCA proposes to replace the list in [Minn. R. 7050.0470](#) with a series of more comprehensive documents that are incorporated into the rules by reference. The incorporated documents will provide data for all waters of the state and will provide electronically available access to extensive information, including TALU classification. The MPCA will still be required to conduct rulemaking to change a beneficial use class identified in the incorporated documents, but the process of making those amendments will be simplified and ensure that the use classifications of waters are promptly updated, and therefore, more accurate.

**Statutory Authority.** The statutory authority to adopt these proposed rule amendments is *Minnesota Statutes*, sections 115.03 and 115.44.

**Availability of Rules.** A copy of the proposed rules is published in the *State Register* after this notice, or they can be viewed at the following MPCA web sites:

<https://www.pca.state.mn.us/public-notices> and at the Tiered Aquatic Life Uses web page:

<https://www.pca.state.mn.us/water/tiered-aquatic-life-use-talu-framework>. A free copy of the proposed rules is also available upon request by contacting Cynthia Penny at 651-757-2099. Only one copy will be sent per request.

**Public Comment.** You have until 4:30 p.m. on February 2, 2017, to submit written comment in support of or in opposition to the proposed rules or any part or subpart of the rules. Your comment must be in writing and received by the MPCA contact person by the due date. Written comments may be submitted to the MPCA contact person at the address, Fax number, or email address listed above. Comments are encouraged. Your comments should identify the portion of the proposed rules addressed, the reason for the comment, and any change proposed. You are encouraged to propose any change desired. Any comments that you would like to make on the legality of the proposed rules must also be made during this comment period.

**Request for a Hearing.** In addition to submitting comments, you may also request that a hearing be held on the proposed rules. 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 February 2, 2017. Your written request for a public hearing must include your name and address. You must identify the portion of the proposed rules to which you object or state that you oppose the entire set of rules. Any request that does not comply with these requirements is not valid and cannot be counted by the MPCA when 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 rules.

**Withdrawal of Requests.** If 25 or more persons submit a valid written request for a hearing, the public hearings, scheduled above, 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 affect 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.

**Alternative Format/Accommodation.** Upon request, this Notice can be made available in an alternative format, such as large print, braille, or audio. To make such a request, or if you need an accommodation to make this hearing accessible, please contact the MPCA contact person at the address, telephone number, or email address listed above.

**Modifications.** The proposed rules 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. The adopted rules may not be substantially different than these proposed rules, unless the procedure under *Minnesota*

*Rules*, part 1400.2110, has been followed. If the proposed rules affect you in any way, you are encouraged to participate in the rulemaking process.

**Cancellation of Hearing.** The hearing scheduled for February 16, 2017, as indicated above, will be canceled if the MPCA does not receive requests from 25 or more persons that a hearing be held on the proposed rules. If you requested a public hearing, the MPCA will notify you before the scheduled hearing whether or not the hearing will be held. You may also call the MPCA contact person at 651-757-2333 after February 2, 2017, to find out whether the hearing will be held.

**Notice of Hearing.** If 25 or more persons submit valid written requests for a public hearing on the proposed rules, hearings will be held following the procedures in *Minnesota Statutes*, sections 14.131 to 14.20. The hearings will be held on the dates and at the time and places listed above. Each hearing will continue until all interested persons have been heard. Administrative Law Judge James R. Mortenson is assigned to conduct the hearing. Judge Mortenson's Legal Assistant, Katie Lin, can be reached at the Office of Administrative Hearings, 600 North Robert Street, P.O. Box 64620, Saint Paul, Minnesota 55164-0620; telephone: 651-361-7900 and FAX 651-539-0310; or email: [Katie.lin@state.mn.us](mailto:Katie.lin@state.mn.us).

**Hearing Procedure.** If hearings are 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 rules. 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 rebuttal 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 rebuttal 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*, parts 1400.2000 to 1400.2240, and *Minnesota Statutes*, sections 14.131 to 14.20. Questions about the hearing 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 rebuttal 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 (SONAR) is now available from the MPCA, and can be viewed at the following MPCA website: <https://www.pca.state.mn.us/water/tiered-aquatic-life-use-talu-framework>. The SONAR 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. A copy of the SONAR may also be obtained from the MPCA, at the cost of reproduction, by contacting Cynthia Penny at 651-757-2099.

**Lobbyist Registration.** *Minnesota Statutes*, chapter 10A, requires each lobbyist to register with the State Campaign Finance and Public Disclosure Board. Questions regarding this requirement may be directed to the Campaign Finance and Public Disclosure Board at: Suite 190, Centennial Building, 658 Cedar Street, Saint Paul, MN, 55155, telephone 651-296-5148 or 1-800-657-3889.

**Adoption Procedure if No Hearing.** If no hearing is required, the MPCA may adopt the proposed rules after the end of the comment period. The rules and supporting documents will then be submitted to the Office of Administrative Hearings for review for legality. You may request that the MPCA contact person notify you of the date the rules are submitted to the Office of Administrative Hearings. In addition, if you want to receive a copy of the adopted rules, 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 a Hearing.** If hearings are held, after the close of the hearing record, the Administrative Law Judge will issue a report on the proposed rules. You may ask to be notified of the date when the Administrative Law Judge's report will become available, and can make this request at the hearing or in writing to the Administrative Law Judge. You may also ask to be notified of the date on which the MPCA adopts the rules and the rules are filed 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 hearings be held at the dates, time and locations listed above.

Dated: Dec. 5, 2016

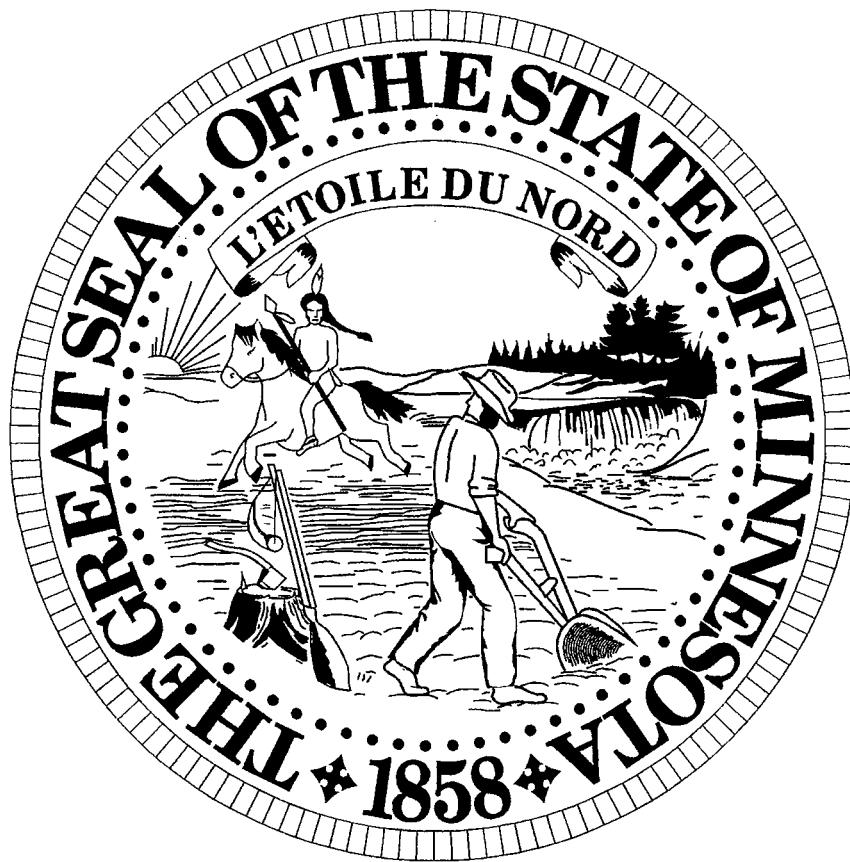


John Linc Stine  
Commissioner  
Minnesota Pollution Control

# Minnesota

# State Register

Published every Monday (Tuesday when Monday is a holiday)



**Proposed, Adopted, Emergency, Expedited, Withdrawn, Vetoed Rules;  
Executive Orders; Appointments; Commissioners' Orders; Revenue Notices;  
Official Notices; State Grants & Loans; State Contracts;  
Non-State Public Bids, Contracts and Grants**

**Monday 19 December 2016**

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# **Minnesota State Register**

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The *Minnesota State Register* is the official publication of the State of Minnesota's Executive Branch of government, published weekly to fulfill the legislative mandate set forth in *Minnesota Statutes*, Chapter 14, and *Minnesota Rules*, Chapter 1400. It contains:

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- **Executive Orders of the Governor**
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- **Appointments**
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- **Exempt Rules**
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- **Official Notices**
- **State Grants and Loans**
- **Expedited Rules**
- **Vetoed Rules**

### **Printing Schedule and Submission Deadlines**

<b>Vol. 41</b> Issue Number	<b>PUBLISH DATE (BOLDFACE shows altered publish date)</b>	Deadline for: all Short Rules, Executive and Commissioner's Orders, Revenue and Official Notices, State Grants, Professional-Technical- Consulting Contracts, Non-State Bids and Public Contracts	Deadline for LONG, Complicated Rules (contact the editor to negotiate a deadline)
# 26	Tuesday 27 December	Noon Tuesday 20 December	Noon Thursday 15 December
# 27	Tuesday 3 January	Noon Tuesday 27 December	Noon Thursday 22 December
# 28	Monday 9 January	Noon Tuesday 3 January	Noon Thursday 29 December
# 29	Tuesday 17 January	Noon Tuesday 10 January	Noon Thursday 5 January

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### **Minnesota Legislative Information**

#### **Senate Public Information Office**

(651) 296-0504  
State Capitol, Room 231, St. Paul, MN 55155  
<http://www.senate.mn>

#### **Minnesota State Court System**

Court Information Office (651) 296-6043  
MN Judicial Center, Rm. 135,  
25 Rev. Dr. Martin Luther King Jr Blvd., St. Paul, MN 55155  
<http://www.mncourts.gov>

#### **House Public Information Services**

(651) 296-2146  
State Office Building, Room 175  
100 Rev. Dr. Martin Luther King Jr Blvd., St. Paul, MN 55155  
<https://www.house.leg.state.mn.us/hinfo/hinfo.asp>

#### **Federal Register**

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U.S. Government Printing Office – Fax: (202) 512-1262  
[http://www.access.gpo.gov/su\\_docs/aces140.html](http://www.access.gpo.gov/su_docs/aces140.html)

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# Minnesota Rules: Amendments and Additions

## 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. 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, but 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.

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 #40-52 inclusive, with final index (#1-52, or 53 in some years). 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, 660 Olive Street (one block east of I-35E and one block north of University Ave), St. Paul, MN 55155, phone: (612) 297-3000, or toll-free 1-800-657-3757. TTY relay service phone number: (800) 627-3529.

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**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 §§ 14.1414.20, which state that if an agency decides to hold a public hearing, it must publish a notice of intent in the *State Register*.

**KEY: Proposed Rules - Underlining** indicates additions to existing rule language. **Strikeout** indicates deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material." **Adopted Rules - Underlining** indicates additions to proposed rule language. **Strikeout** indicates deletions from proposed rule language.

## Minnesota Pollution Control Agency

### Environmental Analysis and Outcomes Division

### Proposed Permanent Rule Relating to Water Quality Standards and Tiered Aquatic Life Use; Notice of Intent to Adopt Rules 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; Revisor's Identification Number RD4237

**DUAL NOTICE: Notice of Intent to Adopt Rules 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; Revisor's Identification Number RD4237.**

Proposed Amendments to *Minnesota Rules*, Chapters 7050 and 7052, relating to Tiered Aquatic Life Uses (TALU) and Modification of Class 2 Beneficial Use Designations

# **Proposed Rules**

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**Introduction.** The Minnesota Pollution Control Agency (MPCA) intends to adopt rules, identified above, without a public hearing following the procedures set forth in the rules of the Office of Administrative Hearings, *Minnesota Rules*, parts 1400.2300 to 1400.2310, and 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 rules by 4:30 p.m. on February 2, 2017, one public hearing will be convened at 3:30 p.m. on Thursday, February 16, 2017. The hearing will continue until all parties are heard or until the Administrative Law Judge adjourns it. The public hearing will be held at the following locations:

- MPCA St. Paul Office, 520 Lafayette Road North, Saint Paul, Minnesota 55155
- MPCA Duluth Office, 525 Lake Avenue South, Suite 400, Duluth, MN 55802
- MPCA Detroit Lakes Office, 714 Lake Avenue, Suite 220, Detroit Lakes, MN 56501
- MPCA Marshall Office, 504 Fairgrounds Road, Suite 200, Marshall, MN 56258

Directions to these offices can be found at: <https://www.pca.state.mn.us/about-mpca/mpca-offices>.

The MPCA will hold the hearing simultaneously at the four locations listed above. The ALJ will conduct the hearing from the Saint Paul location. MPCA staff will be present at all four locations to facilitate the process and to ensure that all persons attending will be able to see, hear and speak during the hearing. For the convenience of the attendees at the videoconference locations, testimony from these locations will be heard first.

To find out whether the rules will be adopted without a hearing or if the hearing will be held, you should contact the MPCA contact person below after February 2, 2017, and before February 16, 2017.

**MPCA Contact Person.** Comments or questions on the rules and written requests for a public hearing on the rules must be submitted to the MPCA contact person. The MPCA contact person is: Will Bouchard, MPCA, Environmental Analysis and Outcomes Division, 520 Lafayette Road North, Saint Paul, MN 55155-4194; telephone: 651-757-2333; Fax: 651-297-7709; or email: [talurulemaking.pca@state.mn.us](mailto:talurulemaking.pca@state.mn.us).

**Subject of the Rules.** The MPCA proposes to amend *Minnesota Rules*, Chapter 7050: Waters of the State; and *Minnesota Rules*, Chapter 7052: Lake Superior Basin Water Standards. These amendments will establish a TALU framework, which will modernize the MPCA's existing Class 2 water quality standards from a "one-size-fits-all" classification system for aquatic life to one that more accurately reflects the biological diversity of Minnesota's streams, rivers and ditches. (Hereinafter, the term "streams" as it is used below includes streams, rivers and ditches.) The rule revisions will refine the protection of water quality for fish and invertebrates (e.g., insects, crayfish, mussels) in streams by creating tiers within the existing Class 2 water quality standards based on biological potential. The TALU framework will be used to designate these waters as Exceptional, General or Modified based on an assessment of their existing biological condition and habitat quality. Overall, this will improve how water quality goals are set and allow for more efficient use of resources to protect and restore waters for the benefit of aquatic life and Minnesota residents.

The MPCA evaluates the condition of aquatic life in streams as part of its monitoring and assessment work. Currently, all Minnesota streams that are protected for the aquatic life and recreation beneficial use (Class 2) have been protected to the same minimum level. This minimum level of water quality is described in the CWA as the interim goal:

"... water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water" (33 U.S.C. § 1251 [a] [2])

The MPCA has been using this interim goal to evaluate beneficial uses based on biological assessments for more than a decade. Over time, however, the MPCA has greatly advanced its ability to measure and assess the biological potential of any given water body. As this work has progressed, the diversity of biological conditions in the state has become increasingly apparent. Some streams support biological communities near their natural state and have far better water quality than the threshold established by the interim goal. Others cannot be expected to meet the goal because of legal activities in the surrounding area, such as drainage maintenance.

For example, under the CWA interim goal, streams with near natural biological communities in the Boundary Waters Canoe Area Wilderness are evaluated according to the same criteria as drainage ditches with legally-altered habitat in agricultural regions. Applying the same goal to all streams incorrectly assumes that the same biological potential exists for all of them.

The proposed TALU framework amendments correct this limitation by refining the way water quality in streams is protected

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# **Proposed Rules**

for aquatic life by creating tiers within the existing Class 2 water quality standards. The TALU framework represents a significant change to the existing water quality standards that protect aquatic life by more precisely classifying streams based on the biological condition that is possible for a particular stream. Under the TALU framework, waters may be classified as Exceptional, General or Modified based on a review of biological condition and habitat quality.

Additionally, the TALU framework advances the ability to identify “stressors” and develop effective mechanisms to improve and maintain the condition of surface waters. Ultimately, implementation of the TALU framework will improve the way water quality goals are set and allow more efficient use of resources to protect and restore waters for the benefit of aquatic life and Minnesota residents.

It is important to highlight that the TALU framework amendments will not create additional authority to regulate drainage ditches. Ditches created under Minnesota Drainage Law are currently, and will continue to be, protected for aquatic life and recreation uses (Class 2). This rule does not change drainage law or affect how drainage ditches can be repaired, maintained or cleaned. Rather, it provides reasonable aquatic life goals that recognize the limitations that exist in areas with legally-altered habitat.

As comprehensively explained in the SONAR, which is available as stated below, the proposed amendments will meet the following needs:

**1. Incorporate subcategories or tiers in the aquatic life beneficial use (Class 2) classification to address the diversity of aquatic resources in Minnesota.** Minnesota’s aquatic resources are varied and diverse. The existing “one-size-fits-all” approach fails to recognize critical differences, which can result in less effective management of these waters. The proposed TALU framework will result in attainable and appropriate goals for aquatic life beneficial uses in streams. This is consistent with the concept of protecting existing uses while simultaneously providing higher goals for waters with demonstrated exceptional biological quality, maintaining current goals for General Use waters, and setting attainable aquatic life goals for waters previously modified by legal human activities (e.g., maintaining channels for drainage). To accomplish this, Class 2 aquatic life beneficial uses will be refined by the addition of Exceptional, General, and Modified TALU tiers to the base Class 2 designation.

a. **Exceptional Use:** Exceptional Use streams are those that are closest to natural or undisturbed conditions. There is a need to protect and maintain high quality streams in Minnesota. Establishing an Exceptional Use tier will help ensure that existing water quality rules, such as antidegradation, can adequately protect high quality streams.

b. **General Use:** The General Use maintains the current default aquatic life use goal (Class 2B).

c. **Modified Use:** Some streams in Minnesota are unable to meet the current aquatic life use goal due to legal legacy activities (e.g., ditching, impoundments). These limitations are related to poor habitat and not chemical pollutants. A reasonable and attainable goal is needed so that water quality management activities can be tailored to the biological potential of these waters.

**2. Improve standards by incorporating numeric biological criteria directly into rule.** Water quality standards can be either narrative or numeric. Narrative standards describe water quality conditions that are not allowed because the conditions negatively affect beneficial uses (e.g., “the species composition shall not be altered materially” Minn. R. 7050.0150 subp. 3). Numeric standards establish numeric thresholds for pollutants that, when violated, indicate a polluted condition (e.g., a minimum of 5 milligrams per liter of dissolved oxygen). The MPCA currently uses biological criteria to quantitatively translate the narrative biological standards in Minn. R. 7050.0150, subp. 3. The TALU framework amendments bring biological criteria directly into rule as a clear numeric standard. Numeric biological criteria stratified by stream class and TALU tier will be added to Minn. R. 7050.0222 to better clarify the biological expectations for Minnesota’s streams. Such added clarity about biological expectations provides greater certainty to stakeholders and regulated parties.

**3. Create more clarity in rule by documenting the methods used to establish biological conditions and biological criteria.** For clarity, consistency in application, and transparency, the TALU framework amendments include descriptions of each tiered aquatic life use (i.e. Exceptional, General, and Modified). The amendments also provide an explanation of the specific scientific methods used to measure biological condition and derive the biological criteria. This includes documentation of the development of Minnesota’s fish and benthic macroinvertebrate Indices of Biological Integrity and the Biological Condition Gradients, which together support biological condition determinations and biological criteria.

**4. Improve targeting of water management resources.** Water-body assessments are used to make decisions about water quality management activities. Greater assessment accuracy leads to increased water quality management efficiency because resources are not used to restore waters beyond what is currently attainable nor are high quality waters under-protected. The proposed TALU framework refines Minnesota’s existing aquatic life use classification framework and improves the management of streams by assigning appropriate and attainable beneficial use classifications. The TALU framework thereby recognizes the di-

# **Proposed Rules**

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versity of attainable conditions in Minnesota streams so that management of these waters can be tailored to these conditions. This results in better use of protection and restoration resources with a goal of maintaining and improving conditions.

**5. Improve identification of impaired waters and the stressors that are responsible for these impairments.** The proposed TALU framework is part of a broader evolution and modernization of water quality standards, both in Minnesota and nationally, to better tailor water quality standards to the different characteristics of water bodies. Historically, the protection of aquatic life has focused on chemical and physical water quality standards. Although these regulations are based on sound science, they are a surrogate for measuring attainment of aquatic life goals (i.e., it is assumed that if a chemical standard is attained the aquatic life is protected). However, chemical and physical sampling is generally limited to a small suite of parameters over a relatively short period of time. This means that pollution or stressors may be missed by sampling chemical and physical parameters alone. By directly measuring biological communities, there is much greater confidence in the assessment of attainment or nonattainment of aquatic life use goals. Biological data can then be used to determine the stressors that are contributing to nonattainment. In addition, this information can be used to identify stressors that are not pollutants (e.g., habitat, altered hydrology).

The MPCA has also identified three additional needs that are appropriately being addressed as part of this rulemaking. These are as follows:

**1. 141 stream reaches will be reclassified based on 2012 and 2013 Intensive Watershed Monitoring (IWM) efforts in 14 watersheds.** The MPCA is proposing to reclassify specific streams using the TALU framework, where existing intensive monitoring data have demonstrated the need for a more accurate use designation. Based on monitoring data from fourteen (8-digit Hydrological Unit Code) watersheds representing the 2012 and 2013 IWM efforts, the MPCA is proposing to reclassify 141 stream reaches from the existing General Use to either Exceptional or Modified Use. The MPCA anticipates that future TALU reclassifications will occur annually following the IWM schedule.

**2. Remove redundancy.** The water quality standards for Classes 2B and 2C are nearly identical; removing Class 2C will simplify the rules without impacting water quality management. The MPCA is removing all references to Class 2C and reclassifying all Class 2C waters as Class 2B.

**3. Make reference lists more complete, understandable, and readily updated than is currently possible.** Minn. R. 7050.0470 identifies several hundred waters that are specifically classified as:

- Cold water aquatic life and habitat (Class 2A);
- Surface waters protected for drinking (Class 1 and 2Bd);
- Limited resource value waters (Class 7);
- Outstanding resource value waters (prohibited and restricted categories); or,
- Wild rice waters.

This extensive list of very specifically listed waters, identified by township, range and section numbers, is of limited practical use. The current form of the list includes only a fraction of the waters in Minnesota, is difficult to read, and does not provide information other than the use class or special designation. In addition, the list as it is currently formatted is difficult to amend, which can cause problems and delays for the MPCA and for the community of regulated or interested parties.

The MPCA proposes to replace the list in Minn. R. 7050.0470 with a series of more comprehensive documents that are incorporated into the rules by reference. The incorporated documents will provide data for all waters of the state and will provide electronically available access to extensive information, including TALU classification. The MPCA will still be required to conduct rulemaking to change a beneficial use class identified in the incorporated documents, but the process of making those amendments will be simplified and ensure that the use classifications of waters are promptly updated, and therefore, more accurate.

**Statutory Authority.** The statutory authority to adopt these proposed rule amendments is *Minnesota Statutes*, sections 115.03 and 115.44.

**Availability of Rules.** A copy of the proposed rules is published in the *State Register* after this notice, or they can be viewed at the following MPCA web sites: <https://www.pca.state.mn.us/public-notices> and at the Tiered Aquatic Life Uses web page: <https://www.pca.state.mn.us/water/tiered-aquatic-life-use-talu-framework>. A free copy of the proposed rules is also available upon request by contacting Cynthia Penny at 651-757-2099. Only one copy will be sent per request.

**Public Comment.** You have until **4:30 p.m. on February 2, 2017**, to submit written comment in support of or in opposition

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## **Proposed Rules**

to the proposed rules or any part or subpart of the rules. Your comment must be in writing and received by the MPCA contact person by the due date. Written comments may be submitted to the MPCA contact person at the address, Fax number, or email address listed above. Comments are encouraged. Your comments should identify the portion of the proposed rules addressed, the reason for the comment, and any change proposed. You are encouraged to propose any change desired. Any comments that you would like to make on the legality of the proposed rules must also be made during this comment period.

**Request for a Hearing.** In addition to submitting comments, you may also request that a hearing be held on the proposed rules. 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 February 2, 2017. Your written request for a public hearing must include your name and address. You must identify the portion of the proposed rules to which you object or state that you oppose the entire set of rules. Any request that does not comply with these requirements is not valid and cannot be counted by the MPCA when 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 rules.

**Withdrawal of Requests.** If 25 or more persons submit a valid written request for a hearing, the public hearings, scheduled above, 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 affect 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.

**Alternative Format/Accommodation.** Upon request, this Notice can be made available in an alternative format, such as large print, braille, or audio. To make such a request, or if you need an accommodation to make this hearing accessible, please contact the MPCA contact person at the address, telephone number, or email address listed above.

**Modifications.** The proposed rules 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. The adopted rules may not be substantially different than these proposed rules, unless the procedure under *Minnesota Rules*, part 1400.2110, has been followed. If the proposed rules affect you in any way, you are encouraged to participate in the rulemaking process.

**Cancellation of Hearing.** The hearing scheduled for February 16, 2017, as indicated above, will be canceled if the MPCA does not receive requests from 25 or more persons that a hearing be held on the proposed rules. If you requested a public hearing, the MPCA will notify you before the scheduled hearing whether or not the hearing will be held. You may also call the MPCA contact person at 651-757-2333 after February 2, 2017, to find out whether the hearing will be held.

**Notice of Hearing.** If 25 or more persons submit valid written requests for a public hearing on the proposed rules, hearings will be held following the procedures in *Minnesota Statutes*, sections 14.131 to 14.20. The hearings will be held on the dates and at the time and places listed above. Each hearing will continue until all interested persons have been heard. Administrative Law Judge James R. Mortenson is assigned to conduct the hearing. Judge Mortenson's Legal Assistant, Katie Lin, can be reached at the Office of Administrative Hearings, 600 North Robert Street, P.O. Box 64620, Saint Paul, Minnesota 55164-0620; telephone: 651-361-7900 and FAX 651-539-0310; or email: [Katie.lin@state.mn.us](mailto:Katie.lin@state.mn.us).

**Hearing Procedure.** If hearings are 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 rules. 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 rebuttal 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 rebuttal 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*, parts 1400.2000 to 1400.2240, and *Minnesota Statutes*, sections 14.131 to 14.20. Questions about the hearing 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 rebuttal period also submit a copy of the written views or data to the MPCA contact person at the address stated above.

# Proposed Rules

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**Statement of Need and Reasonableness.** A Statement of Need and Reasonableness (SONAR) is now available from the MPCA, and can be viewed at the following MPCA website:

<https://www.pca.state.mn.us/water/tiered-aquatic-life-use-talu-framework>. The SONAR 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. A copy of the SONAR may also be obtained from the MPCA, at the cost of reproduction, by contacting Cynthia Penny at 651-757-2099.

**Lobbyist Registration.** *Minnesota Statutes*, chapter 10A, requires each lobbyist to register with the State Campaign Finance and Public Disclosure Board. Questions regarding this requirement may be directed to the Campaign Finance and Public Disclosure Board at: Suite 190, Centennial Building, 658 Cedar Street, Saint Paul, MN, 55155, telephone 651-296-5148 or 1-800-657-3889.

**Adoption Procedure if No Hearing.** If no hearing is required, the MPCA may adopt the proposed rules after the end of the comment period. The rules and supporting documents will then be submitted to the Office of Administrative Hearings for review for legality. You may request that the MPCA contact person notify you of the date the rules are submitted to the Office of Administrative Hearings. In addition, if you want to receive a copy of the adopted rules, 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 a Hearing.** If hearings are held, after the close of the hearing record, the Administrative Law Judge will issue a report on the proposed rules. You may ask to be notified of the date when the Administrative Law Judge's report will become available, and can make this request at the hearing or in writing to the Administrative Law Judge. You may also ask to be notified of the date on which the MPCA adopts the rules and the rules are filed 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 hearings be held at the dates, time and locations listed above.

Dated: 12/5/2016

John Linc Stine  
Commissioner  
Minnesota Pollution Control

## 7050.0140 USE CLASSIFICATIONS FOR WATERS OF THE STATE.

*[For text of subps 1 and 2, see M.R.]*

Subp. 3. **Class 2 waters, aquatic life and recreation.** Aquatic life and recreation includes all waters of the state that support or may support fish, other aquatic life ~~and~~ aquatic biota, bathing, boating, or other recreational purposes and for which quality control is or may be necessary to protect aquatic or terrestrial life or their habitats or the public health, safety, or welfare.

*[For text of subps 4 to 8, see M.R.]*

## 7050.0150 DETERMINATION OF WATER QUALITY, BIOLOGICAL AND PHYSICAL CONDITIONS, AND COMPLIANCE WITH STANDARDS.

*[For text of subps 1 and 2, see M.R.]*

Subp. 3. **Narrative standards.** For all Class 2 waters, the aquatic habitat, which includes the waters of the state and stream bed, shall not be degraded in any material manner, there shall be no material increase in undesirable slime growths or aquatic plants, including algae, nor shall there be any significant increase in harmful pesticide or other residues in the waters, sediments, and aquatic flora and fauna; the normal ~~fishery and lower~~ aquatic biota ~~upon which it is dependent~~ and the use thereof shall not be seriously impaired or endangered, the species composition shall not be altered materially, and the propagation or migration of the ~~fish and other~~ aquatic biota normally present shall not be prevented or hindered by the discharge of any sewage, industrial waste, or other wastes to the waters.

Subp. 3a. **Assessment criteria.** The criteria by which water bodies are assessed to determine if beneficial uses are supported, and definitions of the data and information required for that assessment, is in Guidance Manual for Assessing the Quality of Minnesota Surface Waters for Determination of Impairment: 305(b) Report and 303(d) List (2014 and as subsequently amended), which is incorporated by reference. The guidance manual is not subject to frequent change and is available at <http://www.pca.state.mn.us/lupg1125>.

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Subp. 4. **Definitions.** For the purposes of this chapter and chapter 7053, the following terms have the meanings given them.

A. “122-day ten-year low flow” or “122Q<sub>10</sub>” means the lowest average 122-day flow with a once in ten-year recurrence interval. A 122Q<sub>10</sub> is derived using the same methods used to derive a 7Q<sub>10</sub>, and the guidelines regarding period of record for flow data and estimating a 7Q<sub>10</sub> apply equally to determining a 122Q<sub>10</sub>, as described in part 7050.0130, subpart 3.

B. “Altered materially,” “material increase,” “material manner,” “seriously impaired,” and “significant increase,” as used in subparts 3, 5, and 6, mean that pollution of the waters of the state has resulted in degradation of the physical, chemical, or biological qualities of the water body to the extent that attainable or previously existing beneficial uses are actually or potentially lost.

C. “Aquatic biota” means the aquatic community composed of game and nongame fish, minnows and other small fish, mollusks, insects, crustaceans and other invertebrates, submerged or emergent rooted vegetation, suspended or floating algae, substrate-attached algae, microscopic organisms, and other aquatic-dependent organisms that require aquatic systems for food or to fulfill any part of their life cycle, such as amphibians and certain wildlife species.

D. “Assemblage” means a taxonomic subset of a biological community such as fish in a stream community.

E. “Biological condition gradient” means a concept describing how aquatic communities change in response to increasing levels of stressors. In application, the biological condition gradient is an empirical, descriptive model that rates biological communities on a scale from natural to highly degraded.

F. “Biological criteria, narrative” or “biocriteria, narrative” means written statements describing the attributes of the structure and function of aquatic assemblages in a water body necessary to protect the designated aquatic life beneficial use. The singular form “biological criterion, narrative” or “biocriterion, narrative” may also be used.

G. “Biological criteria, numeric” or “biocriteria, numeric” means specific quantitative measures of the attributes of the structure and function of aquatic communities in a water body necessary to protect the designated aquatic life beneficial use. The singular form “biological criterion, numeric” or “biocriterion, numeric” may also be used.

E.H. “BOD<sub>5</sub>” or “five-day biochemical oxygen demand” means the amount of dissolved oxygen needed by aerobic biological organisms to break down organic material present in a given water sample at a certain temperature over a five-day period.

E.I. “Chlorophyll-a” means a pigment in green plants including algae. The concentration of chlorophyll-a, expressed in weight per unit volume of water, is a measurement of the abundance of algae.

E.J. “Diel flux” means the daily change in a constituent, such as dissolved oxygen or pH, when there is a distinct daily cycle in the measurement. Diel dissolved oxygen flux means the difference between the maximum daily dissolved oxygen concentration and the minimum daily dissolved oxygen concentration.

F.K. “Ecoregion” means an area of relative homogeneity in ecological systems based on similar soils, land use, land surface form, and potential natural vegetation. Minnesota ecoregions are shown on the map in part 7050.0468.

G.L. “Eutrophication” means the increased productivity of the biological community in water bodies in response to increased nutrient loading. Eutrophication is characterized by increased growth and abundance of algae and other aquatic plants, reduced water transparency, reduction or loss of dissolved oxygen, and other chemical and biological changes. The acceleration of eutrophication due to excess nutrient loading from human sources and activities, called cultural eutrophication, causes a degradation of water quality and possible loss of beneficial uses.

H.M. “Eutrophication standard” means the combination of indicators of enrichment and indicators of response as described in subpart 5. The indicators upon which the eutrophication standard for specific water bodies are based are as provided under subparts 5a to 5c.

F. “Fish and other biota” and “lower aquatic biota” mean the aquatic community including, but not limited to, game and nongame fish, minnows and other small fish, mollusks, insects, crustaceans and other invertebrates, submerged or emergent rooted vegetation, suspended or floating algae, substrate-attached algae, and microscopic organisms. “Other biota” includes aquatic or

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~~semaquatic organisms that depend on aquatic systems for food or habitat such as amphibians and certain wildlife species.~~

**F.N.** “Hydraulic residence time” means the time water resides in a basin or, alternately, the time it would take to fill the basin if it were empty.

**K.Q.** “Impaired water” or “impaired condition” means a water body that does not meet applicable water quality standards or fully support applicable beneficial uses, due in whole or in part to water pollution from point or nonpoint sources, or any combination thereof.

**L.P.** “Index of biotic integrity,” “index of biological integrity,” or “IBI” means an index developed by measuring attributes of an aquatic community that change in quantifiable and predictable ways in response to human disturbance, representing the health of that community.

**M.Q.** “Lake” means an enclosed basin filled or partially filled with standing fresh water with a maximum depth greater than 15 feet. Lakes may have no inlet or outlet, an inlet or outlet, or both an inlet and outlet.

**N.R.** “Lake morphometry” means the physical characteristics of the lake basin that are reasonably necessary to determine the shape of a lake, such as maximum length and width, maximum and mean depth, area, volume, and shoreline configuration.

**O.S.** “Mixing status” means the frequency of complete mixing of the lake water from surface to bottom, which is determined by whether temperature gradients are established and maintained in the water column during the summer season.

**P.T.** “Measurable increase” or “measurable impact” means a change in trophic status that can be discerned above the normal variability in water quality data using a weight of evidence approach. The change in trophic status does not require a demonstration of statistical significance to be considered measurable. Mathematical models may be used as a tool in the data analysis to help predict changes in trophic status.

**Q.U.** “Natural causes” means the multiplicity of factors that determine the physical, chemical, or biological conditions that would exist in a water body in the absence of measurable impacts from human activity or influence.

**R.V.** “Normal fishery aquatic biota” and “normally present” mean ~~the fishery and other a healthy aquatic biota community~~ expected to be present in the water body in the absence of pollution of the water, consistent with any variability due to natural hydrological, substrate, habitat, or other physical and chemical characteristics. Expected presence is based on comparing the aquatic community in the water body of interest to the aquatic community in representative reference water bodies.

**S.W.** “Nuisance algae bloom” means an excessive population of algae that is characterized by obvious green or blue-green pigmentation in the water, floating mats of algae, reduced light transparency, aesthetic degradation, loss of recreational use, possible harm to the aquatic community, or possible toxicity to animals and humans. Algae blooms are measured through tests for chlorophyll-a, observations of Secchi disk transparency, and observations of impaired recreational and aesthetic conditions by the users of the water body, or any other reliable data that identifies the population of algae in an aquatic community.

**T.X.** “Periphyton” means algae on the bottom of a water body. In rivers or streams, these forms are typically found attached to logs, rocks, or other substrates, but when dislodged the algae will become part of the seston.

**U.Y.** “Readily available and reliable data and information” means chemical, biological, and physical data and information determined by the commissioner to meet the quality assurance and quality control requirements in subpart 8, that are not more than ten years old from the time they are used for the assessment. A subset of data in the ten-year period, or data more than ten years old can be used if credible scientific evidence shows that these data are representative of current conditions.

**V.Z.** “Reference water body” means a water body ~~minimally or least impacted by point or nonpoint sources of pollution that is representative of water bodies in the same ecoregion or watershed of a similar surface water body type and within a geographic region such as an ecoregion or watershed.~~ Reference water bodies are used as a base for comparing the quality of similar water bodies in the same ecoregion or watershed geographic region.

**W.AA.** “Reservoir” means a body of water in a natural or artificial basin or watercourse where the outlet or flow is artificially controlled by a structure such as a dam. Reservoirs are distinguished from river systems by having a hydraulic residence time of at least 14 days. For purposes of this item, residence time is determined using a flow equal to the  $122Q_{10}$  for the

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months of June through September.

**X. BB.** “River nutrient region” means the geographic basis for regionalizing the river eutrophication criteria as described in Heiskary, S. and K. Parson, Regionalization of Minnesota’s Rivers for Application of River Nutrient Criteria, Minnesota Pollution Control Agency (2013), which is incorporated by reference. The document is not subject to frequent change and is available through the Minitex interlibrary loan system.

**Y. CC.** “Secchi disk” means a tool that is used to measure the transparency of lake water. A Secchi disk is an eight-inch weighted disk on a calibrated rope, either white or with quadrants of black and white. To measure water transparency with a Secchi disk, the disk is viewed from the shaded side of a boat. The depth of the water at the point where the disk reappears upon raising it after it has been lowered beyond visibility is recorded.

**Z. DD.** “Secchi disk transparency” means the transparency of water as measured by either a Secchi disk, a Secchi tube, or a transparency tube.

**AA-EE.** “Secchi tube” means a tool that is used to measure the transparency of stream or river water. A Secchi tube is a clear plastic tube, one meter in length and 1-3/4 inch in diameter, with a mini-Secchi disk on a string. To measure water transparency, the tube is filled with water collected from a stream or river and, looking into the tube from the top, the weighted Secchi disk is lowered into the tube by a string until it disappears and then raised until it reappears, allowing the user to raise and lower the disk within the same water sample numerous times. The depth of the water at the midpoint between disappearance and reappearance of the disk is recorded in centimeters, which are marked on the side of the tube. If the Secchi disk is visible when it is lowered to the bottom of the tube, the transparency reading is recorded as “greater than 100 centimeters.”

**BB-FF.** “Seston” means particulate matter suspended in water bodies and includes plankton and organic and inorganic matter.

**CC-GG.** “Shallow lake” means an enclosed basin filled or partially filled with standing fresh water with a maximum depth of 15 feet or less or with 80 percent or more of the lake area shallow enough to support emergent and submerged rooted aquatic plants (the littoral zone). It is uncommon for shallow lakes to thermally stratify during the summer. The quality of shallow lakes will permit the propagation and maintenance of a healthy indigenous aquatic community and they will be suitable for boating and other forms of aquatic recreation for which they may be usable. Shallow lakes are differentiated from wetlands and lakes on a case-by-case basis. Wetlands are defined in part 7050.0186, subpart 1a.

**DD-HH.** “Summer-average” means a representative average of concentrations or measurements of nutrient enrichment factors, taken over one summer season.

**EE-II.** “Summer season” means a period annually from June 1 through September 30.

**FF-JJ.** “Transparency tube” means a tool that is used to measure the transparency of stream or river water. A transparency tube is a graduated clear plastic tube, 24 inches or more in length by 1-1/2 inches in diameter, with a stopper at the bottom end. The inside surface of the stopper is painted black and white. To measure water transparency, the tube is filled with water from a surface water; the water is released through a valve at the bottom end until the painted surface of the stopper is just visible through the water column when viewed from the top of the tube. The depth, in centimeters, is noted. More water is released until the screw in the middle of the painted symbol on the stopper is clearly visible; this depth is noted. The two observed depths are averaged to obtain a transparency measurement.

**GG-KK.** “Trophic status or condition” means the productivity of a lake as measured by the phosphorus content, algae abundance, and depth of light penetration.

**LL.** “Use attainability analysis” means a structured scientific assessment of the physical, chemical, biological, and economic factors affecting attainment of the uses of water bodies. A use attainability analysis is required to remove a designated use specified in section 101(a)(2) of the Clean Water Act that is not an existing use. The allowable reasons for removing a designated use are described in Code of Federal Regulations, title 40, section 131.10(g).

**HH-MM.** “Water body” means a lake, reservoir, wetland, or a geographically defined portion of a river or stream.

**NN.** “Water body type” means a group of water bodies with similar natural physical, chemical, and biological attributes,

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where the characteristics are similar among water bodies within each type and distinct from water bodies of other types.

*[For text of subps 5 to 5c, see M.R.]*

**Subp. 6. Impairment of biological community and aquatic habitat.** In evaluating whether the narrative standards in subpart 3, which prohibit serious impairment of the normal fisheries and lower aquatic biota upon which they are dependent and the use thereof, material alteration of the species composition, material degradation of stream beds, and the prevention or hindrance of the propagation and migration of fish and other aquatic biota normally present, are being met, the commissioner will consider all readily available and reliable data and information for the following factors of use impairment:

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

- E. any other scientifically objective, credible, and supportable factors.

A finding of an impaired condition must be supported by data for the factors listed in at least one of items A to C. The biological quality of any given surface water body will be assessed by comparison to the biological conditions determined for by the commissioner using a biological condition gradient model or a set of reference water bodies which best represents the most natural condition for that surface water body type within a geographic region.

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

## **7050.0217 OBJECTIVES FOR PROTECTION OF SURFACE WATERS FROM TOXIC POLLUTANTS.**

**Subpart 1. Purpose and applicability.** The purpose of this part is to establish the objectives for developing numeric water quality standards listed in parts 7050.0220, 7050.0222, 7050.0227, and 7052.0100 and site-specific water quality criteria for toxic pollutants or chemicals developed in the absence of numeric standards. The listed numeric standards for toxics and site-specific numeric criteria established by methods in parts 7050.0218 and 7050.0219 protect Class 2 waters for the propagation and maintenance of fish and aquatic life biota, the consumption of fish and edible aquatic life by humans, the use of surface waters for public and private domestic consumption where applicable, and the consumption of aquatic organisms by wildlife. These criteria also protect the uses assigned to Class 7, limited resource value, waters as described in parts 7050.0140 and 7050.0227.

*[For text of subp 2, see M.R.]*

## **7050.0218 FOR TOXIC POLLUTANTS: DEFINITIONS AND METHODS FOR DETERMINATION OF HUMAN HEALTH-BASED NUMERIC STANDARDS AND SITE-SPECIFIC NUMERIC CRITERIA FOR AQUATIC LIFE, HUMAN HEALTH, AND FISH-EATING WILDLIFE.**

*[For text of subps 1 and 2, see M.R.]*

**Subp. 3. Definitions.** For the purposes of parts 7050.0217 to 7050.0227, the following terms have the meanings given them.

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

**S.** “Cold water fisheries” means a community of fish including species of trout and salmon from the Salmonidae family that inhabit trout waters as defined in part 7050.0420.

**T. S.** “Criterion” means a number or numbers established for a pollutant derived under this part or part 7050.0219 or 7052.0110, or issued by the USEPA, to protect aquatic life, humans, or wildlife.

**U. T.** “Developmental health endpoint” or “developmental toxicity” means an adverse effect on the developing organism that may result from parental exposure prior to conception, maternal exposure during prenatal development, or direct exposure postnatally until the time of sexual maturation. Developmental toxicity may be detected at any point in the lifespan of the organism. The major manifestations of developmental toxicity include:

- (1) death of the developing organism;
- (2) structural abnormality;
- (3) altered growth; or
- (4) functional deficiency.

**V. U.** “Duration” means the time over which the instream concentration of a pollutant is averaged for comparison with the

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standard or criterion.

**W. V.** “Durations for human health-based algorithms” or “D” means the length of the exposure period under consideration for noncancer and linear cancer algorithms.

(1) The four default D used in developing reference doses and corresponding intake rates are:

- (a) acute: a period of 24 hours or less;
- (b) short-term: a period of more than 24 hours, up to 30 days;
- (c) subchronic: a period of more than 30 days, up to eight years based on application of the less than ten percent standard life expectancy of 70 years for humans; or
- (d) chronic: a period of more than eight years.

(2) The default durations for use in the linear cancer algorithms with age dependent adjustment factors are:

- (a) two years for the birth up to two-year age group;
- (b) 14 years for the two- up to 16-year age group; and
- (c) 54 years for the 16- up to 70-year age group.

For any algorithm, use of chemical-specific data to define durations for noncancer or linear cancer algorithms are preferred when acceptable data are available.

**X. W.** “Effect concentration” or “EC50” means the toxicant concentration that causes equilibrium loss, immobilization, mortality, or other debilitating effects in 50 percent of the exposed organisms during a specific time of observation.

**Y. X.** “Endocrine” or “E” means a change in circulating hormone levels or interactions with hormone receptors, regardless of the organ or organ system affected. Health endpoints with or without the E designation are deemed equivalent, for example, thyroid (E) = thyroid, and must be included in the same health risk index equation.

**Z. Y.** “Final acute value” or “FAV” 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. The FAV is the acute toxicity limitation applied to mixing zones in part 7050.0210, subpart 5; and to dischargers in parts 7053.0215, subpart 1; 7053.0225, subpart 6; and 7053.0245, subpart 1.

**AA. Z.** “Food chain multiplier” or “FCM” means the ratio of a bioaccumulation factor by trophic level to an appropriate bioconcentration factor. FCM refers to values developed using USEPA models or from available and reliable field studies.

**BB. AA.** “Frequency” means the number of times a standard can be exceeded in a specified period of time without causing acute or chronic toxic effects on the aquatic community, human health, or fish-eating wildlife.

**CC. BB.** “Genus mean acute value” or “GMAV” means the geometric mean of the SMAs available for the genus.

**DD. CC.** “Health risk index” means the sum of the quotients calculated by identifying all chemicals that share a common health endpoint or are based on linear carcinogenicity and dividing the water or fish tissue concentration for each chemical (measured or statistically derived) by its applicable chronic standard or chronic criterion. To meet the objectives in part 7050.0217, the health risk index must not exceed a value of one. The equations for the risk indices are found in part 7050.0222, subpart 7, items D and E.

**EE. DD.** “Health risk index endpoint” or “health endpoint” means the general description of toxic effects used to group chemicals for the purpose of calculating a health risk index.

**FF. EE.** “Intake rate” or “IR” means rate of ingestion, inhalation, or dermal contact, depending on the route of exposure,

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expressed as the amount of a media taken in, on a per body weight and daily basis, for a specified duration.

**GG. FF.** "Lethal concentration" or "LC50" means the toxicant concentration killing 50 percent of the exposed organisms in a specific time of observation.

**HH. GG.** "Lowest observable adverse effect level" or "LOAEL" means the lowest exposure level that caused a statistically or biologically significant increase in the frequency or severity of adverse effects observed between the exposed population and its appropriate control group.

**II. HH.** "Magnitude" means the acceptable amount of a toxic pollutant in water or fish tissue expressed as a concentration.

**II. II.** "Maximum criterion" or "MC" 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 MC equals the FAV divided by two.

**JJ. KK.** "Maximum standard" or "MS" 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. Maximum standards are listed in part 7050.0222.

**KK. KK.** "MDH" means the Minnesota Department of Health.

**LL. LL.** "Mode of action" or "MOA" means the sequence of key events following pollutant or chemical exposure upon which the toxic outcome depends.

**NN. MM.** "National methods" means the methods the USEPA uses to develop aquatic life criteria as described in Stephan, C.E., D.J. Mount, D.J. Hansen, J.H. Gentile, G.A. Chapman, and W.A. Brungs, 1985, "Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses," USEPA, Office of Research and Development, Environmental Research Laboratories, Duluth MN; Narragansett, RI, Corvallis, OR. 98 p; available through the National Technical Information Service, Springfield, VA. (Publication PB85-227049)

**OO. NN.** "No observable adverse effect level" or "NOAEL" means the highest exposure level at which there is no statistically or biologically significant increase in the frequency or severity of adverse effects between the exposed population and its appropriate control group.

**PP. OO.** "Octanol to water partition coefficient" or "K<sub>ow</sub>" means the ratio of the concentration of a chemical in the octanol phase to its concentration in the aqueous phase of a two-phase octanol to water system after equilibrium of the chemical between the two phases has been achieved. The base 10 logarithm of the K<sub>ow</sub> or log K<sub>ow</sub> is used in the calculation of bioaccumulation factors. The log K<sub>ow</sub> has been shown to be proportional to the bioconcentration potential of lipophilic organic chemicals.

**QQ. PP.** "Percent effluent" means the representation of acute or chronic toxicity of an effluent as a percent of whole effluent mixed in dilution water, where acute toxicity is expressed by LC50s or EC50s and chronic toxicity is expressed by NOAEL.

**RR. QQ.** "Reference dose" or "RfD" means an estimate of a dose for a given duration to the human population, including susceptible subgroups such as infants, that is likely to be without an appreciable risk of adverse effects during a lifetime. It is derived from a suitable dose level at which there are few or no statistically or biologically significant increases in the frequency or severity of an adverse effect between the dosed population and its associated control group. The RfD includes one or more divisors, applied to the suitable dose level, accounting for:

- (1) uncertainty in extrapolating from mammalian laboratory animal data to humans;
- (2) variation in toxicological sensitivity among individuals in the human population;
- (3) uncertainty in extrapolating from effects observed in a short-term study to effects of long-term exposure;
- (4) uncertainty in using a study in which health effects were found at all doses tested; and
- (5) uncertainty associated with deficiencies in the available data.

The product of the divisors is not to exceed 3,000 in an RfD used for a chronic standard. The RfD is expressed in units of daily

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dose as milligrams of chemical per kilogram of body weight-day or mg/kg-day.

**SS. RR.** “Relative source contribution factor” or “RSC” means the percentage or apportioned amount (subtraction method) of the reference dose for a pollutant allocated to surface water exposures from drinking or incidental water ingestion and fish consumption. In the absence of sufficient data to establish a pollutant- or chemical-specific RSC value, the default RSC is 0.2 or 0.5 as described in part 7050.0219, subpart 5.

**TT. SS.** “Species mean acute value” or “SMAV” means the geometric mean of all the available and acceptable acute values for a species.

**UU. TT.** “Standard” means a number or numbers established for a pollutant or water quality characteristic to protect a specified beneficial use as listed in parts 7050.0221 to 7050.0227. The standard for a toxic pollutant includes the CS, MS, and FAV. Some pollutants do not have an MS or an FAV due to insufficient data. For these pollutants, the CS alone is the standard.

**VV. UU.** “Toxic effect” means an observable or measurable adverse biological event in an organ, tissue, or system. The designation of health endpoints does not exclude other possible observable or measurable biological events. For the purpose of grouping chemicals and creating a health risk index when multiple chemicals are present, toxic effects may be ascribed to more general health risk index endpoints or health endpoints.

**WW. VV.** “Toxic pollutant” has the meaning given it in part 7050.0185, subpart 2, item F. Toxic pollutant is used interchangeably in this part and parts 7050.0217, 7050.0219, and 7050.0222, subpart 7, items B to G, with the terms “pollutant” and “chemical.”

**XX. WW.** “Toxic unit” means a measure of acute or chronic toxicity in an effluent. One acute toxic unit (TUa) is the reciprocal of the effluent concentration that causes 50 percent effect or mortality to organisms for acute exposures (100/LC50); one chronic toxic unit (TUC) is the reciprocal of the effluent concentration that causes no observable adverse effect level on test organisms for chronic exposures (100/NOAEL).

**YY. XX.** “Trophic level” or “TL” means the food web level in an ecosystem that is occupied by an organism or group of organisms because of what they eat and how they are related to the rest of the food web. For example, trophic level 3 in an aquatic ecosystem consists of small fish such as bluegills, crappies, and smelt and trophic level 4 consists of larger carnivorous fish such as walleye, northern pike, and most trout species.

**ZZ. YY.** “USEPA” means the United States Environmental Protection Agency.

**AAA. ZZ.** “Water quality characteristic” means a characteristic of natural waters, such as total hardness or pH. Some water quality characteristics can affect the toxicity of pollutants to aquatic organisms.

**BBB. AAA.** “Whole effluent toxicity test” means the aggregate toxic effect of an effluent measured directly by a toxicity test. Effects on tested organisms are measured and expressed as toxic units or percent effluent for both acute and chronic whole effluent toxicity tests.

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

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

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

B. The USEPA criteria are adopted, subject to modification as described in this item or item C, for application to cool

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and warm water fisheries habitats and wetlands. Cool and warm water fisheries habitats (Class 2Bd; and 2B, and 2C) waters are defined in part 7050.0430 or listed in part 7050.0470. Wetlands (Class 2D) waters are defined in part 7050.0425 or listed in part 7050.0470.

(1) Acute data, in the form of the ranked genus mean acute values used by the USEPA to determine the national criteria, are the data used to determine the Class 2Bd, 2B, 2C, and 2D criteria.

*[For text of subitems (2) to (4), see M.R.]*

(5) If, as a result of the recalculation of the USEPA criterion for application to Class 2Bd, 2B, 2C, and 2D waters, the FAV for these water classes is lower than the FAV for Class 2A waters, the Class 2Bd, 2B, 2C, or 2D FAV will be changed to equal the Class 2A FAV, unless the lower Class 2Bd, 2B, 2C, or 2D FAV is justified based on the available toxicological data.

*[For text of subitems (6) and (7), see M.R.]*

*[For text of item C, see M.R.]*

*[For text of subps 5 to 8, see M.R.]*

**Subp. 9. Wildlife-based criteria.** The agency shall use the procedures in this subpart to establish wildlife-based criteria. Wildlife criteria shall protect wildlife consumers of freshwater aquatic organisms from adverse effects of toxic pollutants. Wildlife criteria are applicable to all surface waters, subject to the exceptions in subpart 10, item B, subitem (1).

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

D. A final BAF for calculating a wildlife chronic criterion (CC<sub>w</sub>) is determined as in subpart 7, except that the BCFs and BAFs are adjusted to represent whole body BCFs and BAFs.

*[For text of subitem (1), see M.R.]*

(2) Normalized BCFs and BAFs are multiplied by five percent lipid for CC<sub>w</sub> applicable to Class 2Bd; and 2B, and 2C waters.

*[For text of subitem (3), see M.R.]*

(4) BCFs estimated using the relationship between BCFs and the log K<sub>ow</sub> are normalized by dividing the estimated BCF by 7.6 and then multiplying by 12 for Class 2A waters or by five for Class 2Bd; and 2B, and 2C waters.

*[For text of subitem (5), see M.R.]*

**Subp. 10. Applicable criteria or human health-based standard.** The final criteria or chronic standard for human health for toxic pollutants for surface waters must be the lowest of the applicable criteria or standards for human health derived under this part and part 7050.0219.

A. Applicable criteria or standards for human health by use for Class 2A, 2Bd, 2B, 2C, and 2D surface waters are listed for each applicable population protected (aquatic life, humans, and fish-eating wildlife). The applicable criteria or standards for human health must be the lowest of the CC or CS as described in subitems (1) to (3):

*[For text of subitems (1) to (3), see M.R.]*

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

## 7050.0219 HUMAN HEALTH-BASED CRITERIA AND STANDARDS.

*[For text of subps 1 to 10, see M.R.]*

**Subp. 11. Final baseline BAF by trophic level.** Determine the final baseline BAF by trophic level (TL):

A. Calculate geometric mean baseline BAF for TL<sub>3</sub> and TL<sub>4</sub> using available species-means for each baseline BAF method. For Class 2A water, preference is given for Salmonidae data and developed as a single representative TL<sub>4</sub> baseline BAF for cold-water aquatic communities.

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

*[For text of subps 12 to 15, see M.R.]*

## 7050.0220 SPECIFIC WATER QUALITY STANDARDS BY ASSOCIATED USE CLASSES.

**Subpart 1. Purpose and scope.** The numeric and narrative water quality standards in this chapter 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 chapter

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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.

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

- A. cold water ~~sport fish (trout waters)~~ aquatic life and habitat, also protected for drinking water: Classes 1B, ~~2A~~; ~~2Ae or 2Ag~~; 3A or 3B; 4A and 4B; and 5 (subpart 3a);
- B. cool and warm water ~~sport fish~~ aquatic life and habitat, also protected for drinking water: Classes 1B or 1C, ~~2Bd~~; ~~2Bde, 2Bdg, or 2Bdm~~; 3A or 3B; 4A and 4B; and 5 (subpart 4a);
- C. cool and warm water ~~sport fish, indigenous aquatic life, and wetlands~~ aquatic life and habitat and wetlands: Classes 2B, ~~2C, 2Be, 2Bg, 2Bm~~, or 2D; 3A, 3B, 3C, or 3D; 4A and 4B or 4C; and 5 (subpart 5a); and
- D. limited resource value waters: Classes 3C; 4A and 4B; 5; and 7 (subpart 6a).

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

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

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

AN	means aesthetic enjoyment and navigation, Class 5 waters
*	an asterisk following the FAV and MS values or double dashes (–) means part 7050.0222, subpart 7, item G, applies
(c)	means the chemical is assumed to be a human <del>earcino</del> <u>carcinogen</u>
CS	means chronic standard, defined in part 7050.0218, subpart 3
DC	means domestic consumption (drinking water), Class 1 waters
–	double dashes means there is no standard
exp. ()	means the natural antilogarithm (base e) of the expression in parenthesis
FAV	means final acute value, defined in part 7050.0218, subpart 3
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	means maximum standard, defined in part 7050.0218, subpart 3
NA	means not applicable
(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 text of items E and F, see M.R.]*

**Subp. 3. [Repealed, 24 SR 1105]**

**Subp. 3a. Cold water ~~sport fish~~ aquatic life and habitat, drinking water, and associated use classes.** Water quality standards applicable to use Classes 1B, ~~2A~~; ~~2Ae or 2Ag~~; 3A or 3B; 4A and 4B; and 5 surface waters.

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

**Subp. 4. [Repealed, 24 SR 1105]**

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Subp. 4a. **Cool and warm water sport fish aquatic life and habitat, drinking water, and associated use classes.** Water quality standards applicable to use Classes 1B or 1C, 2Bd, 2Bde, 2Bdg, or 2Bdm; 3A or 3B; 4A and 4B; and 5 surface waters.

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

Subp. 5. [Repealed, 24 SR 1105]

Subp. 5a. **Cool and warm water sport fish aquatic life and habitat and associated use classes.** Water quality standards applicable to use Classes 2B, 2Be, 2Bg, 2Bm, 2C, or 2D; 3A, 3B, or 3C; 4A and 4B; and 5 surface waters. See parts 7050.0223, subpart 5; 7050.0224, subpart 4; and 7050.0225, subpart 2, for Class 3D, 4C, and 5 standards applicable to wetlands, respectively.

## A. MISCELLANEOUS SUBSTANCE, CHARACTERISTIC, OR POLLUTANT

2B;E&D CS	2B;E&D MS	2B;E&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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*[For text of subitems (1) to (5), see M.R.]*

2B;E&D CS	2B;E&D MS	2B;E&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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*[For text of subitem (6), see M.R.]*

(7) Eutrophication standards for lakes, shallow lakes, and reservoirs (phosphorus, total,  $\mu\text{g}/\text{L}$ ; chlorophyll-a,  $\mu\text{g}/\text{L}$ ; Secchi disk transparency, meters)

See part  
7050.0222,  
subparts  
4; and 4a;  
and 5

*[For text of subitems (8) to (11), see M.R.]*

2B;E&D CS	2B;E&D MS	2B;E&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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(12) Oxygen, dissolved,  $\text{mg}/\text{L}$

See part  
7050.0222,  
subparts  
4 to and 6

*[For text of subitems (13) to (16), see M.R.]*

2B;E&D CS	2B;E&D MS	2B;E&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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*[For text of subitems (17) to (22), see M.R.]*

## B. METALS AND ELEMENTS

2B;E&D CS	2B;E&D MS	2B;E&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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*[For text of subitems (1) to (4), see M.R.]*

**Proposed Rules**(5) Cadmium, total,  $\mu\text{g/L}$ 

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

2B, C&D CS	2B, C&D MS	2B, C&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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(6) Chromium +3, total,  $\mu\text{g/L}$ 

207	1,737	3,469	--	--	--	--
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Class 2B, 2C, and 2D trivalent chromium standards are hardness dependent. Chromium +3 values shown are for a total hardness of 100 mg/L only. See part 7050.0222, subpart 4, for examples at other hardness values and equations to calculate trivalent chromium standards for any hardness value not to exceed 400 mg/L.

*[For text of subitems (7) and (8), see M.R.]*

(9) Copper, total,  $\mu\text{g/L}$ 

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

(10) Lead, total,  $\mu\text{g/L}$ 

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

2B, C&D CS	2B, C&D MS	2B, C&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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*[For text of subitems (11) and (12), see M.R.]*

(13) Nickel, total,  $\mu\text{g/L}$ 

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

*[For text of subitem (14), see M.R.]*

(15) Silver, total,  $\mu\text{g/L}$ 

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

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2B;E&D CS	2B;E&D MS	2B;E&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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*[For text of subitem (16), see M.R.]*

(17) Zinc, total,  $\mu\text{g}/\text{L}$

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

## C. ORGANIC POLLUTANTS OR CHARACTERISTICS

2B;E&D CS	2B;E&D MS	2B;E&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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*[For text of subitems (1) to (5), see M.R.]*

2B;E&D CS	2B;E&D MS	2B;E&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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*[For text of subitems (6) to (10), see M.R.]*

2B;E&D CS	2B;E&D MS	2B;E&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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*[For text of subitems (11) to (15), see M.R.]*

2B;E&D CS	2B;E&D MS	2B;E&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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*[For text of subitems (16) to (20), see M.R.]*

2B;E&D CS	2B;E&D MS	2B;E&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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*[For text of subitems (21) to (25), see M.R.]*

2B;E&D CS	2B;E&D MS	2B;E&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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*[For text of subitems (26) to (30), see M.R.]*

2B;E&D CS	2B;E&D MS	2B;E&D FAV	3A/3B/3C IC	4A IR	4B LS	5 AN
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(31) Pentachlorophenol,  $\mu\text{g}/\text{L}$

5.5	15	30	--	--	--	--
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Class 2B, 2C, and 2D standards are pH dependent, except that the CS will not exceed 5.5  $\mu\text{g}/\text{L}$ . Pentachlorophenol values shown are for a pH of 7.5 only. See part 7050.0222, subpart 4, for examples at other pH values and equations to calculate pentachlorophenol standards for any pH value.

*[For text of subitems (32) to (35), see M.R.]*

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<b>2B, E&amp;D</b> CS	<b>2B, E&amp;D</b> MS	<b>2B, E&amp;D</b> FAV	<b>3A/3B/3C</b> IC	<b>4A</b> IR	<b>4B</b> LS	<b>5</b> AN
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*[For text of subitems (36) to (40), see M.R.]*

<b>2B, E&amp;D</b> CS	<b>2B, E&amp;D</b> MS	<b>2B, E&amp;D</b> FAV	<b>3A/3B/3C</b> IC	<b>4A</b> IR	<b>4B</b> LS	<b>5</b> AN
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*[For text of subitems (41) to (43), see M.R.]**[For text of items D to F, see M.R.]*

G. Temperature must not exceed:

- (1) 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; and
- (2) 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; and
- (3) (2) Class 2D standard: maintain background as defined in part 7050.0222, subpart 6.

Subp. 6. [Repealed, 24 SR 1105]

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

*[For text of items A and B, see M.R.]*

C. The level of dissolved oxygen shall must be maintained at concentrations:

- (1) that will avoid odors or putrid conditions in the receiving water;
- (2) or at concentrations at not less than one milligram per liter (daily average); and
- (3) provided that measurable concentrations are present above zero milligrams per liter at all times.

*[For text of items D and E, see M.R.]**[For text of subp 7, see M.R.]*

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

*[For text of subp 1, see M.R.]*

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 biota, and their habitats according to the definitions in subpart 2c. 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. Abbrevi-

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ations, acronyms, and symbols are explained in subpart 1.

Substance, Characteristic, or Pollutant (Class 2A)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Acenaphthene	µg/L	20	HH	56	112	Tox
Acetochlor	µg/L	3.6	Tox	86	173	Tox
Acrylonitrile (c)	µg/L	0.38	HH	1,140*	2,281*	Tox
Alachlor (c)	µg/L	3.8	HH	800*	1,600*	Tox
Aluminum, total	µg/L	87	Tox	748	1,496	Tox
Ammonia un-ionized as N	µg/L	16	Tox	--	--	NA

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

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

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

$pK_a = 0.09 + (2730/T)$  (dissociation constant for ammonia)

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

Substance, Characteristic, or Pollutant (Class 2A)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Anthracene	µg/L	0.035	Tox	0.32	0.63	Tox
Antimony, total	µg/L	5.5	HH	90	180	Tox
Arsenic, total	µg/L	2.0	HH	360	720	Tox
Atrazine (c)	µg/L	3.4	HH	323	645	Tox
Benzene (c)	µg/L	5.1	HH	4,487*	8,974*	Tox
Bromoform	µg/L	33	HH	2,900	5,800	Tox
Cadmium, total	µg/L	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

The MS in µg/L shall not exceed:  $\exp.(1.128[\ln(\text{total hardness mg/L})]-3.828)$

The FAV in µg/L shall not exceed:  $\exp.(1.128[\ln(\text{total hardness mg/L})]-3.1349)$

Where:  $\exp.$  is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total cadmium standards for five hardness values:

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TH in mg/L	50	100	200	300	400
Cadmium, total					
CS $\mu\text{g/L}$	0.66	1.1	2.0	2.7	3.4
MS $\mu\text{g/L}$	1.8	3.9	8.6	14	19
FAV $\mu\text{g/L}$	3.6	7.8	17	27	37

Substance, Characteristic, or Pollutant (Class 2A)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Carbon tetrachloride (c)	$\mu\text{g/L}$	1.9	HH	1750*	3500*	Tox
Chlordane (c)	ng/L	0.073	HH	1200*	2400*	Tox
Chloride	mg/L	230	Tox	860	1720	Tox
Chlorine, total residual	$\mu\text{g/L}$	11	Tox	19	38	Tox

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	1,392	2,784	Tox
Chlorpyrifos	$\mu\text{g/L}$	0.041	Tox	0.083	0.17	Tox
Chromium +3, total	$\mu\text{g/L}$	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where:  $\exp$  is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total chromium +3 standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Chromium +3, total					
CS $\mu\text{g/L}$	117	207	365	509	644
MS $\mu\text{g/L}$	984	1,737	3,064	4,270	5,405
FAV $\mu\text{g/L}$	1,966	3,469	6,120	8,530	10,797

Chromium +3, total					
CS $\mu\text{g/L}$	117	207	365	509	644
MS $\mu\text{g/L}$	984	1,737	3,064	4,270	5,405
FAV $\mu\text{g/L}$	1,966	3,469	6,120	8,530	10,797

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Substance, Characteristic, or Pollutant (Class 2A)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Chromium +6, total	µg/L	11	Tox	16	32	Tox
Cobalt, total	µg/L	2.8	HH	436	872	Tox
Color value	Pt/Co	30	NA	--	--	NA
Copper, total	µg/L	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where:  $\exp$ . is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total copper standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Copper, total					
CS µg/L	6.4	9.8	15	19	23
MS µg/L	9.2	18	34	50	65
FAV µg/L	18	35	68	100	131

Substance, Characteristic, or Pollutant (Class 2A)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
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Cyanide, free	µg/L	5.2	Tox	22	45	Tox
DDT (c)	ng/L	.11	HH	550*	1100*	Tox
1,2-Dichloroethane (c)	µg/L	3.5	HH	45,050*	90,100*	Tox
Dieldrin (c)	ng/L	0.0065	HH	1,300*	2,500*	Tox
Di-2-ethylhexyl phthalate (c)	µg/L	1.9	HH	--*	--*	NA
Di-n-octyl phthalate	µg/L	30	Tox	825	1,650	Tox
Endosulfan	µg/L	0.0076	HH	0.084	0.17	Tox
Endrin	µg/L	0.0039	HH	0.090	0.18	Tox
Escherichia (E.) coli	See below	See below	HH	See below	See below	NA

Not to exceed 126 organisms per 100 milliliters as a geometric mean of not less than five samples representative of conditions within any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 1,260 organisms per 100 milliliters. The standard applies only between April 1 and October 31.

Ethylbenzene	µg/L	68	Tox	1,859	3,717	Tox
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Substance, Characteristic, or Pollutant (Class 2A)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
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Eutrophication standards for Class 2A lakes and reservoirs. Designated lake trout lakes in all ecoregions (lake trout lakes support natural populations of lake trout, *Salvelinus namaycush*):

Phosphorus, total	µg/L	12	NA	--	--	NA
Chlorophyll-a	µg/L	3	NA	--	--	NA
Secchi disk transparency	meters	No less than 4.8	NA	--	--	NA

Designated trout lakes in all ecoregions, except lake trout lakes:

Phosphorus, total	µg/L	20	NA	--	--	NA
Chlorophyll-a	µg/L	6	NA	--	--	NA
Secchi disk transparency	meters	No less than 2.5	NA	--	--	NA

Additional narrative eutrophication standards for Class 2A lakes and reservoirs are found under subpart 2a.

Eutrophication standards for Class 2A rivers and streams.

North River Nutrient Region:		
Phosphorus, total	µg/L	less than or equal to 50
Chlorophyll-a (seston)	µg/L	less than or equal to 7
Diel dissolved oxygen flux	mg/L	less than or equal to 3.0
Biochemical oxygen demand (BOD <sub>s</sub> )	mg/L	less than or equal to 1.5
Central River Nutrient Region:		
Phosphorus, total	µg/L	less than or equal to 100
Chlorophyll-a (seston)	µg/L	less than or equal to 18
Diel dissolved oxygen flux	mg/L	less than or equal to 3.5
Biochemical oxygen demand (BOD <sub>s</sub> )	mg/L	less than or equal to 2.0
South River Nutrient Region:		
Phosphorus, total	µg/L	less than or equal to 150
Chlorophyll-a (seston)	µg/L	less than or equal to 35
Diel dissolved oxygen flux	mg/L	less than or equal to 4.5
Biochemical oxygen demand (BOD <sub>s</sub> )	mg/L	less than or equal to 3.0

Additional narrative eutrophication standards for Class 2A rivers and streams are found under subpart 2b.

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Substance, Characteristic, or Pollutant (Class 2A)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Fluoranthene	µg/L	1.9	Tox	3.5	6.9	Tox
Heptachlor (c)	ng/L	0.10	HH	260*	520*	Tox
Heptachlor epoxide (c)	ng/L	0.12	HH	270*	530*	Tox
Hexachlorobenzene (c)	ng/L	0.061	HH	--*	--*	Tox
Lead, total	µg/L	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where: exp. is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total lead standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Lead, total					
CS µg/L	1.3	3.2	7.7	13	19
MS µg/L	34	82	197	331	477
FAV µg/L	68	164	396	663	956

Substance, Characteristic, or Pollutant (Class 2A)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
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Lindane (c) (Hexachlorocyclohexane, gamma-)	µg/L	0.0087	HH	1.0*	2.0*	Tox
Mercury, total in water	ng/L	6.9	HH	2,400*	4,900*	Tox
Mercury, total in edible fish	mg/kgppm	0.2	HH	NA	NA	NA
Methylene chloride (c) Dichloromethane)	µg/L	45	HH	13,875*	27,749*	Tox
Metolachlor	µg/L	23	Tox	271	543	Tox
Naphthalene	µg/L	65	HH	409	818	Tox
Nickel, total	µg/L	equation	Tox/HH	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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 in µg/L is toxicity-based and shall not exceed:  $\exp(0.846[\ln(\text{total hardness mg/L})]+1.1645)$

**Proposed Rules**

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

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

Where:  $\exp$ . is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total nickel standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Nickel, total					
CS $\mu\text{g}/\text{L}$	88	158	283	297	297
MS $\mu\text{g}/\text{L}$	789	1,418	2,549	3,592	4,582
FAV $\mu\text{g}/\text{L}$	1,578	2,836	5,098	7,185	9,164

Substance, Characteristic, or Pollutant (Class 2A)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Oil	$\mu\text{g}/\text{L}$	500	NA	5,000	10,000	NA
Oxygen, dissolved	mg/L	See below	NA	--	--	NA

7.0 mg/L as a daily minimum. 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  $7Q_{10}$ .

Parathion	$\mu\text{g}/\text{L}$	0.013	Tox	0.07	0.13	Tox
Pentachlorophenol	$\mu\text{g}/\text{L}$	0.93	HH	equation	equation	Tox

The MS and FAV vary with pH and are calculated using the following equations:

The MS in  $\mu\text{g}/\text{L}$  shall not exceed:  $\exp(1.005[\text{pH}]-4.830)$

The FAV in  $\mu\text{g}/\text{L}$  shall not exceed:  $\exp(1.005[\text{pH}]-4.1373)$

Where:  $\exp$ . is the natural antilogarithm (base e) of the expression in parenthesis.

For pH values less than 6.0, 6.0 shall be used to calculate the standard and for pH values greater than 9.0, 9.0 shall be used to calculate the standard.

Example of pentachlorophenol standards for five pH values:

pH su	6.5	7.0	7.5	8.0	8.5
Pentachlorophenol					
CS $\mu\text{g}/\text{L}$	0.93	0.93	0.93	0.93	0.93
MS $\mu\text{g}/\text{L}$	5.5	9.1	15	25	41
FAV $\mu\text{g}/\text{L}$	11	18	30	50	82

# Proposed Rules

Substance, Characteristic, or Pollutant (Class 2A)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
pH, minimum	su	6.5	NA	--	--	NA
pH, maximum	su	8.5	NA	--	--	NA
Phenanthrene	µg/L	3.6	Tox	32	64	Tox
Phenol	µg/L	123	Tox	2,214	4,428	Tox
Polychlorinated biphenyls, total (c)	ng/L	0.014	HH	1,000*	2,000*	Tox
Radioactive materials	NA	See below	NA	See below	See below	NA

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, total	µg/L	5.0	Tox	20	40	Tox
Silver, total	µg/L	0.12	Tox	equation	equation	Tox

The MS and FAV vary with total hardness and are calculated using the following equations:

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

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

Where:  $\exp$  is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of silver standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Silver, total					
CS µg/L	0.12	0.12	0.12	0.12	0.12
MS µg/L	1.0	2.0	6.7	13	22
FAV µg/L	1.2	4.1	13	27	44

Substance, Characteristic, or Pollutant (Class 2A)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Temperature	°C or °F	No material increase	NA	--	--	NA
1,1,2,2-Tetrachloroethane (c)	µg/L	1.1	HH	1,127*	2,253*	Tox
Tetrachloroethylene (c)	µg/L	3.8	HH	428*	857*	Tox
Thallium, total	µg/L	0.28	HH	64	128	Tox
Toluene	µg/L	253	Tox	1,352	2,703	Tox
Toxaphene (c)	ng/L	0.31	HH	730*	1,500*	Tox
1,1,1-Trichloroethane	µg/L	329	Tox	2,957	5,913	Tox
1,1,2-Trichloroethylene (c)	µg/L	25	HH	6,988*	13,976*	Tox

**Proposed Rules**

2,4,6-Trichlorophenol	µg/L	2.0	HH	102	203	Tox
Total suspended solids (TSS)	mg/L	10	NA	--	--	NA
TSS standards for Class 2A may be exceeded for no more than ten percent of the time. This standard applies April 1 through September 30						
Vinyl chloride (c)	µg/L	0.17	HH	--*	--*	NA
Xylene, total m,p,o	µg/L	166	Tox	1,407	2,814	Tox
Zinc, total	µg/L	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where: exp. is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of zinc standards for five total hardness values:

TH in mg/L	50	100	200	300	400
<hr/>					
Zinc, total					
CS µg/L	59	106	191	269	343
MS µg/L	65	117	211	297	379
FAV µg/L	130	234	421	594	758

*[For text of subps 2a and 2b, see M.R.]*

**Subp. 2c. Beneficial use definitions for cold water stream and river habitats (Class 2A).**

A. Subitems (1) to (4) apply to the beneficial uses in items B and C:

(1) The designation and attainment of beneficial uses are based on the biological criteria in subpart 2d.

(2) The attributes of species composition, diversity, and functional organization are measured using:

(a) the fish-based IBI as defined in Development of a Fish-based Index of Biological Integrity for Minnesota's Rivers and Streams, Minnesota Pollution Control Agency (2014); or

(b) the macroinvertebrate IBI as defined in Development of a Macroinvertebrate-based Index of Biological Integrity for Minnesota's Rivers and Streams, Minnesota Pollution Control Agency (2014).

(3) Water body types for streams and rivers are defined in the documents referenced in subitem (2).

(4) The following documents are incorporated by reference and are not subject to frequent change:

(a) Calibration of the Biological Condition Gradient for Streams of Minnesota, Gerritsen et al. (2012). The document is available on the agency's Web site at [www.pca.state.mn.us](http://www.pca.state.mn.us);

# Proposed Rules

(b) Development of a Fish-based Index of Biological Integrity for Minnesota's Rivers and Streams, Minnesota Pollution Control Agency (2014). The document is available on the agency's Web site at [www.pca.state.mn.us](http://www.pca.state.mn.us);

(c) Development of a Macroinvertebrate-based Index of Biological Integrity for Minnesota's Rivers and Streams, Minnesota Pollution Control Agency (2014). The document is available on the agency's Web site at [www.pca.state.mn.us](http://www.pca.state.mn.us); and

(d) Development of Biological Criteria for Tiered Aquatic Life Uses, Minnesota Pollution Control Agency (2016). The document is available on the agency's Web site at [www.pca.state.mn.us](http://www.pca.state.mn.us).

B. "Exceptional cold water aquatic life and habitat" or "Class 2Ae" is a beneficial use that means waters capable of supporting and maintaining an exceptional and balanced, integrated, adaptive community of cold water aquatic organisms having a species composition, diversity, and functional organization comparable to the 75th percentile of biological condition gradient level 3 as established in Calibration of the Biological Condition Gradient for Streams of Minnesota, Gerritsen et al. (2012).

C. "General cold water aquatic life and habitat" or "Class 2Ag" is a beneficial use that means waters capable of supporting and maintaining a balanced, integrated, adaptive community of cold water aquatic organisms having a species composition, diversity, and functional organization comparable to the median of biological condition gradient level 4 as established in Calibration of the Biological Condition Gradient for Streams of Minnesota, Gerritsen et al. (2012).

## Subp. 2d. Biological criteria for cold water stream and river habitats (Class 2A).

Water Body Type	Tier	Class	Assemblage	Biocriterion
Southern cold water streams	Exceptional	2Ae	Fish	82
	General	2Ag	Fish	50
Northern cold water streams	Exceptional	2Ae	Fish	60
	General	2Ag	Fish	35
Northern cold water streams	Exceptional	2Ae	Macroinvertebrates	52
	General	2Ag	Macroinvertebrates	32
Southern cold water streams	Exceptional	2Ae	Macroinvertebrates	72
	General	2Ag	Macroinvertebrates	43

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 biota~~ and their habitats, according to the definitions in subpart 3c. 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. Abbreviations, acronyms, and symbols are explained in subpart 1.

Substance, Characteristic, or Pollutant (Class 2Bd)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Acenaphthene	µg/L	20	HH	56	112	Tox
Acetochlor	µg/L	3.6	Tox	86	173	Tox
Acrylonitrile (c)	µg/L	0.38	HH	1,140*	2,281*	Tox
Alachlor (c)	µg/L	4.2	HH	800*	1,600*	Tox
Aluminum, total	µg/L	125	Tox	1,072	2,145	Tox
Ammonia un-ionized as N	µg/L	40	Tox	--	--	NA

**Proposed Rules**

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

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

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

$pK_a = 0.09 + (2730/T)$  (dissociation constant for ammonia)

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

Substance, Characteristic, or Pollutant (Class 2Bd)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Anthracene	µg/L	0.035	Tox	0.32	0.63	Tox
Antimony, total	µg/L	5.5	HH	90	180	Tox
Arsenic, total	µg/L	2.0	HH	360	720	Tox
Atrazine (c)	µg/L	3.4	HH	323	645	Tox
Benzene (c)	µg/L	6.0	HH	4,487*	8,974*	Tox
Bromoform	µg/L	41	HH	2,900	5,800	Tox
Cadmium, total	µg/L	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where:  $\exp$ . is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total cadmium standards for five hardness values:

TH in mg/L	50	100	200	300	400
Cadmium, total					
CS µg/L	0.66	1.1	2.0	2.7	3.4
MS µg/L	15	33	73	116	160
FAV µg/L	31	67	146	231	319

Substance, Characteristic, or Pollutant (Class 2Bd)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Carbon tetrachloride (c)	µg/L	1.9	HH	1,750*	3,500*	Tox
Chlordane (c)	ng/L	0.29	HH	1,200*	2,400*	Tox
Chloride	mg/L	230	Tox	860	1,720	Tox
Chlorine, total residual	µg/L	11	Tox	19	38	Tox

# 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)	µg/L	20	HH	423	846	Tox
Chloroform (c)	µg/L	53	HH	1,392	2,784	Tox
Chlorpyrifos	µg/L	0.041	Tox	0.083	0.17	Tox
Chromium +3, total	µg/L	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where:  $\exp$ . is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total chromium +3 standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Chromium +3, total					
CS µg/L	117	207	365	509	644
MS µg/L	984	1,737	3,064	4,270	5,405
FAV µg/L	1,966	3,469	6,120	8,530	10,797

Substance, Characteristic, or Pollutant (Class 2Bd)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Chromium +6, total	µg/L	11	Tox	16	32	Tox
Cobalt, total	µg/L	2.8	HH	436	872	Tox
Copper, total	µg/L	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where:  $\exp$ . is the natural antilogarithm (base e) of the expression in parenthesis.

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

# Exhibit F.2.

## Proposed Rules

Example of total copper standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Copper, total					
CS $\mu\text{g/L}$	6.4	9.8	15	19	23
MS $\mu\text{g/L}$	9.2	18	34	50	65
FAV $\mu\text{g/L}$	18	35	68	100	131

Substance, Characteristic, or Pollutant (Class 2Bd)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Cyanide, free	$\mu\text{g/L}$	5.2	Tox	22	45	Tox
DDT (c)	ng/L	1.7	HH	550*	1,100*	Tox
1,2-Dichloroethane (c)	$\mu\text{g/L}$	3.8	HH	45,050*	90,100*	Tox
Dieldrin (c)	ng/L	0.026	HH	1,300*	2,500*	Tox
Di-2-ethylhexyl phthalate (c)	$\mu\text{g/L}$	1.9	HH	--*	--*	NA
Di-n-octyl phthalate	$\mu\text{g/L}$	30	Tox	825	1,650	Tox
Endosulfan	$\mu\text{g/L}$	0.029	HH	0.28	0.56	Tox
Endrin	$\mu\text{g/L}$	0.016	HH	0.090	0.18	Tox
Escherichia (E.) coli	See below	See below	HH	See below	See below	NA

Not to exceed 126 organisms per 100 milliliters as a geometric mean of not less than five samples representative of conditions within any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 1,260 organisms per 100 milliliters. The standard applies only between April 1 and October 31.

Ethylbenzene	$\mu\text{g/L}$	68	Tox	1,859	3,717	Tox
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Substance, Characteristic, or Pollutant (Class 2Bd)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
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Eutrophication standards for Class 2Bd lakes, shallow lakes, and reservoirs. Lakes, Shallow Lakes, and Reservoirs in Northern Lakes and Forest Ecoregion

Phosphorus, total	$\mu\text{g/L}$	30	NA	--	--	NA
Chlorophyll-a	$\mu\text{g/L}$	9	NA	--	--	NA
Secchi disk transparency	meters	Not less than 2.0	NA	--	--	NA

Lakes and Reservoirs in North Central Hardwood Forest Ecoregion

Phosphorus, total	$\mu\text{g/L}$	40	NA	--	--	NA
Chlorophyll-a	$\mu\text{g/L}$	14	NA	--	--	NA
Secchi disk transparency	meters	Not less than 1.4	NA	--	--	NA

# Proposed Rules

## Lakes and Reservoirs in Western Corn Belt Plains and Northern Glaciated Plains Ecoregions

Phosphorus, total	µg/L	65	NA	--	--	NA
Chlorophyll-a	µg/L	22	NA	--	--	NA
Secchi disk transparency	meters	Not less than 0.9	NA	--	--	NA

## Shallow Lakes in North Central Hardwood Forest Ecoregion

Phosphorus, total	µg/L	60	NA	--	--	NA
Chlorophyll-a	µg/L	20	NA	--	--	NA
Secchi disk transparency	meters	Not less than 1.0	NA	--	--	NA

## Shallow Lakes in Western Corn Belt Plains and Northern Glaciated Plains Ecoregions

Phosphorus, total	µg/L	90	NA	--	--	NA
Chlorophyll-a	µg/L	30	NA	--	--	NA
Secchi disk transparency	meters	Not less than 0.7	NA	--	--	NA

Additional narrative eutrophication standards for Class 2Bd lakes, shallow lakes, and reservoirs are found under subpart 3a.

Eutrophication standards for Class 2Bd rivers and streams.

North River Nutrient Region			
Phosphorus, total	µg/L	less than or equal to 50	
Chlorophyll-a (seston)	µg/L	less than or equal to 7	
Diel dissolved oxygen flux	mg/L	less than or equal to 3.0	
Biochemical oxygen demand (BOD <sub>5</sub> )	mg/L	less than or equal to 1.5	
Central River Nutrient Region			
Phosphorus, total	µg/L	less than or equal to 100	
Chlorophyll-a (seston)	µg/L	less than or equal to 18	
Diel dissolved oxygen flux	mg/L	less than or equal to 3.5	
Biochemical oxygen demand (BOD <sub>5</sub> )	mg/L	less than or equal to 2.0	
South River Nutrient Region			
Phosphorus, total	µg/L	less than or equal to 150	
Chlorophyll-a (seston)	µg/L	less than or equal to 35	
Diel dissolved oxygen flux	mg/L	less than or equal to 4.5	
Biochemical oxygen demand (BOD <sub>5</sub> )	mg/L	less than or equal to 3.0	

Additional narrative eutrophication standards for Class 2Bd rivers and streams are found under subpart 3b.

Substance, Characteristic, or Pollutant (Class 2Bd)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Fluoranthene	µg/L	1.9	Tox	3.5	6.9	Tox
Heptachlor (c)	ng/L	0.39	HH	260*	520*	Tox
Heptachlor epoxide (c)	ng/L	0.48	HH	270*	530*	Tox
Hexachlorobenzene (c)	ng/L	0.24	HH	--*	--*	Tox
Lead, total	µg/L	equation	Tox	equation	equation	Tox

**Proposed Rules**

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where: exp. is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total lead standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Lead, total					
CS $\mu\text{g/L}$	1.3	3.2	7.7	13	19
MS $\mu\text{g/L}$	34	82	197	331	477
FAV $\mu\text{g/L}$	68	164	396	663	956

Substance, Characteristic, or Pollutant (Class 2Bd)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Lindane (c) (Hexachlorocyclohexane, gamma-)	$\mu\text{g/L}$	0.032	HH	4.4*	8.8*	Tox
Mercury, total in water	ng/L	6.9	HH	2,400*	4,900*	Tox
Mercury, total in edible fish tissue	mg/kg ppm	0.2	HH	NA	NA	NA
Methylene chloride (c) (Dichloromethane)	$\mu\text{g/L}$	46	HH	13,875*	27,749*	Tox
Metolachlor	$\mu\text{g/L}$	23	Tox	271	543	Tox
Naphthalene	$\mu\text{g/L}$	81	Tox	409	818	Tox
Nickel, total	$\mu\text{g/L}$	equation	Tox/HH	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where: exp. is the natural antilogarithm (base e) of the expression in parenthesis.

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

# Proposed Rules

Example of total nickel standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Nickel, total					
CS $\mu\text{g/L}$	88	158	283	297	297
MS $\mu\text{g/L}$	789	1,418	2,549	3,592	4,582
FAV $\mu\text{g/L}$	1,578	2,836	5,098	7,185	9,164

Substance, Characteristic, or Pollutant (Class 2Bd)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Oil	$\mu\text{g/L}$	500	NA	5,000	10,000	NA
Oxygen, dissolved	mg/L	See Below	NA	--	--	NA

5.0 mg/L as a daily minimum. This dissolved oxygen standard may be modified on a site-specific basis according to part 7050.0220, subpart 7, 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  $7Q_{10}$ .

Parathion	$\mu\text{g/L}$	0.013	Tox	0.07	0.13	Tox
Pentachlorophenol	$\mu\text{g/L}$	1.9	HH	equation	equation	Tox

The MS and FAV vary with pH and are calculated using the following equations:

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

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

Where:  $\exp.$  is the natural antilogarithm (base e) of the expression in parenthesis.

For pH values less than 6.0, 6.0 shall be used to calculate the standard and for pH values greater than 9.0, 9.0 shall be used to calculate the standard.

Example of pentachlorophenol standards for five pH values:

pH su	6.5	7.0	7.5	8.0	8.5
Pentachlorophenol					
CS $\mu\text{g/L}$	1.9	1.9	1.9	1.9	1.9
MS $\mu\text{g/L}$	5.5	9.1	15	25	41
FAV $\mu\text{g/L}$	11	18	30	50	82

# Exhibit F.2.

## Proposed Rules

Substance, Characteristic, or Pollutant (Class 2Bd)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
pH, minimum	su	6.5	NA	--	--	NA
pH, maximum	su	9.0	NA	--	--	NA
Phenanthrene	µg/L	3.6	Tox	32	64	Tox
Phenol	µg/L	123	Tox	2,214	4,428	Tox
Polychlorinated biphenyls, total (c)	ng/L	0.029	HH	1,000*	2,000*	Tox
Radioactive materials	NA	See below	NA	See below	See below	NA

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, total	µg/L	5.0	Tox	20	40	Tox
Silver, total	µg/L	1.0	Tox	equation	equation	Tox

The MS and FAV vary with total hardness and are calculated using the following equations:

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

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

Where:  $\exp$  is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total silver standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Silver, total					
CS µg/L	1.0	1.0	1.0	1.0	1.0
MS µg/L	1.0	2.0	6.7	13	22
FAV µg/L	1.2	4.1	13	27	44

Substance, Characteristic, or Pollutant (Class 2Bd)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Temperature	°F	See below	NA	--	--	NA

5°F above natural in streams and 3°F above natural in lakes, based on monthly average of the maximum daily temperatures, except in no case shall it exceed the daily average temperature of 86°F.

1,1,2,2-Tetrachloroethane (c)	µg/L	1.5	HH	1,127*	2,253*	Tox
Tetrachloroethylene (c)	µg/L	3.8	HH	428*	857*	Tox
Thallium, total	µg/L	0.28	HH	64	128	Tox

# Proposed Rules

Toluene	µg/L	253	Tox	1,352	2,703	Tox
Toxaphene (c)	ng/L	1.3	HH	730*	1,500*	Tox
1,1,1-Trichloroethane	µg/L	329	Tox	2,957	5,913	Tox
1,1,2-Trichloroethylene (c)	µg/L	25	HH	6,988*	13,976*	Tox
2,4,6-Trichlorophenol	µg/L	2.0	HH	102	203	Tox
Total suspended solids (TSS)						
North River Nutrient Region	mg/L	15	NA	-	-	NA
Central River Nutrient Region	mg/L	30	NA	-	-	NA
South River Nutrient Region	mg/L	65	NA	-	-	NA
Red River mainstem - headwaters to border	mg/L	100	NA	-	-	NA
TSS standards for the Class 2Bd North, Central, and South River Nutrient Regions and the Red River mainstem may be exceeded for no more than ten percent of the time. This standard applies April 1 through September 30						
Total suspended solids (TSS), summer average						
Lower Mississippi River mainstem - Pools 2 through 4	mg/L	32	NA	-	-	NA
Lower Mississippi River mainstem below Lake Pepin	mg/L	30	NA	-	-	NA
TSS standards for the Class 2Bd Lower Mississippi River may be exceeded for no more than 50 percent of the time. This standard applies June 1 through September 30						

Substance, Characteristic, or Pollutant (Class 2Bd)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
---	-------	----	--------------	----	-----	-------------------

Vinyl chloride (c)	µg/L	0.18	HH	--*	--*	NA
Xylene, total m,p,o	µg/L	166	Tox	1,407	2,814	Tox
Zinc, total	µg/L	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

**Proposed Rules**

Where: exp. is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total zinc standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Zinc, total					
CS $\mu$ g/L	59	106	191	269	343
MS $\mu$ g/L	65	117	211	297	379
FAV $\mu$ g/L	130	234	421	594	758

*[For text of subps 3a and 3b, see M.R.]*

**Subp. 3c. Beneficial use definitions for warm or cool water stream and river habitats (Class 2Bd).**

**A.** Subitems (1) to (4) apply to the beneficial uses in items B to D:

(1) The designation and attainment of beneficial uses are based on the biological criteria in subpart 3d.

(2) The attributes of species composition, diversity, and functional organization are measured using:

(a) the fish-based IBI as defined in Development of a Fish-based Index of Biological Integrity for Minnesota's Rivers and Streams, Minnesota Pollution Control Agency (2014); or

(b) the macroinvertebrate IBI as defined in Development of a Macroinvertebrate-based Index of Biological Integrity for Minnesota's Rivers and Streams, Minnesota Pollution Control Agency (2014).

(3) Water body types for streams and rivers are defined in the documents referenced in subitem (2).

(4) The following documents are incorporated by reference and are not subject to frequent change:

(a) Calibration of the Biological Condition Gradient for Streams of Minnesota, Gerritsen et al. (2012). The document is available on the agency's Web site at [www.pca.state.mn.us](http://www.pca.state.mn.us);

(b) Development of a Fish-based Index of Biological Integrity for Minnesota's Rivers and Streams, Minnesota Pollution Control Agency (2014). The document is available on the agency's Web site at [www.pca.state.mn.us](http://www.pca.state.mn.us);

(c) Development of a Macroinvertebrate-based Index of Biological Integrity for Minnesota's Rivers and Streams, Minnesota Pollution Control Agency (2014). The document is available on the agency's Web site at [www.pca.state.mn.us](http://www.pca.state.mn.us); and

(d) Development of Biological Criteria for Tiered Aquatic Life Uses, Minnesota Pollution Control Agency (2016). The document is available on the agency's Web site at [www.pca.state.mn.us](http://www.pca.state.mn.us).

**B.** "Exceptional cool and warm water aquatic life and habitat, also protected as a source for drinking water" or "Class 2Bde" is a beneficial use that means waters capable of supporting and maintaining an exceptional and balanced, integrated, adaptive community of warm or cool water aquatic organisms having a species composition, diversity, and functional organization comparable to the 75th percentile of biological condition gradient level 3 as established in Calibration of the Biological Condition Gradient for Streams of Minnesota, Gerritsen et al. (2012).

**C.** "General cool and warm water aquatic life and habitat, also protected as a source for drinking water" or "Class 2Bdg" is a beneficial use that means waters capable of supporting and maintaining a balanced, integrated, adaptive community of warm or cool water aquatic organisms having a species composition, diversity, and functional organization comparable to the median of biological condition gradient level 4 as established in Calibration of the Biological Condition Gradient for Streams of Minnesota, Gerritsen et al. (2012).

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D. "Modified cool and warm water aquatic life and habitat, also protected as a source for drinking water" or "Class 2Bdm" is a beneficial use that means waters capable of supporting and maintaining a balanced, integrated, adaptive community of warm or cool water aquatic organisms having a species composition, diversity, and functional organization comparable to the median of biological condition gradient level 5 as established in Calibration of the Biological Condition Gradient for Streams of Minnesota, Gerritsen et al. (2012).

(1) To meet the definition in this item, waters must have been the subject of a use attainability analysis and must have been found to be incapable of supporting and maintaining the Class 2Bdg beneficial use because of human-induced modifications of the physical habitat that preclude the potential for recovery of the fauna. These modifications must be the result of direct alteration to the channel, such as drainageway maintenance, bank stabilization, and impoundments.

(2) Examples of Class 2Bdm waters are the stream channel modification activities regulated under:

- (a) sections 401 and 404 of the Clean Water Act; or
- (b) Minnesota Statutes, chapter 103E.

Subp. 3d. Biological criteria for warm or cool water stream and river habitats (Class 2Bd).

Water Body Type	Tier	Class	Assemblage	Biocriterion
Southern rivers	Exceptional	2Bde	Fish	71
	General	2Bdg	Fish	49
Southern streams	Exceptional	2Bde	Fish	66
	General	2Bdg	Fish	50
Southern headwaters	Modified	2Bdm	Fish	35
	Exceptional	2Bde	Fish	74
Northern rivers	General	2Bdg	Fish	55
	Modified	2Bdm	Fish	33
Northern streams	Exceptional	2Bde	Fish	67
	General	2Bdg	Fish	38
Northern headwaters	Exceptional	2Bde	Fish	61
	General	2Bdg	Fish	47
Low gradient	Modified	2Bdm	Fish	35
	Exceptional	2Bde	Fish	68
Northern forest rivers	General	2Bdg	Fish	42
	Modified	2Bdm	Fish	23
Prairie and southern forest rivers	Exceptional	2Bde	Fish	70
	General	2Bdg	Fish	42
High-gradient northern forest streams	Modified	2Bdm	Fish	15
	Exceptional	2Bde	Macroinvertebrates	77
Low-gradient northern forest streams	General	2Bdg	Macroinvertebrates	49
	Exceptional	2Bde	Macroinvertebrates	63
	General	2Bdg	Macroinvertebrates	31
	Exceptional	2Bde	Macroinvertebrates	82
	General	2Bdg	Macroinvertebrates	53
	Exceptional	2Bde	Macroinvertebrates	76
	General	2Bdg	Macroinvertebrates	51
	Modified	2Bdm	Macroinvertebrates	37

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<u>High-gradient southern streams</u>	<u>Exceptional</u>	<u>2Bde</u>	<u>Macroinvertebrates</u>	<u>62</u>
	<u>General</u>	<u>2Bdg</u>	<u>Macroinvertebrates</u>	<u>37</u>
	<u>Modified</u>	<u>2Bdm</u>	<u>Macroinvertebrates</u>	<u>24</u>
<u>Low-gradient southern forest streams</u>	<u>Exceptional</u>	<u>2Bde</u>	<u>Macroinvertebrates</u>	<u>66</u>
	<u>General</u>	<u>2Bdg</u>	<u>Macroinvertebrates</u>	<u>43</u>
	<u>Modified</u>	<u>2Bdm</u>	<u>Macroinvertebrates</u>	<u>30</u>
<u>Low-gradient prairie streams</u>	<u>Exceptional</u>	<u>2Bde</u>	<u>Macroinvertebrates</u>	<u>69</u>
	<u>General</u>	<u>2Bdg</u>	<u>Macroinvertebrates</u>	<u>41</u>
	<u>Modified</u>	<u>2Bdm</u>	<u>Macroinvertebrates</u>	<u>22</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 biota~~, and their habitats, according to the definitions in subpart 4c. 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. Abbreviations, acronyms, and symbols are explained in subpart 1.

Substance, Characteristic, or Pollutant (Class 2B)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Acenaphthene	µg/l	20	HH	56	112	Tox
Acetochlor	µg/L	3.6	Tox	86	173	Tox
Acrylonitrile (c)	µg/l	0.89	HH	1,140*	2,281*	Tox
Alachlor (c)	µg/L	59	Tox	800	1,600	Tox
Aluminum, total	µg/L	125	Tox	1,072	2,145	Tox
Ammonia un-ionized as N	µg/L	40	Tox	--	--	NA

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

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

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

$$pK_a = 0.09 + (2730/T)$$
 (dissociation constant for ammonia)

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

Substance, Characteristic, or Pollutant (Class 2B)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Anthracene	µg/L	0.035	Tox	0.32	0.63	Tox
Antimony, total	µg/L	31	Tox	90	180	Tox
Arsenic, total	µg/L	53	HH	360	720	Tox
Atrazine (c)	µg/L	10	Tox	323	645	Tox
Benzene (c)	µg/L	98	HH	4,487	8,974	Tox
Bromoform	µg/L	466	HH	2,900	5,800	Tox
Cadmium, total	µg/L	equation	Tox	equation	equation	Tox

# Proposed Rules

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where:  $\exp.$  is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total cadmium standards for five hardness values:

TH in mg/L	50	100	200	300	400
Cadmium, total					
CS $\mu\text{g/L}$	0.66	1.1	2.0	2.7	3.4
MS $\mu\text{g/L}$	15	33	73	116	160
FAV $\mu\text{g/L}$	31	67	146	231	319

Substance, Characteristic, or Pollutant (Class 2B)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Carbon tetrachloride (c)	$\mu\text{g/L}$	5.9	HH	1,750*	3,500*	Tox
Chlordane (c)	$\text{ng/L}$	0.29	HH	1,200*	2,400*	Tox
Chloride	$\text{mg/L}$	230	Tox	860	1,720	Tox
Chlorine, total residual	$\mu\text{g/L}$	11	Tox	19	38	Tox

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)	$\mu\text{g/L}$	155	Tox	1,392	2,784	Tox
Chlorpyrifos	$\mu\text{g/L}$	0.041	Tox	0.083	0.17	Tox
Chromium +3, total	$\mu\text{g/L}$	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations

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

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

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

Where:  $\exp.$  is the natural antilogarithm (base e) of the expression in parenthesis.

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

# Exhibit F.2.

## Proposed Rules

Example of total chromium +3 standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Chromium +3, total					
CS $\mu\text{g/L}$	117	207	365	509	644
MS $\mu\text{g/L}$	984	1,737	3,064	4,270	5,405
FAV $\mu\text{g/L}$	1,966	3,469	6,120	8,530	10,797

Substance, Characteristic, or Pollutant (Class 2B)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Chromium +6, total	$\mu\text{g/L}$	11	Tox	16	32	Tox
Cobalt, total	$\mu\text{g/L}$	5.0	Tox	436	872	Tox
Copper, total	$\mu\text{g/L}$	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where: exp. is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total copper standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Copper, total					
CS $\mu\text{g/L}$	6.4	9.8	15	19	23
MS $\mu\text{g/L}$	9.2	18	34	50	65
FAV $\mu\text{g/L}$	18	35	68	100	131

Substance, Characteristic, or Pollutant (Class 2B)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Cyanide, free	$\mu\text{g/L}$	5.2	Tox	22	45	Tox
DDT (c)	$\text{ng/L}$	1.7	HH	550*	1,100*	Tox
1,2-Dichloroethane (c)	$\mu\text{g/L}$	190	HH	45,050*	90,100*	Tox
Dieldrin (c)	$\text{ng/L}$	0.026	HH	1,300*	2,500*	Tox
Di-2-ethylhexyl phthalate (c)	$\mu\text{g/L}$	2.1	HH	--*	--*	NA
Di-n-octyl phthalate	$\mu\text{g/L}$	30	Tox	825	1,650	Tox
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
Escherichia (E.) coli	See below	See below	HH	See below	See below	NA

# Proposed Rules

Not to exceed 126 organisms per 100 milliliters as a geometric mean of not less than five samples representative of conditions within any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 1,260 organisms per 100 milliliters. The standard applies only between April 1 and October 31.

Ethylbenzene	µg/L	68	Tox	1,859	3,717	Tox
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Substance, Characteristic, or Pollutant (Class 2B)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
--	-------	----	--------------	----	-----	-------------------

Eutrophication standards for Class 2B lakes, shallow lakes, and reservoirs. Lakes, Shallow Lakes, and Reservoirs in Northern Lakes and Forest Ecoregions

Phosphorus, total	µg/L	30	NA	--	--	NA
Chlorophyll-a	µg/L	9	NA	--	--	NA
Secchi disk transparency	meters	Not less than 2.0	NA	--	--	NA

Lakes and Reservoirs in North Central Hardwood Forest Ecoregion

Phosphorus, total	µg/L	40	NA	--	--	NA
Chlorophyll-a	µg/L	14	NA	--	--	NA
Secchi disk transparency	meters	Not less than 1.4	NA	--	--	NA

Lakes and Reservoirs in Western Corn Belt Plains and Northern Glaciated Plains Ecoregions

Phosphorus, total	µg/L	65	NA	--	--	NA
Chlorophyll-a	µg/L	22	NA	--	--	NA
Secchi disk transparency	meters	Not less than 0.9	NA	--	--	NA

Shallow Lakes in North Central Hardwood Forest Ecoregion

Phosphorus, total	µg/L	60	NA	--	--	NA
Chlorophyll-a	µg/L	20	NA	--	--	NA
Secchi disk transparency	meters	Not less than 1.0	NA	--	--	NA

Shallow Lakes in Western Corn Belt Plains and Northern Glaciated Plains Ecoregions

Phosphorus, total	µg/L	90	NA	--	--	NA
Chlorophyll-a	µg/L	30	NA	--	--	NA
Secchi disk transparency	meters	Not less than 0.7	NA	--	--	NA

Additional narrative eutrophication standards for Class 2B lakes, shallow lakes, and reservoirs are found in subpart 4a.

# Exhibit F.2.

## Proposed Rules

Substance, Characteristic, or Pollutant (Class 2B)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
--	-------	----	--------------	----	-----	-------------------

Eutrophication standards for Class 2B rivers and streams.

North River Nutrient Region						
Phosphorus, total		µg/L		less than or equal to 50		
Chlorophyll-a (seston)		µg/L		less than or equal to 7		
Diel dissolved oxygen flux		mg/L		less than or equal to 3.0		
Biochemical oxygen demand (BOD <sub>s</sub> )		mg/L		less than or equal to 1.5		
Central River Nutrient Region						
Phosphorus, total		µg/L		less than or equal to 100		
Chlorophyll-a (seston)		µg/L		less than or equal to 18		
Diel dissolved oxygen flux		mg/L		less than or equal to 3.5		
Biochemical oxygen demand (BOD <sub>s</sub> )		mg/L		less than or equal to 2.0		
South River Nutrient Region						
Phosphorus, total		µg/L		less than or equal to 150		
Chlorophyll-a (seston)		µg/L		less than or equal to 40		
Diel dissolved oxygen flux		mg/L		less than or equal to 5.0		
Biochemical oxygen demand (BOD <sub>s</sub> )		mg/L		less than or equal to 3.5		

Site-specific standards for specified river reaches or other waters are:

Mississippi River Navigational Pool 1 (river miles 854.1 to 847.7 reach from Fridley to Ford Dam in St. Paul)		
Phosphorus, total	µg/L	less than or equal to 100
Chlorophyll-a (seston)	µg/L	less than or equal to 35
Mississippi River Navigational Pool 2 (river miles 847.7 to 815.2 reach from Ford Dam to Hastings Dam)		
Phosphorus, total	µg/L	less than or equal to 125
Chlorophyll-a (seston)	µg/L	less than or equal to 35
Mississippi River Navigational Pool 3 (river miles 815.2 to 796.9 reach from Hastings Dam to Red Wing Dam)		
Phosphorus, total	µg/L	less than or equal to 100
Chlorophyll-a (seston)	µg/L	less than or equal to 35
Mississippi River Navigational Pool 4 (river miles 796.9 to 752.8 reach from Red Wing Dam to Alma Dam). Lake Pepin occupies majority of Pool 4 and Lake Pepin site-specific standards are used for this pool.		
Mississippi River Navigational Pools 5 to 8 (river miles 752.8 to 679.1 Alma Dam to Genoa Dam)		
Phosphorus, total	µg/L	less than or equal to 100

# Proposed Rules

Chlorophyll-a (seston)	µg/L	less than or equal to 35
Lake Pepin		
Phosphorus, total	µg/L	less than or equal to 100
Chlorophyll-a (seston)	µg/L	less than or equal to 28
Crow Wing River from confluence of Long Prairie River to the mouth of the Crow Wing River at the Mississippi River		
Phosphorus, total	µg/L	less than or equal to 75
Chlorophyll-a (seston)	µg/L	less than or equal to 13
Diel dissolved oxygen flux	mg/L	less than or equal to 3.5
Biochemical oxygen demand (BOD <sub>s</sub> )	mg/L	less than or equal to 1.7
Crow River from the confluence of the North Fork of the Crow River and South Fork of the Crow River to the mouth of the Crow River at the Mississippi River		
Phosphorus, total	µg/L	less than or equal to 125
Chlorophyll-a (seston)	µg/L	less than or equal to 27
Diel dissolved oxygen flux	mg/L	less than or equal to 4.0
Biochemical oxygen demand (BOD <sub>s</sub> )	mg/L	less than or equal to 2.5

Additional narrative eutrophication standards for Class 2B rivers and streams are found in subpart 4b.

Substance, Characteristic, or Pollutant (Class 2B)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Fluoranthene	µg/L	1.9	Tox	3.5	6.9	Tox
Heptachlor (c)	ng/L	0.39	HH	260*	520*	Tox
Heptachlor epoxide (c)	ng/L	0.48	HH	270*	530*	Tox
Hexachlorobenzene (c)	ng/L	0.24	HH	--*	--*	Tox
Lead, total	µg/L	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where: exp. is the natural antilogarithm (base e) of the expression in parenthesis.

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

# Exhibit F.2.

## Proposed Rules

Example of total lead standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Lead, total					
CS $\mu\text{g/L}$	1.3	3.2	7.7	13	19
MS $\mu\text{g/L}$	34	82	197	331	477
FAV $\mu\text{g/L}$	68	164	396	663	956

Substance, Characteristic, or Pollutant (Class 2B)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Lindane (c) (Hexachlorocyclohexene, gamma-)	$\mu\text{g/L}$	0.036	HH	4.4*	8.8*	Tox
Mercury, total in water	ng/L	6.9	HH	2,400*	4,900*	Tox
Mercury, total in edible fish tissue	mg/kg ppm	0.2	HH	NA	NA	NA
Methylene chloride (c) (Dichloromethane)	$\mu\text{g/L}$	1,940	HH	13,875	27,749	Tox
Metolachlor	$\mu\text{g/L}$	23	Tox	271	543	Tox
Naphthalene	$\mu\text{g/L}$	81	Tox	409	818	Tox
Nickel, total	$\mu\text{g/L}$	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where: exp. is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total nickel standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Nickel, total					
CS $\mu\text{g/L}$	88	158	283	399	509
MS $\mu\text{g/L}$	789	1,418	2,549	3,592	4,582
FAV $\mu\text{g/L}$	1,578	2,836	5,098	7,185	9,164

Substance, Characteristic, or Pollutant (Class 2B)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Oil	$\mu\text{g/l}$	500	NA	5,000	10,000	NA
Oxygen, dissolved	mg/L	See below	NA	--	--	NA

# Proposed Rules

5.0 mg/L as a daily minimum. This dissolved oxygen standard may be modified on a site-specific basis according to part 7050.0220, subpart 7, 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 7Q<sub>10</sub>. This standard applies to all Class 2B waters except for:

(1) 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; and

(2) the portion of the Minnesota River from the outlet of the Blue Lake wastewater treatment works (River Mile 21) to the mouth at Fort Snelling. For the specified reach of the Minnesota River, the standard is not less than 5 mg/L as a daily average year round.

Parathion	µg/L	0.013	Tox	0.07	0.13	Tox
Pentachlorophenol	µg/L	equation	Tox/HH	equation	equation	Tox

The CS, MS, and FAV vary with pH and are calculated using the following equations:

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 in µg/L shall not exceed the toxicity-based standard of  $\exp(1.005[\text{pH}] - 5.290)$

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

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

Where: exp. is the natural antilogarithm (base e) of the expression in parenthesis.

For pH values less than 6.0, 6.0 shall be used to calculate the standard and for pH values greater than 9.0, 9.0 shall be used to calculate the standard.

Example of pentachlorophenol standards for five pH values:

pH	6.5	7.0	7.5	8.0	8.5
Pentachlorophenol					
CS µg/L	3.5	5.5	5.5	5.5	5.5
MS µg/L	5.5	9.1	15	25	41
FAV µg/L	11	18	30	50	82

Substance, Characteristic, or Pollutant (Class 2B)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
pH, minimum	su	6.5	NA	--	--	NA
pH, maximum	su	9.0	NA	--	--	NA
Phenanthrene	µg/L	3.6	Tox	32	64	Tox
Phenol	µg/L	123	Tox	2,214	4,428	Tox
Polychlorinated biphenyls, total (c)	ng/L	0.029	HH	1,000*	2,000*	Tox
Radioactive materials	NA	See below	NA	See below	See below	NA

## Exhibit F.2. Proposed Rules

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, total	µg/L	5.0	Tox	20	40	Tox
Silver, total	µg/L	1.0	Tox	equation	equation	Tox

The MS and FAV vary with total hardness and are calculated using the following equations:

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

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

Where:  $\exp.$  is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total silver standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Silver, total					
CS µg/L	1.0	1.0	1.0	1.0	1.0
MS µg/L	1.0	2.0	6.7	13	22
FAV µg/L	1.2	4.1	13	27	44

Substance, Characteristic, or Pollutant (Class 2B)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Temperature	°F	See below	NA	--	--	NA

5°F above natural in streams and 3°F above natural in lakes, based on monthly average of the maximum daily temperatures, except in no case shall it exceed the daily average temperature of 86°F.

1,1,2,2-Tetrachloroethane (c)	µg/L	13	HH	1,127	2,253	Tox
Tetrachloroethylene (c)	µg/L	8.9	HH	428	857	Tox
Thallium, total	µg/L	0.56	HH	64	128	Tox
Toluene	µg/L	253	Tox	1,352	2,703	Tox
Toxaphene (c)	ng/L	1.3	HH	730*	1,500*	Tox
1,1,1-Trichloroethane	µg/L	329	Tox	2,957	5,913	Tox
1,1,2-Trichloroethylene (c)	µg/L	120	HH	6,988	13,976	Tox
2,4,6-Trichlorophenol	µg/L	2.0	HH	102	203	Tox
Total suspended solids (TSS)						
North River Nutrient Region	mg/L	15	NA	--	--	NA
Central River Nutrient Region	mg/L	30	NA	--	--	NA
South River Nutrient Region	mg/L	65	NA	--	--	NA
Red River mainstem - headwaters to border	mg/L	100	NA	--	--	NA

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TSS standards for the Class 2B North, Central, and South River Nutrient Regions and the Red River mainstem may be exceeded for no more than ten percent of the time. This standard applies April 1 through September 30						
Total suspended solids (TSS), summer average						
Lower Mississippi River mainstem - Pools 2 through 4	mg/L	32	NA	--	--	NA
Lower Mississippi River mainstem below Lake Pepin	mg/L	30	NA	--	--	NA
TSS standards for the Class 2B Lower Mississippi River may be exceeded for no more than 50 percent of the time. This standard applies June 1 through September 30						

Substance, Characteristic, or Pollutant (Class 2B)	Units	CS	Basis for CS	MS	FAV	Basis for MS, FAV
Vinyl chloride (c)	µg/L	9.2	HH	--*	--*	NA
Xylene, total m,p,o	µg/L	166	Tox	1,407	2,814	Tox
Zinc, total	µg/L	equation	Tox	equation	equation	Tox

The CS, MS, and FAV vary with total hardness and are calculated using the following equations:

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

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

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

Where: exp. is the natural antilogarithm (base e) of the expression in parenthesis.

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

Example of total zinc standards for five total hardness values:

TH in mg/L	50	100	200	300	400
Zinc, total					
CS µg/L	59	106	191	269	343
MS µg/L	65	117	211	297	379
FAV µg/L	130	234	421	594	758

*[For text of subps 4a and 4b, see M.R.]*

# Proposed Rules

## Subp. 4c. Beneficial use definitions for warm or cool water stream and river habitats (Class 2B).

A. Subitems (1) to (4) apply to the beneficial uses in items B to D:

(1) The designation and attainment of beneficial uses are based on the criteria in subpart 4d.

(2) The attributes of species composition, diversity, and functional organization are measured using:

(a) the fish-based IBI as defined in Development of a Fish-based Index of Biological Integrity for Minnesota's Rivers and Streams, Minnesota Pollution Control Agency (2014); or

(b) the macroinvertebrate IBI as defined in Development of a Macroinvertebrate-based Index of Biological Integrity for Minnesota's Rivers and Streams, Minnesota Pollution Control Agency (2014).

(3) Water body types for streams and rivers are defined in the documents referenced in subitem (2).

(4) The following documents are incorporated by reference and are not subject to frequent change:

(a) Calibration of the Biological Condition Gradient for Streams of Minnesota, Gerritsen et al. (2012). The document is available on the agency's Web site at [www.pca.state.mn.us](http://www.pca.state.mn.us);

(b) Development of a Fish-based Index of Biological Integrity for Minnesota's Rivers and Streams, Minnesota Pollution Control Agency (2014). The document is available on the agency's Web site at [www.pca.state.mn.us](http://www.pca.state.mn.us);

(c) Development of a Macroinvertebrate-based Index of Biological Integrity for Minnesota's Rivers and Streams, Minnesota Pollution Control Agency (2014). The document is available on the agency's Web site at [www.pca.state.mn.us](http://www.pca.state.mn.us); and

(d) Development of Biological Criteria for Tiered Aquatic Life Uses, Minnesota Pollution Control Agency (2016). The document is available on the agency's Web site at [www.pca.state.mn.us](http://www.pca.state.mn.us).

B. "Exceptional cool and warm water aquatic life and habitat" or "Class 2Be" is a beneficial use that means waters capable of supporting and maintaining an exceptional and balanced, integrated, adaptive community of warm or cool water aquatic organisms having a species composition, diversity, and functional organization comparable to the 75th percentile of biological condition gradient level 3 as established in Calibration of the Biological Condition Gradient for Streams of Minnesota, Gerritsen et al. (2012).

C. "General cool and warm water aquatic life and habitat" or "Class 2Bg" is a beneficial use that means waters capable of supporting and maintaining a balanced, integrated, adaptive community of warm or cool water aquatic organisms having a species composition, diversity, and functional organization comparable to the median of biological condition gradient level 4 as established in Calibration of the Biological Condition Gradient for Streams of Minnesota, Gerritsen et al. (2012).

D. "Modified cool and warm water aquatic life and habitat" or "Class 2Bm" is a beneficial use that means waters capable of supporting and maintaining a balanced, integrated, adaptive community of warm or cool water aquatic organisms having a species composition, diversity, and functional organization comparable to the median of biological condition gradient level 5 as established in Calibration of the Biological Condition Gradient for Streams of Minnesota, Gerritsen et al. (2012).

(1) To meet the definition in this item, waters must have been the subject of a use attainability analysis and must have been found to be incapable of supporting and maintaining the Class 2Bg beneficial use because of human-induced modifications of the physical habitat that preclude the potential for recovery of the fauna. These modifications must be the result of direct alteration to the channel, such as drainageway maintenance, bank stabilization, and impoundments.

(2) Examples of Class 2Bm waters are the stream channel modification activities regulated under:

(a) sections 401 and 404 of the Clean Water Act; or

(b) Minnesota Statutes, chapter 103E.

# Proposed Rules

Subp. 4d. Biological criteria for warm or cool water stream and river habitats (Class 2B).

Water Body Type	Tier	Class	Assemblage	Biocriterion
<u>Southern rivers</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Fish</u>	<u>71</u>
	<u>General</u>	<u>2Bg</u>	<u>Fish</u>	<u>49</u>
<u>Southern streams</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Fish</u>	<u>66</u>
	<u>General</u>	<u>2Bg</u>	<u>Fish</u>	<u>50</u>
	<u>Modified</u>	<u>2Bm</u>	<u>Fish</u>	<u>35</u>
<u>Southern headwaters</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Fish</u>	<u>74</u>
	<u>General</u>	<u>2Bg</u>	<u>Fish</u>	<u>55</u>
	<u>Modified</u>	<u>2Bm</u>	<u>Fish</u>	<u>33</u>
<u>Northern rivers</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Fish</u>	<u>67</u>
	<u>General</u>	<u>2Bg</u>	<u>Fish</u>	<u>38</u>
<u>Northern streams</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Fish</u>	<u>61</u>
	<u>General</u>	<u>2Bg</u>	<u>Fish</u>	<u>47</u>
	<u>Modified</u>	<u>2Bm</u>	<u>Fish</u>	<u>35</u>
<u>Northern headwaters</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Fish</u>	<u>68</u>
	<u>General</u>	<u>2Bg</u>	<u>Fish</u>	<u>42</u>
	<u>Modified</u>	<u>2Bm</u>	<u>Fish</u>	<u>23</u>
<u>Low gradient</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Fish</u>	<u>70</u>
	<u>General</u>	<u>2Bg</u>	<u>Fish</u>	<u>42</u>
	<u>Modified</u>	<u>2Bm</u>	<u>Fish</u>	<u>15</u>
<u>Northern forest rivers</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Macroinvertebrates</u>	<u>77</u>
	<u>General</u>	<u>2Bg</u>	<u>Macroinvertebrates</u>	<u>49</u>
<u>Prairie and southern forest rivers</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Macroinvertebrates</u>	<u>63</u>
	<u>General</u>	<u>2Bg</u>	<u>Macroinvertebrates</u>	<u>31</u>
<u>High-gradient northern forest streams</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Macroinvertebrates</u>	<u>82</u>
	<u>General</u>	<u>2Bg</u>	<u>Macroinvertebrates</u>	<u>53</u>
<u>Low-gradient northern forest streams</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Macroinvertebrates</u>	<u>76</u>
	<u>General</u>	<u>2Bg</u>	<u>Macroinvertebrates</u>	<u>51</u>
	<u>Modified</u>	<u>2Bm</u>	<u>Macroinvertebrates</u>	<u>37</u>
<u>High-gradient southern streams</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Macroinvertebrates</u>	<u>62</u>
	<u>General</u>	<u>2Bg</u>	<u>Macroinvertebrates</u>	<u>37</u>
	<u>Modified</u>	<u>2Bm</u>	<u>Macroinvertebrates</u>	<u>24</u>
<u>Low-gradient southern forest streams</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Macroinvertebrates</u>	<u>66</u>
	<u>General</u>	<u>2Bg</u>	<u>Macroinvertebrates</u>	<u>43</u>
	<u>Modified</u>	<u>2Bm</u>	<u>Macroinvertebrates</u>	<u>30</u>
<u>Low-gradient prairie streams</u>	<u>Exceptional</u>	<u>2Be</u>	<u>Macroinvertebrates</u>	<u>69</u>
	<u>General</u>	<u>2Bg</u>	<u>Macroinvertebrates</u>	<u>41</u>
	<u>Modified</u>	<u>2Bm</u>	<u>Macroinvertebrates</u>	<u>22</u>

Subp. 5. [See repealer.]

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

**7050.0227 SPECIFIC WATER QUALITY STANDARDS FOR CLASS 7 WATERS OF THE STATE; LIMITED RESOURCE VALUE WATERS.**

*[For text of subp 1, see M.R.]*

# Exhibit F.2.

## Proposed Rules

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 for substances, characteristics, or pollutants given below shall not be exceeded in the waters:

Substance, Characteristic, or Pollutant	Class 7 Standard
Escherichia (E.) coli	Not to exceed 630 organisms per 100 milliliters as a geometric mean of not less than five samples representative of conditions within any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 1,260 organisms per 100 milliliters. The standard applies only between May 1 and October 31.
Oxygen, dissolved	<u>The level of dissolved oxygen must be maintained at concentrations:</u> <u>i. which that</u> will avoid odors or putrid conditions in the receiving water; <u>or at concentrations ii.</u> at not less than 1 mg/L (daily average); and <u>provided that measurable concentrations are present iii.</u> above 0 mg/L at all times.
pH, minimum value	6.0
pH, maximum value	9.0
Toxic pollutants	Toxic pollutants shall not be allowed in such quantities or concentrations that will impair the specified uses.

### 7050.0430 UNLISTED WATERS.

Subpart 1. **Statewide surface waters.** Except as provided in subparts 2 and 3, all surface waters of the state that are not listed in part 7050.0470 and that are not wetlands as defined in part 7050.0186, subpart 1a, are hereby classified as Class 2B, 2B~~g~~, 3C, 4A, 4B, 5, and 6 waters.

#### Subp. 2. **Boundary Waters Canoe Area Wilderness.**

A. All streams in the Boundary Waters Canoe Area Wilderness [11/5/84P] not listed in part 7050.0470 are classified as Class 1B, 2B~~d~~, 3B.

B. All lakes in the Boundary Waters Canoe Area Wilderness [11/5/84P] not listed in part 7050.0470 are classified as Class 1B, 2B~~d~~, 3B.

C. All wetlands in the Boundary Waters Canoe Area Wilderness [11/5/84P] are classified as Class 2D.

#### Subp. 3. **Voyageurs National Park.**

A. All streams in Voyageurs National Park [11/5/84P] not listed in part 7050.0470 are classified as Class 2B~~g~~, 3B.

B. All lakes in Voyageurs National Park [11/5/84P] not listed in part 7050.0470 are classified as Class 2B, 3B.

C. All wetlands in Voyageurs National Park [11/5/84P] are classified as Class 2D.

### 7050.0460 WATERS SPECIFICALLY CLASSIFIED; EXPLANATION OF LISTINGS IN PART 7050.0470.

Subpart 1. **Explanation of listings.** The waters of the state listed in part 7050.0470 are classified as specified. The specific stretch of watercourse or the location of a water body is lakes, wetlands, calcareous fens, and scientific and natural areas are described by township, range, and section. Specific stream stretches are described by township, range, and section; stream confluence; geographic coordinates; road crossing; some other recognizable landmark; or a combination of these descriptors. Streams and rivers are listed by the eight-digit hydrologic unit code (HUC) of the major watersheds in part 7050.0469 in which the streams and rivers are located. The tables that specify the applicable beneficial uses for the stream and river reaches are incorporated by reference in part 7050.0470. Any community listed in part 7050.0470 is the community nearest the water classified, and is

## Proposed Rules:

included solely to assist in identifying the water. Most waters of the state are not specifically listed in part 7050.0470. See parts 7050.0425 and 7050.0430 for the classifications of waters not listed.

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

**7050.0469 MAP: MINNESOTA'S MAJOR WATERSHEDS.**

## Major Watersheds in Minnesota



**Proposed Rules****7050.0470 CLASSIFICATIONS FOR SURFACE WATERS IN MAJOR DRAINAGE BASINS.**

Subpart 1. **Lake Superior Basin.** The water use classifications for the stream reaches within each of the major watersheds in the Lake Superior Basin listed in item A are found in tables entitled "Beneficial Use Designations for Stream Reaches" published on the Web site of the Minnesota Pollution Control Agency at [www.pca.state.mn.us](http://www.pca.state.mn.us). The tables are incorporated by reference and are not subject to frequent change. The date after each watershed listed in item A is the publication date of the applicable table. The water use classifications for the other listed waters in the Lake Superior Basin are as identified in items A-B to D. See parts 7050.0425 and 7050.0430 for the classifications of waters not listed. Designated use information for water bodies can also be accessed through the agency's Environmental Data Access (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

**A. Streams (by eight-digit hydrologic unit code):**

- (1) 04010101 Lake Superior - North (August 9, 2016);
- (2) 04010102 Lake Superior - South (August 9, 2016);
- (3) 04010201 St. Louis River (August 9, 2016);
- (4) 04010202 Cloquet River (August 9, 2016); and
- (5) 04010301 Nemadji River (August 9, 2016).
- (1) Ahlenius Creek, (T.53, R.14, S.9, 10): 1B, 2A, 3B;
- (2) Amenda Creek, (T.59, R.5, S.19, 20, 29, 30, 31; T.59, R.6, S.36): 1B, 2A, 3B;
- (3) Amity Creek, (T.50, R.13, S.5, 6; T.50, R.14, S.1; T.51, R.13, S.31, 32; T.51, R.14, S.26, 27, 28, 35, 36): 1B, 2A, 3B;
- (4) Amity Creek, East Branch (T.51, R.13, S.30, 31; T.51, R.14, S.13, 14, 15, 22, 24, 25, 36): 1B, 2A, 3B;
- (5) Anderson Creek, Carlton County, (T.46, R.17, S.11, 14, 15, 22, 26, 27): 1B, 2A, 3B;
- (6) Anderson Creek, St. Louis County, (T.49, R.15, S.16, 17, 18; T.49, R.16, S.12, 13): 1B, 2A, 3B;
- (7) Artichoke Creek, (T.52, R.17, S.7, 17, 18): 1B, 2A, 3B;
- (8) Assinika Creek, (T.63, R.1E, S.1; T.63, R.2E, S.7, 8, 16, 17, 21; T.64, R.1E, S.36; T.64, R.2E, S.31): 1B, 2A, 3B;
- (9) Bally Creek, (T.61, R.1W, S.3, 4, 5, 6, 7, 8, 9, 10, 11; T.61, R.2W, S.12): 1B, 2A, 3B;
- (10) Baptism River, East Branch, (T.57, R.6, S.6; T.57, R.7, S.1, 2, 3, 9, 10, 11, 12, 16, 17, 20; T.58, R.6, S.30, 31; T.58, R.7, S.13, 17, 19, 20, 21, 22, 23, 24, 25, 26, 29, 30, 36; T.58, R.8, S.22, 23, 24, 25, 26): 1B, 2A, 3B;
- (11) Baptism River, Main Branch, (T.56, R.7, S.3, 4, 5, 9, 10, 14, 15; T.57, R.7, S.20, 27, 28, 29, 33, 34): 1B, 2A, 3B;
- (12) Baptism River, West Branch, (T.57, R.7, S.7, 17, 18, 20; T.57, R.8, S.1, 2, 12; T.58, R.8, S.2, 3, 4, 9, 10, 11, 15, 16, 20, 21, 22, 28, 33, 34, 35, 36; T.59, R.8, S.34, 35): 1B, 2A, 3B;
- (13) Barber Creek (East Swan River) (Chisholm Creek) Chisholm, (T.58, R.20, S.21, 22, 26, 27, 34, 35): 7;
- (14) Barker Creek, (T.60, R.3W, S.5, 6, 7, 8; T.60, R.4W, S.3, 9, 10, 11, 12; T.61, R.4W, S.34, 35): 1B, 2A, 3B;
- (15) Barrs Creek, (T.53, R.13, S.20, 27, 28, 29): 1B, 2A, 3B;
- (16) Bear Trap Creek (Beartrap Creek), (T.51, R.16, S.30; T.51, R.17, S.16, 21, 22, 23, 25, 26, 27, 28): 1B, 2A, 3B;
- (17) Beaver Dam Creek (Beaverdam Creek), (T.63, R.3E, S.2, 3, 4, 5; T.64, R.3E, S.32, 33, 34, 35): 1B, 2A, 3B;

# Proposed Rules

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(18) Beaver River (includes Kit Creek), (T.55, R.8, S.2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 16, 17; T.55, R.9, S.1, 2; T.56, R.8, S.31; T.56, R.9, S.4, 5, 6, 8, 9, 16, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 32, 33, 34, 35, 36; T.57, R.9, S.28, 32, 33): 1B, 2A, 3B;

(19) Beaver River, East Branch (includes Hen Creek), (T.55, R.8, S.2; T.56, R.8, S.4, 5, 6, 8, 9, 15, 16, 21, 22, 25, 26, 27, 35, 36; T.57, R.8, S.7, 18, 19, 30, 31, 32; T.57, R.9, S.2, 3, 11, 12, 13, 14, 15, 23, 24, 25, 26, 36): 1B, 2A, 3B;

(20) Beaver River, West Branch, (T.55, R.8, S.7, 17, 18; T.55, R.9, S.2, 3, 4, 10, 11, 12, 13, 14): 1B, 2A, 3B;

(21) Berry Creek (Breda), (T.55, R.12, S.6, 7; T.55, R.13, S.12, 13; T.56, R.11, S.6; T.56, R.12, S.1, 11, 12, 14, 15, 16, 21, 28, 29, 31, 32; T.57, R.11, S.10, 15, 16, 21, 28, 29, 31, 32): 1B, 2A, 3B;

(22) Blackhoof River, (T.47, R.16, S.29, 30; T.47, R.17, S.6, 7, 9, 10, 14, 15, 16, 17, 18, 19, 20, 22, 25, 26, 27, 28; T.48, R.17, S.30, 31): 1B, 2A, 3B;

(23) Blesner Creek, (T.58, R.6, S.20, 29, 30, 31): 1B, 2A, 3B;

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

(25) Bluff Creek, (T.63, R.1W, S.13, 23, 24, 25): 1B, 2A, 3B;

(26) Boulder Creek, (T.53, 54, R.14): 2C;

(27) Breda Creek (see Berry Creek);

(28) Brule River, (T.62, R.2E, S.1, 2; T.62, R.3E, S.4, 5, 6, 9, 10, 15, 16, 22, 27, 34; T.63, R.2E, S.21, 22, 23, 25, 26, 27, 28, 33, 35, 36; T.63, R.3E, S.30, 31, 32): 1B, 2A, 3B;

(29) Brule River (excluding trout waters and waters within Boundary Waters Canoe Area Wilderness), (T.63, 64, R.1W, 1E, 2E): 1B, 2Bd, 3C;

(30) Brule River, Little, (T.62, R.3E, S.19, 20, 29, 32, 33): 1B, 2A, 3B;

(31) Budd Creek (Bud Creek), (T.55, R.9, S.7, 17, 18, 20, 21): 1B, 2A, 3B;

(32) Buhl Creek, Buhl, (T.58, R.19, S.20, 29): 7;

(33) \*Burnt Creek, [11/5/84P] (T.62, R.4W, S.8, 9): 1B, 2A, 3B;

(34) Burnt Creek, (T.62, R.4W, S.16, 17, 20): 1B, 2A, 3B;

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

(36) Captain Jacobson Creek, (T.52, R.12, S.1, 2, 3; T.53, R.12, S.33, 34, 35): 1B, 2A, 3B;

(37) Carey Creek, (T.53, R.14, S.28, 33): 1B, 2A, 3B;

(38) Caribou Creek, (T.60, R.3W, S.2, 3, 10): 1B, 2A, 3B;

(39) Caribou River, (T.58, R.6, S.1, 2, 11, 13, 14, 15, 22, 23, 24, 25, 26, 36; T.59, R.6, S.23, 24, 25, 26, 35, 36): 1B, 2A, 3B;

(40) Carlson Creek, (T.52, R.12, S.19, R.13, S.14, 15, 23, 24): 1B, 2A, 3B;

(41) Carlson Creek (Stony Brook), (T.62, R.4E, S.3, 4, 9, 10; T.63, R.4E, S.31, 32, 33, 34): 1B, 2A, 3B;

(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);

## Exhibit F.2. Proposed Rules

~~T.62, R.2W, S.10, 11, 14, 15, 16, 22, 23, 24, 25, 36): 1B, 2A, 3B;~~

(43) \*Cascade River, North Branch [11/5/84P] ~~(T.62, R.2W, S.3, 10): 1B, 2A, 3B;~~

(44) Cascade River, North Branch (those waters outside the Boundary Waters Canoe Area Wilderness), ~~(T.62, R.2W, S.10): 1B, 2A, 3B;~~

(45) Castle Danger Creek (Campers), ~~(T.54, R.9, S.30, 31, 32): 1B, 2A, 3B;~~

(46) Cedar Creek, Lake County, ~~(T.56, R.8, S.13, 14, 23, 24, 26): 1B, 2A, 3B;~~

(47) Cedar Creek, Cook County, ~~(T.59, R.5W, S.2; T.60, R.5W, S.14, 22, 23, 25, 26, 35, 36): 1B, 2A, 3B;~~

(48) Cemetery Creek, ~~(T.51, R.17, S.4, 5, 9): 1B, 2A, 3B;~~

(49) Chellberg Creek (Chalberg Creek), ~~(T.51, R.16, S.7; T.51, R.17, S.1, 2, 3, 10, 12): 1B, 2A, 3B;~~

(50) Chester Creek, ~~(T.50, R.14, S.7, 8, 9, 14, 15, 16, 23): 1B, 2A, 3B;~~

(51) Chester Creek, East Branch, ~~(T.50, R.14, S.4, 5, 9, 15, 16): 1B, 2A, 3B;~~

(52) Chicken Creek, ~~(T.52, R.16, S.5, 7, 8, 18, 19; T.52, R.17, S.13, 24, 25; T.53, R.16, S.32): 1B, 2A, 3B;~~

(53) Clear Creek, Carlton County, ~~(T.46, R.17, S.9, 10, 11, 12, 16, 17, 20, 29): 1B, 2A, 3B;~~

(54) Clear Creek, Carlton County, ~~(T.47, R.15, S.7; T.47, R.16, S.1, 2, 3, 4, 12; T.48, R.16, S.33): 1B, 2A, 3B;~~

(55) Cliff Creek, ~~(T.61, R.2E, S.3, 4, 5, 9, 10; T.62, R.2E, S.29, 30, 31, 32): 1B, 2A, 3B;~~

(56) Cloudy Spring Creek, ~~(T.57, R.9, S.5, 6, 7, 18; T.57, R.10, S.12, 13, 24): 1B, 2A, 3B;~~

(57) Colville Creek, East, ~~(T.61, R.3E, S.5; T.62, R.2E, S.25; T.62, R.3E, S.30, 31, 32): 1B, 2A, 3B;~~

(58) Coolidge Creek, ~~(T.55, R.14, S.19, 29, 30; T.55, R.15, S.25, 26, 35, 36): 1B, 2A, 3B;~~

(59) Cranberry Creek, ~~(T.58, R.13): 2C;~~

(60) Cross River, ~~(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;~~

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

(62) 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.32): 1B, 2A, 3B;~~

(63) Crystal Creek, ~~(T.48, R.16, S.6; T.48, R.17, S.1): 1B, 2A, 3B;~~

(64) Cutface Creek (Good Harbor Creek), ~~(T.61, R.1W, S.27, 28, 29, 34): 1B, 2A, 3B;~~

(65) Dago Creek, ~~(T.54, R.9, S.18, 19; T.54, R.10, S.2, 11, 12, 13; T.55, R.10, S.27, 34, 35): 1B, 2A, 3B;~~

(66) Deer Creek, ~~(T.47, R.16, S.19, 20, 28, 29; T.47, R.17, S.11, 12, 13, 24): 1B, 2A, 3B;~~

(67) Deer Yard Creek (Spruce Creek), ~~(T.60, R.2W, S.4, 5, 6, 7, 8, 9, 10, 15, 16, 17; T.61, R.2W, S.32): 1B, 2A, 3B;~~

(68) Devil Track River, ~~(T.61, R.1E, S.2, 3, 10, 11, 12, 13; T.62, R.1E, S.26, 31, 32, 33, 34, 35): 1B, 2A, 3B;~~

# Proposed Rules

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(69) Devil Track River, Little, (T.61, R.1E, S.4, 5, 6, 7, 8, 9, 10; T.61, R.1W, S.1, 2, 11, 12): 1B, 2A, 3B;

(70) Dragon Creek, (T.57, R.6, S.8, 9, 16, 17, 21): 1B, 2A, 3B;

(71) Durfee Creek, (T.61, R.2E, S.5, 6, 8; T.62, R.1E, S.25, 36; T.62, R.2E, S.31): 1B, 2A, 3B;

(72) Dutchess Slough Creek (Dutch Slough), (T.50, R.17, S.4, 9, 10, 13, 14, 15, 24): 1B, 2A, 3B;

(73) Egge Creek, (T.57, R.7, S.2, 3, 4, 11): 1B, 2A, 3B;

(74) Elbow Creek, Cook County, (T.62, R.1E, S.3, 4, 9, 10, 15, 22, 27, 34; T.63, R.1E, S.33, 34): 1B, 2A, 3B;

(75) Elbow Creek, Eveleth, (T.57, R.17, S.6; T.57, R.18, S.1): 7;

(76) Elm Creek, (T.49, R.16, S.1, 2; T.50, R.16, S.35): 1B, 2A, 3B;

(77) Encampment River, (T.53, R.10, S.3, 10, 11; T.54, R.10, S.8, 16, 17, 21, 27, 28, 34): 1B, 2A, 3B;

(78) Farquhar Creek, (T.62, R.4E, S.2, 11; T.63, R.4E, S.34, 35): 1B, 2A, 3B;

(79) \*Fiddle Creek, [11/5/84P] (T.64, R.1W, S.34): 1B, 2A, 3B;

(80) Fiddle Creek, (T.63, R.1W, S.2, 3, 10, 15; T.64, R.1W, S.35): 1B, 2A, 3B;

(81) Flute Reed River, (T.62, R.3E, S.1, 2, 3, 10, 11, 12, 13, 14, 15; T.62, R.4E, S.17, 18, 20; T.63, R.3E, S.26, 34, 35, 36): 1B, 2A, 3B;

(82) Fond du Lac Creek (Squaw), (T.49, R.17, S.9, 16, 17, 18, 19, 20, 21): 1B, 2A, 3B;

(83) Fox Farm Creek, (T.62, R.1E, S.19, 30): 1B, 2A, 3B;

(84) French River, (T.51, R.12, S.7, 17, 18; T.51, R.13, S.1, 2, 3, 12; T.52, R.13, S.8, 9, 16, 17, 20, 21, 23, 26, 27, 28, 29, 34, 35): 1B, 2A, 3B;

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

(86) Gauthier Creek, (T.62, R.3E, S.16, 20, 21, 22, 27): 1B, 2A, 3B;

(87) Gill Creek, (T.48, R.16, S.2): 1B, 2A, 3B;

(88) Gooseberry River, (T.54, R.9, S.18, 19, 20, 21, 22, 27; T.54, R.10, S.4, 5, 6, 8, 9, 10, 11, 12, 13; T.55, R.10, S.4, 9, 16, 17, 20, 29, 30, 31, 32; T.56, R.10, S.33): 1B, 2A, 3B;

(89) Gooseberry River, Little, (T.54, R.10, S.6; T.54, R.11, S.1; T.55, R.10, S.31; T.55, R.11, S.34, 35, 36): 1B, 2A, 3B;

(90) Grand Portage Creek, (T.63, R.5E, S.1; T.63, R.6E, S.4, 5, 6; T.64, R.6E, S.31, 32, 33): 1B, 2A, 3B;

(91) Greenwood River, (T.63, R.2E, S.1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24; T.63, R.3E, S.6; T.64, R.2E, S.34; T.64, R.3E, S.31): 1B, 2A, 3B;

(92) Hay Creek, (T.49, R.16, S.3, 4, 9, 10, 15; T.50, R.16, S.20, 21, 28, 29, 32, 33): 1B, 2A, 3B;

(93) Heartbreak Creek, (T.59, R.4W, S.18, 19; T.59, R.5W, S.2, 11, 12, 13; T.60, R.5W, S.27, 28, 33, 34, 35): 1B, 2A, 3B;

(94) Hellwig Creek, (T.52, R.17, S.3, 10, 14, 15, 23, 26; T.53, R.16, S.16, 18, 19, 20, 30; T.53, R.17, S.13, 14, 23, 24, 25, 26, 34, 35): 1B, 2A, 3B;

**Exhibit F.2.**  
**Proposed Rules**

(95) 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): 1B, 2A, 3B;

(96) Hollow Rock Creek, (T.63, R.5E, S.9, 10, 11, 14, 15, 16, 23, 24, 25): 1B, 2A, 3B;

(97) Honeymoon Creek (Spring Creek), (T.61, R.4W, S.28, 31, 32, 33): 1B, 2A, 3B;

(98) Hornby Junction Creek (Whiteface River, South Branch), (T.55, R.13, S.5, 6, 7; T.56, R.13, S.28, 32, 33): 1B, 2A, 3B;

(99) Horn Creek, (T.62, R.4W): 1B, 2Bd, 3C;

(100) Houghtaling Creek, (T.59, R.6, S.2, 3, 4, 5, 6; T.60, R.6, S.25, 32, 33, 35, 36): 1B, 2A, 3B;

(101) Humphrey Creek, (T.54, R.14, S.23, 26, 27, 33, 34): 1B, 2A, 3B;

(102) Hunter Creek (Hunters Creek), (T.46, R.18, S.2, 11, 12, 13; T.47, R.18, S.34, 35): 1B, 2A, 3B;

(103) Indian Camp Creek, (T.60, R.2W, S.3, 10, 11; T.61, R.2W, S.34): 1B, 2A, 3B;

(104) Indian Creek, (T.55, R.12, S.3; T.56, R.12, S.14, 22, 23, 27, 34): 1B, 2A, 3B;

(105) Irish Creek, (T.63, R.3E, S.8, 9, 10, 13, 14, 15, 23, 24, 25, 26; T.63, R.4E, S.17, 18, 19): 1B, 2A, 3B;

(106) Joe Martin Creek (Martin Branch), (T.50, R.18, S.3, 4, 5, 7, 8; T.50, R.19, S.12): 1B, 2A, 3B;

(107) Johnson Creek, (T.50, R.17, S.3, 10, 11, 14; T.51, R.17, S.34): 1B, 2A, 3B;

(108) Johnson Creek, (T.55, R.12, S.35, 36): 1B, 2A, 3B;

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

(110) 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;

(111) Kadunce Creek (Kadunce River), (T.61, R.2E, S.2; T.62, R.2E, S.9, 10, 12, 13, 14, 15, 16, 22, 23, 24, 26, 35): 1B, 2A, 3B;

(112) Keene Creek, (T.49, R.14, S.18; T.49, R.15, S.1, 12, 13; T.50, R.15, S.24, 25, 36): 1B, 2A, 3B;

(113) Kehtel Creek, (T.51, R.15, S.8, 17, 18, 19, 20): 1B, 2A, 3B;

(114) Kimball Creek, (T.61, R.2E, S.3, 4, 10; T.62, R.2E, S.7, 16, 17, 18, 19, 20, 21, 28, 29, 33, 34): 1B, 2A, 3B;

(115) Kingsbury Creek, (T.49, R.15, S.4, 9, 10, 11, 13, 14; T.50, R.15, S.33, 34): 1B, 2A, 3B;

(116) Kinney Creek, (T.57, R.10, S.15, 21, 22, 28, 33): 1B, 2A, 3B;

(117) Knife River, (T.52, R.11, S.4, 5, 8, 9, 17, 18, 19, 31; T.53, R.11, S.4, 5, 7, 8, 17, 18, 20, 29, 32, 33; T.54, R.11, S.20, 29, 32; T.52, R.12, S.24, 25, 36): 1B, 2A, 3B;

(118) Knife River, Little, (T.52, R.12, S.16, 17, 21, 22, 23, 26, 27, 28, 35, 36): 1B, 2A, 3B;

(119) Knife River, Little, East Branch, (T.53, R.11, S.17, 20, 21, 22, 27, 33, 34): 1B, 2A, 3B;

(120) Knife River, Little, West Branch, (T.52, R.11, S.6; T.53, R.11, S.31; T.53, R.12, S.13, 14, 23, 24, 25, 26, 36): 1B,

# Proposed Rules

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2A, 3B;

- (+21) Knife River, West Branch, (T.52, R.11, S.5, 6, 8; T.52, R.12, S.1; T.53, R.12, S.2, 3, 10, 15, 16, 22, 23, 27, 28, 34, 35, 36; T.54, R.12, S.35, 36): 1B, 2A, 3B;
- (+22) Koski Creek, (T.61, R.4W, S.5, 8; T.62, R.4W, S.31, 32): 1B, 2A, 3B;
- (+23) Lavi Creek, (T.52, R.15, S.21, 28): 1B, 2A, 3B;
- (+24) Leskinen Creek, (T.57, R.7, S.15, 21, 22, 28): 1B, 2A, 3B;
- (+25) Lester River, (T.50, R.13, S.4, 5, 8; T.51, R.13, S.5, 6, 7, 8, 16, 17, 18, 19, 20, 21, 28, 32, 33; T.51, R.14, S.1, 2, 10, 11, 12, 13, 15, 16, 24; T.52, R.13, S.31, 32; T.52, R.14, S.21, 22, 23, 27, 28, 34, 35): 1B, 2A, 3B;
- (+26) Lindstrom Creek, (T.56, R.7, S.4; T.57, R.7, S.19, 30, 31, 32, 33; T.57, R.8, S.25): 1B, 2A, 3B;
- (+27) Lullaby Creek, (T.63, R.1E, S.4, 5, 8, 9): 1B, 2A, 3B;
- (+28) Manganika Creek, Virginia, (T.58, R.17, S.19; T.58, R.18, S.24): 7;
- (+29) Manitou River (Moose Creek), (T.57, R.6, S.3, 4, 10, 11; T.58, R.6, S.4, 5, 6, 7, 8, 16, 17, 18, 20, 21, 28, 29, 32, 33, 34): 1B, 2A, 3B;
- (+30) Manitou River, Little, (T.57, R.6, S.2; T.58, R.6, S.34, 35): 1B, 2A, 3B;
- (+31) Manitou River, North Branch (Balsam Creek), (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, 24, 25, 26): 1B, 2A, 3B;
- (+32) Manitou River, South Branch (Junction Creek), (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; T.59, R.7, S.29, 30, 31, 32, 33): 1B, 2A, 3B;
- (+33) Marais River, Little, (T.57, R.6, S.5, 8, 16, 17, 21): 1B, 2A, 3B;
- (+34) Mark Creek, (T.61, R.2W, S.1, 2, 3, 4, 5, 6, 9): 1B, 2A, 3B;
- (+35) Marshall Creek, (T.52, R.15, S.10, 15): 1B, 2A, 3B;
- (+36) Martin Creek, (T.58, R.6, S.2, 3, 11): 1B, 2A, 3B;
- (+37) McCarthy Creek, (T.53, R.11, S.18; T.53, R.12, S.12, 13): 1B, 2A, 3B;
- (+38) Midway River (Rock Run), (T.49, R.15, S.5, 6; T.49, R.16, S.1, 12, 13, 14, 15, 21, 22; T.50, R.15, S.7, 8, 14, 15, 16, 17, 20, 21, 22, 23, 28, 29, 32, 33): 1B, 2A, 3B;
- (+39) Mile Post Forty-Three Creek (Fortythree Creek, East and West Branch), (T.56, R.8, S.2, 3, 10, 11, 13, 14, 15): 1B, 2A, 3B;
- (+40) Miller Creek, (T.49, R.14, S.4; T.50, R.14, S.6, 18, 19, 29, 30, 32, 33; T.50, R.15, S.12, 13; T.51, R.14, S.31, 32): 1B, 2A, 3B;
- (+41) Mink Creek, (T.54, R.9, S.4, 5, 9; T.55, R.9, S.30, 31, 32; T.55, R.10, S.25, 26, 36): 1B, 2A, 3B;
- (+42) Mission Creek, (T.48, R.15, S.5, 6; T.49, R.15, S.31; T.49, R.16, S.25, 26, 36): 1B, 2A, 3B;
- (+43) Mississippi Creek, (T.61, R.2W, S.1, 2, 3; T.61, R.3W, S.1; T.62, R.2W, S.31, 32, 33, 34, 35, 36; T.62, R.3W, S.24, 25, 35, 36): 1B, 2A, 3B;

## Exhibit F.2. Proposed Rules

(144) Mississippi Creek, Little, (T.62, R.2W, S.20, 21, 26, 29, 32, 33, 34, 35): 1B, 2A, 3B;

(145) Mistletoe Creek, (T.60, R.3W, S.3, 4, T.61, R.2W, S.7, 18; T.61, R.3W, S.11, 13, 14, 15, 23, 24, 25, 26, 34, 35): 1B, 2A, 3B;

(146) Monker Creek, (T.61, R.1E, S.6, 7; T.62, R.1E, S.31; T.62, R.1W, S.36): 1B, 2A, 3B;

(147) Mons Creek, (T.62, R.3E, S.4; T.63, R.3E, S.28, 29, 33): 1B, 2A, 3B;

(148) Moose Creek, (T.59, R.6, S.31, 32, 33, 34): 1B, 2A, 3B;

(149) Mud Creek, Carlton County, (T.47, R.15, S.18; T.47, R.16, S.5, 6, 8, 9, 10, 11, 13, 14, 15, 16): 1B, 2A, 3B;

(150) Mud Creek, St. Louis County, (T.54, R.12, S.20, 21, 22, 29, 30): 1B, 2A, 3B;

(151) Mud Creek, Cook County, (T.62, R.1E, S.8, 9, 16, 17, 21, 22): 1B, 2A, 3B;

(152) Mud Creek, Little, (T.57, R.11, S.11, 12, 14, 22, 23): 1B, 2A, 3B;

(153) Murmur Creek, (T.61, R.2W, S.15, 20, 21, 22, 29, 30): 1B, 2A, 3B;

(154) Murphy Creek (Maki 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.13, 21, 22, 23, 24, 26, 27, 28, 33, 34): 1B, 2A, 3B;

(155) Myhr Creek, (T.62, R.3E, S.23, 24, 26): 1B, 2A, 3B;

(156) Nemadji Creek, (T.46, R.17, S.7, 8, 9, 18; T.46, R.18, S.13, 14, 15, 16, 22): 1B, 2A, 3B;

(157) Nemadji River, North Fork (Nemadji River), (T.46, R.17, S.1, 2, 3, 8, 9, 10, 17, 18, 19, 31, 32, 33; T.46, R.18, S.24, 25, 36; T.47, R.15, S.19, 30; T.47, R.16, S.23, 24, 25, 26, 27, 28, 29, 31, 32; T.47, R.17, S.35, 36): 1B, 2A, 3B;

(158) Nemadji River, South Fork, (T.46, R.16, S.4, 5, 6, 7; T.46, R.17, S.1, 11, 12; T.47, R.15, S.30; T.47, R.16, S.25, 33, 34, 35, 36): 1B, 2A, 3B;

(159) Nestor Creek (Nester Creek), (T.61, R.1W, S.4, 5, 6; T.61, R.2W, S.1; T.62, R.1W, S.31, 32, 33): 1B, 2A, 3B;

(160) Net River, (T.45, R.16, S.6; T.45, R.17, S.1; T.46, R.16, S.3, 4, 8, 9, 17, 20, 21, 29, 31, 32, 33; T.47, R.16, S.34): 1B, 2A, 3B;

(161) Net River, Little, (T.46, R.16, S.3, 10, 15, 22, 26, 27, 34): 1B, 2A, 3B;

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

(163) Nine Mile Creek (Ninemile Creek), (T.58, R.6, S.3, 4, 9, 16, 17; T.59, R.6, S.27, 28, 33, 34): 1B, 2A, 3B;

(164) Oliver Creek (Silver), (T.57, R.7, S.5, 6; T.57, R.8, S.1; T.58, R.7, S.31, 32): 1B, 2A, 3B;

(165) Onion Creek (Onion River and West Branch Onion River), (T.59, R.4W, S.1, 2, 3, 4, 12; T.60, R.4W, S.24, 25, 26, 35, 36): 1B, 2A, 3B;

(166) Otter Creek, Big (Otter Creek), (T.48, R.16, S.7; T.48, R.17, S.3, 10, 11, 12; T.49, R.17, S.19, 20, 26, 27, 28, 29, 30, 32, 33, 34, 35; T.49, R.18, S.25, 26): 1B, 2A, 3B;

(167) Otter Creek, Little, (T.48, R.17, S.7, 10, 15, 16, 17, 18; T.48, R.18, S.11, 12, 13, 14): 1B, 2A, 3B;

(168) Palisade Creek, (T.56, R.7, S.16, 17, 18, 19, 20, 21, 22; T.56, R.8, S.24): 1B, 2A, 3B;

# Proposed Rules

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(+69) Pancake Creek, (T.54, R.22, S.20, 28, 29, 33): 1B, 2A, 3B;

(+70) Pancake Creek, (T.60, R.4W, S.17, 18; T.60, R.5W, S.11, 13, 14): 1B, 2A, 3B;

(+71) Pecore Creek, (T.61, R.4W, S.19, 20, 21): 1B, 2A, 3B;

(+72) Peters Creek, (T.54, R.22, S.22, 23, 27, 28): 1B, 2A, 3B;

(+73) Pigeon River (South Fowl Lake outlet to Pigeon Bay of Lake Superior): 1B, 2Bd, 3A;

(+74) Pike Lake Creek, (T.61, R.2W, S.10, 11, 15): 1B, 2A, 3B;

(+75) Pine Mountain Creek (Falls Creek), (T.63, R.1E, S.23, 26, 27, 28, 33): 1B, 2A, 3B;

(+76) Pine River (White Pine River), (T.50, R.16, S.4, 8, 9, 15, 16, 17, 18, 19, 20, 21, 29, 30, 32; T.50, R.17, S.23, 24, 26): 1B, 2A, 3B;

(+77) Plouff Creek, (T.61, R.4W, S.17, 18; T.61, R.5W, S.2, 3, 11, 13, 14, 15, 23; T.62, R.5W, S.26, 34, 35): 1B, 2A, 3B;

(+78) \*Plouff Creek [H/5/84P] (T.62, R.5W, S.23): 1B, 2A, 3B;

(+79) Poplar River (Missouri Creek), (T.60, R.3W, S.3, 4, 5, 6, 9, 10, 15, 16, 17, 19, 20, 21, 28, 33; T.61, R.3W, S.30, 31; T.61, R.4W, S.10, 13, 14, 15, 22, 23, 25, 26, 36): 1B, 2A, 3B;

(+80) Portage Brook, (T.64, R.3E, S.24, 25, 26, 27, 28, 29, 32, 33, 34; T.64, R.4E, S.19, 20): 1B, 2A, 3B;

(+81) Railroad Creek, (T.50, R.17, S.1, 11, 12, 14): 1B, 2A, 3B;

(+82) Red River, (T.48, R.15, S.30; T.48, R.16, S.25, 26): 1B, 2A, 3B;

(+83) Red Rock Creek, (T.63, R.5E, S.21, 22, 26, 27, 28, 35): 1B, 2A, 3B;

(+84) Reservation River, (T.62, R.5E, S.6; T.63, R.4E, S.23, 25, 26, 36; T.63, R.5E, S.16, 17, 18, 19, 20, 21, 29, 30, 31): 1B, 2A, 3B;

(+85) Rock Creek, (T.47, R.16, S.7, 17, 18, 20, 21, 22, 23, 24; T.47, R.17, S.12): 1B, 2A, 3B;

(+86) Rock Cut Creek, (T.58, R.6, S.18, 19, 20; T.58, R.7, S.13): 1B, 2A, 3B;

(+87) Rocky Run Creek, (T.49, R.15, S.6, T.50, R.15, S.30, 31; T.50, R.16, S.11, 12, 13, 24, 25): 1B, 2A, 3B;

(+88) Rollins Creek, (T.59, R.3W, S.6; T.60, R.3W, S.29, 30, 31; T.60, R.4W, S.36): 1B, 2A, 3B;

(+89) Rosebush Creek (Fall River), (T.61, R.1W, S.13, 23, 24, 25; T.61, R.1E, S.18): 1B, 2A, 3B;

(+90) Ross Creek, (T.52, R.13, S.1, 2, 3, 4, 5; T.53, R.13, S.33): 1B, 2A, 3B;

(+91) Ryan Creek, (T.55, R.14, S.14, 15, 22): 1B, 2A, 3B;

(+92) St. Louis River, [WR] (T.58, R.12, S.21, 22, 27, 28, 31, 32, 33; T.58, R.13, S.36): 2B, 3B;

(+93) Sargent Creek, (T.48, R.15, S.4, 5, 9, 10; T.49, R.15, S.28, 29, 32): 1B, 2A, 3B;

(+94) Sawbill Creek, (T.62, R.4W, S.7, 18, 19, 20, 28, 29, 30; T.62, R.5W, S.25): 1B, 2A, 3B;

(+95) Sawmill Creek, (T.57, R.6, S.18; T.57, R.7, S.12, 13, 22, 23, 24, 26, 27, 34): 1B, 2A, 3B;

**Exhibit F.2.**  
**Proposed Rules**

(196) ~~Scanton Creek, (T.49, R.16, S.30; T.49, R.17, S.25): 1B, 2A, 3B;~~

(197) ~~Schmidt Creek, (T.51, R.12, S.17): 1B, 2A, 3B;~~

(198) ~~Schoolhouse Creek, (T.58, R.7, S.35, 36): 1B, 2A, 3B;~~

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

(200) ~~Section 36 Creek, (T.46, R.16, S.1, 2, 11, 12, 13; T.47, R.16, S.36): 1B, 2A, 3B;~~

(201) ~~Silver Creek, Carlton County, (T.48, R.16, S.15, 16, 17, 21, 28): 1B, 2A, 3B;~~

(202) ~~Silver Creek, Lake County, (T.53, R.10, S.6, 7, 16, 17, 18, 21; T.53, R.11, S.1; T.54, R.10, S.18, 19, 30; T.54, R.11, S.11, 12, 13, 25, 36): 1B, 2A, 3B;~~

(203) ~~Silver Creek, Big (Silver Creek), Carlton County, (T.46, R.17, S.14, 23, 24, 25, 36): 1B, 2A, 3B;~~

(204) ~~Silver Creek, East Branch, (T.53, R.10, S.5, 8, 9, 16, 21): 1B, 2A, 3B;~~

(205) ~~Sixmile Creek, (T.60, R.4W, S.13, 14, 15, 22, 23, 27, 28, 33): 1B, 2A, 3B;~~

(206) ~~Skunk Creek, Lake County, (T.54, R.9, S.4, 9, 16, 17, 20; T.55, R.9, S.19, 29, 30, 32, 33; T.55, R.10, S.13, 14, 24): 1B, 2A, 3B;~~

(207) ~~Skunk Creek, Carlton County, (T.46, R.17, S.4, 5, 6; T.47, R.17, S.31, 33, 34, 35, 36; T.47, R.18, S.36): 1B, 2A, 3B;~~

(208) ~~Spider Creek, (T.52, R.18, S.19, 20, 21, 22, 27, 28, 29, 30; T.52, R.19, S.9, 10, 13, 14, 15, 24): 1B, 2A, 3B;~~

(209) ~~Split Rock River, (T.54, R.8, S.6, 7; T.54, R.9, S.1, 2, 12; T.55, R.9, S.26, 28, 34, 35, 36): 1B, 2A, 3B;~~

(210) ~~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, 24, 25): 1B, 2A, 3B;~~

(211) ~~Split Rock River, West Branch, (T.55, R.9, S.6, 7, 8, 16, 17, 21, 22, 26, 27, 28; T.55, R.10, S.1; T.56, R.10, S.22, 26, 27, 33, 34, 35, 36): 1B, 2A, 3B;~~

(212) ~~Spring Creek, Carlton County, (T.46, R.17, S.3, 4, 5, 6): 1B, 2A, 3B;~~

(213) ~~Spring Creek, St. Louis County, (T.54, R.12, S.1, 2): 1B, 2A, 3B;~~

(214) ~~Stanley Creek, (T.52, R.11, S.18, 19; T.52, R.12, S.4, 5, 8, 9, 10, 11, 12, 13): 1B, 2A, 3B;~~

(215) ~~State Line Creek, (T.46, R.15, S.6, 7, 18, 19, 30, 31; T.46, R.16, S.12, 13, 24, 25, 36; T.47, R.15, S.30, 31): 1B, 2A, 3B;~~

(216) ~~Stewart Creek, (T.49, R.15, S.21, 22, 26, 27): 1B, 2A, 3B;~~

(217) ~~Stewart River, (T.53, R.10, S.18, 19, 20, 29; T.53, R.11, S.2, 3, 10, 11, 13, 14, 15; T.54, R.11, S.3, 4, 10, 15, 22, 26, 27, 34, 35): 1B, 2A, 3B;~~

(218) ~~Stewart River, (T.55, R.11, S.7; T.55, R.12, S.12, 13): 1B, 2A, 3B;~~

(219) ~~Stewart River, Little, (T.53, R.10, S.19, 20, 29; T.53, R.11, S.9, 15, 16, 22, 23, 24): 1B, 2A, 3B;~~

(220) ~~Stickle Creek, (T.63, R.1W, S.1, 2, 11, 12, 14): 1B, 2A, 3B;~~

# Proposed Rules

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(221) Stone Creek, (T.61, R.2E, S.2, 3; T.62, R.2E, S.21, 22, 27, 34, 35): 1B, 2A, 3B;

(222) Stoney Creek (Stony Creek or Rock Creek), Lake County, (T.55, R.9, S.30; T.55, R.10, S.20, 23, 24, 25, 27): 1B, 2A, 3B;

(223) Stony Brook, Carlton County, (T.46, R.17, S.10, 11, 15, 16, 21): 1B, 2A, 3B;

(224) Stony Creek, Little, Cook County, (T.63, R.2E, S.4, 5, 9; T.64, R.2E, S.31, 32, 33): 1B, 2A, 3B;

(225) Stream Number 30, (T.54, R.8, S.5, 6; T.55, R.8, S.19, 30, 31): 1B, 2A, 3B;

(226) Stumble Creek, (T.59, R.5W, S.16, 21, 22, 26, 27, 28): 1B, 2A, 3B;

(227) Stump River (Lower 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;

(228) Sucker River (Big Sucker Creek), (T.51, R.12, S.3, 4, 10; T.52, R.12, S.18, 19, 29, 30, 31, 32, 33; T.52, R.13, S.1, 12, 13, 24, 25; T.53, R.12, S.19, 20, 30, 31; T.53, R.13, S.24, 25, 36): 1B, 2A, 3B;

(229) Sucker River, Little, (T.51, R.12, S.2, 3): 1B, 2A, 3B;

(230) Sugar Loaf Creek, (T.58, R.5W, S.17, 19, 20, 29): 1B, 2A, 3B;

(231) Sullivan Creek, (T.56, R.11, S.1, 2, 10, 11, 15; T.57, R.10, S.19, 30; T.57, R.11, S.24, 25, 36): 1B, 2A, 3B;

(232) Sundling Creek, (T.61, R.1W, S.10, 11, 14, 15, 16, 17, 18; T.61, R.2W, S.13): 1B, 2A, 3B;

(233) Swamp River, (T.63, R.3E, S.25, 26, 36; T.63, R.4E, S.20, 29, 30; T.64, R.4E, S.21, 27, 28): 1B, 2A, 3B;

(234) Swamper Creek, (T.64, R.1E, S.20, 29, 32): 1B, 2A, 3B;

(235) Swan Creek, East, (T.56, R.20, S.3, 4, 5, 10, 11): 1B, 2A, 3B;

(236) Swan Creek, Little, (T.56, R.19, S.17, 19, 20, 30; T.56, R.20, S.25, 26, 35): 1B, 2A, 3B;

(237) Swan River, East (Barber Creek), (T.55, R.19, S.18, 19, 30, 31; T.55, R.20, S.1, 2, 12, 13; T.56, R.20, S.2, 3, 11, 14, 23, 26, 27, 35; T.57, R.20, S.28, 33, 34): 1B, 2A, 3B;

(238) Swan River, West (excluding trout waters), (T.55, 56, R.20, 21): 2C;

(239) Swanson Creek, (T.61, R.4W, S.6, 7, 8; T.61, R.5W, S.1): 1B, 2A, 3B;

(240) Tait River, (T.60, R.3W, S.4; T.61, R.3W, S.28, 33): 1B, 2A, 3B;

(241) Talmadge Creek (Talmadge River), (T.51, R.12, S.19; T.51, R.13, S.9, 10, 13, 14, 15, 24): 1B, 2A, 3B;

(242) Temperance River, (T.59, R.4W, S.5, 6, 7, 8, 18, 19, 30, 31, 32; T.60, R.4W, S.5, 6, 7, 8, 17, 20, 28, 29, 32, 33; T.61, R.4W, S.4, 8, 9, 16, 17, 19, 20, 30, 31): 1B, 2A, 3B;

(243) Temperance River (excluding trout waters), (T.62, R.4W): 1B, 2Bd, 3C;

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

(245) Thirty-nine Creek, Little, (T.56, R.8, S.6, 7, 8, 17, 18, 19, 20, 29, 30; T.56, R.9, S.1, 12): 1B, 2A, 3B;

(246) Thompson Creek, (T.62, R.1W, S.17, 19, 20; T.62, R.2W, S.24): 1B, 2A, 3B;

## Exhibit F.2. Proposed Rules

(247) Tikkonen Creek, (T.57, R.7, S.5, 6, 8, 16, 17): 1B, 2A, 3B;

(248) Timber Creek, (T.62, R.1E, S.1, T.63, R.1E, S.25, 36; T.63, R.2E, S.31): 1B, 2A, 3B;

(249) Fischer Creek (Congdon Creek/Hartley), (T.50, R.14, S.2, 3, 4, 10, 11, 13, 14; T.51, R.14, S.29, 33, 34): 1B, 2A, 3B;

(250) Torgenson Creek, (T.61, R.4W, S.30; T.61, R.5W, S.24, 25): 1B, 2A, 3B;

(251) Tower Creek, St. Louis County, (T.55, R.14, S.8, 9, 17, 18, 19; T.55, R.15, S.24, 25, 26): 1B, 2A, 3B;

(252) Tower Creek, Lake County, (T.57, R.7, S.9): 1B, 2A, 3B;

(253) Trappers Creek, (T.56, R.11, S.2, 3, 9, 10, 16, 17, 19, 20; T.57, R.11, S.35): 1B, 2A, 3B;

(254) Trout Brook, (T.54, R.22, S.1): 1B, 2A, 3B;

(255) Twin Points Creek, (T.54, R.9, S.10, 11, 13, 14): 1B, 2A, 3B;

(256) Two Island River, (T.58, R.5W, S.2, 3, 4, 11; T.59, R.5W, S.7, 8, 17, 18, 20, 21, 27, 28, 29, 31, 32, 33, 34; T.59, R.6, S.11, 12): 1B, 2A, 3B;

(257) Ugstad Creek, (T.51, R.15, S.21, 22, 26, 27, 28): 1B, 2A, 3B;

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

(259) Unnamed Creek, Carlton County, (T.47, R.17, S.28, 29, 33, 34, 35): 1B, 2A, 3B;

(260) Unnamed Creek, Carlton County, (T.47, R.17, S.31, 32, 33, 34): 1B, 2A, 3B;

(261) Unnamed Creek, (T.55, R.8, S.20, 21, 29, 32, 33): 1B, 2A, 3B;

(262) Unnamed Creek, Meadowlands, (T.53, R.19, S.22, 23): 7;

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

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

(265) Unnamed Ditch, Gilbert, (T.58, R.17, S.23, 24, 25, 36): 7;

(266) Us-kab-wan-ka (Rush), (T.52, R.16, S.2, 11, 14, 23; T.53, R.15, S.5, 6; T.53, R.16, S.1, 11, 12, 14, 15, 22, 23, 27, 34, 35; T.54, R.15, S.23, 24, 26, 27, 32, 33, 34): 1B, 2A, 3B;

(267) Wanless Creek, (T.60, R.6, S.27, 33, 34, 35, 36): 1B, 2A, 3B;

(268) Whiteface River, South Branch, (see Hornby Junction Creek);

(269) Whyte Creek, (T.57, R.10, S.1, 2, 11, 14, 23, 26, 27, 34): 1B, 2A, 3B;

(270) Woods Creek, (T.61, R.1E, S.1, 12, 13; T.62, R.1E, S.35, 36): 1B, 2A, 3B;

(271) Wyman Creek, (T.58, R.14, S.3, 4; T.59, R.14, S.11, 13, 14, 23, 24, 26, 27, 34, 35): 1B, 2A, 3B; and

(272) \*All other streams in the Boundary Waters Canoe Area Wilderness [11/5/84P]: 1B, 2Bd, 3B.

B. Lakes:

# Proposed Rules

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*[For text of subitems (1) to (151), see M.R.]*

- (152) White Pine Lake, 16-0369-00, [WR] (T.61, R.3W, S.19, 20, 29, 30): 2B, 3B; and
- (153) \*Winchell Lake, 16-0354-00, [11/5/84P] (T.64, R.2, 3): 1B, 2A, 3B; and
- (154) \*All other lakes in the Boundary Waters Canoe Area Wilderness [11/5/84P]: 1B, 2Bd, 3B; and
- (155) \*All wetlands in the Boundary Waters Canoe Area Wilderness [11/5/84P]: 2D.

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

**Subp. 2. Lake of the Woods Basin.** The water use classifications for the stream reaches within each of the major watersheds in the Lake of the Woods Basin listed in item A are found in tables entitled “Beneficial Use Designations for Stream Reaches” published on the Web site of the Minnesota Pollution Control Agency at [www.pca.state.mn.us](http://www.pca.state.mn.us). The tables are incorporated by reference and are not subject to frequent change. The date after each watershed listed in item A is the publication date of the applicable table. The water use classifications for the other listed waters in the Lake of the Woods Basin are as identified in items A, B to D. See parts 7050.0425 and 7050.0430 for the classifications of waters not listed. Designated use information for water bodies can also be accessed through the agency’s Environmental Data Access (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

A. Streams (by eight-digit hydrologic unit code):

- (1) 09030001 Rainy River - Headwaters (August 9, 2016);
- (2) 09030002 Vermilion River (August 9, 2016);
- (3) 09030003 Rainy River - Rainy Lake (August 9, 2016);
- (4) 09030005 Little Fork River (August 9, 2016);
- (5) 09030006 Big Fork River (August 9, 2016);
- (6) 09030007 Rapid River (August 9, 2016);
- (7) 09030008 Rainy River - Lower (August 9, 2016); and
- (8) 09030009 Lake of the Woods (August 9, 2016).

(1) Angora Creek, (T.61, R.18, S.9, 10, 15, 16, 21, 22): 1B, 2A, 3B;

(2) Arrowhead Creek (Trapper Creek), (T.60, R.8, S.3, 10, 11, 13, 14, 15, 22, 23, 26, 27, 28, 34; T.61, R.8, S.14, 15, 21, 22, 27, 28, 34): 1B, 2A, 3B;

(3) Ash River (Camp Ninety Creek), (T.66, R.20, S.4, 5, 9; T.67, R.20, S.5, 6, 8, 16, 17, 18, 19, 20, 29, 30, 31, 32; T.67, R.21, S.36; T.68, R.20, S.13, 14, 20, 21, 22, 23, 24, 28, 29, 31, 33; T.68, R.19, S.17, 18; T.68, R.21, S.36): 1B, 2A, 3B;

(4) Beaver Creek, (T.62, 63, R.20): 2C;

(5) Beauty Creek, (T.67, R.21, S.23, 24, 25, 26): 1B, 2A, 3B;

(6) Blackduck River (Black Duck River), (T.66, R.19, S.5, 6, 7, 8, 17; T.66, R.20, S.1; T.67, R.19, S.29, 31, 32; T.67, R.20, S.2, 3, 4, 10, 14, 15, 23, 24, 25, 26, 36; T.68, R.20, S.26, 27, 28, 33, 34): 1B, 2A, 3B;

(7) Camp Creek, (T.60, R.8, S.3, 4, 9, 10; T.61, R.8, S.27, 28, 33, 34): 1B, 2A, 3B;

(8) Camp Creek, West, (T.60, R.8, S.4, 5, 7, 8, 16, 17, 20, 21; T.61, R.8, S.33): 1B, 2A, 3B;

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**Proposed Rules**

(9) Camp E Creek, (T.60, R.9, S.7, 18; T.60, R.10, S.11, 12): 1B, 2A, 3B;

(10) Dark River, (T.60, R.19, S.19, 20, 30; T.60, R.20, 10, 11, 12, 13, 24): 1B, 2A, 3B;

(11) Dinner Creek, (T.153, R.26, S.4, 9, 10, 12, 13, 14, 15, 23, 24; T.154, R.26, S.7, 18, 19, 29, 30, 32, 33; T.154, R.27, S.1, 12; T.155, R.26, S.30, 31; T.155, R.27, S.25, 35, 36): 1B, 2A, 3B;

(12) Dumbbell River, (T.60, R.7, S.3, 4, 5, 7, 8, 9, 10, 16, 18, 19, 20, 28, 29, 31, 32; T.61, R.7, S.34): 1B, 2A, 3B;

(13) Fawn Creek, (T.66, R.20, S.1, 2, 3, 4, 12; T.67, R.20, S.15, 22, 23, 26, 34, 35): 1B, 2A, 3B;

(14) Folly Creek, (T.60, R.7, S.2, 3, 10, 11, 14, 15, 22, 23, 24, 27): 1B, 2A, 3B;

(15) Gardner Brook, (T.63, 64, R.23, 24): 2C;

(16) Grassy Creek, (T.61, R.13, S.6; T.61, R.14, S.1): 1B, 2A, 3B;

(17) Harrigan Creek, (T.62, R.23, S.10): 1B, 2A, 3B;

(18) Harris Lake Creek (Harris Creek), (T.60, R.10, S.6; T.61, R.10, S.19, 30, 31): 1B, 2A, 3B;

(19) Hay Creek, (T.153, R.26, S.4, 8, 9, 17, 20): 1B, 2A, 3B;

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

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

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

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

(24) 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, 29, 32): 1B, 2A, 3B;

(25) \*Isabella River, Little, [11/5/84P] (T.61, R.9, S.3, 4, 9, 10; T.62, R.9, S.34): 1B, 2A, 3B;

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

(27) Jack Pine Creek, (T.60, R.8, S.5, 6, 7, 8, 18; T.61, R.8, S.19, 20, 29, 30, 31, 32): 1B, 2A, 3B;

(28) Johnson Creek, (T.60, R.18, S.6, 7, 8, 17, 20): 1B, 2A, 3B;

(29) Kawishiwi River, outside Boundary Waters Canoe Area Wilderness, (Source to Fall Lake): 1B, 2Bd, 3C;

(30) Kimmount Creek, (T.67, R.20, S.19; T.67, R.21, S.13, 14, 15, 20, 21, 22, 23, 24): 1B, 2A, 3B;

(31) Longstorff Creek, (T.62, R.12, S.6, 7; T.63, R.12, S.31): 1B, 2A, 3B;

(32) Lost River, (T.65, R.19, S.6; T.65, R.20, S.1, 2, 3, 4, 5, 6, 7, 8, 12; T.65, R.21, S.1; T.66, R.20, S.20, 25, 27, 29, 31, 32, 33, 34, 35, 36): 1B, 2A, 3B;

(33) Mary Ann Creek, (T.58, R.10, S.16, 21): 1B, 2A, 3B;

(34) Mike Kelly Creek (Kelly Creek), (T.60, R.11, S.14, 15, 23): 1B, 2A, 3B;

(35) Mitawan Creek, (T.60, R.9, S.1, 12; T.61, R.8, S.18, 19, 31; T.61, R.9, S.12, 13, 24, 25, 36): 1B, 2A, 3B;

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(36) \*Mitawan Creek, [11/5/84P] (T.61, R.8, S.5, 6, 7; T.61, R.9, S.1, 2, 12; T.62, R.9, S.35): 1B, 2A, 3B;

(37) Moose River, St. Louis County, (T.68, R.18, 19): 1B, 2Bd, 3C;

(38) Moose River, outside Boundary Waters Canoe Area Wilderness, (T.65, R.14): 1B, 2Bd, 3C;

(39) Nine Mile Creek (Ninemile Creek), (T.66, R.19, S.4; T.67, R.19, S.7, 8, 18, 19, 20, 21, 27, 28, 29, 33; T.67, R.20, S.12, 13, 14, 23): 1B, 2A, 3B;

(40) Nip Creek, (T.59, R.11, S.3, 4; T.60, R.11, S.21, 22, 27, 28, 34): 1B, 2A, 3B;

(41) Nira Creek, (T.61, R.11, S.22, 23, 27): 1B, 2A, 3B;

(42) Pitt Creek, (T.159, R.32, S.4, 9, 16; T.160, R.32, S.21, 28, 33): 1B, 2A, 3B;

(43) Portage Creek, (T.65, R.21): 2C;

(44) Portage River, (T.65, R.14, S.24; T.65, R.13, S.19, 20, 28, 29): 1B, 2Bd, 3C;

(45) Rainy River, (Outlet of Rainy Lake to Dam in International Falls): 1B, 2Bd, 3A;

(46) Rainy River, (Dam in International Falls to Railroad Bridge in Baudette): 1C, 2Bd, 3A;

(47) Rainy River, (Railroad Bridge in Baudette to Lake of the Woods): 2B, 3A;

(48) Sand Creek, (T.60, R.21, S.3, 4, 5, 10, 11, 14; T.61, R.20, S.19; T.61, R.21, S.3, 10, 11, 14, 15, 23, 24, 25, 26, 27, 33, 34, 35; T.62, R.21, S.34): 1B, 2A, 3B;

(49) Scott Creek, (T.59, R.7, S.4; T.60, R.7, S.9, 10, 15, 16, 21, 22, 27, 33, 34, 35): 1B, 2A, 3B;

(50) Section 30 Creek, (T.63, R.11, S.30; T.63, R.12, S.24, 25): 1B, 2A, 3B;

(51) Sea Gull River, (T.66N, R.4W, S.30, 31): 1C, 2Bd, 3C;

(52) Shine Brook (Swine Creek), (T.62, R.25, S.11, 14, 15, 16): 1B, 2A, 3B;

(53) Snake Creek, (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;

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

(55) \*Snake River, [11/5/84P] (T.61, R.9, S.7; T.61, R.10, S.12): 1B, 2A, 3B;

(56) Sphagnum Creek, (T.60, R.9, S.4; T.61, R.9, S.28, 29, 33): 1B, 2A, 3B;

(57) Stoney Brook (Stony Brook), (T.60, R.22, S.3, 4; T.61, R.22, S.13, 24, 25, 35, 36; T.61, R.21, S.7, 18): 1B, 2A, 3B;

(58) Tomato Creek, (T.161, R.34, S.3, 9, 10; T.162, R.34, S.35): 1B, 2A, 3B;

(59) Tomlinson Creek, (T.60, R.7, S.18, 19, 31; T.60, R.8, S.24, 25, 36): 1B, 2A, 3B;

(60) Trout Brook, (T.66, R.26, S.19, 30; T.66, R.27, S.24, 25): 1B, 2A, 3B;

(61) Two Rivers, East, (T.61, R.14, S.7, 8; T.61, R.15, S.1, 2, 3, 4, 12; T.62, R.14, S.29, 30, 31, 32; T.62, R.15, S.32, 33, 34, 35, 36): 1B, 2A, 3B;

(62) Two Rivers, West, (T.61, R.15, S.6, 7, 8, 9, 14, 15, 16, 17): 1B, 2A, 3B;

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(63) ~~Unnamed Creek, (T.65, R.19, S.4, 5; T.66, R.19, S.33): 1B, 2A, 3B;~~

(64) ~~Valley River, (T.62, R.23, S.1, 2, 3, 4, 10, 11, 12, 13, 14, 24; T.63, R.22, S.6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 28, 29, 30; T.63, R.23, S.24, 25, 26, 35): 1B, 2A, 3B;~~

(65) ~~Venning Creek, (T.60, R.23, S.1, 2, 11, 12, 13, 14; T.61, R.23, S.35): 1B, 2A, 3B;~~

(66) ~~Victor Creek, (T.60, R.9, S.12, 13): 1B, 2A, 3B;~~

(67) ~~Weiss Creek, (T.59, R.9, S.2, 3, 11; T.60, R.9, S.27, 34): 1B, 2A, 3B;~~

(68) ~~Wenho Creek, (T.58, R.10, S.17, 20, 21, 27, 28, 34): 1B, 2A, 3B;~~

(69) ~~Zippel Creek, West Branch, (T.162, R.33, 34): 2C;~~

(70) ~~\*All other streams in the Boundary Waters Canoe Area Wilderness [11/5/84P]: 1B, 2Bd, 3B; and~~

(71) ~~\*All other streams in the Voyageurs National Park [11/5/84P]: 2B, 3B.~~

B. Lakes:

*[For text of subitems (1) to (182), see M.R.]*

(183) ~~\*Wisini Lake, 38-0361-00, [11/5/84P] (T.64, R.7): 1B, 2A, 3B; and~~

(184) ~~Woods, Lake of the, 39-0002-00, (see Lake of the Woods);~~

(185) ~~\*All other lakes in the Boundary Waters Canoe Area Wilderness [11/5/84P]: 1B, 2Bd, 3B;~~

(186) ~~\*All wetlands in the Boundary Waters Canoe Area Wilderness [11/5/84P]: 2D;~~

(187) ~~\*All other lakes in the Voyageurs National Park [11/5/84P]: 2B, 3B; and~~

(188) ~~\*All other wetlands in the Voyageurs National Park [11/5/84P]: 2D.~~

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

**Subp. 3. Red River of the North Basin.** The water use classifications for the stream reaches within each of the major watersheds in the Red River of the North Basin listed in item A are found in tables entitled "Beneficial Use Designations for Stream Reaches" published on the Web site of the Minnesota Pollution Control Agency at [www.pca.state.mn.us](http://www.pca.state.mn.us). The tables are incorporated by reference and are not subject to frequent change. The date after each watershed listed in item A is the publication date of the applicable table. The water use classifications for the other listed waters in the Red River of the North Basin are as identified in items A B to D. See parts 7050.0425 and 7050.0430 for the classifications of waters not listed. Designated use information for water bodies can also be accessed through the agency's Environmental Data Access (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

A. Streams (by eight-digit hydrologic unit code):

- (1) 09020101 Bois de Sioux River (August 9, 2016);
- (2) 09020102 Mustinka River (August 9, 2016);
- (3) 09020103 Otter Tail River (August 9, 2016);
- (4) 09020104 Upper Red River of the North (August 9, 2016);
- (5) 09020106 Buffalo River (August 9, 2016);
- (6) 09020107 Red River of the North - Marsh River (August 9, 2016);

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- (7) 09020108 Wild Rice River (August 9, 2016);
- (8) 09020301 Red River of the North - Sandhill River (August 9, 2016);
- (9) 09020302 Upper/Lower Red Lake (August 9, 2016);
- (10) 09020303 Red Lake River (August 9, 2016);
- (11) 09020304 Thief River (August 9, 2016);
- (12) 09020305 Clearwater River (August 9, 2016);
- (13) 09020306 Red River of the North - Grand Marais Creek (August 9, 2016);
- (14) 09020309 Snake River (August 9, 2016);
- (15) 09020311 Red River of the North - Tamarac River (August 9, 2016);
- (16) 09020312 Two Rivers (August 9, 2016); and
- (17) 09020314 Roseau River (August 9, 2016).

- (1) ~~Auganash Creek, (T.144, R.38, S.5; T.145, R.38, S.27, 28, 31, 32, 33): 1B, 2A, 3B;~~
- (2) ~~Bad Boy Creek, (T.144, R.39, S.13, 14, 22, 23, 27, 28, 34): 1B, 2A, 3B;~~
- (3) ~~Badger Creek (Lower Badger Creek or County Ditch No. 11), (T.149, 150, 151, R.42, 43, 44): 2C;~~
- (4) ~~Barnums Creek (Burnham Creek or County Ditch No. 72), (T.148, 149, 150, R.44, 45, 46, 47, 48): 2C;~~
- (5) ~~Battle River, South Branch, (T.151, R.30, S.2, 3, 4, 11): 1B, 2A, 3B;~~
- (6) ~~Bemis Hill Creek (County Ditch No. 9), (T.161, R.37, S.17, 20, 29): 1B, 2A, 3B;~~
- (7) ~~Bois de Sioux River, (Mud Lake outlet to Otter Tail River in Breckenridge): 2C;~~
- (8) ~~Brandberg Creek (Brandborg Creek), (T.133, R.38, S.20, 21, 28, 29, 30): 1B, 2A, 3B;~~
- (9) ~~Buckboard Creek, (T.144, R.37, S.19, 30, 31; T.144, R.38, S.11, 12, 13, 24): 1B, 2A, 3B;~~
- (10) ~~Clearwater River, (T.148, R.35, S.5, 6, 8, 17, 20, 29, 31, 32; T.149, R.35, S.20, 29, 31, 32): 1B, 2A, 3B;~~
- (11) ~~County Ditch No. 6A-2, Rothsay, (T.135, R.45, S.21, 28, 33): 7 (see subitem (68));~~
- (12) ~~County Ditch No. 32, Sabin, (T.138, R.48, S.13, 14, 15, 16, 17, 18): 7;~~
- (13) ~~County Ditch No. 65, New York Mills, (T.135, R.37, S.18; T.135, R.38, S.13): 7;~~
- (14) ~~Dead Horse Creek, (T.138, R.38, S.3, 4, 7, 8, 9, 16): 1B, 2A, 3B;~~
- (15) ~~Deerhorn Creek, (T.136, R.44, 45, 46): 2C;~~
- (16) ~~Doran Slough, (T.131, 132, R.46, 47): 2C;~~
- (17) ~~Eighteen Mile Creek, (T.127, R.46, 47): 2C;~~

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(18) Elbow Lake Creek (Solid Bottom Creek), (T.142, R.38, S.6; T.143, R.38, S.31, 32): 1B, 2A, 3B;

(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.12, 13, 14): 1B, 2A, 3B;

(20) Five Mile Creek, (T.127, 128, R.45): 2C;

(21) Gentilly River, (T.149, 150, R.45): 2C;

(22) Hay Creek, (T.137, 138, R.44, 45, 46): 2C;

(23) Hay Creek (County Ditch No. 7 or County Ditch No. 9), (T.161, 162, R.37, 38, 39): 2C;

(24) Hill River, (T.148, 149, 150, R.39, 40, 41, 42): 2C;

(25) Holmstad Creek, (T.136, R.37, S.7; T.136, R.38, S.12, 13, 14): 1B, 2A, 3B;

(26) Hoover Creek, (T.152, 153, 154, R.29, 30): 2C;

(27) Joe River, (T.162, 163, 164, R.49, 50): 2C;

(28) Joe River, Little, (T.163, R.47, 48): 2C;

(29) Judicial Ditch No. 13, Goodridge, (T.154, R.40, S.16, 17, 18): 7;

(30) Judicial Ditch No. 18, Goodridge, (T.154, R.40, S.18, 19, 27, 28, 29, 30; T.154, R.41, S.13, 14, 15, 16, 17, 18; T.154, R.42, S.7, 8, 13, 14, 15, 16; T.154, R.43, S.9, 10, 11, 12, 16): 7;

(31) Lawndale Creek, (T.135, R.45, S.5, 6; T.135, R.46, S.1, 2): 1B, 2A, 3B;

(32) Lengby Creek, (T.147, R.39, S.33, 34): 1B, 2A, 3B;

(33) Long Branch Creek, (T.134, R.42, S.7): 1B, 2A, 3B;

(34) Lost River, (T.148, R.38, S.20, 21, 22, 27, 28): 1B, 2A, 3B;

(35) Maple Creek, (T.147, 148, R.44, 45, 46): 2C;

(36) Marsh Creek (Judicial Ditch No. 91), (T.144, 145, 146, R.41, 42, 43): 2C;

(37) Meadow Creek, (T.151, R.30, S.6; T.151, R.31, S.1, 2): 1B, 2A, 3B;

(38) Mud Creek, (T.144, R.37, S.13, 14, 22, 23, 24): 1B, 2A, 3B;

(39) Mud River, (T.150, R.33, S.21, 28): 1B, 2A, 3B;

(40) Mustinka River, (Old Channel), (T.127, 128, R.45, 46, 47): 2C;

(41) Mustinka River, West Branch, (see Twelve Mile Creek, West Branch);

(42) Mustinka River Ditch, (T.128, R.45, S.19; T.128, R.46, S. 13, 14, 23, 24): 2C;

(43) Nassett Creek, (T.148, R.38, S.20, 28, 29): 1B, 2A, 3B;

(44) O'Brien Creek, (T.149, R.32, S.2; T.150, R.32, S.23, 24, 26, 35): 1B, 2A, 3B;

(45) Otter Tail River, (Height of Land Lake to mouth): 1C, 2Bd, 3C;

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(46) Otter Tail River Diversion, (T.133, R.42, S.19, 30; T.133, R.43, S.25): 1C, 2Bd, 3C;

(47) Rabbit River, (T.130, 131, R.45, 46, 47): 2C;

(48) Rabbit River, South Fork, (T.130, R.45, 46): 2C;

(49) Red Lake River, (Outlet of Lower Red Lake to mouth): 1C, 2Bd, 3C;

(50) Red River of the North, (T.132, R.47, S.8 in Breckenridge to Canadian border): 1C, 2Bd, 3C;

(51) Roy Creek (Roy Lake Creek), (T.145, 146, R.39): 2C;

(52) Rush Lake Creek, (T.135, R.38, S.23, 26, 27, 28): 1B, 2A, 3B;

(53) Schermerhorn Creek (Shimmelhorn Creek), (T.144, R.39, S.6; T.145, R.39, S.31; T.145, R.40, S.25, 26, 36): 1B, 2A, 3B;

(54) Spring Creek (State Ditch No. 68), (T.145, 146, R.45, 46, 47): 2C;

(55) Spring Creek, (T.142, R.41, 42): 2C;

(56) Spring Creek, (T.149, R.30, S.4, 5, 9, 10): 1B, 2A, 3B;

(57) Spring Lake Creek, (T.148, R.35, S.34, 35): 1B, 2A, 3B;

(58) Stony Creek, (T.137, 138, R.45, 46): 2C;

(59) Sucker Creek, (T.138, R.40, S.18; T.138, R.41, S.13): 1B, 2A, 3B;

(60) Sucker Creek, (T.160, 161, R.39): 2C;

(61) Tamarac River (Source to the dam in S.5, T.157, R.48 at Stephen), (T.157, 158, R.45, 46, 47, 48): 1C, 2Bd, 3C;

(62) 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, 36): 1B, 2A, 3B;

(63) Twelve Mile Creek (excluding Class 7 segment), (T.126, 127, R.45): 2C;

(64) Twelve Mile Creek (County Ditch No. 1), Donnelly, (T.126, R.43, S.16, 17, 18, 19, 21, 22, 25, 26, 27; T.126, R.44, S.23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33; T.126, R.45, S.25, 26, 27, 28, 36): 7;

(65) Twelve Mile Creek, East Fork, (T.125, 126, R.44, 45): 2C;

(66) Twelve Mile Creek, West Branch (West Branch Twelvemile Creek), (T.125, 126, 127, 128, R.45, 46): 2C;

(67) Twelve Mile Creek, West Fork, (T.125, 126, R.45): 2C;

(68) Twin Lake Creek, (T.144, 145, R.40): 2C;

(69) Two Rivers, Middle Branch, (Source to Hallock): 1C, 2Bd, 3C;

(70) Two Rivers, South Branch, (T.160, 161, R.41-49): 1C, 2Bd, 3C;

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

(72) Unnamed Creek, Shevlin, (T.147, R.36, S.17, 18; T.147, R.37, S.11, 12, 13, 14): 7;

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- (73) Unnamed Ditch, Audubon, (T.139, R.42, S.4, 9): 7;
- (74) Unnamed Ditch, Lake Park, (T.139, R.43, S.4, T.140, R.43, S.33): 7;
- (75) Unnamed Ditch, Glyndon, (T.139, R.47, S.1, 2, 12; T.140, R.47, S.35): 7;
- (76) Unnamed Ditch, Callaway, (T.140, R.41, S.6; T.140, R.42, S.1, 2, 10, 11): 7;
- (77) Unnamed Ditch, Gary, (T.145, R.44, S.22, 27, 34): 7;
- (78) Unnamed Ditch, Erskine, (T.149, R.42, S.34, 35): 7;
- (79) Unnamed Ditch, Thief River Falls, (T.154, R.43, S.31, 32, 33): 7;
- (80) Unnamed Ditch, Warroad, (T.163, R.37, S.19, 20, 21, 22, 23; T.163, R.38, S.19, 20, 21, 22, 23, 24, 30; T.163, R.39, S.25, 31, 32, 33, 34, 35, 36): 7;
- (81) Whisky Creek, (T.136, 137, R.44, 45, 46): 2C;
- (82) Whisky Creek, (T.133, 134, R.46, 47, 48): 2C;
- (83) White Earth River, (T.142, 143, 144, R.40, 41, 42): 2C;
- (84) Willow Creek, New York Mills, (T.135, R.38, S.13, 14, 15, 16, 17, 18): 7; and
- (85) Wolverton Creek, (T.135, 136, 137, R.48): 2C.

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

**Subp. 4. Upper Mississippi River Basin (headwaters to the confluence with the St. Croix River).** The water use classifications for the stream reaches within each of the major watersheds in the Upper Mississippi River Basin from the headwaters to the confluence with the St. Croix River listed in item A are found in tables entitled "Beneficial Use Designations for Stream Reaches" published on the Web site of the Minnesota Pollution Control Agency at [www.pca.state.mn.us](http://www.pca.state.mn.us). The tables are incorporated by reference and are not subject to frequent change. The date after each watershed listed in item A is the publication date of the applicable table. The water use classifications for the other listed waters in the Upper Mississippi River Basin from the headwaters to the confluence with the St. Croix River are as identified in items A-B to D. See parts 7050.0425 and 7050.0430 for the classifications of waters not listed. Designated use information for water bodies can also be accessed through the agency's Environmental Data Access (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

**A. Streams (by eight-digit hydrologic unit code):**

- (1) 07010101 Mississippi River - Headwaters (August 9, 2016);
- (2) 07010102 Leech Lake River (August 9, 2016);
- (3) 07010103 Mississippi River - Grand Rapids (August 9, 2016);
- (4) 07010104 Mississippi River - Brainerd (August 9, 2016);
- (5) 07010105 Pine River (August 9, 2016);
- (6) 07010106 Crow Wing River (August 9, 2016);
- (7) 07010107 Redeye River (August 9, 2016);
- (8) 07010108 Long Prairie River (August 9, 2016);

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- (9) 07010201 Mississippi River - Sartell (August 9, 2016);
- (10) 07010202 Sauk River (August 9, 2016);
- (11) 07010203 Mississippi River - St. Cloud (August 9, 2016);
- (12) 07010204 North Fork Crow River (August 9, 2016);
- (13) 07010205 South Fork Crow River (August 9, 2016);
- (14) 07010206 Mississippi River - Twin Cities (August 9, 2016); and
- (15) 07010207 Rum River (August 9, 2016).
- (1) ~~Alcohol Creek, (T.143, 144, R.34): 2C;~~
- (2) ~~Arramba Creek, (T.40, R.30): 2C;~~
- (3) ~~Barbour Creek, (T.44, R.28, S.28): 1B, 2A, 3B;~~
- (4) ~~Basswood Creek, (T.141, 142, R.36, 37): 2C;~~
- (5) ~~Battle Brook, (T.35, R.26, 27): 2C;~~
- (6) ~~Battle Creek, (T.120, R.31): 2C;~~
- (7) ~~Bear Brook, (T.144, 145, R.27): 2C;~~
- (8) ~~Bear Creek, (T.145, R.36): 2C;~~
- (9) ~~Beautiful Creek, (T.127, R.31): 2C;~~
- (10) ~~Beaver Creek, (T.136, 137, R.32, 33): 2C;~~
- (11) ~~Belle Creek (Judicial Ditch No. 18), (T.117, 118, R.32): 2C;~~
- (12) ~~Black Bear Brook, (T.44, R.28, S.7, 8): 1B, 2A, 3B;~~
- (13) ~~Birch Brook (Birch Branch), (T.141, R.25): 2C;~~
- (14) ~~Black Brook, Mille Lacs County, (T.41, R.26): 2C;~~
- (15) ~~Black Brook, (T.42, 43, R.30): 2C;~~
- (16) ~~Blackhoof Creek, (T.46, R.29, S.16): 1B, 2A, 3B;~~
- (17) ~~Blackwater Creek, (T.55, R.26, S.4): 2C;~~
- (18) ~~Blueberry River, (T.138, 139, R.35, 36): 2C;~~
- (19) ~~Bluff Creek, (T.135, 136, R.36, 37): 2C;~~
- (20) ~~Bogus Brook (excluding Class 7 segment), (T.37, 38, R.25, 26): 2C;~~
- (21) ~~Bogus Brook, Bock, (T.38, R.26, S.13, 14): 7;~~
- (22) ~~Borden Creek, (T.44, R.28, S.8, 9, 17, 20): 1B, 2A, 3B;~~

## Exhibit F.2. Proposed Rules

(23) Branch No. 3, Lateral 2, East Bethel/Ham Lake, (T.33, R.23, S.29, 32, along the west side of Minnesota Highway 65): 7;

(24) Briggs Creek, (T.35, R.29, S.2, 11, 12, 14, 15, 22): 1B, 2A, 3B;

(25) Bruce Creek, (T.53, R.22, S.6, 7; T.53, R.23, S.26; T.54, R.22, S.18, 19, 30, 31; T.54, R.23, S.25): 1B, 2A, 3B;

(26) Buckman Creek (excluding Class 7 segment), (T.39, 40, R.30, 31): 2C;

(27) Buckman Creek, Buckman, Buckman Coop Cry., (T.39, R.30, S.4, 5, 6, 9; T.39, R.31, S.1, 2, 10, 11; T.40, R.30, S.31; T.40, R.31, S.36): 7;

(28) Bungo Creek, (T.137, R.30, S.6; T.137, R.31, S.1, 11, 12, 14, 21, 22, 23; T.138, R.30, S.31): 1B, 2A, 3B;

(29) Bungoshine Creek (Bungashing Creek), (T.145, R.32, S.28, 29, 30; T.145, R.33, S.25, 26, 34, 35): 1B, 2A, 3B;

(30) Bunker Hill Brook (Bunker Hill Creek), (T.38, R.30, S.6; T.38, R.31, S.1, 2, 10, 11): 1B, 2A, 3B;

(31) Camp Creek, (T.43, R.28, S.4, 5): 1B, 2A, 3B;

(32) Camp Ripley Brook, (T.132, R.29, S.18, 19; T.132, R.30, S.12, 13): 1B, 2A, 3B;

(33) Cat River (Cat Creek), (T.137, R.35, S.4, 9, 10, 11, 12, 13): 1B, 2A, 3B;

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

(35) Cedar Creek, (T.138, R.31, S.23, 26, 27, 28): 1B, 2A, 3B;

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

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

(38) Cold Creek, (T.145, R.33, S.19): 1B, 2A, 3B;

(39) Cold Spring Creek, (T.123, R.30, S.14, 15): 1B, 2A, 3B;

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

(41) Corey Brook (Cory Brook), (T.135, R.30, S.9, 15, 16, 21, 22, 27): 1B, 2A, 3B;

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

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

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

(45) County Ditch No. 23A, Willmar, (T.119, R.34, S.29, 30, 32; T.119, R.35, S.23, 25, 26): 7;

(46) County Ditch No. 28, East Bethel/Ham Lake, (T.32, R.23, S.4, 5, 6; T.33, R.23, S.29, 32 along the east side of Minnesota Highway 65): 7;

(47) County Ditch No. 42, McGregor, (T.47, R.23, S.6; T.47, R.24, S.1; T.48, R.23, S.29, 31, 32): 7;

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

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- (49) County Ditch No. 132, Lakeside, Lakeside Coop Cry., (T.116, R.31, S.16, 21): 7;
- (50) Crane Creek (Judicial Ditch No. 1), (excluding Class 7 segment), (T.116, 117, R.26, 27): 2C;
- (51) Crane Creek, Winsted, (T.117, R.27, S.14, 20, 21, 22, 23, 24, 25): 7;
- (52) \*Crow River, North Fork, [11/5/84R] (From the Lake Koronis outlet to the Meeker - Wright County line): 2B, 3C;
- (53) Cullen Brook, (T.136, R.28, S.18, 19, 30; T.136, R.29, S.13): 1B, 2A, 3B;
- (54) Dabill Brook, (T.137, R.31, S.1, 2, 10, 11; T.138, R.31, S.35, 36): 1B, 2A, 3B;
- (55) Daggett Brook, (T.43, R.29, 30): 2C;
- (56) Duet Creek, (T.129, R.32, S.20): 1B, 2A, 3B;
- (57) Eagle Creek, (T.120, R.29): 2C;
- (58) Elk River, Little, (T.130, 131, R.30, 31): 2C;
- (59) Elk River, South Branch, Little, (T.130, R.30, 31, 32): 2C;
- (60) Estes Brook, (T.36, 37, 38, R.27, 28): 2C;
- (61) Everton Creek, (T.149, R.30): 2C;
- (62) Fairhaven Creek, (T.121, R.28, S.5; T.122, R.28, S.29, 31, 32): 1B, 2A, 3B;
- (63) Farley Creek, (T.147, R.28): 2C;
- (64) Farnham Creek, (T.135, R.32, S.5, 6, 7; T.136, R.32, S.2, 3, 9, 10, 16, 19, 20, 21, 29, 30, 31, 32): 1B, 2A, 3B;
- (65) Fawn Creek, (T.134, R.33, S.22, 27, 33, 34): 1B, 2A, 3B;
- (66) Finn Creek, (T.135, R.37, S.27, 34): 1B, 2A, 3B;
- (67) Fish Creek, (T.28, R.22): 2C;
- (68) Fletcher Creek, (T.42, R.31): 2C;
- (69) Foley Brook, (T.141, R.25): 2C;
- (70) Frederick Creek, (T.119, R.25, 26): 2C;
- (71) Frontenac Creek, (T.144, 145, R.34): 2C;
- (72) Gould Creek (Sucker Creek), (T.144, R.36, S.32): 1B, 2A, 3B;
- (73) Gould Creek (Sucker Creek), (T.143, R.36): 2C;
- (74) Hanson Brook, (T.40, R.27): 2C;
- (75) Hanson Brook (Threemile), (T.122, R.28, S.21, 22, 25, 26, 27, 36): 1B, 2A, 3B;
- (76) Hasty Brook, (T.49, R.19, S.18; T.49, R.20, S.4, 5, 9, 10, 13, 14, 15, 23; T.50, R.20, S.28, 29, 32, 33): 1B, 2A, 3B;
- (77) Hay Creek, Crow Wing County, (T.43, 44, R.30, 31): 2C;

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**Proposed Rules**

(78) Hay Creek, Wadena County, (T.134, R.33, S.7, 8, 9, 10, 11, 17, 18): 1B, 2A, 3B;

(79) Hay Creek (Mosquito Creek), (T.135, R.31, S.8, 9, 16, 17): 1B, 2A, 3B;

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

(81) Hellcamp Creek (Hellkamp Creek), (T.140, R.33, S.19; T.140, R.34, S.24): 1B, 2A, 3B;

(82) Hennepin Creek, (T.144, R.35, S.3, 10, 15, 16, 21; T.145, R.35, S.34): 1B, 2A, 3B;

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

(84) Hoblin Creek, (T.137, R.30, S.17, 18, 19): 1B, 2A, 3B;

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

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

(87) Iron Creek, (T.134, 135, R.31, 32): 2C;

(88) Jewett Creek (Jewitts Creek or County Ditch No. 17), (T.119, 120, R.30, 31): 2C;

(89) Johnson Creek, (T.137, R.25): 2C;

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

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

(92) Kabekona River, (T.143, R.32, S.6, 7, 18, 19; T.143, R.33, S.2, 3, 4, 9, 11, 12, 24; T.144, R.33, S.29, 30, 32, 33; T.144, R.34, S.24, 25, 36): 1B, 2A, 3B;

(93) Kawishiwash Creek, (T.142, R.32, S.12): 1B, 2A, 3B;

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

(95) Kinzer Creek, (T.123, R.30, S.27, 34): 1B, 2A, 3B;

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

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

(98) Larson Creek, (T.128, R.32, S.6): 1B, 2A, 3B;

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

(100) LaSalle Creek, (T.143, R.35, S.6; T.144, R.35, S.19, 30, 31): 1B, 2A, 3B;

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

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

(103) Libby Brook, (T.50, R.23, S.5, 6; T.50, R.24, S.1, 2): 1B, 2A, 3B;

(104) Long Brook, Lower South, (T.44, R.30, S.12, 13): 1B, 2A, 3B;

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- (+05) Long Brook, Upper South, (T.44, R.29, S.6, 7): 1B, 2A, 3B;
- (+06) Long Lake Creek, (T.46, R.25, S.10, 15): 1B, 2A, 3B;
- (+07) Luxemburg Creek, (T.123, R.28, S.16, 17, 18, 19, 20, 21, 22, 30): 1B, 2A, 3B;
- (+08) Matuska's Creek, (T.54, R.26, S.35, 36): 1B, 2A, 3B;
- (+09) Meadow Creek, (T.128, R.30): 2C;
- (+10) Meyers Creek (Johnson Creek), (T.122, R.28, S.4; T.123, R.28, S.22, 27, 33, 34): 1B, 2A, 3B;
- (+11) Michaud Brook, (T.140, R.25, S.7, 17, 18): 1B, 2A, 3B;
- (+12) Mike Drew Brook, (T.38, 39, R.26, 27): 2C;
- (+13) Mink Creek, Big, (T.41, 42, R.29, 30): 2C;
- (+14) Mink Creek, Little, (T.40, 41, R.29, 30, 31): 2C;
- (+15) \*Mississippi River, [11/5/84R] (From Lake Itasca to Fort Ripley, at the common boundary of Crow Wing and Morrison Counties): 2B, 3C;
- (+16) \*Mississippi River, [11/5/84R] (From Fort Ripley, at the common boundary of Crow Wing and Morrison Counties, to the southerly boundary of Morrison County): 1C, 2Bd, 3C;
- (+17) Mississippi River, (From the southerly boundary of Morrison County to Stearns County State-Aid Highway 7 bridge in Saint Cloud in S.13, T.124, R.28): 1C, 2Bd, 3C;
- (+18) \*Mississippi River, [11/5/84R] (Stearns County State-Aid Highway 7 bridge in Saint Cloud in S.13, T.124, R.28 to the northwestern city limits of Anoka, river mile 873.5): 1C, 2Bd, 3C;
- (+19) Mississippi River, (From the northwestern city limits of Anoka, river mile 873.5, to the Upper Lock and Dam at Saint Anthony Falls in Minneapolis): 1C, 2Bd, 3C;
- (+20) Mississippi River, (Outlet of Metro Wastewater Treatment Works in Saint Paul, river mile 835.3, to river mile 830, Rock Island RR Bridge): 2C, 3C;
- (+21) Morrison Brook, (T.52, R.26, S.4, 9, 10, 14, 15; T.53, R.26, S.7, 8, 18, 19, 29, 30, 32, 33): 1B, 2A, 3B;
- (+22) Muckey Creek (Wallingford Creek), (T.139, R.33, S.1, 2, 10, 11, 12): 1B, 2A, 3B;
- (+23) Necktie River (T.145, R.32, S.6, 7, 8, 9, 16; T.145, R.33, S.1): 1B, 2A, 3B;
- (+24) Nelson Hay Creek, (T.130, R.31, S.1, 2): 1B, 2A, 3B;
- (+25) Northby Creek, (T.140, R.27): 2C;
- (+26) Norway Brook, (T.139, R.30): 2C;
- (+27) O'Brien Creek, (T.56, 57, R.22): 2C;
- (+28) O'Neill Brook, (T.38, R.26): 2C;
- (+29) Oak Ridge Creek (Oak Creek), (T.133, 134, R.36): 2C;
- (+30) Olson Brook, (T.136, R.30, S.12, 13, 14): 1B, 2A, 3B;

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- (131) Peterson Creek, (T.134, R.30, S.29-32): 1B, 2A, 3B;
- (132) Pickerel Creek, (T.56, R.22, S.7, 18; T.56, R.23, S.13): 1B, 2A, 3B;
- (133) Pigeon River, (T.147, R.27): 2C;
- (134) Pike Creek (excluding Class 7 segment), (T.129, R.30): 2C;
- (135) Pike Creek, Flensburg, (T.129, R.30, S.17, 18, 19, 20): 7;
- (136) Pillager Creek, (T.133, 134, R.30): 2C;
- (137) Pine River, South Fork, (T.138, R.31, S.14, 23): 1B, 2A, 3B;
- (138) Pioneer Creek, (T.118, R.24): 2C;
- (139) Pokegama Creek, (T.54, R.26, S.26, 27, 28): 1B, 2A, 3B;
- (140) Pokegama Creek, Little, (T.54, R.26, S.26, 27, 34, 35): 1B, 2A, 3B;
- (141) Pokety (Picketedee Creek), (T.144, R.32, S.29, 30; T.144, R.33, S.24, 25): 1B, 2A, 3B;
- (142) Poplar Brook (Martin Creek), (T.135, R.32, S.5, 6; T.136, R.32, S.22, 27, 28, 32, 33): 1B, 2A, 3B;
- (143) Prairie Brook, (T.36, R.27): 2C;
- (144) Rat Creek, (T.144, 145, R.34): 2C;
- (145) Rice Creek, (T.30, 31, 32, R.22, 23, 24): 1C, 2Bd, 3C;
- (146) Rice Creek, Sherburne County, (T.35, R.29): 2C;
- (147) Robinson Hill Creek, (T.123, R.28, S.4, 9, 10, 15; T.124, R.28, S.31, 32, 33): 1B, 2A, 3B;
- (148) Rock Creek, Little, (T.38, R.31, S.3, 4, 10, 15, 21, 22, 28; T.39, R.30, S.17, 18, 20, 21, 22; T.39, R.31, S.13, 14, 22, 23, 27, 33, 34): 1B, 2A, 3B;
- (149) Rogers Brook, (T.134, R.30, S.29, 32): 1B, 2A, 3B;
- (150) Rosholt Creek, (T.55, R.23, S.22, 23, 24): 1B, 2A, 3B;
- (151) Round Creek, (T.43, R.31, S.14, 15): 1B, 2A, 3B;
- (152) Round Prairie Creek (Trout Creek), (T.127, R.33, S.4; T.128, R.33, S.20, 29, 32, 33): 1B, 2A, 3B;
- (153) \*Rum River, [11/5/84P] (From the Ogeechie Lake spillway to the northernmost confluence with Lake Onamia): 2B, 3B;
- (154) \*Rum River, [11/5/84R] (From the State Highway 27 bridge in Onamia to Madison and Rice Streets in Anoka): 2B, 3C;
- (155) Sand Creek, Crow Wing County, (T.45, R.30, S.2, 3, 11, 13, 14; T.46, R.30, S.34): 1B, 2A, 3B;
- (156) Sand Creek, (T.55, R.23, S.15, 22, 27, 28, 29, 32, 33): 1B, 2A, 3B;
- (157) Sauk Creek, Little, (T.127, R.34, S.1; T.128, R.34, S.36): 1B, 2A, 3B;

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- (158) ~~Schoolcraft Creek, (T.142, R.34, S.5, 7, 8, 17): 1B, 2A, 3B;~~
- (159) ~~Seven-Mile Creek, (T.133, 134, R.30, 31): 2C;~~
- (160) ~~Sisseebakwet Creek, (T.54, R.26, S.19, 29, 30): 1B, 2A, 3B;~~
- (161) ~~Six-Mile Brook, (T.144, R.26, 27): 2C;~~
- (162) ~~Skimmerhorn Creek (Skimmerhorn Creek), (T.149, R.30): 2C;~~
- (163) ~~Skunk Creek, (T.144, 145, R.34): 2C;~~
- (164) ~~Skunk River (Co. Dt. No. 37) (Co. Dt. No. 29), Brooten, (T.123, R.35, S.4, 5, 9; T.123, R.35, S.9, 10, 11, 12; T.123, R.34, S.3, 4, 5, 6, 7, 8): 7;~~
- (165) ~~Smart's Creek, (T.126, R.28, S.17, 18, 20): 1B, 2A, 3B;~~
- (166) ~~Smith Creek, (T.53, R.26, S.1, 9, 10, 11, 12, 13, 14, 15; T.54, R.26, S.35, 36): 1B, 2A, 3B;~~
- (167) ~~Smith Creek, Unnamed Tributary, (T.53, R.26, S.11, 12): 1B, 2A, 3B;~~
- (168) ~~Smith Creek, Unnamed Tributary, (T.54, R.26, S.35, 36): 1B, 2A, 3B;~~
- (169) ~~Snake River, (T.33, R.28, S.1; T.34, R.28, S.2, 11, 14, 23, 26, 35, 36; T.35, R.28, S.20, 28, 29, 33, 34, 35): 1B, 2A, 3B;~~
- (170) ~~Snowball Creek, (T.56, R.23): 2C;~~
- (171) ~~Split Hand Creek, (T.53, R.24, 25): 2C;~~
- (172) ~~Spring Brook, Stearns County, (T.121, R.28, S.7; T.121, R.29, S.12): 1B, 2A, 3B;~~
- (173) ~~Spring Brook, Crow Wing County, (T.138, R.28, S.27, 34): 1B, 2A, 3B;~~
- (174) ~~Spring Brook (Spring Branch), Cass County, (T.139, R.26, S.3, 10, 11, 14): 1B, 2A, 3B;~~
- (175) ~~Spring Brook, Lower, (T.57, R.25, S.6; T.58, R.25, S.31): 1B, 2A, 3B;~~
- (176) ~~Spring Creek, (T.55, R.23, S.25, 26, 27): 1B, 2A, 3B;~~
- (177) ~~Spruce Creek, (T.130, R.36, S.3, 4, 9, 10; T.131, R.36, S.28, 29, 31, 32, 33, 34): 1B, 2A, 3B;~~
- (178) ~~Stag Brook, (T.121, 122, R.31): 2C;~~
- (179) ~~Stall Creek, (T.143, R.33, S.12, 13, 14): 1B, 2A, 3B;~~
- (180) ~~Stanchfield Branch, Lower, Braham, (T.37, R.23, S.3, 10, 15, 22): 7;~~
- (181) ~~Stocking Creek, (T.138, R.34, 35): 2C;~~
- (182) ~~Stoney Brook (Stoney Brook), Cass County, (T.135, R.29, S.5, 8, 9; T.136, R.29, S.30, 31, 32; T.136, R.30, S.20, 21, 22, 25, 26, 27, 29, 30; T.136, R.31, S.24, 25, 26): 1B, 2A, 3B;~~
- (183) ~~Stony Brook (Stoney Brook), Foley, (T.36, R.29, S.2, 9, 10, 11, 16; T.37, R.29, S.35, 36): 7;~~
- (184) ~~Stony Creek (Wabedo Creek), (T.140, R.28): 2C;~~

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- (185) Stony Point Brook, (T.147, R.28, S.22, 27, 34): 2C;
- (186) Straight Creek, Upper, (Straight River), (T.140, R.36, S.6; T.141, R.36, S.30, 31; T.141, R.37, S.24, 25): 1B, 2A, 3B;
- (187) Straight Lake Creek, (T.140, R.36, S.6; T.140, R.37, S.1, 2): 1B, 2A, 3B;
- (188) Straight River, (T.139, R.34, S.7; T.139, R.35, S.4, 5, 6, 9, 10, 11, 12; T.139, R.36, S.1; T.140, R.36, S.28, 29, 33, 34, 35, 36): 1B, 2A, 3B;
- (189) Sucker Creek (Gould Creek), (T.144, R.36, S.27, 28, 29, 30, 32, 33): 1B, 2A, 3B;
- (190) Sucker Creek, Meeker County, (T.118, R.30, S.4, 5, 6, 7): 1B, 2A, 3B;
- (191) Swamp Creek, Big, (T.137, 138, 139, R.32, 33): 2C;
- (192) Swamp Creek, Little, (T.136, 137, R.33): 2C;
- (193) Swan Creek, (T.134, 135, R.32): 2C;
- (194) Swan Creek, Little, (T.135, R.32): 2C;
- (195) Swift River, (T.142, R.27): 2C;
- (196) Taylor Creek, (T.128, R.31): 2C;
- (197) Ted Brook Creek, (T.130, R.31): 2C;
- (198) Thiel Creek (Teal), (T.121, R.28, S.5, 6, 8): 1B, 2A, 3B;
- (199) Tibbits Brook, (T.33, 34, R.26, 27): 2C;
- (200) Tibbetts Creek (Tibbetts Brook), (T.39, 40, R.27, 28): 2C;
- (201) Trout Brook, St. Paul, (T.29, R.22, S.18, 19): 7;
- (202) Tower Creek, (T.135, R.32): 2C;
- (203) Two Rivers, South Branch, Albany, (T.125, R.31, S.21, 22, 23): 7;
- (204) Two Rivers Springs, (T.51, R.23, S.19; T.51, R.24, S.24, 25, 26): 1B, 2A, 3B;
- (205) Union Creek, (T.134, R.35, S.4, 5, 7, 8, 18, 19, 30, 31; T.135, R.35, S.27, 28, 33, 34): 1B, 2A, 3B;
- (206) Unnamed Creek, Cass County, (T.137, R.31, S.4, 5): 1B, 2A, 3B;
- (207) Unnamed Creek, Cass County, (T.139, R.26, S.3, 10): 1B, 2A, 3B;
- (208) Unnamed Creek, Calumet, (T.56, R.23, S.21): 7;
- (209) Unnamed Creek, Montrose, Hiller Mobile Home Court, (T.119, R.26, S.22, 26, 27, 35): 7;
- (210) Unnamed Creek, Rogers, (T.120, R.23, S.15, 16, 22, 23): 7;
- (211) Unnamed Creek, Grove City, (T.120, R.32, S.34, 35, 36): 7;

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- (212) Unnamed Creek, Albertville, (T.121, R.23, S.30; T.121, R.24, S.25, 36): 7;
- (213) Unnamed Creek, Eden Valley, Ruhland Feeds, (T.121, R.31, S.2; T.122, R.31, S.35): 7;
- (214) Unnamed Creek, Lake Henry, (T.123, R.33, S.11, 14): 7;
- (215) Unnamed Creek, Miltona, (T.129, R.36, S.6; T.130, R.36, S.30, 31): 7;
- (216) Unnamed Ditch, Braham, (T.37, R.23, S.2, 3): 7;
- (217) Unnamed Ditch, Ramey, Ramey Farmers Coop Cry., (T.38, R.28, S.4, 5; T.39, R.28, S.29, 30, 32; T.39, R.29, S.25, 26, 27, 28): 7;
- (218) Unnamed Ditch, McGregor, (T.48, R.23, S.31, 32): 7;
- (219) Unnamed Ditch, Nashwauk, (T.56, R.22, S.4, 5; T.57, R.22, S.32): 7;
- (220) Unnamed Ditch, Taconite, (T.56, R.24, S.22 SW1/4): 7;
- (221) Unnamed Ditch, Glencoe, Green Giant, (T.115, R.28, S.21, 22, 27, 28): 7;
- (222) Unnamed Ditch, Glencoe, Green Giant, (T.115, R.28, S.14, 23): 7;
- (223) Unnamed Ditch, Winsted, Green Giant, (T.117, R.27, S.10, 11): 7;
- (224) Unnamed Ditch, Montrose, Hitler Mobile Home Court, (T.119, R.26, S.34, 35): 7;
- (225) Unnamed Ditch, Kandiyohi, (T.119, R.34, S.10, 15, 21, 22, 28, 29): 7;
- (226) Unnamed Ditch, Rogers, (T.120, R.23, S.15): 7;
- (227) Unnamed Ditch, Belgrade, (T.123, R.34, S.19, 30): 7;
- (228) Unnamed Ditch, Flensburg, (T.129, R.30, S.30; T.129, R.31, S.25): 7;
- (229) Unnamed Ditch, Miltona, (T.130, R.36, S.30; T.130, R.37, S.25, 36): 7;
- (230) Unnamed Stream, Winsted, (T.117, R.27, S.11, 12): 7;
- (231) Unnamed Stream, Flensburg, (T.129, R.30, S.19, 30): 7;
- (232) Vandell Brook (Vondell Brook), (T.37, 38, R.26): 2C;
- (233) Van Sickle Brook, (T.138, R.26, S.14, 15, 23, 24): 1B, 2A, 3B;
- (234) Wallingford Brook (Wallingford Creek), (T.139, R.33, S.1, 2, 11; T.140, R.33, S.25, 36): 1B, 2A, 3B;
- (235) Warba Creek, (T.54, R.23, S.13, 14, 15, 21, 22, 23, 24): 1B, 2A, 3B;
- (236) Welcome Creek, (T.56, 57, R.22): 2C;
- (237) Whitley's Creek (Whiteley Creek), (T.45, R.30, S.16, 17, 20, 21): 1B, 2A, 3B;
- (238) Whitney Brook, (T.39, R.26, 27): 2C;
- (239) Willow Creek, Otter Tail County, (T.133, R.38, S.2, 11; T.134, R.38, S.26, 35): 1B, 2A, 3B;

## Exhibit F.2. Proposed Rules

- (240) Willow Creek, Stearns and Meeker Counties, (T.121, R.29, S.10, 11, 14, 23): 1B, 2A, 3B;
- (241) Willow River, North Fork, (T.142, R.25): 2C;
- (242) Willow River, South Fork, (T.142, R.25): 2C;
- (243) Wilson Creek, (T.137, R.30): 2C; and
- (244) Wolf Creek, (T.42, R.30): 2C.

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

**Subp. 5. Minnesota River Basin.** The water use classifications for the stream reaches within each of the major watersheds in the Minnesota River Basin listed in item A are found in tables entitled “Beneficial Use Designations for Stream Reaches” published on the Web site of the Minnesota Pollution Control Agency at [www.pca.state.mn.us](http://www.pca.state.mn.us). The tables are incorporated by reference and are not subject to frequent change. The date after each watershed listed in item A is the publication date of the applicable table. The water use classifications for the other listed waters in the Minnesota River Basin are as identified in items A to D. See parts 7050.0425 and 7050.0430 for the classifications of waters not listed. Designated use information for water bodies can also be accessed through the agency’s Environmental Data Access (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

A. Streams (by eight-digit hydrologic unit code):

- (1) 07020001 Minnesota River - Headwaters (August 9, 2016);
- (2) 07020002 Pomme de Terre River (August 9, 2016);
- (3) 07020003 Lac qui Parle River (August 9, 2016);
- (4) 07020004 Minnesota River - Yellow Medicine River (August 9, 2016);
- (5) 07020005 Chippewa River (August 9, 2016);
- (6) 07020006 Redwood River (August 9, 2016);
- (7) 07020007 Minnesota River - Mankato (August 9, 2016);
- (8) 07020008 Cottonwood River (August 9, 2016);
- (9) 07020009 Blue Earth River (August 9, 2016);
- (10) 07020010 Watonwan River (August 9, 2016);
- (11) 07020011 Le Sueur River (August 9, 2016); and
- (12) 07020012 Lower Minnesota River (August 9, 2016).

- (1) Altermatts Creek (County Ditch No. 39), Comfrey, (T.108, R.33, S.17, 19, 20, 30; T.108, R.34, S.24, 25, 35, 36): 7;
- (2) Assumption Creek, (T.115, R.23, S.2; T.116, R.23, S.34, 35): 1B, 2A, 3B;
- (3) Badger Creek, (T.101, 102, R.28): 2C;
- (4) Beaver Creek, East Fork (County Ditch No. 63), Olivia, Olivia Canning Company, (T.115, R.34, S.1, 2, 3, 4, 5, 6; T.115, R.35, S.1, 12, 13, 14, 23, 24, 25, 26; T.116, R.34, S.16, 20, 21, 28, 29, 30, 32, 33, 34, 35): 7;
- (5) Blue Earth River, East Fork, (Brush Creek to mouth): 2C, 3C;

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- (6) Blue Earth River, West Fork, (Iowa border to mouth): 2C, 3C;
- (7) Boiling Spring Creek (excluding Class 7 segment), (T.113, 114, R.37, 38): 2C;
- (8) Boiling Springs Creek (County Ditch No. 1B), Echo, (T.113, R.38, S.5, 8; T.114, R.37, S.19, 30; T.114, R.38, S.25, 26, 27, 32, 33, 34): 7;
- (9) Boot Creek (excluding Class 7 segment), (T.105, 106, R.22, 23): 2C;
- (10) Boot Creek, New Richland, (T.105, R.22, S.6, 7; T.105, R.23, S.12, 13, 24): 7;
- (11) Brafees Creek, (T.116, 117, R.40): 2C;
- (12) Brush Creek, (Iowa border to mouth): 2C, 3C;
- (13) Bull Run Creek, Little, (T.106, R.24, 25): 2C;
- (14) Butterfield Creek, (T.106, 107, R.31, 32, 33): 2C;
- (15) Canby Creek, (T.114, R.45, S.17, 18; T.114, R.46, S.13, 14, 21, 22, 23): 1B, 2A, 3B;
- (16) Canby Creek (excluding trout waters), (South Dakota border to mouth): 2C, 3C;
- (17) Cedar Run Creek, (T.103, 104, R.32, 33): 2C;
- (18) Cherry Creek, Cleveland, (T.110, R.25, S.7, 8, 16, 17; T.110, R.26, S.12): 7;
- (19) Chetomba Creek (excluding Class 7 segment), (T.116, 117, R.36, 37, 38): 2C;
- (20) Chetomba Creek, Prinsburg, (T.116, R.36, S.6, 7, 18, 19; T.116, R.37, S.8, 9, 14, 15, 16, 23, 24; T.117, R.36, S.8, 9, 16, 17, 21, 28, 29, 30, 31, 32): 7;
- (21) Chippewa River (see also County Ditch No. 60);
- (22) Cobb Creek, Freeborn, (T.104, R.23, S.7, 8, 17; T.104, R.24, S.11, 12): 7;
- (23) Cobb Creek Ditch, Freeborn, (T.103, R.23, S.2; T.104, R.23, S.14, 15, 16, 23, 26, 35): 7;
- (24) Cobb River (Cobb River, Big), (T.103, 104, 105, 106, 107, R.23, 24, 25, 26, 27): 2C;
- (25) Cobb River, Little (County Ditch No. 8), (T.105, 106, R.23, 24, 25, 26): 2C;
- (26) Cottonwood Creek (excluding trout waters), (T.120, 121, 122, R.41, 42): 2C;
- (27) Cottonwood Creek, (T.119, R.41, S.4; T.120, R.41, S.21, 28, 33): 1B, 2A, 3B;
- (28) County Ditch No. 1, Echo, (T.113, R.38, S.8, 9): 7;
- (29) County Ditch No. 4, Arco, (T.110, R.44, S.5; T.111, R.44, S.32, 33): 7;
- (30) County Ditch No. 4, Norwood, (T.115, R.25, S.30; T.115, R.26, S.13, 14, 24, 25): 7;
- (31) County Ditch No. 5, Marietta, (T.117, R.45, S.6, 7, 18; T.117, R.46, S.1; T.118, R.46, S.23, 25, 26, 36): 7;
- (32) County Ditch No. 6 (Judicial Ditch No. 11), Janesville, (T.107, R.24, S.4, 8, 9, 17, 18; T.107, R.25, S.13): 7;
- (33) County Ditch No. 7, Lowry, (T.126, R.39, S.25, 26): 7;

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**Proposed Rules**

(34) County Ditch No. 8 (see Cobb River, Little);

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

(36) County Ditch No. 12 (County Ditch No. 45), Waseca, (T.107, R.23, S.22, 23): 7;

(37) County Ditch No. 12 (Rice Creek), Belview, (T.113, R.36, S.7, 8, 18, 19; T.113, R.37, S.15, 21, 22, 23, 24): 7;

(38) County Ditch No. 14, Tyler, (T.109, R.43, S.18; T.109, R.44, S.2, 3, 11, 13, 14; T.110, R.44, S.33, 34): 7;

(39) County Ditch No. 15 (see Unnamed Ditch, Madison);

(40) County Ditch No. 22, Montgomery, Green Giant Company, (T.111, R.23, S.4, 9, 10; T.112, R.23, S.33): 7;

(41) County Ditch No. 27, Madison, (T.117, R.43, S.3, 4, 5, 6; T.117, R.44, S.1; T.118, R.43, S.34; T.118, R.44, S.35, 36): 7;

(42) County Ditch No. 28, Marietta, (T.118, R.46, S.22, 23, 26): 7;

(43) County Ditch No. 38, Storden, (T.107, R.37, S.28, 29): 7;

(44) County Ditch No. 40A, Lafayette, (T.111, R.29, S.8, 14, 15, 16, 17, 23, 24): 7;

(45) County Ditch No. 42, Winthrop, (T.112, R.29, S.6, 7): 7;

(46) County Ditch No. 44, Bricelyn, Owatonna Canning Company, (T.101, R.25, S.7, 8, 16, 17; T.101, R.26, S.1, 12; T.102, R.26, S.36): 7;

(47) County Ditch No. 45, Renville, Southern Minnesota Beet Sugar Coop, (T.114, R.36, S.5, 6; T.115, R.36, S.7, 8, 9, 10, 17, 18, 19, 29, 30, 32): 7;

(48) County Ditch No. 45, Branch Lateral 3, Renville, Golden Oval Eggs, (T.115, R.36, S.4, 5, 8): 7;

(49) County Ditch No. 46, Willmar, (T.119, R.35, S.19, 20, 29): 7;

(50) County Ditch No. 51, Le Center, (T.110, R.24, S.5, 6; T.111, R.24, S.31, 32; T.111, R.25, S.26, 35, 36): 7;

(51) County Ditch No. 54, Montgomery, (T.112, R.23, S.26, 33, 34, 35): 7;

(52) County Ditch No. 55 (see Rush River, North Branch);

(53) County Ditch No. 60 (Chippewa River), Millerville, Millerville Coop Cry., (T.130, R.39, S.14, 22, 23, 27, 28, 32, 33): 7;

(54) County Ditch No. 61, Kerkhoven, (T.120, R.37, S.21, 22): 7;

(55) County Ditch No. 63, Hanska, (T.108, R.30, S.11, 12, 14, 17, 18, 19, 20, 21, 22, 23, 27, 28): 7;

(56) County Ditch No. 66, Bird Island, (T.115, R.34, S.15, 16, 17, 18, 22, 23): 7;

(57) County Ditch No. 87, Wells, (T.103, R.24, S.6; T.104, R.24, S.31; T.104, R.25, S.36): 7;

(58) County Ditch No. 104, Sacred Heart, (T.114, R.38, S.1, 2; T.115, R.37, S.7, 18; T.115, R.38, S.13, 24, 25, 26, 35, 36): 7;

(59) County Ditch No. 109, Morgan, (T.111, R.34, S.4, 5, 8, 17; T.112, R.34, S.22, 23, 27, 28, 33): 7;

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- (60) ~~Crow Creek, (T.112, R.35): 2C;~~
- (61) ~~Dry Creek, (T.108, 109, R.36): 2C;~~
- (62) ~~Dry Weather Creek, (T.117, 118, R.39, 40, 41): 2C;~~
- (63) ~~Dry Wood Creek, (T.122, 123, R.42, 43): 2C;~~
- (64) ~~Eagle Creek, East Branch, (T.115, R.21, S.18): 1B, 2A, 3B;~~
- (65) ~~Eagle Creek, Main Branch, (T.115, R.21, S.7, 18; T.115, R.22, S.13): 1B, 2A, 3B;~~
- (66) ~~Echo Creek, (T.114, R.37): 2C;~~
- (67) ~~Eight Mile Creek (Judicial Ditch No. 7 or Eightmile Creek), (T.111, 112, 113, R.31): 2C;~~
- (68) ~~Elm Creek, North Fork, (T.104, R.34): 2C;~~
- (69) ~~Elm Creek, South Fork, (T.103, R.34): 2C;~~
- (70) ~~Emily Creek, (T.118, 119, R.43): 2C;~~
- (71) ~~Fish Creek, (T.123, 124, R.47, 48, 49): 2C;~~
- (72) ~~Five Mile Creek, (T.120, R.44): 2C;~~
- (73) ~~Florida Creek, (South Dakota border to mouth): 2C, 3C;~~
- (74) ~~Foster Creek (County Ditch No. 1) (excluding Class 7 segment), (T.102, 103, R.24): 2C;~~
- (75) ~~Foster Creek (County Ditch No. 1), Alden, (T.102, R.23, S.4, 5; T.103, R.23, S.31, 32; T.103, R.24, S.25, 36): 7;~~
- (76) ~~Hassel Creek, (T.122, 123, R.38, 39): 2C;~~
- (77) ~~Hawk Creek (County Ditch No. 10), Willmar/Pennock, (T.118, R.36, S.2, 3, 8, 10, 15, 16, 17, 18, 19; T.118, R.37, S.5, 6, 7, 8, 9, 14, 15, 16, 18, 19, 23, 24, 30, 31; T.119, R.35, S.19; T.119, R.36, S.24, 25, 26, 35): 7;~~
- (78) ~~Hazel Creek (County Ditch No. 9), (T.115, R.39, 40, 41, 42): 2C;~~
- (79) ~~High Island Ditch No. 5, Arlington, (T.113, R.27, S.16, 17, 21, 22, 27): 7;~~
- (80) ~~Hindeman Creek (Spring Creek), (T.111, R.32, S.19, 20; T.111, R.33, S.24): 1B, 2A, 3B;~~
- (81) ~~Iseco Creek, (T.108, R.23): 2C;~~
- (82) ~~John's Creek, (T.110, R.32, S.1; T.111, R.31, S.31; T.111, R.32, S.36): 1B, 2A, 3B;~~
- (83) ~~Judicial Ditch No. 1, Delavan, (T.104, R.27, S.23, 25, 26, 36): 7;~~
- (84) ~~Judicial Ditch No. 1A, Lafayette, (T.111, R.27, S.5, 6, 7; T.111, R.28, S.10, 11, 12, 15, 16, 17, 18, 19; T.111, R.29, S.24): 7;~~
- (85) ~~Judicial Ditch No. 4, Dawson, Lac qui Parle Oil Coop, (T.117, R.43, S.7, 17, 18, 20, 21 NW1/4; T.117, R.44, S.12): 7;~~
- (86) ~~Judicial Ditch No. 5, Murdock, (T.120, R.38, S.4, 5, 6, 9, 10, 11; T.120, R.39, S.1, 4, 9, 10, 11, 12): 7;~~

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(87) Judicial Ditch No. 6, Hanska, (T.107, R.30, S.4; T.108, R.30, S.28, 33): 7;

(88) Judicial Ditch No. 7 (see Eight Mile Creek);

(89) Judicial Ditch No. 10, (see Wood Lake Creek);

(90) Judicial Ditch No. 10 (Morgan Creek), Hanska, (T.108, R.30, S.1; T.109, R.30, S.35 SE1/4, 36 SW1/4): 7;

(91) Judicial Ditch No. 12, Tyler, (T.109, R.43, S.9, 15, 16, 17, 18): 7;

(92) Judicial Ditch No. 29, Arco, (T.111, R.44, S.21, 28, 33): 7;

(93) Judicial Ditch No. 29 (Spring Creek), Evan, (T.110, R.33, S.6; T.111, R.33, S.21, 22, 28, 31, 32, 33): 7;

(94) Judicial Ditch No. 29, Branch Lateral, Evan, (T.110, R.33, S.6, 7, 18): 7;

(95) Judicial Ditch No. 30, Sleepy Eye, Del Monte Corporation, (T.109, R.32, S.4, 5, 6; T.110, R.32, S.31): 7;

(96) Judicial Ditch No. 49 (Providence Creek), Amboy, (T.105, R.27, S.18, 19; T.105, R.28, S.13): 7;

(97) Kennaley's Creek, (T.27, R.23, S.18): 1B, 2A, 3B;

(98) Lac qui Parle River, (Lake Hendricks outlet to Minnesota River): 2C, 3C;

(99) Lac qui Parle River, West Fork, (South Dakota border to mouth): 2C, 3C;

(100) Lateral Ditch C of County Ditch No. 55, Gaylord, (T.112, R.28, S.2, 3; T.113, R.28, S.32, 33, 34): 7;

(101) Lazarus Creek, (South Dakota border to Canby Creek): 2C, 3C;

(102) Lazarus Creek (Canby Creek), (T.115, R.45, S.14 to mouth): 2B, 3C;

(103) Le Sueur River, Little, (T.106, R.22): 2C;

(104) Lone Tree Creek, Tracy, (T.109, R.39, S.2, 3, 4, 7, 8, 9; T.110, R.38, S.19, 20, 30; T.110, R.39, S.25, 34, 35, 36): 7;

(105) Long Lake Creek, (T.132, R.41, S.9): 1B, 2A, 3B;

(106) Middle Creek (County Ditch No. 92), (T.113, 114, R.36): 2C;

(107) Mink Creek (Judicial Ditch No. 60), (T.104, R.30, 31): 2C;

(108) Minneopa Creek, Lake Crystal, (T.108, R.28, S.26, 27, 32, 33, 34): 7;

(109) Minnesota River, (Big Stone Lake outlet to the Lac qui Parle dam): 1C, 2Bd, 3C;

(110) \*Minnesota River, [11/5/84R] (Lac qui Parle dam to the dam in Granite Falls S.34, T.116, R.39): 1C, 2Bd, 3C;

(111) \*Minnesota River, [11/5/84R] (from the dam in Granite Falls S.34, T.116, R.39 to Redwood County State-Aid Highway 11 bridge): 2B, 3C;

(112) Minnesota River, (River Mile 22 to mouth): 2C, 3C;

(113) Minnesota River, Little, (South Dakota border crossing to Big Stone Lake): 2C, 3C;

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- (114) Morgan Creek (Judicial Ditch No. 10) (excluding Class 7 segment), (T.109, R.29, 30): 2C;
- (115) Mud Creek, (T.114, R.43, 44, 45): 2C;
- (116) Mud Creek, (T.123, R.36, S.28, 29): 1B, 2A, 3B;
- (117) Mud Creek (Judicial Ditch No. 19), DeGraff/Murdock, (T.121, R.37, S.31; T.121, R.38, S.18, 19, 20, 28, 29, 33, 34, 35, 36; T.121, R.39, S.11, 12, 13): 7;
- (118) Muddy Creek (Mud Creek) (County Ditch No. 2) (County Ditch No. 4), Chokio, (T.124, R.42, S.6, 7, 15, 16, 17, 18, 21, 22, 23; T.124, R.43, S.1, 4, 5, 6, 7, 8; T.124, R.44, S.1, 2, 3, 12; T.125, R.43, S.34, 35, 36): 7;
- (119) Palmer Creek (County Ditch No. 68), (T.116, 117, 118, R.39): 2C;
- (120) Paul's Creek, (T.110, R.26, S.14, 15): 1B, 2A, 3B;
- (121) Pelican Creek, (T.130, R.41, 42): 2C;
- (122) Pell Creek, Walnut Grove, (T.109, R.38, S.25, 26, 27, 28): 7;
- (123) Perch Creek, (T.104, 105, 106, R.29, 30): 2C;
- (124) Ramsey Creek, (T.112, R.36, S.1; T.113, R.36, S.35, 36): 1B, 2A, 3B;
- (125) Redwood River, (T.110, R.42, S.5, 8, 17; T.111, R.42, S.32): 1B, 2A, 3B;
- (126) Rice Creek, See County Ditch No. 12;
- (127) Rush River, Middle Branch (County Ditch No. 23, County Ditch No. 42B, or County Ditch No. 54), Winthrop, (T.112, R.27, S.16, 19, 20, 21, 30; T.112, R.28, S.18, 19, 20, 21, 22, 25, 26, 27; T.112, R.29, S.7, 8, 9, 13, 14, 15, 16, 17, 18): 7;
- (128) Rush River, North Branch, (County Ditch No. 55), Gaylord (T.112, R.27, S.7, 8, 17; T.112, R.28, S.1, 2, 12): 7;
- (129) Saint James Creek (excluding Class 7 segment), (T.105, 106, R.31, 32, 33): 2C;
- (130) Saint James Creek, Saint James, (T.106, R.31, S.5, 7, 8, 18; T.107, R.31, S.21, 22, 28, 32, 33): 7;
- (131) Seven Mile Creek, (T.109, R.27, S.2, 3, 4, 10, 11, 12): 1B, 2A, 3B;
- (132) Shakopee Creek, (T.119, 120, R.36, 37, 38, 39, 40): 2C;
- (133) Silver Creek (County Ditch No. 3), (T.108, R.23, 24): 2C;
- (134) Smith Creek, (T.113, R.35, 36): 2C;
- (135) South Creek, (T.102, 103, R.28, 29, 30): 2C, 3C;
- (136) Spring Branch Creek, (T.106, R.29, 30): 2C;
- (137) Spring Creek (Judicial Ditch No. 29) (excluding trout waters) (see also Hindeman Creek and Judicial Ditch No. 29), (T.110, 111, R.33, 34): 2C;
- (138) Spring Creek (County Ditch No. 10A), (T.117, 118, R.39, 40): 2C;
- (139) Stony Run, (T.121, 122, R.45, 46): 2C;
- (140) Stony Run Creek (Judicial Ditch No. 21), (T.116, R.40): 2C;

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(141) Three Mile Creek (Threemile Creek), (T.112, R.33): 2C;

(142) Timms Creek (County Ditch No. 35A), (T.114, 115, R.36): 2C;

(143) Unnamed #1, (T.27, R.23, S.18; T.27, R.24, S.13): 1B, 2A, 3B;

(144) Unnamed #4, (T.27, R.24, S.24): 1B, 2A, 3B;

(145) Unnamed #7, (T.27, R.24, S.26): 1B, 2A, 3B;

(146) Unnamed Creek, (T.108, R.28, S.1, 2): 1B, 2A, 3B;

(147) Unnamed Creek, (T.108, R.28, S.5): 1B, 2A, 3B;

(148) Unnamed Creek, (T.110, R.26, S.10, 11): 1B, 2A, 3B;

(149) Unnamed Creek, (T.108, R.28, S.6; T.109, R.29, S.25, 36): 1B, 2A, 3B;

(150) Unnamed Creek, Green Isle, (T.114, R.26, S.2, 3, 4, 8, 9, 17): 7;

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

(152) Unnamed Creek, Pennock, (T.118, R.37, S.2, 3, 4, 5; T.119, R.36, S.4, 5, 6, 7, 18, 19; T.119, R.37, S.24, 25, 26, 35): 7;

(153) Unnamed Creek, Murdock, (T.120, R.38, S.1, 2; T.121, R.38, S.35): 7;

(154) Unnamed Ditch, Burnsville Freeway Sanitary Landfill, (T.27, R.24, S.28, 33): 7;

(155) Unnamed Ditch, Bricelyn, Owatonna Canning Company, (T.101, R.25, S.10): 7;

(156) Unnamed Ditch, Truman, (T.104, R.30, S.2, 11; T.105, R.30, S.25, 26, 35): 7;

(157) Unnamed Ditch (County Ditch No. 47), New Richland, (T.105, R.22, S.17, 18, 19; T.105, R.23, S.24): 7;

(158) Unnamed Ditch, Lewisville, (T.105, R.30, S.3; T.106, R.30, S.14, 23, 26, 34, 35): 7;

(159) Unnamed Ditch, Waldorf, (T.106, R.24, S.34): 7;

(160) Unnamed Ditch (County Ditch No. 45), Waseca, (T.107, R.23, S.14, 23): 7;

(161) Unnamed Ditch, Jeffers, (T.107, R.36, S.21): 7;

(162) Unnamed Ditch, Storden, (T.107, R.37, S.19, 30): 7;

(163) Unnamed Ditch, Eagle Lake, (T.108, R.25, S.18, 19; T.108, R.26, S.13): 7;

(164) Unnamed Ditch, Walnut Grove, (T.109, R.38, S.28): 7;

(165) Unnamed Ditch, Tracy, (T.109, R.39, S.7, 18; T.109, R.40, S.13): 7;

(166) Unnamed Ditch, Wabasso, (T.110, R.36, S.3; T.111, R.36, S.18, 19, 20, 28, 29, 33, 34; T.111, R.37, S.13): 7;

(167) Unnamed Ditch, Lafayette, (T.111, R.29, S.6, 7, 8; T.111, R.30, S.12): 7;

(168) Unnamed Ditch, Wabasso, (T.111, R.37, S.13, 24): 7;

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- (169) Unnamed Ditch, Montgomery, (T.112, R.23, S.33): 7;
- (170) Unnamed Ditch, Winthrop, (T.112, R.29, S.4, 5, 6): 7;
- (171) Unnamed Ditch, Arlington, (T.113, R.27, S.21): 7;
- (172) 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;
- (173) Unnamed Ditch, Green Isle, (T.114, R.26, S. 19; T.114, R.27, S.11, 12, 13, 14, 24): 7;
- (174) Unnamed Ditch, New Auburn, (T.114, R.28, S.20): 7;
- (175) Unnamed Ditch, Porter, (T.114, R.44, S.21, 28): 7;
- (176) Unnamed Ditch, Bongards, Bongards Creameries, (T.115, R.25, S.9, 16): 7;
- (177) Unnamed Ditch, Clarkfield, (T.115, R.41, S.16): 7;
- (178) Unnamed Ditch, Clarkfield, (T.115, R.41, S.16, 21): 7;
- (179) Unnamed Ditch (County Ditch No. 15), Madison, (T.118, R.44, S.27, 28, 34, 35): 7;
- (180) Unnamed Ditch, Pennock, (T.119, R.36, S.2, 3, 4, 9, 10): 7;
- (181) Unnamed Ditch, DeGraff, (T.121, R.38, S.19, 29, 30): 7;
- (182) Unnamed Ditch, Hancock, (T.122, R.40, S.6; T.122, R.41, S.1, 12; T.123, R.40, S.18, 19, 30, 31; T.123, R.41, S.11, 12): 7;
- (183) Unnamed Ditch, Alberta, (T.124, R.43, S.3, 4): 7;
- (184) Unnamed Ditch, Farwell, Farwell Coop Cry. Assn., (T.126, R.39, S.6): 7;
- (185) Unnamed Ditch, Lowry, (T.126, R.39, S.26, 35): 7;
- (186) Unnamed Ditch, Brandon, (T.129, R.39, S.21, 22): 7;
- (187) Unnamed Ditch, Evansville, (T.129, R.40, S.10, 11): 7;
- (188) Unnamed Dry Run, Near Minneopa, Blue Earth - Nicollet Electric, (T.108, R.27, S.16): 7;
- (189) Unnamed Dry Run, Mankato, Southview Heights Coop Association, (T.108, R.26, S.19, 30; T.108, R.27, S.24): 7;
- (190) Unnamed Stream, Mankato, Midwest Electric Products, (T.109, R.26, S.20, 21, 28): 7;
- (191) Unnamed Stream, Savage, (T.115, R.21, S.8, 9): 7;
- (192) Wabasha Creek, (T.112, R.34): 2C;
- (193) Whetstone River, (South Dakota border to mouth): 2C, 3C;
- (194) Old Whetstone River Channel, Ortonville, Big Stone Canning Company, (T.121, R.46, S.16, 21): 7;
- (195) Willow Creek, (T.104, 105, R.31, 32): 2C;

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(196) ~~Wood Lake Creek, (Judicial Ditch No. 10), (T.113, 114, 115, R.38, 39): 2C;~~

(197) ~~Yellow Bank River, North Fork, (South Dakota border to mouth): 2C, 3C;~~

(198) ~~Yellow Bank River, South Fork, (South Dakota border to mouth): 2C, 3C; and~~

(199) ~~Yellow Medicine River, North Fork, (South Dakota border to mouth): 2C, 3C.~~

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

**Subp. 6. Saint Croix River Basin.** The water use classifications for the stream reaches within each of the major watersheds in the Saint Croix River Basin listed in item A are found in tables entitled “Beneficial Use Designations for Stream Reaches” published on the Web site of the Minnesota Pollution Control Agency at [www.pca.state.mn.us](http://www.pca.state.mn.us). The tables are incorporated by reference and are not subject to frequent change. The date after each watershed listed in item A is the publication date of the applicable table. The water use classifications for the other listed waters in the Saint Croix River Basin are as identified in items A\_B to D. See parts 7050.0425 and 7050.0430 for the classifications of waters not listed. Designated use information for water bodies can also be accessed through the agency’s Environmental Data Access (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

A. Streams (by eight-digit hydrologic unit code):

(1) 07030001 Upper St. Croix River (August 9, 2016);

(2) 07030003 Kettle River (August 9, 2016);

(3) 07030004 Snake River (August 9, 2016); and

(4) 07030005 Lower St. Croix River (August 9, 2016).

(1) ~~Bang’s Brook, (T.41, R.17, S.15, 20, 21, 22, 29): 1B, 2A, 3B;~~

(2) ~~Barnes Spring, (T.41, R.18, S.1, 12): 1B, 2A, 3B;~~

(3) ~~Bear Creek, (T.43, R.23, 24): 2C;~~

(4) ~~Beaver Creek, (T.35, R.20, S.7, 8, 17; T.35, R.21, S.3, 4, 10, 12, 13, 14, 15; T.36, R.21, S.33, 34): 1B, 2A, 3B;~~

(5) ~~Bergman Brook, (T.42, 43, R.23, 24): 2C;~~

(6) ~~Bjork Creek, (T.42, R.16, S.2, 9, 10, 11): 1B, 2A, 3B;~~

(7) ~~Brown’s Creek, (T.30, R.20, S.18, 19, 20, 21; T.30, R.21, S.12, 13): 1B, 2A, 3B;~~

(8) ~~Cens Creek, (T.41, R.17, S.15, 16, 22): 1B, 2A, 3B;~~

(9) ~~Crooked Creek (East Fork Crooked Creek), (T.41, R.17, S.6, 7, 18, 19, 20, 29, 30; T.41, R.18, S.11, 12, 13; T.42, R.17, S.31): 1B, 2A, 3B;~~

(10) ~~Crooked Creek, West Fork, (T.41, R.18, S.11, 12; T.42, R.18, S.3, 4, 9, 10, 16; T.43, R.18, S.27, 34): 1B, 2A, 3B;~~

(11) ~~Crystal Creek, (T.41, R.16, S.9, 10, 15): 1B, 2A, 3B;~~

(12) ~~Grindstone River, (T.42, R.21, S.20, 21, 28, 29): 1B, 2A, 3B;~~

(13) ~~Groundhouse River, West Fork, (T.39, 40, R.26): 2C;~~

(14) ~~Hay Creek, (T.40, R.18, S.6, 7, 8, 18, 19; T.41, R.18, S.10, 15, 20, 21, 22, 29, 32, 33): 1B, 2A, 3B;~~

(15) ~~Hay Creek, (T.42, 43, 44, R.15, 16): 1B, 2Bd, 3C;~~

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(16) Hay Creek, Little, (T.40, R.18, S.8, 9): 1B, 2A, 3B;

(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, 3C;

(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;

(19) King Creek, (T.47, R.18, S.18, 19, T.47, R.19, S.1, 12, 13): 1B, 2A, 3B;

(20) Larson Creek, (T.44, R.17, S.5; T.45, R.17, S.29, 32): 1B, 2A, 3B;

(21) Lawrence Creek, (T.33, R.19, S.2, 3, 10): 1B, 2A, 3B;

(22) Lost Creek, (T.40, R.19, S.9, 10, 15): 1B, 2A, 3B;

(23) McCullen Creek (Albrechts Creek or Meekers Creek), (T.42, R.16, S.28, 33): 1B, 2A, 3B;

(24) Mission Creek, (T.40, R.21, S.1, 2; T.41, R.20, S.31; T.41, R.21, S.36): 1B, 2A, 3B;

(25) Mission Creek (excluding trout waters), (T.39, 40, 41, R.20, 21): 1B, 2Bd, 3C;

(26) Moosehorn River (Moose River), (T.48, R.18, S.3, 9, 10, 14, 15, 16, 23, 26, 34, 35): 1B, 2A, 3B;

(27) Old Mill Stream, (T.31, R.19, S.6; T.31, R.20, S.1; T.32, R.20, S.36): 1B, 2A, 3B;

(28) Pelkey Creek, (T.41, R.20, S.33, 34, 35): 1B, 2A, 3B;

(29) Rock Creek, (T.37, 38, R.20, 21): 1B, 2Bd, 3C;

(30) Rush Creek, (T.37, R.20, 21): 1B, 2Bd, 3C;

(31) \*Saint Croix River, [11/5/84R] (Wisconsin border crossing to Taylors Falls): 1B, 2Bd, 3C;

(32) \*Saint Croix River, [11/5/84R] (Taylors Falls to mouth): 1C, 2Bd, 3C;

(33) Sand River (Sand Creek), (T.43, R.18, S.4, 5, 7, 8, 18, 19; T.43, R.19, S.24; T.44, R.18, S.33, 34): 1B, 2A, 3B;

(34) Spring Brook (Spring Creek), (T.41, R.20, S.16, 17, 18, 21): 1B, 2A, 3B;

(35) Sunrise River, West Branch (County Ditch No. 13), (T.34, R.21, 22): 1B, 2Bd, 3C;

(36) Tamarack River, Lower, (Hay Creek to mouth): 1B, 2Bd, 3C;

(37) Tamarack River, Upper (Spruce River), (T.41, 42, R.15, 16): 1B, 2Bd, 3C;

(38) Unnamed Creek, (T.33, R.19, S.16, 21, 22): 1B, 2A, 3B;

(39) Unnamed Creek, (T.33, R.19, S.31, 32): 1B, 2A, 3B;

(40) Unnamed Creek, (T.43, R.18, S.2, 3; T.44, R.18, S.35): 1B, 2A, 3B;

(41) Unnamed Ditch, Chisago City, (T.34, R.20, S.19, 29, 30, 32): 7;

(42) Unnamed Ditch, Almelund, Almelund Coop Cry., (T.35, R.20, S.25): 7;

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- (43) Unnamed Ditch, Moose Lake, (T.46, R.19, S.30): 7;
- (44) Unnamed Dry Run, Wahkon, (T.41, R.25, S.3, T.42, R.25, S.29, 32, 33, 34): 7;
- (45) Unnamed Stream (Falls Creek), (T.32, R.19, S.6, 7; T.32, R.20, S.1, 12): 1B, 2A, 3B;
- (46) Unnamed Stream (Gilbertson), (T.32, R.19, S.19): 1B, 2A, 3B;
- (47) Unnamed Stream, Shafer, (T.34, R.19, S.32, 33, 34): 7;
- (48) Unnamed Stream (Willow Brook), (T.31, R.19, S.19): 1B, 2A, 3B;
- (49) Valley Creek (Valley Branch), (T.28, R.20, S.9, 10, 14, 15, 16, 17): 1B, 2A, 3B;
- (50) Wilbur Brook, (T.41, R.17, S.29, 30; T.41, R.18, S.23, 25, 26): 1B, 2A, 3B; and
- (51) Wolf Creek, (T.42, R.18, S.4, 9, 16; T.43, R.18, S.32, 33): 1B, 2A, 3B.

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

**Subp. 7. Lower Mississippi River Basin (from the confluence with the St. Croix River to the Iowa border).** The water use classifications for the stream reaches within each of the major watersheds in the Lower Mississippi River Basin from the confluence with the Saint Croix River to the Iowa border listed in item A are found in tables entitled "Beneficial Use Designations for Stream Reaches" published on the Web site of the Minnesota Pollution Control Agency at [www.pca.state.mn.us](http://www.pca.state.mn.us). The tables are incorporated by reference and are not subject to frequent change. The date after each watershed listed in item A is the publication date of the applicable table. The water use classifications for the other listed waters in the Lower Mississippi River Basin from the confluence with the St. Croix River to the Iowa border are as identified in items A\_B to D. See parts 7050.0425 and 7050.0430 for the classifications of waters not listed. Designated use information for water bodies can also be accessed through the agency's Environmental Data Access (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

### A. Streams (by eight-digit hydrologic unit code):

- (1) 07040001 Mississippi River - Lake Pepin (August 9, 2016);
- (2) 07040002 Cannon River (August 9, 2016);
- (3) 07040003 Mississippi River - Winona (August 9, 2016);
- (4) 07040004 Zumbro River (August 9, 2016);
- (5) 07040006 Mississippi River - La Crescent (August 9, 2016);
- (6) 07040008 Root River (August 9, 2016);
- (7) 07060001 Mississippi River - Reno (August 9, 2016); and
- (8) 07060002 Upper Iowa River (August 9, 2016).

- (1) Ahrensfeld Creek, (T.105, R.8, S.8, 9, 16, 17, 19, 20): 1B, 2A, 3B;
- (2) Albany Creek, West (excluding trout waters), (T.110, 111, R.12, 13): 2C;
- (3) Albany Creek, West, (T.110, R.12, S.28, 29, 30; T.110, R.13, S.23, 24, 25, 26): 1B, 2A, 3B;
- (4) Badger Creek, (T.103, R.6, S.9, 16, 21, 22, 27, 28, 34): 1B, 2A, 3B;
- (5) Ballpark Creek, (T.102, R.4, S.19, 30; T.102, R.5, S.24): 1B, 2A, 3B;

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- (6) Bear Creek, (T.107, R.9, S.13, 14, 15, 16, 22): 1B, 2A, 3B;
- (7) Bear Creek, North, Spring Grove (T.101, R.7, S.26, 27, 35): 7;
- (8) Bear Creek (excluding trout waters), (T.107, R.9, S.17, 20): 2C;
- (9) Bear Creek (North Bear Creek) (excluding Class 7 segment), (source to Iowa border): 2C;
- (10) Beaver Creek, (T.102, R.6, S.5; T.103, R.6, S.18, 19, 29, 30, 31, 32): 1B, 2A, 3B;
- (11) Beaver Creek, East, (T.102, R.6, S.5, 6, 8, 17): 1B, 2A, 3B;
- (12) Beaver Creek, West, (T.102, R.6, S.5, 6, 7, 18, 19, 30; T.102, R.7, S.12, 13, 24, 25, 26): 1B, 2A, 3B;
- (13) Beaver Creek, (T.108, R.10, S.15, 16, 19, 20, 21; T.108, R.11, S.24): 1B, 2A, 3B;
- (14) Beaver Creek, (T.101, 102, R.13, 14): 2C, 3C;
- (15) Bee Creek, (T.101, R.6, S.29, 32, 33): 1B, 2A, 3B;
- (16) Big Springs Creek, (T.104, R.9, S.21, 22, 26, 27): 1B, 2A, 3B;
- (17) Borson Spring, (T.105, R.8, R.29, 32, 33): 1B, 2A, 3B;
- (18) Brush Valley Creek (excluding trout waters), (T.104, R.5): 2C;
- (19) Brush Valley Creek, (T.104, R.5, S.23, 24, 26): 1B, 2A, 3B;
- (20) Bullard Creek, (T.112, R.14, S.1, 2, 3, 10; T.113, R.14, S.36): 1B, 2A, 3B;
- (21) Burns Valley Creek, East Branch, (T.106, R.7, S.3, 10, 15): 1B, 2A, 3B;
- (22) Burns Valley Creek, West Branch, (T.106, R.7, S.3, 4, 9, 16; T.107, R.7, S.34): 1B, 2A, 3B;
- (23) Burns Valley Creek, Main Branch, (T.106, R.7, S.2; T.107, R.7, S.35): 1B, 2A, 3B;
- (24) Butterfield Creek, (T.103, R.4, S.6, 7, 8, 18): 1B, 2A, 3B;
- (25) Camp Creek, (T.101, R.10, S.5, 8, 9; T.102, R.10, S.5, 8, 16, 17, 20, 29, 32): 1B, 2A, 3B;
- (26) Camp Hayward Creek, (T.104, R.8, S.31, 32): 1B, 2A, 3B;
- (27) Campbell Creek, (T.104, R.6, S.5, 7, 8, 18; T.105, R.6, S.21, 28, 29, 32): 1B, 2A, 3B;
- (28) Canfield Creek (see South Branch Creek);
- (29) \*Cannon River, {11/5/84R} (from the northern city limits of Faribault at the common border of the SE1/4 and the NE1/4 of S.19, T.110, R.20 to its confluence with the Mississippi River): 2B, 3C;
- (30) Cannon River, Little, (T.110, R.18, S.1, 10, 11, 12, 15; T.111, R.18, S.13, 24, 25, 36): 1B, 2A, 3B;
- (31) Carters Creek (Curtis Creek), Wykoff, (T.103, R.12, S.4, 9, 15, 16, 22): 7;
- (32) Cedar Valley Creek (Cedar Creek), (T.105, R.6, S.6; T.106, R.6, S.1, 11, 12, 14, 15, 21, 22, 28, 29, 31, 32): 1B, 2A, 3B;
- (33) Chickentown Creek (M-9-10-10-2), (T.102, R.8, S.32, 33): 1B, 2A, 3B;

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- (34) Chub Creek, North Branch, (T.112, 113, R.19): 2C;
- (35) Clear Creek, (T.111, R.14, S.3, 10, 15): 1B, 2A, 3B;
- (36) Clear Creek, (T.102, R.4): 2C;
- (37) Cold Creek (Cold Spring Brook) (excluding trout waters), (T.110, 111, R.14): 2C;
- (38) Cold Spring Brook (Cold Creek), (T.110, R.13, S.30, 31; T.110, R.14, S.25, 36): 1B, 2A, 3B;
- (39) Coolidge Creek, (T.105, R.9, S.23, 26): 1B, 2A, 3B;
- (40) Corey Creek, (T.105, R.6, S.18, 19; T.105, R.7, S.24, 25, 26, 27, 34): 1B, 2A, 3B;
- (41) County Ditch No. 15, Kilkenny, (T.110, R.23, S.22, 23): 7;
- (42) Crane Creek, (T.107, 108, R.20, 21, 22): 2C;
- (43) Crooked Creek, Main Branch, (T.102, R.4, S.18, 19, 20, 28, 29, 30; T.102, R.5, S.25, 26, 36): 1B, 2A, 3B;
- (44) Crooked Creek, North Fork, (T.102, R.5, S.17, 20, 21, 22, 23, 26): 1B, 2A, 3B;
- (45) Crooked Creek, South Fork, (T.102, R.5, S.26, 28): 1B, 2A, 3B;
- (46) Crystal Creek, (T.102, R.11, S.35, 36): 1B, 2A, 3B;
- (47) Crystal Creek, (T.103, R.5, S.6, 7, 18, 19; T.103, R.6, S.1, 12): 1B, 2A, 3B;
- (48) Dakota Creek (excluding trout waters), (T.105, R.5): 2C;
- (49) Dakota Creek, (T.105, R.4, S.7, T.105, R.5, S.1, 2, 3, 11, 12): 1B, 2A, 3B;
- (50) Daley Creek, (T.103, R.7, S.4, 5, 8; T.104, R.7, S.33): 1B, 2A, 3B;
- (51) Diamond Creek, (T.103, R.8, S.18, 19; T.103, R.9, S.10, 11, 13, 14, 24): 1B, 2A, 3B;
- (52) Dry Creek, (T.108, R.12, 13): 2C;
- (53) Duschee Creek, (T.102, R.10, S.1; T.103, R.10, S.23, 24, 25, 26, 36): 1B, 2A, 3B;
- (54) Dutch Creek, (T.112, R.20, 21): 2C;
- (55) Eitzen Creek, (T.101, R.5, S.22, 23): 1B, 2A, 3B;
- (56) Etna Creek, (T.102, R.13, S.25, 36): 1B, 2A, 3B;
- (57) Ferguson Creek, (T.105, R.8, S.18; T.105, R.9, S.12, 13): 1B, 2A, 3B;
- (58) Ferndale Creek, (T.104, R.7, S.29, 30, 31): 1B, 2A, 3B;
- (59) Forestville Creek (see North Branch Creek);
- (60) Frego Creek, (T.101, R.9, S.14, 15, 22, 23): 1B, 2A, 3B;
- (61) Garvin Brook, (T.106, R.8, S.4, 5, 8, 17; T.107, R.8, S.10, 11, 14, 15, 23, 26, 27, 33, 34, 35): 1B, 2A, 3B;

# **Proposed Rules**

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- (62) ~~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;~~
- (63) ~~Gilmore Creek, (T.106, R.7, S.6; T.107, R.7, S.20, 29, 30, 31, 32): 1B, 2A, 3B;~~
- (64) ~~Girl Scout Camp Creek, (T.103, R.7, S.29, 30): 1B, 2A, 3B;~~
- (65) ~~Gorman Creek, (T.109, R.11, S.1; T.110, R.10, S.29, 30, 31; T.110, R.11, S.36): 1B, 2A, 3B;~~
- (66) ~~Gribben Creek, (T.103, R.9, S.9, 16, 21, 27, 28): 1B, 2A, 3B;~~
- (67) ~~Hallum Creek, (T.103, R.7, S.31; T.103, R.8, S.36): 1B, 2A, 3B;~~
- (68) ~~Hamilton Creek, (T.103, R.13, NW 1/4 S.6; T.103, R.14, NE 1/4 S.1): 1B, 2A, 3B;~~
- (69) ~~Hammond Creek, (T.109, R.13, S.28, 29): 1B, 2A, 3B;~~
- (70) ~~Harkcom Creek, (T.108, R.15, 16): 2C;~~
- (71) ~~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;~~
- (72) ~~Hemingway Creek (Hemingway Creek), (T.105, R.9, S.26, 28, 33, 34, 35): 1B, 2A, 3B;~~
- (73) ~~Homer Creek, (T.106, 107, R.6): 2C;~~
- (74) ~~Indian Creek, East, (T.109, R.9, S.19; T.109, R.10, S.21, 22, 23, 24, 26, 27, 28, 29, 31, 32; T.109, R.11, S.36): 1B, 2A, 3B;~~
- (75) ~~Indian Creek, West, (T.109, R.11, S.6, 7, 8, 16, 17, 21): 1B, 2A, 3B;~~
- (76) ~~Indian Spring Creek, (T.103, R.5): 2C;~~
- (77) ~~Iowa River, Little, (T.101, 102, R.14): 2C;~~
- (78) ~~Jordan Creek, Little (Carson Creek), (T.104, R.12, S.21, 22, 26, 27, 28): 1B, 2A, 3B;~~
- (79) ~~Judicial Ditch No. 1, Hayfield, (T.105, R.17, S.4, 5; T.106, R.17, S.31, 32; T.106, R.18, S.25, 26, 27, 36): 7;~~
- (80) ~~Kedron Creek, (T.104, R.13, S.36): 1B, 2A, 3B;~~
- (81) ~~King Creek, (T.111, R.11, 12): 2C;~~
- (82) ~~Kinney Creek, (T.105, R.13, S.1, 12, 13; T.106, R.13, S.36): 1B, 2A, 3B;~~
- (83) ~~Lanesboro Park Pond, (T.103, R.10, S.13): 1B, 2A, 3B;~~
- (84) ~~LeRoy Trout Pond, (T.101, R.14, S.36): 1B, 2A, 3B;~~
- (85) ~~Logan Creek (Logan Branch), (T.107, R.11, S.3): 1B, 2A, 3B;~~
- (86) ~~Long Creek (excluding trout waters), (T.108, 109, R.12): 2C;~~
- (87) ~~Long Creek, (T.109, R.12, S.3, 10, 15, 22, 27, 28): 1B, 2A, 3B;~~
- (88) ~~Lost Creek (Bear Creek), (T.104, R.11, S.18; T.104, R.12, S.8, 9, 10, 15, 16): 1B, 2A, 3B;~~
- (89) ~~Lynch Creek, (T.104, R.11, S.2, 11, 14): 1B, 2A, 3B;~~

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## Proposed Rules

- (90) MacKenzie Creek, (T.108, 109, R.21): 2C;
- (91) Mahoney Creek, (T.103, R.10): 2C;
- (92) Mahoods Creek, (T.103, R.12, S.20): 1B, 2A, 3B;
- (93) Maple Creek, (T.102, R.8, S.3, 4; T.103, R.8, S.27, 28, 33, 34): 1B, 2A, 3B;
- (94) Mazeppa Creek (Trout Brook), (T.109, R.14, S.4, 5, 9; T.110, R.14, S.19, 29, 30, 32; T.110, R.15, S.24, 25): 1B, 2A, 3B;
- (95) Middle Creek, (T.109, R.11, S.18; T.109, R.12, S.2, 3, 11, 13, 14): 1B, 2A, 3B;
- (96) Mill Creek, (T.104, R.11, S.5, 6; T.105, R.11, S.31; T.105, R.12, S.14, 23, 25, 26, 36): 1B, 2A, 3B;
- (97) Miller Creek, (T.111, R.12, S.7, 8, 9, 18; T.111, R.13, S.13, 24): 1B, 2A, 3B;
- (98) Money Creek, (T.105, R.7, S.3, 4, 6, 7, 8, 9, 16, 17): 1B, 2A, 3B;
- (99) Mound Prairie Creek, (T.104, R.5): 2C;
- (100) Mud Creek (Judicial Ditch No. 6), (T.108, 109, R.20, 21): 2C;
- (101) Nepstad Creek (Shattuck Creek), (T.102, R.8, S.4, 5, 7, 8, 9; T.102, R.9, S.1, 2, 12): 1B, 2A, 3B;
- (102) Newburg Creek (M-9-10-10-1), (T.101, R.8, S.5, 8): 1B, 2A, 3B;
- (103) New Hartford Creek (see Pine Creek);
- (104) New Yorker Hollow Creek, (T.101, R.5, S.25, 26): 1B, 2A, 3B;
- (105) North Branch Creek (Forestville Creek), (T.102, R.12, S.13, 14, 15): 1B, 2A, 3B;
- (106) Partridge Creek, (T.101, R.10, S.4; T.102, R.10, S.33): 1B, 2A, 3B;
- (107) Peterson Creek, (T.106, R.8, S.7, 8): 1B, 2A, 3B;
- (108) Pickwick Creek (Big Trout Creek), (T.106, R.5, S.7, 18; T.106, R.6, S.13, 23, 24, 26, 34, 35): 1B, 2A, 3B;
- (109) Pickwick Creek, Little (Little Trout Creek), (T.106, R.5, S.18, 19, 29, 30, 32; T.106, R.6, S.13): 1B, 2A, 3B;
- (110) Pine Creek (excluding Class 7 segment), (T.101, R.10): 2C, 3C;
- (111) Pine Creek (New Hartford Creek), (T.105, R.5, S.18, 19, 20, 29, 30, 31, 32; T.105, R.6, S.13, 36): 1B, 2A, 3B;
- (112) Pine Creek, Harmony, (T.101, R.9, S.31; T.101, R.10, S.24, 25, 36): 7;
- (113) Pine Creek, South Fork, (T.105, R.5, S.19; T.105, R.6, S.24): 1B, 2A, 3B;
- (114) Pine Creek, Fillmore and Winona Counties, (T.104, R.9, S.2, 3, 4; T.105, R.9, S.25, 26, 33, 34, 35; T.105, R.8, S.30, 31, 32, 33): 1B, 2A, 3B;
- (115) Pine Creek, Dakota County, (excluding trout waters), (T.113, R.18): 2C;
- (116) Pine Creek, Dakota and Goodhue Counties, (T.112, R.17, S.5, 6, 8, 9; T.113, R.17, S.31; T.113, R.18, S.25, 26, 35, 36): 1B, 2A, 3B;

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- (117) Pleasant Valley Creek (excluding trout waters), (T.106, 107, R.6, 7): 2C;
- (118) Pleasant Valley Creek, (T.106, R.6, S.7, 18, 19; T.106, R.7, S.1, 12, 13, 24, 25): 1B, 2A, 3B;
- (119) Plum Creek, (T.108, R.15): 2C;
- (120) Prairie Creek, (T.110, 111, 112, R.18, 19, 20): 2C;
- (121) Rice Creek (Sugar Creek), (T.103, R.11, S.3, 4, 5, 7, 8, 9; T.104, R.11, S.14, 23, 28, 33): 1B, 2A, 3B;
- (122) Riceford Creek, (T.101, R.7, S.6, 7, 18, 19; T.101, R.8, S.1, 12, 13, 24; T.102, R.7, S.29, 30, 31, 32): 1B, 2A, 3B;
- (123) Riceford Creek, Mabel, (T.101, R.8, S.24, 25, 26): 7;
- (124) Rollingstone Creek, (T.107, R.8, S.2, 3, 4, 5, 6, 7, 9, 10, 11; T.107, R.9, S.12, 13): 1B, 2A, 3B;
- (125) Rollingstone Creek, Middle Branch, (T.107, R.8, S.9, 16): 1B, 2A, 3B;
- (126) Root River, Middle Branch, (T.103, R.12, S.8, 9): 1B, 2A, 3B;
- (127) Root River, South Branch, (T.102, R.10, S.5, 6; T.102, R.11, S.1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 18; T.102, R.12, S.13, 21, 22, 23, 24, 26, 27; T.103, R.9, S.7, 18; T.103, R.10, S.13, 14, 15, 16, 21, 22, 23, 24, 28, 29, 32, 33; T.103, R.11, S.36): 1B, 2A, 3B;
- (128) Root River, South Fork, (T.102, R.8, S.2, 3, 4, 8, 9, 10, 11, 17, 18, 19; T.102, R.9, S.24, 25, 26): 1B, 2A, 3B;
- (129) Rose Valley Creek, (T.105, R.5, S.22, 27, 34, 35): 1B, 2A, 3B;
- (130) Rupprecht Creek (Rollingstone Creek), (T.107, R.9, S.13, 24, 25, 26, 35): 1B, 2A, 3B;
- (131) Rush Creek, (T.104, R.8, S.2, 3, 4, 10, 11, 13, 14; T.105, R.8, S.6, 7, 18, 19, 20, 29, 32, 33; T.105, R.9, S.1, 2, 12, T.106, R.9, S.26, 34, 35, 36): 1B, 2A, 3B;
- (132) Salem Creek, (T.106, R.15, 16): 2C;
- (133) Schueler Creek, (T.104, R.8, S.1, 2, 3): 1B, 2A, 3B;
- (134) Second Creek (Handshaw Coulee), (T.111, R.12, S.15): 1B, 2A, 3B;
- (135) Shady Creek, (T.104, R.11, S.19, 30): 1B, 2A, 3B;
- (136) Shattuck Creek (See Nepstad Creek);
- (137) Shingle Creek, (T.109, 110, R.17): 2C;
- (138) Silver Creek (excluding trout waters), (T.104, 105, R.6): 2C;
- (139) Silver Creek, (T.104, R.6, S.1, 2, 11, 12, 14; T.105, R.6, S.34, 35): 1B, 2A, 3B;
- (140) Silver Spring Creek, (T.108, 109, R.13): 2C;
- (141) Snake Creek (excluding trout waters), (T.109, R.10): 2C;
- (142) Snake Creek, (T.109, R.10, S.10, 11, 14, 15, 16): 1B, 2A, 3B;
- (143) South Branch Creek (Canfield Creek), (T.102, R.12, S.24, 25): 1B, 2A, 3B;

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(144) Speltz Creek, (T.107, R.8, S.5, 6; T.108, R.8, S.31; T.108, R.9, S.36): 1B, 2A, 3B;

(145) Spring Brook, (T.111, R.20, S.2, 3, 4): 1B, 2A, 3B;

(146) Spring Creek, (T.110, R.12, S.7, 17, 18, 20, 21, 27, 28, 29): 1B, 2A, 3B;

(147) Spring Creek, (T.112, R.15, S.5, 6, 7, 18; T.113, R.15, S.29, 31, 32, 33, 34): 1B, 2A, 3B;

(148) Spring Valley Creek, (T.103, R.12, S.8, 17, 18, 19, 20, 30; T.103, R.13, S.23, 24, 25, 26, 27, 28, 29, 32, 33, 34): 1B, 2A, 3B;

(149) Stockton Valley Creek, (T.106, R.8, S.2, 3, 10, 11, 14, 23; T.107, R.8, S.34): 1B, 2A, 3B;

(150) Storer Creek, (T.104, R.5, S.17, 18, 19, 30): 1B, 2A, 3B;

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

(152) Sugar Creek (Sugarloaf Creek), (T.112, R.13): 2C;

(153) Sullivan Creek (excluding trout waters), (T.103, R.5): 2C;

(154) Sullivan Creek, (T.103, R.5, S.12, 13, 14, 23, 24, 25, 26): 1B, 2A, 3B;

(155) Swede Bottom Creek, (T.103, R.6, S.10): 1B, 2A, 3B;

(156) Thompson Creek (Indian Springs Creek), (T.103, R.4, S.5, 6, 7; T.103, R.5, S.12, 13, 14, 15, 21, 22, 28; T.104, R.4, S.32): 1B, 2A, 3B;

(157) Torkelson Creek, (T.104, R.10, S.25, 36): 1B, 2A, 3B;

(158) Trout Brook, Wabasha County, (T.110, R.11, S.5, 8): 1B, 2A, 3B;

(159) Trout Brook, Dakota County, (T.112, R.17, S.1; T.113, R.17, S.26, 27, 35, 36): 1B, 2A, 3B;

(160) Trout Brook (Hay Creek Tributary), (T.113, R.15, S.35, 36): 1B, 2A, 3B;

(161) Trout Brook (see also Mazeppa Creek);

(162) Trout Brook (Mazeppa Creek), Goodhue, (T.110, R.15, S.3, 4; T.111, R.15, S.28, 33, 34): 7;

(163) Trout Creek, Little (see Pickwick Creek, Little);

(164) Trout Creek, Big (see Pickwick Creek);

(165) Trout Run Creek (Trout Run), (T.104, R.10, S.4, 5, 8, 9, 16, 17, 20, 21; T.105, R.10, S.18, 19, 30, 31, 32): 1B, 2A, 3B;

(166) Trout Run Creek (Trout Run) (excluding trout waters), (T.105, R.10): 2C;

(167) Trout Run Whitewater Park, (T.107, R.10, S.29): 1B, 2A, 3B;

(168) Trout Valley Creek (Trout Creek), Wabasha and Winona Counties, (T.108, R.9, S.5, 8, 17, 20; T.109, R.9, S.31): 1B, 2A, 3B;

(169) Unnamed Creek, Houston County, (T.101, R.4, S.21): 1B, 2A, 3B;

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(170) Unnamed Creek, Spring Grove, (T.101, R.7, S.14, 22, 23, 27): 7;

(171) Unnamed Creek, Houston County, (T.102, R.4, S.18, 19, 20, 29, 30): 1B, 2A, 3B;

(172) Unnamed Creek, Canton, (T.101, R.9, S.20): 7;

(173) Unnamed Creek, Byron, (T.107, R.15, S.17, 20, 29): 7;

(174) Unnamed Creek (Helbig), (T.110, R.11, S.28, 33): 1B, 2A, 3B;

(175) Unnamed Creek (M-9-10-5-3), (T.101, R.7, S.6; T.101, R.8, S.1, 2): 1B, 2A, 3B;

(176) Unnamed Creek (Whitewater Tributary), (T.108, R.10, S.35, 36): 1B, 2A, 3B;

(177) Unnamed Creek, (T.105, R.7, S.19, 29, 30; T.105, R.8, S.24): 1B, 2A, 3B;

(178) Unnamed Creek (Miller Valley), (T.106, R.5, S.21, 22, 27, 28): 1B, 2A, 3B;

(179) Unnamed Creek (Deering Valley), (T.108, R.8, S.20, 28, 29): 1B, 2A, 3B;

(180) Unnamed Creek (M-9-10-5-4), (T.101, R.8, S.12, 13): 1B, 2A, 3B;

(181) Unnamed Creek (T.104, R.8, S.19, 30): 1B, 2A, 3B;

(182) Unnamed Creek, Plainview, (T.108, R.11, S.16, 17, 20, 21, 22, 27, 34): 7;

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

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

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

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

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

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

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

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

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

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

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

(194) Vermillion River, (T.113, R.20, S.1, 2, 3, 4, 9; T.114, R.18, S.19, 20; T.114, R.19, S.21, 22, 23, 24, 28, 29, 30, 31; T.114, R.20, S.33, 34, 35, 36): 1B, 2A, 3B;

(195) Vesta Creek, (T.102, R.8, S.10, 11, 14, 15, 23): 1B, 2A, 3B;

(196) Wapsipinicon River, (T.101, R.15): 2C, 3C;

(197) Waterloo Creek, (T.101, R.6, 7): 1B, 2Bd, 3C;

## Exhibit F.2. Proposed Rules

(198) Watson Creek, (T.103, R.10, S.19, 20, 21, 29, 30; T.103, R.11, S.22, 23, 24, 25, 26, 27, 28, 29, 30): 1B, 2A, 3B;

(199) West Albany Creek (see Albany Creek, West);

(200) Whitewater River, Main Branch, (T.107, R.10, S.2, 3, 9, 10; T.108, R.10, S.1, 2, 10, 11, 14, 15, 22, 23, 26, 27, 35): 1B, 2A, 3B;

(201) Whitewater River, South Branch, (T.106, R.9, S.6; T.106, R.10, S.1; T.107, R.9, S.31; T.107, R.10, S.3, 10, 11, 13, 14, 24, 25, 36): 1B, 2A, 3B;

(202) Whitewater River, Middle Branch, (T.106, R.11, S.2, 3, 10; T.107, R.10, S.9, 10, 16, 17, 19, 20, 30; T.107, R.11, S.24, 25, 26, 35): 1B, 2A, 3B;

(203) Whitewater River, North Branch (Winona and Wabasha), (T.107, R.10, S.5, 6, 7, 8, 9; T.107, R.11, S.1, 2, 3; T.108, R.11, S.30, 31, 32, 33, 34): 1B, 2A, 3B;

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

(205) Wildcat Creek (excluding trout waters), (T.103, R.4): 2C;

(206) Wildcat Creek, (T.103, R.4, S.26, 27, 28, 29, 32, 33, 34, 35): 1B, 2A, 3B;

(207) Willow Creek, (T.101, R.11, S.1, 12; T.102, R.11, S.1, 12, 13, 24, 25, 36): 1B, 2A, 3B;

(208) Winnebago Creek, (T.101, R.4, S.28, 29, 30; T.101, R.5, S.7, 8, 14, 15, 16, 17, 22, 23, 24, 25; T.101, R.6, S.12): 1B, 2A, 3B; and

(209) Wisel Creek, (T.101, R.8, S.5, 6, 8; T.102, R.8, S.19, 20, 29, 30, 31, 32): 1B, 2A, 3B.

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

**Subp. 8. Cedar-Des Moines Rivers Basin.** The water use classifications for the stream reaches within each of the major water-sheds in the Cedar-Des Moines Rivers Basin listed in item A are found in tables entitled "Beneficial Use Designations for Stream Reaches" published on the Web site of the Minnesota Pollution Control Agency at [www.pca.state.mn.us](http://www.pca.state.mn.us). The tables are incorporated by reference and are not subject to frequent change. The date after each watershed listed in item A is the publication date of the applicable table. The water use classifications for the other listed waters in the Cedar-Des Moines Rivers Basin are as identified in items A to D. See parts 7050.0425 and 7050.0430 for the classifications of waters not listed. Designated use information for water bodies can also be accessed through the agency's Environmental Data Access (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

A. Streams (by eight-digit hydrologic unit code):

- (1) 07080102 Upper Wapsipinicon River (August 9, 2016);
- (2) 07080201 Cedar River (August 9, 2016);
- (3) 07080202 Shell Rock River (August 9, 2016);
- (4) 07080203 Winnebago River (August 9, 2016);
- (5) 07100001 Des Moines River - Headwaters (August 9, 2016);
- (6) 07100002 Lower Des Moines River (August 9, 2016); and
- (7) 07100003 East Fork Des Moines River (August 9, 2016).

(+) Bancroft Creek (County Ditch No. 63), (T.103, 104, R.21): 2C;

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- (2) Cedar River, Little, (Source to Iowa border): 2C, 3C;
- (3) County Ditch No. 11, Sherburne, (T.101, R.32, S.4, 9, 10; T.102, R.32, S.7, 8, 16, 17, 21, 27, 28, 33, 34): 7;
- (4) County Ditch No. 11, Manchester, (T.103, R.22, S.11, 14, 23, 25, 26): 7;
- (5) County Ditch No. 48, Conger, (T.102, R.22, S.19, 20; T.102, R.23, S.24, 25, 26, 35): 7;
- (6) County Ditch No. 53 (see Soldier Creek);
- (7) Deer Creek (excluding Class 7 segment), (T.101, R.19, 20): 2C, 3C;
- (8) Deer Creek (County Ditch No. 71), Myrtle, (T.101, R.19, S.18; T.101, R.20, S.13): 7;
- (9) Dobbins Creek, (T.103, R.16, 17): 2C;
- (10) Goose Creek, Twin Lakes, (T.101, R.20, S.31; T.101, R.21, S.16, 17, 18, 21, 22, 26, 27, 35, 36; T.101, R.22, S.12, 13): 7;
- (11) Heron Lake Outlet, (T.104, 105, R.37): 2C;
- (12) Jack Creek, Wilmont, (T.104, R.41, S.25, 26, 30, 31, 32, 33, 34, 35, 36): 7;
- (13) Lime Creek, (T.101, R.22, 23): 2C, 3C;
- (14) Murphy Creek, (T.103, R.18): 2C;
- (15) Okabena Creek (excluding Class 7 segment), (T.102, 103, R.37, 38, 40): 2C;
- (16) Okabena Creek, Worthington, Worthington Lagoons and Allied Mills, (T.102, R.38, S.6, 7; T.102, R.39, S.7, 8, 9, 10, 11, 12, 14, 15, 16, 18; T.102, R.40, S.13): 7;
- (17) Orchard Creek, (T.102, R.18, 19): 2C;
- (18) Roberts Creek, (T.103, 104, R.16, 17, 18): 2C;
- (19) Rose Creek, (T.102, 103, R.16, 17, 18): 2C;
- (20) Scheldorf Creek, (T.106, R.36, S.19, 30, 31; T.106, R.37, S.13, 24, 25): 1B, 2A, 3B;
- (21) Soldier Creek (Unnamed Stream and County Ditch No. 53), (T.101, R.32, 33): 2C, 3C;
- (22) Turtle Creek, (T.103, R.18, 19, 20): 2C;
- (23) Unnamed Creek, Emmons, (T.101, R.22, S.31): 7;
- (24) Unnamed Creek, Brownsdale, (T.103, R.17, S.4, 9): 7;
- (25) Unnamed Creek, Blooming Prairie, (T.104, R.18, S.5, 8, 9, 16; T.105, R.18, S.31): 7;
- (26) Unnamed Creek, Blooming Prairie, (T.105, R.19, S.25): 7;
- (27) 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;
- (28) Unnamed Ditch, Myrtle, (T.101, R.20, S.12): 7;
- (29) Unnamed Ditch, Myrtle, (T.101, R.20, S.12, 13): 7;

# Exhibit F.2.

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## Proposed Rules

- (30) Unnamed Ditch, Blooming Prairie, (T.105, R.19, S.25): 7;
- (31) Unnamed Stream (see Soldier Creek);
- (32) Wolf Creek, (T.103, R.16, 17, 18): 2C;
- (33) Woodbury Creek, (T.101, 102, R.18, 19): 2C; and
- (34) Woodson Creek, (T.102, R.18, S.14, 15): 1B, 2A, 3B.

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

**Subp. 9. Missouri River Basin.** The water use classifications for the stream reaches within each of the major watersheds in the Missouri River Basin listed in item A are found in tables entitled "Beneficial Use Designations for Stream Reaches" published on the Web site of the Minnesota Pollution Control Agency at [www.pca.state.mn.us](http://www.pca.state.mn.us). The tables are incorporated by reference and are not subject to frequent change. The date after each watershed listed in item A is the publication date of the applicable table. The water use classifications for the other listed waters in the Missouri River Basin are as identified in items A B to D. See parts 7050.0425 and 7050.0430 for the classifications of waters not listed. Designated use information for water bodies can also be accessed through the agency's Environmental Data Access (<http://www.pca.state.mn.us/quick-links/eda-surface-water-data>).

A. Streams (by eight-digit hydrologic unit code):

- (1) 10170202 Upper Big Sioux River (August 9, 2016);
- (2) 10170203 Lower Big Sioux River (August 9, 2016);
- (3) 10170204 Rock River (August 9, 2016); and
- (4) 10230003 Little Sioux River (August 9, 2016).

- (1) Ash Creek, (T.101, R.45): 2C;
- (2) Beaver Creek, (T.102, 103, 104, R.45, 46, 47): 2C, 3C;
- (3) Flandreau Creek (excluding Class 7 segment), (T.107, 108, R.46, 47): 2C, 3C;
- (4) Flandreau Creek, Lake Benton, (T.108, R.46, S.1, 2, 11; T.109, R.45, S.30, 31; T.109, R.46, S.36): 7;
- (5) Judicial Ditch No. 13 (see Skunk Creek);
- (6) Kanaranzi Creek, (Source to Iowa border): 2C, 3C;
- (7) Medary Creek, (Source to South Dakota border): 2C, 3C;
- (8) Mound Creek, (T.103, 104, R.45): 2C;
- (9) Mud Creek, (T.101, 102, R.45, 46): 2C, 3C;
- (10) Pipestone Creek, (Source to South Dakota border): 2C, 3C;
- (11) Rock River (excluding Class 7 segment), (Source to Iowa border): 2C, 3C;
- (12) Rock River, Holland, (T.107, R.44, S.18, 19, 20, 29; T.107, R.45, S.12, 13): 7;
- (13) Rock River, Little, (source to Iowa border): 2C, 3C;
- (14) Sater's Creek (Unnamed Creek), Luverne, Agri-Energy, (T.102, R.45, S.9, 14, 15, 16): 7;

# Proposed Rules

(15) Sioux River, Little, (Source to Iowa border): 2C, 3C;

(16) Sioux River, West Fork Little, (Source to Iowa border): 2C, 3C;

(17) Skunk Creek (Judicial Ditch No. 13), (T.101, 102, R.37, 38, 39): 2C;

(18) Split Rock Creek, (Split Rock Lake outlet to South Dakota border): 2C, 3C;

(19) Unnamed Creek, Jasper, (T.104, R.46, S.6): 7;

(20) Unnamed Creek, Hatfield, (T.105, R.44, S.6, 7, 8; T.105, R.45, S.1; T.106, R.45, S.36): 7;

(21) Unnamed Creek, Hatfield, (T.106, R.45, S.34, 35, 36): 7;

(22) Unnamed Ditch, Luverne, Agri-Energy, (T.102, R.45, S.10, 15): 7;

(23) Unnamed Ditch, Steen, (T.101, R.45, S.31, 32): 7;

(24) Unnamed Ditch, Hills, (T.101, R.46, S.28, 33): 7; and

(25) Unnamed Ditch, Lake Benton, (T.109, R.45, S.17, 19, 20): 7.

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

## 7052.0100 WATER QUALITY STANDARDS.

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

### Subp. 5. Water quality standards applicable to Class 2B, 2C, and 2D waters.

Substance	Units	Aquatic Life Chronic Standard	Aquatic Life Maximum Standard	Aquatic Life Final Acute Value	Human Health Chronic Standard	Wildlife Chronic Standard	Applicable Chronic Standard
Arsenic, total	ug/l	148	340	680	53†		53
Benzene	ug/l	114†	4487†	8974†	237		114
Cadmium, total (TH)	ug/l	subp 6	subp 6	subp 6			subp 6
Chlordane	pg/l				225		225
Chlorobenzene	ug/l	10†	423†	846†	2916		10
Chromium III, total (TH)	ug/l	subp 6	subp 6	subp 6			subp 6
Chromium VI, total	ug/l	11	16	32			11
Copper, total (TH)	ug/l	subp 6	subp 6	subp 6			subp 6
Cyanide, free	ug/l	5.2	22	44	30240		5.2

**Exhibit F.2.**  
**Proposed Rules**

DDT	pg/l				142	11	11
Dieldrin	pg/l	56000	240000	480000	6.5		6.5
2,4-Dimethylphenol	ug/l	21	137	274	7182		21
2,4-Dinitrophenol	ug/l	71	379	758	1982		71
Endrin	ug/l	0.036	0.086	0.17	0.016†		0.016
Hexachlorobenzene	pg/l				419		419
Hexachloroethane	ug/l				6.2		6.2
Lindane	ug/l		0.95	1.9	0.46		0.46
Mercury, total	ug/l	0.91	1.7	3.4	0.00153	0.0013	0.0013
Methylene Chloride	ug/l	1561†	9600†	19200†	1994		1561
Nickel, total (TH)	ug/l	subp 6	subp 6	subp 6			subp 6
Parathion	ug/l	0.013	0.065	0.13			.013
PCBs (class)	pg/l				25.2	122	25.2
Pentachlorophenol (pH)	ug/l	subp 6	subp 6	subp 6	5.5†		subp 6
Selenium, total	ug/l	5.0	20†	40†			5.0
2,3,7,8-TCDD	pg/l				0.0080	0.0031	0.0031
Toluene	ug/l	253†	1352†	2703†	45679		253
Toxaphene	pg/l				62		62
Trichloroethylene	ug/l				330		330
Zinc, total (TH)	ug/l	subp 6	subp 6	subp 6			subp 6

†this standard or FAV was derived under chapter 7050.

**Subp. 6. Water quality standards that vary with water quality characteristics.**

*[For text of items A and B, see M.R.]*

# Proposed Rules

C. Standards that vary with pH applicable to Class 2B, 2C, and 2D waters in the Lake Superior Basin are listed in this subpart. Exp. is the base e exponential function.

		Example standards at pH of:				
Pentachlorophenol	Formula, results in ug/l	6.5	7.0	7.5	8.0	8.5
Chronic standard	exp.(1.005[pH]-5.134) not to exceed 5.5 ug/l	4.0	5.5	5.5	5.5	5.5
Maximum standard	exp.(1.005[pH]-4.869)	5.3	8.7	14	24	39
Final acute value	exp.(1.005[pH]-4.175)	11	17	29	48	79

## 7052.0110 METHODOLOGIES FOR DEVELOPMENT OF STANDARDS AND CRITERIA, AND BIOACCUMULATION FACTORS.

*[For text of subps 1 and 2, see M.R.]*

Subp. 3. **Bioaccumulation factors.** Bioaccumulation factors (BAFs) for calculating human health and wildlife standards were developed and BAFs for calculating criteria must be developed using the methodology provided by Code of Federal Regulations, title 40, part 132, Appendix B, entitled "Great Lakes Water Quality Methodology for Deriving Bioaccumulation Factors," as amended through March 12, 1997, which is adopted and incorporated by reference in part 7052.0015, item B, except that for human health standards and criteria, the baseline BAF is multiplied by the following lipid fractions which apply to fish in both trophic levels 3 (TL<sub>3</sub>) and 4 (TL<sub>4</sub>), except as noted in item C:

*[For text of items A and B, see M.R.]*

C. 0.015 for TL<sub>4</sub> and 0.020 for TL<sub>3</sub> for Class 2B, 2Bd, 2C, and 2D waters.

*[For text of subps 4 and 5, see M.R.]*

**REPEALER.** Minnesota Rules, part 7050.0222, subpart 5, is 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.

**KEY: Proposed Rules** - Underlining indicates additions to existing rule language. ~~Strikeouts~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material." **Adopted Rules** - Underlining indicates additions to proposed rule language. Strikeout indicates deletions from proposed rule language.

## Department of Labor and Industry

### Adopted Permanent Rules Adopting a Change to the International Residential Code

The rules proposed and published at State Register, Volume 41, Number 12, pages 353-355, September 19, 2016 (41 SR 353), are adopted as proposed.

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# Adopted Rules

## Pollution Control Agency

### Adopted Permanent Rules Relating to Air Quality

The rules proposed and published at State Register, Volume 40, Number 35, pages 1085-1141, February 29, 2016 (40 SR 1085), are adopted with the following modifications:

#### 7005.0100 DEFINITIONS.

Subp. 4f. **Condensable particulate matter.** "Condensable particulate matter" means material that is in vapor phase at stack conditions and upon discharge immediately condenses in the ambient air to form solid or liquid particulate.

Subp. 4g. **Conditionally exempt stationary source.** "Conditionally exempt stationary source" means a stationary source listed in parts 7008.2100 to 7008.2250 that complies with chapter 7008 and all applicable requirements as defined in part 7007.0100, subpart 6b~~7~~, and is not part of another stationary source.

Subp. 4h. **Conditionally insignificant activity.** "Conditionally insignificant activity" means any emissions unit, emissions units, or activity listed in ~~part~~ 7008.4100 to 7008.4110 that complies with chapter 7008 and all applicable requirements as defined in part 7007.0100, subpart 6b~~7~~.

Subp. 12a. **Inorganic condensable particulate matter.** "Inorganic condensable particulate matter" means inorganic material collected and measured by the sample train during a performance test for particulate matter.

Subp. 29a. **Organic condensable particulate matter.** "Organic condensable particulate matter" means organic material collected and measured by the sample train during a performance test for particulate matter.

#### 7007.0300 SOURCES NOT REQUIRED TO OBTAIN A PERMIT.

Subpart 1. **No permit required.** The owners and operators of the following stationary sources are not required to obtain a permit under parts 7007.0100 to 7007.1850:

D. any stationary source with only emissions units ~~listed as~~ that:

- (1) ~~are listed as~~ insignificant activities in part 7007.1300, subparts 2 and 3;
- (2) ~~are conditionally insignificant activities under chapter 7008;~~ or
- (3) ~~qualify under both subitems (1) and (2).~~

~~The owner or operator of a stationary source that has conditionally insignificant activities must comply with parts 7008.4000 to 7008.4110 to qualify for the permit exemption under this part. The owner or operator must maintain records that demonstrate that a permit is not required. These records shall must contain a list of all emissions units and the Minnesota Rules citation that defines those emissions units as an insignificant activity or conditionally insignificant activity. The records shall must be permanently kept at the stationary source or a central office and be readily available for examination and copying by the commissioner or a representative of the commissioner;~~

#### 7007.0500 CONTENT OF PERMIT APPLICATION.

Subp. 3. **Application certification.** A responsible official, as defined in part 7007.0100, subpart 21, shall must sign and certify any application, notice, report, or compliance certification submitted pursuant to parts 7007.0100 to 7007.1850 or notice submitted pursuant to part 7007.0800, subpart 10, item B; 7007.1110, subpart 10, 11, or 15a; 7007.1150, item C; 7007.1250, subpart 4; or 7007.1350, subpart 2, with regard to truth, accuracy, and completeness. This certification and any other certification required by parts 7007.0100 to 7007.1850 shall must state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. This subpart shall must be complied with by both the owner and the operator of the stationary source if they are not the same.

# **Adopted Rules**

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## **7007.0650 APPLICATION SUBMITTAL.**

**Subpart 1. Who receives application.** Permit applicants shall submit two printed copies of the complete application and all supplemental information requested by the commissioner to the Minnesota Pollution Control Agency at 520 Lafayette Road North, Saint Paul, Minnesota 55155 address specified by the commissioner. Upon request of the commissioner, the applicant shall submit additional copies of the application directly to the administrator, affected states, and other governmental entities with the legal right to review the application, or submit additional copies to the agency to be forwarded to these parties.

**Subp. 2. Electronic application submittal.** Applicants may submit applications and supplemental information in an electronic format specified by the commissioner. If the information is submitted in an electronic format:

A. the applicant must submit a printed copy of the complete application and supplemental information if requested by the commissioner may allow the applicant to submit fewer printed copies than required in subpart 1; and

B. the application must include the application certification required by part 7007.0500, subpart 3, must either:

(1) be on paper with an original signature; or

(2) with have an electronic signature, if such a method of signature has been approved by the commissioner.

## **7007.0750 APPLICATION PRIORITY AND ISSUANCE TIMELINES.**

**Subp. 7. Two-stage issuance of permits and permit amendments authorizing construction or modification.**

A. If a permit or permit amendment:

(2) includes the requirements of a part 70 permit;

(3) must follow the 45-day EPA review period procedures under part 7007.0950; and

(4) (3) includes either:

(b) an enforceable limitation assumed to avoid being subject to a new source review program under part C or D of the act,

then the agency shall send the permit to the permittee after all requirements the procedural requirements, including public participation procedures of the applicable new source review program have been satisfied or after all requirements to avoid applicability of a new source review program have been completed including any required notice and comment period. The agency shall at the same time notify the permittee in writing that those permit conditions required by the new source review program or developed to avoid applicability of a new source review program and designated as such by the agency in the permit or amendment, and only those conditions, shall be considered issued.

## **7007.0800 PERMIT CONTENT.**

**Subp. 2. Emission limitations and standards.** The permit must:

D. contain provisions to ensure continuous compliance with applicable emissions limitations during periods of startup, shutdown of an emissions unit, such as operating parameters or best practices to minimize emissions.

## **7007.1142 CAPPED PERMIT ISSUANCE AND CHANGE OF PERMIT STATUS.**

**Subpart 1. Capped permit issuance, denial, and revocation.**

A. The following conditions must be satisfied To be eligible to receive a capped permit and for the commissioner to issue a capped permit to, the owners and operators of a stationary source must meet the following conditions:

# Exhibit F.2.

## Adopted Rules

### 7007.1150 WHEN A PERMIT AMENDMENT IS REQUIRED.

C. A written notice to the agency shall be sent by any person who, at a permitted stationary source, makes a change that: (i) does not increase emissions of any regulated air pollutant; (ii) does not constitute a title I modification; and (iii) does not constitute any other type of modification, if the change is one of the following:

(3) replacing existing air pollution control equipment with listed control equipment, as defined in part 7011.0060, subpart 4, that meets the control equipment efficiencies for listed control equipment in part 7011.0070 and has an equivalent or better control efficiency of regulated pollutants previously controlled with the control equipment being replaced. provided that the replacement air pollution control equipment:

(a) attains at least the control equipment efficiency in part 7011.0070 for each applicable pollutant; and

(b) has a listed control efficiency in part 7011.0070 that is equivalent to or better than the control efficiency of the control equipment being replaced for each applicable pollutant.

The notice must be received by the agency at least seven working days prior to the installation or replacement. The permittee must submit the notice in a format specified by the commissioner. The notice must include all information needed to determine the applicability of a requirement or to impose any applicable requirement. The notice must be certified by a responsible official in the manner provided in part 7007.0500, subpart 3. The permittee and the agency shall attach the notice to the stationary source's permit. If the agency finds that the installation or replacement triggers new monitoring, record keeping, or reporting requirements under applicable requirements or parts 7007.0100 to 7007.1850, the agency shall initiate an amendment under part 7007.1400 or 7007.1500 to include the new requirements. If the installation or replacement constitutes a title I modification or other type of modification, this item does not apply, and the permittee shall follow the applicable procedures of part 7007.1250, 7007.1350, 7007.1450, or 7007.1500. If notice is provided as required by this item, the installation and operation of the additional equipment shall not be considered a violation of the permit.

### 7007.1300 INSIGNIFICANT ACTIVITIES LIST.

#### Subp. 5. Hazardous air pollutant threshold table.

CAS#	Chemical Name	De Minimis Level (tons/year)
57147	1,1-Dimethyl hydrazine	0.008
79005	1,1,2-Trichloroethane	1
79345	1,1,2,2-Tetrachloroethane	0.3
96128	1,2-Dibromo-3-chloropropane	0.01
122667	1,2-Diphenylhydrazine	0.09
106887	1,2-Epoxybutane	1
75558	1,2-Propylenimine (2-Methyl aziridine)	0.003
120821	1,2,4-Trichlorobenzene	10
106990	1,3-Butadiene	0.07
542756	1,3-Dichloropropene	1
1120714	1,3-Propane sultone	0.03
106467	1,4-Dichlorobenzene(p)	3
123911	1,4-Dioxane (1,4-Diethyleneoxide)	6
53963	2-Acetylaminofluorine	0.005
532274	2-Chloroacetophenone	0.06
79469	2-Nitropropane	1
540841	2,2,4-Trimethylpentane	5
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	6E-07
584849	2,4-Toluene diisocyanate	0.1
51285	2,4-Dinitrophenol	1
121142	2,4-Dinitrotoluene	0.02

**Adopted Rules**

CAS#	Chemical Name	De Minimis Level (tons/year)
94757	2,4-D, salts, esters (2,4-Dichlorophenoxy acetic acid)	10
95807	2,4-Toluene diamine	0.02
95954	2,4,5-Trichlorophenol	1
88062	2,4,6-Trichlorophenol	6
91941	3,3-Dichlorobenzidene	0.2
119904	3,3'-Dimethoxybenzidine	0.1
119937	3,3'-Dimethyl benzidine	0.008
92671	4-Aminobiphenyl	1
92933	4-Nitrobiphenyl	1
100027	4-Nitrophenol	5
101144	4,4-Methylene bis(2-chloroaniline)	0.2
101779	4,4'-Methylenedianiline	1
534521	4,6-Dinitro-o-cresol, and salts	0.1
75070	Acetaldehyde	9
60355	Acetamide	1
75058	Acetonitrile	4
98862	Acetophenone	1
107028	Acrolein	0.04
79061	Acrylamide	0.02
79107	Acrylic acid	0.6
107131	Acrylonitrile	0.3
107051	Allyl chloride	1
62533	Aniline	1
71432	Benzene	2
92875	Benzidine	0.0003
98077	Benzotrichloride	0.006
100447	Benzyl chloride	0.1
57578	beta-Propiolactone	0.1
92524	Biphenyl	10
117817	Bis(2-ethylhexyl)phthalate(DEHP)	5
542881	Bis(chloromethyl)ether	0.0003
75252	Bromoform	10
156627	Calcium cyanamide	10
133062	Captan	10
63252	Carbaryl	10
75150	Carbon disulfide	1
56235	Carbon tetrachloride	1
463581	Carbonyl sulfide	5
120809	Catechol	5
133904	Chloramben	1
57749	Chlordane	0.01
7782505	Chlorine	0.1
79118	Chloroacetic acid	0.1
108907	Chlorobenzene	10

**Exhibit F.2.**  
**Adopted Rules**

CAS#	Chemical Name	De Minimis Level (tons/year)
510156	Chlorobenzilate	0.4
67663	Chloroform	0.9
107302	Chloromethyl methyl ether	0.1
126998	Chloroprene	1
1319773	Cresols/Cresylic acid (isomers and mixture)	1
95487	o-Cresol	1
108394	m-Cresol	1
106445	p-Cresol	1
98828	Cumene	10
334883	Diazomethane	1
132649	Dibenzofuran	5
72559	DDE (p,p'-Dichlorodiphenyldichloroethylene)	0.01
84742	Diethylphthalate	10
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)	0.06
62737	Dichlorvos	0.2
11422	Diethanolamine	5
64675	Diethyl sulfate	1
60117	Dimethyl aminoazobenzene	1
79447	Dimethyl carbamoyl chloride	0.02
68122	Dimethyl formamide	1
131113	Dimethyl phthalate	10
77781	Dimethyl sulfate	0.1
106898	Epichlorohydrin	2
140885	Ethyl acrylate	1
100414	Ethyl benzene	10
51796	Ethyl carbamate (Urethane)	0.8
75003	Ethyl chloride	10
106934	Ethylene dibromide (Dibromoethane)	0.1
107062	Ethylene dichloride (1,2-Dichloroethane)	0.8
107211	Ethylene glycol	10
151564	Ethylene imine (Aziridine)	0.003
75218	Ethylene oxide	0.1
96457	Ethylene thiourea	0.6
75343	Ethyldene dichloride (1,1-Dichloroethane)	1
50000	Formaldehyde	2
76448	Heptachlor	0.02
118741	Hexachlorobenzene	0.01
87683	Hexachlorobutadiene	0.9
77474	Hexachlorocyclopentadiene	0.1
67721	Hexachloroethane	5
822060	Hexamethylene,-1,6-diisocyanate	0.02
680319	Hexamethylphosphoramide	0.01
110543	Hexane	10
302012	Hydrazine	0.004

**Adopted Rules**

CAS#	Chemical Name	De Minimis Level (tons/year)
7647010	Hydrochloric acid	10
7664393	Hydrogen fluoride	0.1
123319	Hydroquinone	1
78591	Isophorone	10
58899	Lindane (hexachlorcyclohexane, gamma)	0.01
108316	Maleic anhydride	1
67561	Methanol	10
72435	Methoxychlor	10
74839	Methyl bromide (Bromomethane)	10
74873	Methyl chloride (Chloromethane)	10
71556	Methyl chloroform (1,1,1-Trichloroethane)	10
60344	Methyl hydrazine	0.06
74884	Methyl iodide (Iodomethane)	1
108101	Methyl isobutyl ketone	10
624839	Methyl isocyanate	0.1
80626	Methyl methacrylate	10
1634044	Methyl tert-butyl ether	10
12108133	Methylcyclopentadienyl manganese	0.1
75092	Methylene chloride (Dichloromethane)	10
101688	Methylene diphenyl diisocyanate	0.1
91203	Naphthalene	10
98953	Nitrobenzene	1
62759	N-Nitrosodimethylamine	0.001
69892	N-Nitrosomorpholine	1
684935	N-Nitroso-N-methylurea	0.0002
121697	N,N-Dimethylaniline	1
90040	o-Anisidine	1
95534	o-Toluidine	4
56382	Parathion	0.1
82688	Pentachloronitrobenzene (Quintobenzene)	0.3
87865	Pentachlorophenol	0.7
108952	Phenol	0.1
75445	Phosgene	0.1
7803512	Phosphine	5
7723140	Phosphorous	0.1
85449	Phthalic anhydride	5
1336363	Polychlorinated biphenyls (Aroclors)	0.009
106503	p-Phenylenediamine	10
123386	Propionaldehyde	5
114261	Propoxur (Baygone)	10
78875	Propylene dichloride (1,2-Dichloropropane)	1
75569	Propylene oxide	5
91225	Quinoline	0.006
106514	Quinone	5

**Exhibit F.2.**  
**Adopted Rules**

CAS#	Chemical Name	De Minimis Level (tons/year)
100425	Styrene	1
96093	Styrene oxide	1
127184	Tetrachloroethylene (Perchloroethylene)	10
7550450	Titanium tetrachloride	0.1
108883	Toluene	10
8001352	Toxaphene (chlorinated camphene)	0.01
79016	Trichloroethylene	10
121448	Triethylamine	10
1582098	Trifluralin	9
108054	Vinyl acetate	1
593602	Vinyl bromide (bromoethene)	0.6
75014	Vinyl chloride	0.2
75354	Vinylidene chloride (1,1-Dichloroethylene)	0.4
1330207	Xylenes (isomers and mixture)	10
108383	m-Xylenes	10
95476	o-Xylenes	10
106423	p-Xylenes	10
-	Arsenic and inorganic arsenic compounds	0.005
7784421	Arsine	0.1
-	Antimony compounds (except those specifically listed)*	5
1309644	Antimony trioxide	1
1345046	Antimony trisulfide	0.1
7783702	Antimony pentafluoride	0.1
28300745	Antimony potassium tartrate	1
-	Beryllium compounds (except Beryllium salts)	0.008
-	Beryllium salts	0.00002
-	Cadmium compounds	0.01
130618	Cadmium oxide	0.01
-	Chromium compounds (except Hexavalent and Trivalent)	5
-	Hexavalent Chromium compounds	0.002
-	Trivalent Chromium compounds	5
10025737	Chromic chloride	0.1
744084	Cobalt metal (and compounds, except those specifically listed)*	0.1
10210681	Cobalt carbonyl	0.1
62207765	Fluomine	0.1
-	Coke oven emissions	0.03
-	Cyanide compounds (except those specifically listed)*	5
143339	Sodium cyanide	0.1
151508	Potassium cyanide	0.1
-	Glycol ethers (except those specifically listed)*	5
110805	2-Ethoxy ethanol	10
111762	Ethylene glycol monobutyl ether	10
108864	2-Methoxy ethanol	10
-	Lead and compounds (except those specifically listed)*	0.01

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CAS#	Chemical Name	De Minimis Level (tons/year)
75741	Tetramethyl lead	0.01
78002	Tetraethyl lead	0.01
7439965	Manganese and compounds (except those specifically listed)*	0.8
12108133	Methylcyclopentadienyl manganese	0.1
-	Mercury compounds (except those specifically listed)*	0.01
10045940	Mercuric nitrate	0.01
748794	Mercuric chloride	0.01
62384	Phenyl mercuric acetate	0.01
-	Elemental Mercury	0.01
-	Mineral fiber compounds (except those specifically listed)*	a
1332214	Asbestos	a
-	Erionite	a
-	Silica (crystalline)	a
-	Talc (containing asbestos from fibers)	a
-	Glass wool	a
-	Rock wool	a
-	Slag wool	a
-	Ceramic fibers	a
-	Nickel compounds (except those specifically listed)*	1
13463393	Nickel Carbonyl	0.1
12035722	Nickel refinery dust	0.08
-	Nickel subsulfide	0.04
-	Polycyclic organic matter-POM (except those specifically listed)*	0.01
56553	Benz(a)anthracene	0.01
50328	Benzo(a)pyrene	0.01
205992	Benzo(b)fluoranthene	0.01
57976	7,12-Dimethylbenz(a)anthracene	0.01
225514	Benz(c)acridine	0.01
218019	Chrysene	0.01
53703	Dibenz(ah)anthracene	0.01
189559	1,2:7,8-Dibenzopyrene	0.01
193395	Indeno(1,2,3-cd)pyrene	0.01
-	Dioxins & Furans (TCDD equivalent)**	-
7782492	Selenium and compounds (except those specifically listed)*	0.1
7488564	Selenium sulfide (mono and di)	0.1
7783075	Hydrogen selenide	0.1
10102188	Sodium selenite	0.1
13410010	Sodium selenate	0.1
99999918	Radionuclides (including radon)	b

\* - For this chemical group, specific compounds or subgroups are named specifically in this table. For the remainder of the chemicals of the chemical group, a single de minimis value is listed, which applies to compounds which are not named specifically.

\*\* - The "toxic equivalent factor" method in EPA/625/3-89-016 (U.S. EPA (1989) Interim procedures for estimating risk associated with exposure to mixtures) should be used for PCDD/PCDF mixtures. A different de minimis level will be determined for each mixture depending on the equivalency factors used which are compound specific. For purposes of this part, the document EPA/625/3-89-016, Interim Procedures for Estimating Risk Associated with Exposure to Mixtures, U.S. EPA (1989), is

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incorporated by reference. The Environmental Protection Agency is the author and publisher. This document is available at the University of Minnesota through the Minitex interlibrary loan system. This document is subject to frequent change.

a - De minimis values are zero. Currently available data do not support assignment of a "trivial" emission rate; therefore, the value assigned will be policy based.

b - The EPA relies on Code of Federal Regulations, title 40, part 61, subparts B and I, and Appendix E, and assigns a de minimis level based on an effective dose equivalent of 0.3 milliem per year for a seven-year exposure period that would result in a cancer risk of one per million. The individual radionuclides subject to de minimis levels are contained in Code of Federal Regulations, title 40, part 61.

## 7008.0100 DEFINITIONS.

Subp. 2a. **Material usage.** "Material usage" means an activity at a stationary source ~~when a material such as a the application or use of ink, paint, coating, adhesive, or solvent is applied or used in a way that emits only VOC, hazardous air pollutants, particulate matter, PM-10, PM-2.5, or a combination thereof and emissions of these pollutants can be calculated on a mass balance basis as described in part 7008.4100. Material usage does not include material processes such as sanding, milling, materials reacting to form new materials, fuel usage, or grain or other material handling.~~

Subp. 2b. **Recycling.** "Recycling" means the reclamation or reuse of waste VOC-containing or hazardous air pollutant-containing materials from material usage activities, ~~as defined in part 7045.0020. For purposes of this subpart, "reclamation" has the meaning given in part 7045.0020, subpart 73c, and "reuse" has the meaning given in part 7045.0020, subpart 75a.~~

Subp. 5. **Transfer efficiency.** "Transfer efficiency" means the ratio of the weight of ~~coating~~ solids ~~adhering in the material that adheres~~ to an object ~~being coated~~ to the total weight of ~~coating~~ solids ~~in the material~~ used in the application process. Transfer efficiency varies with the type of application method and is obtained from the application equipment manufacturer. If the manufacturer provides a range for the transfer efficiency, the transfer efficiency for calculating particulate matter, PM-10, and PM-2.5 emissions is the minimum specified in the range.

## 7008.4000 CONDITIONALLY INSIGNIFICANT ACTIVITIES.

If operated in compliance with this part and parts 7008.4100 and 7008.4110, the activities and operation of the emissions units listed in parts 7008.4100 and 7008.4110 are insignificant activities for purposes of parts 7007.0100 to 7007.1850. ~~To qualify for the exemption from permitting in part 7007.0300, subpart 1, item D, subitem (2) or (3), the owner or operator of a stationary source that has the potential to emit any pollutant in excess of a permitting threshold in chapter 7007 must comply with the requirements of parts 7008.4000 to 7008.4110. Listing in part 7008.4100 or 7008.4110 has no effect on any other law, including laws enforced by the agency other than parts 7007.0100 to 7007.1850, to which the activity may be subject.~~

The activities described in parts 7008.4100 and 7008.4110 must be listed in a permit application, and calculation of emissions from these activities shall be provided if required by the agency, under part 7007.0500, subpart 2, item C, subitem (2). If emissions units listed in part 7008.4100 or 7008.4110 are subject to additional requirements under section 114(a)(3) of the act (Monitoring Requirements) or section 112 of the act (Hazardous Air Pollutants), or if part of a title I modification, or, if accounted for, make a stationary source subject to a part 70 permit, emissions from the emissions units must be calculated in the permit application.

## 7008.4100 CONDITIONALLY INSIGNIFICANT MATERIAL USAGE.

Subp. 2. **Material usage limits.** The owner or operator must ~~meet the limits in items A to C for limit emissions from all material usage as provided in items A and B at the stationary source to qualify as a conditionally insignificant activity under this part.~~

A. **VOCs.** The owner or operator must limit ~~VOC~~ emissions of ~~VOCs from all material usage activities at the stationary source to less than 200 gallons or 2,000 pounds, or VOC usage to less than 200 gallons~~, in each calendar year period calculated according to the method in subpart 4. All VOC emissions from all material usage activities at the stationary source must be accounted for in the annual calculation. This limit applies regardless of the hazardous air pollutant content of the VOC.

B. ~~The owner or operator must limit emissions of all hazardous air pollutants from all material usage activities at the stationary source to less than 200 gallons or 2,000 pounds in each calendar year period calculated according to the method in subpart 5. All hazardous air pollutant emissions from all material usage activities at the stationary source must be accounted for in the~~

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annual calculation:

**E. Particulate matter.** The owner or operator must limit emissions of particulate matter, PM-10, and PM-2.5 to less than 2,000 ~~8,000~~ pounds each in each calendar year period calculated according to the method in subpart 6.5. All particulate matter, PM-10, and PM-2.5 emissions from all material usage activities at the stationary source must be accounted for in the annual calculation. This limit applies regardless of the hazardous air pollutant content of the particulate matter.

**Subp. 3. Record keeping.** The owner or operator of a stationary source claiming material usage as a conditionally insignificant activity must:

**B.** maintain records for each calendar year of the number of gallons of hazardous air pollutant-containing materials purchased or used and the maximum hazardous air pollutant content of each material;

**C.** maintain records for each calendar year of the number of gallons of solids-containing materials purchased or used and the maximum solids content of each material;

**D.** maintain a record of the material safety data sheet (MSDS), or a signed statement from the supplier stating the maximum VOC content, the maximum hazardous air pollutant content, and the maximum solids content for each material;

**E.** if the owner or operator ships waste material from material usage activities off-site for recycling, keep records of the amount of material shipped off-site for recycling, the VOC content and hazardous air pollutant content of the waste materials shipped off-site for recycling, and the calculations done to determine the amount of VOC and hazardous air pollutants to subtract. Acceptable records include: the material safety data sheets, invoices, shipping papers, and/or hazardous waste manifests;

**F.** if a material usage activity includes spray application of material and the owner or operator chooses to apply the transfer efficiency in calculations, maintain information on the type of spray application equipment and transfer efficiency; and

**G.** if requested by the commissioner, calculate and record for any of the previous five calendar years:

(2) the hazardous air pollutant emissions using the method in subpart 5;

(3) the particulate matter, PM-10, and PM-2.5 emissions using the method in subpart 6.5;

(4) (3) the calculation used to arrive at the total for each of subitems (1) to (3) and (2); and

(5) (4) a list of the associated emissions units in which the material was used.

**Subp. 4. Calculating VOC emissions.** An owner or operator claiming material usage as a conditionally insignificant activity must calculate VOC emissions using one of the methods in item A or B. If the owner or operator ships waste material from material usage activities off-site for recycling, the amount of VOC recycled may be subtracted from the amount of VOC calculated in item A or B:

**B.** pounds of VOC per calendar year equal gallons of VOC-containing material purchased or used in a calendar year multiplied by the pounds of VOC per gallon or pounds of VOC-containing material purchased or used in a calendar year multiplied by weight percent of VOC.

**Subp. 5. Calculating total hazardous air pollutant emissions.** An owner or operator claiming material usage as a conditionally insignificant activity must calculate total hazardous air pollutant emissions using one of the methods in item A or B. If the owner or operator ships waste materials from material usage activities off-site for recycling, the amount of hazardous air pollutants recycled may be subtracted from the amount of total hazardous air pollutant calculated in item A or B:

**A.** gallons of hazardous air pollutants per calendar year equal gallons of hazardous air pollutant-containing material purchased or used in a calendar year multiplied by the volume percentage of hazardous air pollutants; or

**B.** pounds of hazardous air pollutants per calendar year equal gallons of hazardous air pollutant-containing material purchased or used in a calendar year multiplied by the pounds of hazardous air pollutants per gallon or pounds of hazardous air pollutant-containing material purchased or used in a calendar year multiplied by the weight percent of hazardous air pollutants.

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Subp. 6.5. **Calculating particulate matter, PM-10, and PM-2.5 emissions.** An owner or operator claiming material usage as a conditionally insignificant activity must calculate particulate matter, PM-10, and PM-2.5 emissions individually using one of the methods in item A or B:

**7008.4110 CONDITIONALLY INSIGNIFICANT FINISHING PM AND PM-10 EMITTING OPERATIONS THAT EMIT ONLY PM, PM-10, AND PM-2.5.**

Subpart 1. **Applicability.** This part applies to any a stationary source claiming particulate matter (PM) or particulate matter of less than ten microns (PM10) venting equipment as a conditionally insignificant activity.

*[For text of subp 2, see M.R.]*

Subp. 3. **Monitoring and record keeping.** An owner or operator of A stationary source claiming ~~finishing operations that emit PM; or PM-10; or PM-2.5~~ venting equipment as a conditionally insignificant activity must:

**7009.0010 DEFINITIONS.**

Subp. 1a. **Averaging time.** "Averaging time" means the time period specified in part 7009.0080 over which air pollution concentration data are averaged in preparation for comparison to the ambient air quality standard. ~~The average is calculated by summing all data points for the time period and dividing by the number of data points.~~

**7009.0080 MINNESOTA AMBIENT AIR QUALITY STANDARDS.**

The following table contains the state ambient air quality standards.

Air Pollutant	Level of Primary Standard	Level of Secondary Standard	Averaging Time	Form of the Standard
Hydrogen Sulfide	0.05 ppm by volume (70.0 micrograms per cubic meter)		30-minutes	30-minute average not to be exceeded more than two times in a year
	0.03 ppm by volume (42.0 micrograms per cubic meter)		30-minutes	30-minute average not to be exceeded more than two times in 5 consecutive days
Ozone	75.70 ppb by volume (150.137 micrograms per cubic meter)	Same as primary standard	8-hour	3-year average of the annual fourth high daily maximum 8-hour concentration does not exceed standard
Carbon Monoxide	9 ppm by volume (10 milligrams per cubic meter)		8-hour	Annual second-high 8-hour concentration does not exceed standard
	35 ppm by volume (40 milligrams per cubic meter)		1-hour	Annual second-high 1-hour concentration does not exceed standard
Sulfur Dioxide	30 ppb by volume (80.79 micrograms per cubic meter)		Annual average	Annual average concentration does not exceed standard

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Air Pollutant	Level of Primary Standard	Level of Secondary Standard	Averaging Time	Form of the Standard
	140 ppb (365 <del>367</del> micrograms per cubic meter)		24-hour	Annual second-high 24-hour concentration does not exceed standard
		500 ppb by volume (1,300 <del>1,310</del> micrograms per cubic meter)	3-hour	Annual second-high 3-hour concentration does not exceed the standard
	75 ppb (196 <del>197</del> micrograms per cubic meter)		1-hour	3-year average of the annual 99th-percentile of daily maximum 1-hour concentrations does not exceed standard
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Total Suspended Particulate	75 micrograms per cubic meter	60 micrograms per cubic meter	Annual average	Annual <u>average geometric mean</u> concentration does not exceed standard
	260 micrograms per cubic meter	150 micrograms per cubic meter	24-hour	Annual second-high 24-hour concentration does not exceed standard
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Nitrogen Dioxide	53 ppb by volume (100 micrograms per cubic meter)	Same as primary standard	Annual average	Annual average concentration does not exceed standard
	100 ppb by volume (188 micrograms per cubic meter)		1-hour	3-year average of the annual 98th-percentile of daily maximum 1-hour concentrations does not exceed standard
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Lead	0.15 micrograms per cubic meter	Same as primary standard	Rolling 3-month average	Maximum 3-month rolling average from 3 consecutive years does not exceed the standard
<hr/>				
PM-10	150 micrograms per cubic meter	Same as primary standard	24-hour	3-year average of the annual estimated exceedance days is less than or equal to 1
<hr/>				
PM-2.5	35 micrograms per cubic meter	Same as primary standard	24-hour	3-year average of the annual 98th-percentile of 24-hour concentrations does not exceed the standard
	12.0 micrograms per cubic meter	15.0 micrograms per cubic meter	Annual average	3-year average of the annual <u>quarterly- seasonally-weighted</u> average does not exceed the standard

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## 7009.0090 NATIONAL AMBIENT AIR QUALITY STANDARDS.

The following national ambient air quality standards, established pursuant to section 109 of the Clean Air Act, are adopted and incorporated by reference: Interpretation of the standards and measurements made to determine compliance with these standards must be performed as specified in part 7009.0050:

- A. sulfur dioxide (SO<sub>2</sub>), Code of Federal Regulations, title 40, sections ~~50.4(b) and 50.5(a)~~ 50.4, 50.5, and 50.17, as amended;
- B. PM-10, Code of Federal Regulations, title 40, section ~~50.6(a)~~ 50.6, as amended;
- C. PM-2.5, Code of Federal Regulations, title 40, ~~section 50.7(a) sections 50.13 and 50.18~~, as amended;
- D. carbon monoxide (CO), Code of Federal Regulations, title 40, section ~~50.8(a)(1) and (2)~~ 50.8, as amended;
- E. ozone (O<sub>3</sub>), Code of Federal Regulations, title 40, sections ~~50.9(a) and 50.10 (a)~~ 50.9 and 50.19, as amended;
- F. nitrogen dioxide (NO<sub>2</sub>), Code of Federal Regulations, title 40, section ~~50.11 (a) and (b)~~ 50.11, as amended; and
- G. lead (Pb), Code of Federal Regulations, title 40, section ~~50.12~~ 50.16, as amended.

## 7011.0065 APPLICABILITY.

Subpart 1. **Applicability.** The owner or operator of a stationary source ~~shall~~ must comply with parts 7011.0060 to 7011.0080 if the owner or operator elected to use the control equipment efficiencies for listed control equipment established pursuant to part 7011.0070 to calculate potential to emit, from emissions units that discharge through the listed control equipment, to:

## 7011.0070 LISTED CONTROL EQUIPMENT AND CONTROL EQUIPMENT EFFICIENCIES.

Subp. 1a. **Exceptions where control efficiency disallowed.** The owner or operator may not use a control efficiency listed in Table A if:

- A. the commissioner determines that the listed efficiency is inapplicable or is not representative of the source due to complexity of the process or source of emissions, lack of reliable data, presence of a pollutant or constituent such as organic or inorganic condensable particulate matter or an organic compound significantly more difficult to control than the overall VOC gas stream that makes the categorical efficiency nonrepresentative, or other site-specific conditions; or

## 7011.0080 MONITORING AND RECORD KEEPING FOR LISTED CONTROL EQUIPMENT.

The owner or operator of a stationary source ~~shall~~ must comply with the monitoring and record keeping required for listed control equipment by the table in this part. The owner or operator shall maintain the records required by this part for a minimum of five years from the date the record was made. Unless a specific format is required, the records may be maintained in either electronic or paper format. For certified hoods, the owner or operator shall comply with part 7011.0072.

Identification Number(s)	Pollution Control Equipment Type	Monitoring Parameter(s)	Record-keeping Requirement
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## 7011.0535 PERFORMANCE TEST PROCEDURES.

Subp. 3. **Method 5.** For Method 5, the sampling time for each run ~~shall~~ must be at least 60 minutes and the minimum sampling volume shall be 0.85 dscm (30 dscf) except that smaller sampling times or volumes, when necessitated by process variables or other factors, may be approved by the agency.

## 7011.0615 PERFORMANCE TEST METHODS.

Unless another method is approved by the agency, any person required to submit performance tests for direct heating equipment must use the following test methods to demonstrate compliance:

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C. Method 5 for concentration of filterable particulate matter and the associated moisture content and Method 202 for concentration of organic condensable particulate matter;

## **7011.0720 PERFORMANCE TEST METHODS.**

Unless another method is approved by the agency, any owner or operator required to submit performance tests for any industrial process equipment must use the following test methods to demonstrate compliance:

D. Method 5 for the concentration of filterable particulate matter and associated moisture content and Method 202 for the concentration of organic condensibles condensables; and

## **7011.1105 STANDARDS OF PERFORMANCE FOR CERTAIN COAL HANDLING FACILITIES.**

The owner or operator of any new coal handling facility, or an existing coal handling facility located within the Minneapolis-Saint Paul Air Quality Control Region or within the boundaries of the city of Duluth, shall must perform the following abatement measures unless otherwise exempt by portions of these parts:

## **7011.1135 PERFORMANCE TEST PROCEDURES.**

Subpart 1. **In general.** Performance tests shall must be conducted according to the requirements of this part and parts 7017.2001 to 7017.2060.

Subp. 2. **Special procedures.** For Method 5, the sampling time for each run shall must be at least 60 minutes and the minimum sampling volume shall must be 0.85 dscm (30 dscf) except that owners or operators may, prior to testing, request approval from the commissioner for smaller sampling times or volumes, when necessitated by process variables or site-specific limitations. Sampling shall must not be started until at least 30 minutes after start up start-up and shall must be terminated before shutdown procedures commence. The owner or operator shall must eliminate cyclonic flow during performance tests.

## **7011.1265 REQUIRED PERFORMANCE TESTS, METHODS, AND PROCEDURES.**

Subp. 2. **Performance test methods for criteria pollutants.** An owner or operator of a waste combustor required to conduct performance tests for particulate matter, sulfur dioxide, or nitrogen oxides shall must use test methods as described in items A to D.

A. For particulate matter, except that for Class I, II, A, and C waste combustors, the minimum sample volume shall must be 1.7 dscm, and the probe and filter holder heating systems in the sample train shall must be set to provide a gas temperature no greater than 160 degrees Celsius, plus or minus 14 degrees. For Class III and IV waste combustors, the minimum sample volume shall must be 0.85 dscm. Owners or operators may request approval for smaller sampling times or volumes from the commissioner prior to testing, when necessitated by process variables or site-specific limitations. An oxygen or carbon dioxide measurement shall must be obtained simultaneously with each Method 5 test run for particulate matter. Particulate matter emissions, expressed in gr/dscf, shall must be corrected to seven percent oxygen by using the following formula:

$$c_7 = \frac{14c}{(21\%O_2)}$$

where:  $c_7$  is the concentration of particulate matter corrected to seven percent oxygen;

$c$  is the concentration of particulate matter as measured by Code of Federal Regulations, title 40, part 60, Appendix A-3, Method 5 and Code of Federal Regulations, title 40, part 51, Appendix M, Method 202; and

$\%O_2$  is the percentage of oxygen as measured by Code of Federal Regulations, title 40, part 60, Appendix A-2, Method 3, as amended.

(2) The sum of filterable and organic condensable particulate matter is the concentration of particulate matter as described in part 7017.2060, subpart 3, item B.

For each sample run employing Method 5 as provided in Appendix A-3 of Code of Federal Regulations, title 40, part 60, Appendix A-3, Method 5; as amended, run; the emission rate shall must be determined using:

**Adopted Rules****7011.1270 PERFORMANCE TEST, WASTE COMPOSITION STUDY, AND ASH SAMPLING FREQUENCY.**

The owner or operator of a waste combustor shall conduct the performance tests required in part 7011.1265, subpart 5, based on the schedules in items A to E.

A. Class A waste combustors shall conduct performance tests as described in subitems (1) to (6).

*[For text of subitems (1) to (4), see M.R.]*

(5) From Class A waste combustors that are not burning RDF, for mercury emissions every three months.

The facility may implement testing for mercury not less than once every 12 months under the following conditions: the facility has demonstrated that mercury emissions have been below 50 percent of the facility's permitted long-term limit for three consecutive years; and the owner or operator has submitted a request for an administrative amendment according to the procedures of part 7007.1400.

Waste combustors combusting RDF may choose to conduct performance tests for mercury every 12 months. If a test shows that an emission limit for mercury from a waste combustor combusting RDF is exceeded, the commissioner shall require testing every three months thereafter until compliance with the standard is demonstrated.

B. Class II and C waste combustors shall conduct performance tests as described in subitems (1) to (4).

(1) Once within the normal start-up, except as provided in subitem (3)(b).

*[For text of subitem (2), see M.R.]*

(3) For mercury emissions, Class C waste combustors shall commence testing June 20, 1995, and continue testing every 90 days until August 1, 1997. Thereafter, Class C waste combustors that are not burning RDF shall conduct mercury emissions testing every three months.

The facility may implement testing for mercury not less than once every three years or according to federal applicable requirements, whichever is more stringent, under the following conditions: the facility has demonstrated that mercury emissions have been below 50 percent of the facility's permitted long-term limit for three consecutive years; and the owner or operator has submitted a request for an administrative amendment according to the procedures of part 7007.1400.

If a facility is granted testing for mercury not less than once every three years or according to federal applicable requirements, whichever is more stringent, and a mercury performance test shows mercury emissions greater than 50 percent of the facility's permitted mercury limit, the facility shall conduct annual mercury stack sampling until emissions are below 50 percent of the facility's permitted mercury limit. Once the facility demonstrates that mercury emissions are again below 50 percent of the facility's permitted limit, the facility may resume testing every three years, upon notifying the commissioner in writing.

Waste combustors combusting RDF may choose to conduct performance tests for mercury emissions every 12 months. If a test shows that emission limits for mercury from a waste combustor combusting RDF are exceeded, the commissioner shall require performance testing every three months until compliance is demonstrated.

C. Class III and D waste combustors shall conduct performance tests as described in subitems (1) to (6).

*[For text of subitems (1) and (2), see M.R.]*

(3) For Class III waste combustors, emissions of mercury, every three months.

The facility may implement testing for mercury not less than once every three years or according to federal applicable requirements, whichever is more stringent, under the following conditions: the facility has demonstrated that mercury emissions have been below 50 percent of the facility's permitted long-term limit for three consecutive years; and the owner or operator has submitted a request for an administrative amendment according to the procedures of part 7007.1400.

If a facility is granted testing for mercury not less than once every three years or according to federal applicable requirements, whichever is more stringent, and mercury performance test shows mercury emissions greater than 50 percent of the facility's permitted mercury limit, the facility shall conduct annual mercury stack sampling until emissions are below 50 percent of the facility's permitted mercury limit. Once the facility demonstrates that mercury emissions are again below 50 percent of the facility's permitted limit, the facility may resume testing every three years, upon notifying the commissioner in writing.

*[For text of subitems (4) to (6), see M.R.]*

*[For text of item D, see M.R.]*

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E. Class I waste combustors shall conduct performance tests for mercury emissions every three months for waste combustors that are not burning RDF.

The facility may implement testing for mercury not less than once every 12 months under the following conditions: the facility has demonstrated that mercury emissions have been below 50 percent of the facility's permitted long-term limit for three consecutive years; and the owner or operator has submitted a request for an administrative amendment according to the procedures of part 7007.1400.

Waste combustors combusting RDF may choose to conduct performance tests for mercury every 12 months. If a test shows that an emission limit for mercury from a waste combusting RDF is exceeded, the commissioner shall require testing every three months thereafter until compliance with the standard is demonstrated.

Class I waste combustors shall conduct a waste composition study every five years.

## **7011.1280 OPERATOR CERTIFICATION.**

### **Subp. 7. Renewal.**

A. A certified individual shall apply for certificate renewal no later than 30 days prior to certificate expiration. The application for renewal must include evidence that the person has, during the preceding three years, earned credit for attending training courses in the direct operation and maintenance of and environmental compliance for a waste combustor, including personnel training described in part 7011.1275, for the number of hours as identified as follows:

- (1) Class I, II, III, A, or C, or D; 24 hours; and
- (2) Class IV, eight hours.

An individual whose certificate has expired must comply with item B or C to renew the certificate.

B. If an individual applies for certificate renewal within one year following the expiration of the certificate, the commissioner may renew the certificate without examination. To be recertified without an examination, the individual must meet the training requirements of item A or subpart 3 at the time of application for renewal before the certificate will be renewed without an examination. If the individual does not have training to meet the requirements of item A, the individual must comply with subpart 3.

## **7011.1405 STANDARDS OF PERFORMANCE FOR EXISTING AFFECTED FACILITIES AT PETROLEUM REFINERIES.**

Subp. 2. **Fuel gas combustion device and indirect heating equipment.** Flares subject to the conditions of Code of Federal Regulations, title 40, part 60, subpart Ja, are not subject to the limits of this subpart. No owner or operator of existing fuel gas combustion devices and indirect heating equipment at a petroleum refinery shall cause to be discharged into the atmosphere from such devices and equipment any gases which contain sulfur dioxide in excess of 1.75 pounds per million Btu (3.15 grams per million cal) heat input. The total emissions of sulfur dioxide from all existing fuel gas combustion devices and all indirect heating equipment shall be divided by the total heat input of all such devices and equipment to determine compliance with this section; provided that no owner or operator shall cause to be discharged from any one fuel gas combustion device or any one unit of indirect heating equipment any gases which contain sulfur dioxide in excess of 3.0 pounds per million Btu (5.4 grams per million cal) heat input.

## **7011.1410 STANDARDS OF PERFORMANCE FOR NEW AFFECTED FACILITIES AT PETROLEUM REFINERIES.**

Subp. 2. **Fuel gas combustion device.** Flares subject to the conditions of Code of Federal Regulations, title 40, part 60, subpart Ja, are not subject to the limits of this subpart. No owner or operator of a new fuel gas combustion device at a petroleum refinery shall burn in any such device any fuel gas which contains H<sub>2</sub>S in excess of 0.10 gr/dscf, (230 mg/dscm) except as provided herein. The owner or operator may elect to treat the gases resulting from the combustion of fuel gas in a manner which limits the release of SO<sub>2</sub> to the atmosphere if it is shown to the satisfaction of the commissioner that this prevents SO<sub>2</sub> emissions as effectively as compliance with the H<sub>2</sub>S restriction set forth above.

# Exhibit F.2.

## Adopted Rules

### **7011.1435 INCORPORATION BY REFERENCE OF NEW SOURCE PERFORMANCE STANDARDS BY REFERENCE.**

The following New Source Performance Standards are adopted and incorporated by reference:

D. Code of Federal Regulations, title 40, part 60, subpart Ja, as amended, entitled "Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007," except that decisions made by the administrator under Code of Federal Regulations, title 40, section 60.109a(b), are not delegated to the commissioner and must be made by the administrator.

E. Code of Federal Regulations, title 40, part 60, subpart GGGa, as amended, entitled "Standards of Performance for Equipment Leaks of VOC at Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006."

### **7011.1730 INCORPORATION BY REFERENCE OF NEW SOURCE PERFORMANCE STANDARDS BY REFERENCE.**

A. Code of Federal Regulations, title 40, part 60, subpart G, as amended, entitled "Standards of Performance for Nitric Acid Plants," is adopted and incorporated by reference.

B. Code of Federal Regulations, title 40, part 60, subpart Ga, as amended, entitled "Standards of Performance for Nitric Acid Plants for Which Construction, Reconstruction, or Modification Commenced After October 14, 2011," is incorporated by reference.

### **7011.2375 INCORPORATION BY REFERENCE OF NEW SOURCE PERFORMANCE STANDARD FOR STATIONARY COMBUSTION TURBINES.**

Code of Federal Regulations, title 40, part 60, subpart KKKK, as amended, entitled "Standards of Performance for Stationary Combustion Turbines," is adopted and incorporated by reference, except that decisions made by the administrator under Code of Federal Regulations, title 40, section 60.737(b), are not delegated to the commissioner and must be made by the administrator.

### **7011.2900 INCORPORATION BY REFERENCE OF NEW SOURCE PERFORMANCE STANDARDS BY REFERENCE.**

The following New Source Performance Standards are adopted and incorporated by reference:

D. Code of Federal Regulations, title 40, part 60, subpart VVa, as amended, entitled "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006." With this incorporation, reporting requirements of Code of Federal Regulations, title 40, section 60.487a, remain unchanged.

### **7011.7050 INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AND PROCESS HEATERS; MAJOR SOURCES.**

Code of Federal Regulations, title 40, part 63, subpart DDDDD, as amended, entitled "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters," is incorporated by reference, except that the authorities identified in Code of Federal Regulations, title 40, section 63.313(d) 63.7570(b), are not delegated to the commissioner and are retained by the administrator.

### **7011.7630 PORTLAND CEMENT KILNS.**

Code of Federal Regulations, title 40, part 63, subpart LLL, as amended, entitled "National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry," is adopted and incorporated by reference, except that the decisions made by the administrator under Code of Federal Regulations, title 40, section 63.1358 (e), are not delegated to the commissioner and must be made by the administrator.

### **7017.1170 QUALITY ASSURANCE AND CONTROL REQUIREMENTS FOR CEMS.**

Subp. 2. **Quality assurance plan required.** The owner or operator of the facility must develop and implement a written

# **Adopted Rules**

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quality assurance plan that covers each CEMS. The plan must be on site and available for inspection within 30 days after monitor certification. The plan must be revised as needed to keep the plan up to date with the facility's current policies and procedures. The plan must contain all of the information required by Code of Federal Regulations, title 40, part 60, appendix F, section 3, or Code of Federal Regulations, title 40, part 75, Appendix B, as amended. The plan must include the manufacturer's spare parts list for each CEMS and require that those parts be kept at the facility unless the commissioner gives written approval to exclude specific spare parts from the list. The commissioner may approve requested exclusions if the commissioner determines that it is not reasonable to keep a specific part on site after consideration of the consequences of a malfunction of the part, the likelihood of a malfunction, the time required to obtain the part, and other pertinent factors.

**Subp. 4a. Cylinder gas audit.**

A. The owner or operator must complete the initial cylinder gas audit (CGA) within 180 days following certification of the CEMS. The owner or operator must conduct subsequent CGAs on each concentration and diluent monitor on each CEMS no later than the end of every other second QA operating quarter, regardless of whether the quarters are consecutive calendar quarters. The audit must be performed, according to Code of Federal Regulations, title 40, part 60, Appendix F, section 5.1.2, or Code of Federal Regulations, title 40, part 75, Appendix A, section 6.2, as amended. As part of each quarterly excess emission report, the owner or operator must submit notification of any exception to CGA frequency that it used during the reporting period. A CGA is not required during any calendar half year quarter in which a relative accuracy test audit was performed on the CEMS.

**Subp. 5a. Relative accuracy test audits.** The owner or operator must complete relative accuracy test audits (RATAs) as required by this subpart.

B. The owner or operator must complete a RATA on each CEMS within 365 days following certification of the CEMS. Subsequent RATAs must be conducted on each monitor range of a CEMS no later than the end of every fourth QA operating quarter, regardless of whether the operating quarters are consecutive calendar quarters, unless the conditions in item C apply.

**Subp. 8. Out of control periods.** Data is not considered valid and may not be used for emissions calculations compliance demonstration during out of control periods as defined in part 7017.1002. The out of control period is considered downtime and the owner or operator must follow the requirements of Code of Federal Regulations, title 40, part 60, Appendix F, sections 4.3.2 and 5.2.2, as amended. An owner or operator may not apply the data substitution procedures in Code of Federal Regulations, title 40, part 75, as amended, to comply with this part.

## **7017.2060 PERFORMANCE TEST PROCEDURES.**

**Subp. 3. Particulate matter determination.** The owner or operator must conduct particulate matter emission tests as required in this subpart.

D. When submitting a proposed test plan, an owner or operator may apply to the commissioner to exclude organic condensable particulate matter from a performance test for particulate matter. The commissioner shall approve the exclusion if the owner or operator demonstrates must demonstrate:

**Subp. 4. PM-10 determination.** The owner or operator must conduct PM-10 emission tests as required in this subpart.

D. When submitting a proposed test plan, an owner or operator may apply to the commissioner to exclude organic and inorganic condensable particulate matter from a performance test for PM-10. The commissioner shall approve the exclusion if the owner or operator demonstrates must demonstrate:

(1) through previous performance test results that the emissions unit is not a source of organic or inorganic condensable particulate matter emissions; or

**Subp. 4a. PM-2.5 determination.** The owner or operator must conduct PM-2.5 emission tests as required in this subpart.

D. When submitting a proposed test plan, an owner or operator may apply to the commissioner to exclude organic and

# Adopted Rules

inorganic condensable particulate matter from a performance test for PM-2.5. The commissioner shall approve the exclusion if the owner or operator ~~demonstrates must demonstrate~~:

(1) through previous performance test results that the emissions unit is not a source of organic or inorganic condensable particulate matter emissions; or

**RENUMBERING AND RELETTERING.** In each part of Minnesota Rules referred to in column A, the reference in column B is deleted and the reference in column C is inserted.

Column A	Column B	Column C
7007.0150, subp. 5	7007.0100, subp. 7	7007.0100, subp. 6a
7007.0325, subp. 2	7019.3020, items B, C, and D	7019.3020, items B, D, and E
7007.0325, subp. 2	7019.3020, item E	7019.3020, item F
7007.0800, subp. 6	7007.0500, subp. 2, item K, subitem (4)	7007.0500, subp. 2, item K, subitem (5)
7007.0800, subp. 10	7007.0100, subp. 7	7007.0100, subp. 6a
7007.1300, subp. 2	7007.0100, subp. 7	7007.0100, subp. 6a
7007.1400, subp. 1	7007.0100, subp. 7	7007.0100, subp. 6a
7007.1500, subp. 1	7007.0100, subp. 7	7007.0100, subp. 6a
7007.1750	7007.0100, subp. 7	7007.0100, subp. 6a
7008.2000	7007.0100, subp. 7	7007.0100, subp. 6a
7017.0100, subp. 1	7007.0100, subp. 7	7007.0100, subp. 6a
7017.2005, subp. 1a	7007.0100, subp. 7	7007.0100, subp. 6a
7019.1000, subp. 6	7007.0100, subp. 7	7007.0100, subp. 6a

## Adopted Expedited Rules

Provisions exist for the Commissioners of some state agencies to adopt expedited rules when conditions exist that do not allow the Commissioner to comply with the requirements for normal 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 conditions. Expedited rules are effective upon publication in the State Register, and may be effective up to seven days before publication under certain conditions.

Expedited rules are effective for the period stated or up to 18 months. Specific *Minnesota Statute* citations accompanying these expedited rules detail the agency's rulemaking authority.

**KEY: Proposed Rules** - Underlining indicates additions to existing rule language. ~~Strikeouts~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material."

**Adopted Rules** - Underlining indicates additions to proposed rule language. ~~Strikeout~~ indicates deletions from proposed rule language.

## Department of Health

### Adopted Expedited Permanent Rules Relating to Health Care Quality

The rules proposed and published at State Register, Volume 41, Number 9, pages 281-282, August 29, 2016 (41 SR 281), are adopted with the following modifications:

#### 4654.0800 INCORPORATION BY REFERENCE.

"Minnesota Statewide Quality Reporting and Measurement System: Appendices to Minnesota Administrative Rules, Chapter 4654," issued by the Minnesota Department of Health, ~~August December~~ 2016, is incorporated by reference. It is available through the Minitex interlibrary loan system and the Minnesota Department of Health Web site at <http://www.health.state.mn.us/healthreform/measurement/index.html>. They are not subject to frequent change.

# Revenue Notices

The Department of Revenue began issuing Revenue Notices in July of 1991. Revenue Notices are statements of policy made by the department that provide interpretation, detail, or supplementary information concerning a particular statute, rule, or departmental practice. The authority to issue Revenue Notices is found in *Minnesota Statutes*, Section 270C.07.

**KEY:** Underlining indicates additions to existing language. ~~Strikeouts~~ indicate deletions from existing language.

## Minnesota Department of Revenue

### Revenue Notice # 16-08: Sales and Use Tax – Parking Services – Revocation and Replacement of Revenue Notices # 00-02 and # 03-13

#### Introduction

This Revenue Notice revokes and replaces Revenue Notice # 00-02, which was amended by Revenue Notice # 02-20, and Revenue Notice # 03-13.

*Minnesota Statutes*, section 297A.61, subdivision 3(g)(3), provides that furnishing of nonresidential parking services for a consideration, whether on a contractual, hourly, or other periodic basis, except for parking at a meter, is subject to Minnesota sales and use tax.

#### Department Position

##### Taxable Parking Services

###### Nonresidential Parking Services

###### 1. Nonresidential parking services are taxable.

- “Parking services” means parking motor vehicles in parking lots, parking ramps, buildings, or other places where motor vehicle parking is offered.

- “Motor vehicle” means any self-propelled vehicle required to be licensed for road use and any vehicle propelled or drawn by a self-propelled vehicle required to be licensed for road use. It includes vehicles such as cars, vans, pickups, trucks, trailers, motor homes and motorcycles. It does not include snowmobiles or manufactured homes.

###### 2. Parking with Shuttle Services

When parking and transportation services are sold together for one fee, the entire sale is taxable even though transportation by itself is a nontaxable service. When sold together, the transportation service is taxable because it is necessary to complete the sale of the parking service.

For a transportation service coupled with parking to be nontaxable, the vendor must give customers the option of not taking the transportation service and separately state the charges on the invoice.

###### 3. Parking Contracts

Parking services sold to a business that provides free parking to employees or customers are taxable. If the business charges customers or employees for the parking services, the business may purchase parking services exempt from sales tax by providing the parking service provider with a resale exemption certificate. If purchased exempt for resale, subsequent charges to customers or employees for parking services are taxable.

###### 4. Validated Parking

When a business provides customers with validated parking under which the business pays for all or part of the total charge for the customer’s parking, the total amount paid for parking services is subject to tax. This means that the parking service provider must collect and remit sales tax on the amount paid by the customer, if any, as well as the amount paid by the business.

# Exhibit F.2.

## Revenue Notices

### Nontaxable Parking Services

#### 1. Parking Meters

Parking at a meter is not taxable. "Parking meter" means a device that accepts money, tokens, credit cards, or any other form of payment and records the amount of time purchased for parking a motor vehicle in a specific parking spot. A parking meter is a device by which a customer prepays at the time the customer parks.

#### 2. Residential Parking Services

Residential parking services are not taxable. Residential parking services are parking services provided to the occupants of a residence who park on the same premises that constitutes their primary residence.

- "Same premises" means an area within the residence, an area adjacent to the residence, or any other area owned or leased by the landlord, condominium association, or cooperative for the purpose of providing parking for its residents.
- "Residence" means a single family home, duplex, condominium unit, cooperative unit, townhouse unit, school dormitory, apartment, or a mobile home used by a person or persons as a place of primary residence or abode.
- "Primary residence" does not include a hotel, motel, summer camp, resort lodge, or other dwelling when lodging is of a temporary or transient nature that would be subject to the sales tax under *Minnesota Statutes*, chapter 297A.

Parking services provided in a lease or in a separate document between a landlord and a tenant, between a condominium association and the owner of the unit, or between a cooperative and one of its members are nontaxable residential parking.

Parking services provided by a homeowners' association or a management company are not subject to sales tax, provided:

- the parking facility is owned or leased and operated by the association or management company;
- parking is available solely to owners or residents of the dwelling units; and
- the parking charges are paid by the members to the association or management company.

For a parking facility that provides both residential and nonresidential parking services, the parking facility must keep a record of the sale to substantiate that it is for nontaxable residential parking purposes. The record must include the name of the resident, the residential address of the resident, and the amount of the sale.

#### 3. Storage Services for Vehicles

Storage services for motor vehicles are not taxable. "Storage services for motor vehicles" means:

- storage is contracted for an extended period of time such as several months or seasonally; and
- the customer has infrequent access to the motor vehicles.

Publication Date: December 19, 2016

Ryan Church, Deputy Commissioner

## **Official Notices**

Pursuant to *Minnesota Statutes §§ 14.101*, an agency must first solicit comments from the public on the subject matter of a possible rulemaking 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 Agriculture (MDA)**

#### **Notice of Comment Period for the Proposed Expansion of the Emerald Ash Borer Quarantine in Saint Louis and Carlton Counties**

The Minnesota Department of Agriculture (MDA) is accepting comments on the current state proposed expansion of the quarantine for emerald ash borer, *Agrilus planipennis* (Fairemaire), for a portion of Saint Louis and Carlton Counties to be implemented January 30, 2017.

Oral and written comments regarding the proposed regulations will be accepted via email, phone or fax December 15, 2016, through **January 15, 2017**. Submit comments to Kimberly Thielen Cremers, Minnesota Department of Agriculture, 625 Robert Street North, St Paul, MN 55155, **email: [kimberly.tcremers@state.mn.us](mailto:kimberly.tcremers@state.mn.us)**, **phone: (651)201-6329**, **fax: (651)201-6108**.

For more information on emerald ash borer, including a copy of the current quarantine, visit the Minnesota Department of Agriculture website at [www.mda.state.mn.us/eab](http://www.mda.state.mn.us/eab).

### **Department of Agriculture, Department of Commerce and Pollution Control Agency**

#### **Notice of Biodiesel Task Force Cold Weather Team meeting**

The Minnesota Departments of Agriculture, Commerce and the Pollution Control Agency announce a meeting of the Biodiesel Task Force Cold Weather Team:

**Wednesday, January 11, 2017; 9:30-11am**

Orville L. Freeman Building, Room B362  
625 N. Robert Street, Saint Paul, MN 55155

The agenda for the meeting will be posted on the Biodiesel Task Force webpage:

<http://www.mda.state.mn.us/en/renewable/biodiesel/biodieselforce.aspx>

For more information, contact:

Kevin Hennessy, Bioenergy Manager  
Minnesota Department of Agriculture  
625 Robert Street North  
St. Paul, MN 55155  
**Phone: (651) 201-6223**  
**E-mail: [kevin.hennessy@state.mn.us](mailto:kevin.hennessy@state.mn.us)**

### **Department of Human Services**

#### **Health Care Administration**

#### **Public Notice of Medical Assistance Alternative Benefit Plan**

**NOTICE IS HEREBY GIVEN** to recipients, providers of services, and to the public of the benefits to be covered by the Medical Assistance alternative benefit plan. This notice is published pursuant to *Code of Federal Regulations*, title 42, part 440, section 386 (42 CFR § 440.386), which requires the Department to publish a description of the benefits included in the Medical Assistance alternative benefit plan.

# Exhibit F.2.

## Official Notices

Effective January 1, 2017, the Department will update the base benchmark plan to the Health Partners HPL – 129123512, which was the largest plan by enrollment of the three largest small group insurance products in Minnesota's small group market in 2014. The base benchmark plan serves as the basis for defining the essential health benefits covered under the alternative benefit plan. Minnesota uses the alternative benefit plan to provide coverage to adults eligible for Medical Assistance under Section 1902(a)(10)(A)(i)(VIII) of the Act. The Department does not expect any substantive changes to the benefits provided under the alternative benefit plan.

The state assures that those recipients under the age of 21 receiving coverage under the alternative benefit plan will receive access to early and periodic screening, diagnostic and treatment (EPSDT) services as described in the approved state plan.

Written comments and requests for information may be sent to Sean Barrett, Health Care Administration, Minnesota Department of Human Services, P.O. Box 64983, St. Paul, Minnesota 55164-0983.

### **Department of Human Services**

#### **Health Care Administration**

#### **Request for Comments on the Indian Health Board of Minneapolis Section 1115 Medicaid Waiver Request**

The Minnesota Department of Human Services (DHS) has extended the 30-day comment period on the Indian Health Board of Minneapolis, section 1115 Medicaid waiver request through January 13, 2017.

The 2016 Minnesota State Legislature directed DHS to seek federal waiver authority to allow tribal organizations dually certified as Urban Indian Health Programs and Federally Qualified Health organizations to receive the Indian Health Services encounter rate for Medicaid services provided to American Indian and Alaskan Native populations, and for the state to be eligible for 100 percent federal financial participation for such services. *See* Minn. Stat. § 256B.0625, specifically subdivisions 30 and 34.

DHS plans to submit this waiver request in January of 2017. Currently, the Indian Health Board of Minneapolis (IHB) would be the only entity eligible under this waiver authority, if approved by the Centers for Medicare and Medicaid Services (CMS). As a demonstration project under section 1115 of the Social Security Act, DHS plans to test an alternative approach to accessing coverage and quality care for urban American Indians served by the IHB. This approach includes the use of an abbreviated application process for American Indians eligible for Medicaid and targeting additional funding for the IHB into enhanced care coordination and application assistance for this population.

DHS invites public comment on the IHB waiver request. Comments received will be posted on the DHS website. A copy of the waiver request can be found at <http://www.dhs.state.mn.us/DHS-291733>. To request a paper copy of the waiver request, please contact Elizabeth Bonnell at (651) 431-2836.

Written comments may be submitted to the following email mailbox: [dhs.waiver.comments@state.mn.us](mailto:dhs.waiver.comments@state.mn.us) or by mail to the address below. DHS would like to provide copies of comments received in a format that is accessible for people with disabilities.

Therefore, we request that comments be submitted in Microsoft Word format or incorporated within the email text. If you would also like to provide a signed copy of the comment letter, you may submit a second copy in Adobe PDF format or mail it to the address below. Comments must be received by **January 13, 2017**.

Marie Zimmerman  
Medicaid Director  
Minnesota Department of Human Services  
P.O. Box 64983  
St. Paul, Minnesota 55164-0983

In addition to the opportunity to submit written comments during the 30-day public comment period, public hearings will be held to provide stakeholders and other interested persons the opportunity to comment on the waiver request. You may attend by phone or in person. If you would like to attend by phone, please send an email request to [dhs.waiver.comments@state.mn.us](mailto:dhs.waiver.comments@state.mn.us) to obtain the call-in information. If you would like to attend a hearing in person, the locations for the two public hearings are provided below. If you plan to testify by phone or in person, please send an email to [dhs.waiver.comments@state.mn.us](mailto:dhs.waiver.comments@state.mn.us) indicating that you will testify.

# **Official Notices**

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**Public Hearing #1**

**Date:** Thursday, December 15, 2016

**Time:** 9:30 a.m.

**Location:** Department of Human Services, Elmer L. Andersen Human Services Building, 540 Cedar St., St. Paul, MN 55101. Room 6223

**Public Hearing #2**

**Date:** Monday, December 19, 2016

**Time:** 3:00 p.m.

**Location:** Department of Human Services, 444 Lafayette Rd., St. Paul, MN 55155. Room 3146

## **State Board of Investment**

### **Notice to Institutional Investment Management Firms for consideration to potentially Manage a Portion of the Pension Assets and Other Accounts**

The Minnesota State Board of Investment (MSBI) retains institutional investment management firms to manage a portion of the pension assets and other accounts under its control. Periodically, the MSBI will conduct a search for institutional investment management firms on an as needed basis. For additional information on the domestic stock, international stock, or domestic bond portfolio programs for the MSBI, firms are asked to write to the following address for additional information:

External Manager Program  
Minnesota State Board of Investment  
60 Empire Drive, Suite 355  
St. Paul, MN 55103-3555  
Tel.: (651) 296-3328  
Fax: (651) 296-9572  
E-mail: [minn.sbi@state.mn.us](mailto:minn.sbi@state.mn.us)

Please refer to this notice in your written request.

## **Department of Natural Resources**

### **Notice of Buffer Map Update Release**

The Minnesota Department of Natural Resources has released the first of two planned updates to Minnesota's buffer map. The map shows public waters and public ditches requiring permanent vegetative buffers or alternative water quality practices.

This update incorporates comments received on the buffer map that needed field review, additional drainage authority information on public ditches, and change requests received or processed after the buffer map was released in July 2016. The Board of Water and Soil Resources, Soil and Water Conservation Districts, and local governments are working with landowners on implementation, questions and change requests.

The updated buffer map and more information is available at [www.mndnr.gov/buffers](http://www.mndnr.gov/buffers). The statewide data later is available at <https://gisdata.mn.gov/dataset/env-buffer-protection-mn>.

Project implementation is moving forward, with these deadlines:

Nov 1, 2017: 50-foot average width, 30-foot minimum width, buffers must be in place on lands adjacent to public waters and identified and mapped on the buffer map.

Nov. 1, 2018: 16.5-foot minimum width buffers must be in place on lands adjacent to public ditches as identified and mapped on the buffer map.

# 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.

SEE ALSO: Office of Grants Management (OGM) at: <http://www.grants.state.mn.us/public/>

## Department of Administration

### Governor's Council on Developmental Disabilities Notice of Cosponsorship Funds for Leadership Training Conferences

The Governor's Council on Developmental Disabilities (GCDD) is pleased to announce the availability of a total of \$20,000 in cosponsorship funds for training conferences held in Minnesota and supporting the participation of Minnesota residents. Conferences should focus on providing best practices information in the field of developmental disabilities and leadership skills training. The primary audience for these conferences must be people with developmental disabilities and their families.

Conferences must be held no later than September 15, 2017. **Eligible applicants** are Minnesota associations/organizations that provide services to individuals with developmental disabilities and their families, advocates, providers, or professionals; Minnesota chapters of national organizations; or national organizations that are holding a conference in Minnesota. **Application deadline is Tuesday, January 17, 2017 at 3:00 p.m.** Please note: The GCDD reserves the right to award less than the maximum of \$2,000 to an applicant, refuse to cosponsor a conference, or withdraw the availability of funds with or without notice.

For additional information or to request an application form, please contact:

Mary Jo Nichols  
Governor's Council on Developmental Disabilities  
Minnesota Department of Administration  
370 Centennial Office Building  
658 Cedar Street  
St. Paul, Minnesota 55155  
Phone: (651) 282-2899 Toll free: (877) 348-0505  
Minnesota Relay Service: (800) 627-3529 **OR** 711  
Email: [admin.dd@state.mn.us](mailto:admin.dd@state.mn.us)

The application is also available at <http://mn.gov/mnddc>

Go to "The Council" and then "RFPs and Grants."

## Department of Employment and Economic Development (DEED) Notice of Grant Contract Opportunity for Day Training and Habilitation providers

Notice of Availability of Contract for Day Training and Habilitation providers who are able to certify that they do not possess a certification as provided by section 14(c) of the Fair Labor Standards Act to provide innovative employment options and to advance community integration for persons with disabilities as required under the Minnesota Olmstead Plan.

The Minnesota Department of Employment and Economic Development is requesting proposals for the purpose of Day Training and Habilitation providers to provide innovative employment options. The term of any resulting contract is 12 months. **The State anticipates awarding 3 grants with the maximum amount being \$175,000 each depending on the scope of the proposed project activity and the extent of the proposed project evaluation.**

Work is proposed to start February 1, 2017.

# **State Grants & Loans**

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## **The Request for Proposal**

Proposals submitted in response to the Vocational Rehabilitation Services Day Training and Habilitation Provider Request for Proposals must be received by DEED/VRS no later than **4:30 pm., December 23<sup>rd</sup> 2016**. Late proposals will not be considered.

Email documents, in either Microsoft Word (.doc) or Adobe Acrobat (.pdf) formats ONLY to:  
***Amanda.Jensen-Stahl@state.mn.us***

Contact Information:

Amanda Jensen-Stahl  
Minnesota Department of Employment and Economic Development  
First National Bank  
332 Minnesota Street, Suite E-200  
St. Paul, Minnesota 55101-1351  
***Amanda.Jensen-Stahl@state.mn.us*** or 651-259-7356

NOTE: Responses to the questions will be posted on the DEED website: <http://mn.gov/deed/about/contracts> under Vocational Rehabilitation Services St. Paul/Day Training and Habilitation provider

This request does not obligate the State to complete the work contemplated in this notice. The State reserves the right to cancel this solicitation. All expenses incurred in responding to this notice are solely the responsibility of the responder.

## **Minnesota Housing Finance Agency**

### **Rental Assistance for Exploited Families Pilot - RFP Announcement**

Minnesota Housing announces the availability of funds to provide safe, stable and affordable housing for victims of gender-based violence from emerging communities. A one-time appropriation of \$500,000 is available to fund this pilot program through the Housing Trust Fund (HTF) Rental Assistance Program.

Applications are due to Minnesota Housing on **February 27, 2017**.

Eligible organizations are those that can provide, or partner with an organization that can provide linguistically and culturally appropriate services to the defined population. Eligible uses of funds include rental subsidies and security deposits. Applicants must demonstrate, or partner with an organization that can demonstrate, experience and ability in the administration of HTF rental assistance or a similar program.

Information about the pilot and application materials are available on the Minnesota Housing website at:  
[www.mnhousing.gov](http://www.mnhousing.gov) (Home -> Multifamily Rental Partners-> Funding -> Available Financing)

Questions about the program may be directed to Elaine Vollbrecht at phone: (651) 296-9953, or e-mail:  
***elaine.vollbrecht@state.mn.us***.

# State Contracts

**Informal Solicitations:** Informal solicitations for professional/technical (consultant) contracts valued at over \$5,000 through \$50,000, may either be published in the *State Register* or posted on the Department of Administration, Materials Management Division's (MMD) Web site. Interested vendors are encouraged to monitor the P/T Contract Section of the MMD Website at [www.mmd.admin.state.mn.us](http://www.mmd.admin.state.mn.us) for informal solicitation announcements.

**Formal Solicitations:** Department of Administration procedures require that formal solicitations (announcements for contracts with an estimated value over \$50,000) for professional/technical contracts must be published in the *State Register*. Certain quasi-state agency and Minnesota State College and University institutions are exempt from these requirements.

**Requirements:** There are no statutes or rules requiring contracts to be advertised for any specific length of time, but the Materials Management Division strongly recommends meeting the following requirements: \$0 - \$5000 does not need to be advertised. Contact the Materials Management Division: (651) 296-2600 \$5,000 - \$25,000 should be advertised in the *State Register* for a period of at least seven calendar days; \$25,000 - \$50,000 should be advertised in the *State Register* for a period of at least 14 calendar days; and anything above \$50,000 should be advertised in the *State Register* for a minimum of at least 21 calendar days.

## Minnesota State Colleges and Universities (MnSCU)

### System Office, Academic and Student Affairs

### Request for Proposals for Identifying a Vendor Who Specializes in CRM Solutions for Higher Education

The System Office on behalf of Minnesota State is requesting proposals to provide constituent relationship management solution for system-wide implementation. The purpose of this Request for Proposal (RFP) is to identify a CRM solution for our system colleges and universities. The System Office on behalf of the Minnesota State Colleges and Universities intends to enter into a master contract with the successful vendor(s).

Minnesota State System Office is requesting proposals to assist in the implementation and integration of a constituent relationship management (CRM) system.

This RFP is soliciting proposals for a CRM solution to be used by all institutions within the Minnesota State system. Respondents should be prepared to submit a proposal which addresses the needs of Minnesota State as a consortium of higher education institutions.

Minnesota State must receive All responses to this RFP no later than **3:00 P.M. Central Time on January 20, 2017** and should be delivered to:

Minnesota State Colleges and Universities, System Office  
Cathy Rajtar, Administrative Project Support  
MnSCU System Office - Division of Academic and Student Affairs  
Wells Fargo Place  
30 7th Street East, Suite 350  
St. Paul, MN 55101-7804

Inquiries about this RFP must be directed to:

Tim Anderson, Project Manager  
Telephone: 651-201-1824  
E-mail: [timothy.anderson@so.mnscu.edu](mailto:timothy.anderson@so.mnscu.edu)

For a complete copy of the RFP and required submission materials, please visit the RFP website at <http://www.mnscu.edu/system/csc/sourcing/RFP.html> (following constituent relationship management (CRM) link).

# **State Contracts**

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## **Minnesota State Colleges and Universities (MnSCU)**

### **Winona State University**

#### **Request for Proposals for Contract Services to Produce Recruiting Communications**

Notice is hereby given that Winona State University is seeking proposals for **Contract Services to Produce Recruiting Communications**.

Proposal specifications are available by contacting Laura Mann, Purchasing Director, PO Box 5838, 106 Somsen Hall, Winona, MN 55987 or via email to [lmann@winona.edu](mailto:lmann@winona.edu).

Sealed proposals must be received by Laura Mann, Purchasing Director, at Winona State University, PO Box 5838 or 175 West Mark Street, Business Office, Somsen Hall 106, Winona, MN 55987, by **2:00 PM CST, Friday, January 27, 2017**.

Winona State University reserves the right to reject any or all proposals and to waive any irregularities or informalities in proposals received.

## **Minnesota State Colleges and Universities (MnSCU)**

### **Winona State University**

#### **Request for Proposals for an Outreach and Engagement Coordinator**

Notice is hereby given that Winona State University is seeking proposals for **an Outreach and Engagement Coordinator**.

Proposal specifications are available by contacting Laura Mann, Purchasing Director, PO Box 5838, 106 Somsen Hall, Winona, MN 55987 or via email to [lmann@winona.edu](mailto:lmann@winona.edu).

Sealed proposals must be received by Laura Mann, Purchasing Director, at Winona State University, PO Box 5838 or 175 West Mark Street, Business Office, Somsen Hall 106, Winona, MN 55987, by **Monday, January 9, 2017, 3:00pm CT**.

Winona State University reserves the right to reject any or all proposals and to waive any irregularities or informalities in proposals received.

## **Department of Employment and Economic Development (DEED)**

### **Office of Broadband Development**

#### **Notice of Request for Proposals (RFP) for Broadband Data Collection and Mapping**

**NOTICE IS HEREBY GIVEN** that the Office of Broadband Development at the Minnesota Department of Employment and Economic Development (DEED) is soliciting proposals from qualified vendors for broadband data collection and mapping services. The full Request for Proposals (RFP) is available at: <http://mn.gov/deed/about/contracts/>

All requirements and information, as well as proposal delivery instructions are contained in the RFP. Inquiries regarding the RFP may be directed to Diane Wells, Office of Broadband Development, DEED, 332 Minnesota Street, Suite E200, St. Paul, MN 55101-1351; 651/259-7613 or [diane.wells@state.mn.us](mailto:diane.wells@state.mn.us). Deadline for inquiries is Wednesday, December 28, 2016 at 4:00 p.m. Other department personnel are NOT allowed to discuss the Request for Proposal with anyone, including responders, before the proposal submission deadline.

Proposals must be delivered to: Diane Wells, Office of Broadband Development, Minnesota Department of Employment and Economic Development, 332 Minnesota Street, Suite E200, St. Paul, MN 55101-1351. Proposals must be received NO later than **4:00 PM, Monday, January 9, 2017**; late responses will not be considered. The Department of Employment and Economic Development reserves the right to reject any or all proposals, to waive any irregularities or informalities, and to cancel the solicitation if it is considered to be its own best interest. This Request for Proposals does not obligate DEED to award a contract.

## **Department of Revenue**

### **Notice of Contract Opportunity for Diversity and Inclusion Consulting Services**

**PROJECT NAME:** Diversity and Inclusion Consulting Services

**DETAILS:** The Minnesota Department of Revenue is requesting proposals for the purpose to provide consulting services towards the development of an agency-wide diversity and inclusion (D&I) plan. The consultant will work closely with senior management and the Office of Equity, Access, and Inclusion to assess the organization, interpret results, and develop a comprehensive D&I strategy. The purpose of the diversity and inclusion strategic plan is to create a culture of inclusion by 1) creating a shared vision of respect and inclusion for which all employees are accountable; 2) increasing the diversity of Revenue's workforce; 3) expanding opportunities for engagement for all employees; 4) ensuring a collaborative work place that values diversity; and 5) aligning our current resources to meeting our changing workforce needs.

Work is anticipated to start after 2/15/2017.

**COPY REQUEST:** To get a copy of the Request for Proposals, please send a written request, by email, to:

Carolyn Murphy, Contract Manager/ Budget Coordinator  
Financial Management Division  
600 North Robert St.  
St. Paul, MN 55146  
Email: [dor.rfp@state.mn.us](mailto:dor.rfp@state.mn.us)

**PROPOSAL DEADLINE:** Proposals submitted in response to the Request for Proposals in this advertisement must be received in-person, via mail, email, or fax no later than **December 30, 2016 by 4:00p.m.. Late proposals will not be considered.**

This request does not obligate the State to complete the work contemplated in this notice. The State reserves the right to cancel this solicitation. All expenses incurred in responding to this notice are solely the responsibility of the responder.

## **Minnesota Department of Transportation (Mn/DOT)** **Engineering Services Division**

### **Notice of Potential Availability of Contracting Opportunities for a Variety of Highway Related Technical Activities ("Consultant Pre-Qualification Program")**

This document is available in alternative formats for persons with disabilities by calling Kelly Arneson at (651) 366-4774; for persons who are hearing or speech impaired by calling Minnesota Relay Service at (800) 627-3529.

Mn/DOT, worked in conjunction with the Consultant Reform Committee, the American Council of Engineering Companies of Minnesota (ACEC/MN), and the Department of Administration, to develop the Consultant Pre-Qualification Program as a new method of consultant selection. The ultimate goal of the Pre-Qualification Program is to streamline the process of contracting for highway related professional/technical services. Mn/DOT awards most of its consultant contracts for highway-related technical activities using this method, however, Mn/DOT also reserves the right to use Request for Proposal (RFP) or other selection processes for particular projects.

Nothing in this solicitation requires Mn/DOT to use the Consultant Pre-Qualification Program.

Mn/DOT is currently requesting applications from consultants. Refer to Mn/DOT's Consultant Services web site, indicated below, to expenses are incurred in responding to this notice will be borne by the responder. Response to this notice becomes public information under the Minnesota Government Data Practices.

Consultant Pre-Qualification Program information, application requirements and applications forms are available on Mn/DOT's Consultant Services web site at: <http://www.dot.state.mn.us/consult>.

# **State Contracts**

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Send completed application material to:

Kelly Arneson  
Consultant Services  
Office of Technical Support  
Minnesota Department of Transportation  
395 John Ireland Blvd. - Mail Stop 680  
St. Paul, MN 55155

## **Minnesota Department of Transportation (Mn/DOT)**

### **Engineering Services Division**

#### **Notice Concerning Professional/Technical Contract Opportunities and Taxpayers' Transportation Accountability Act Notices**

**NOTICE TO ALL:** The Minnesota Department of Transportation (Mn/DOT) is now placing additional public notices for professional/technical contract opportunities on Mn/DOT's Consultant Services **website** at: [www.dot.state.mn.us/consult](http://www.dot.state.mn.us/consult)

New Public notices may be added to the website on a daily basis and be available for the time period as indicated within the public notice. Mn/DOT is also posting notices as required by the Taxpayers' Transportation Accountability Act on the above referenced website.

# 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 *State 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 commodity, project or tasks; 4) cost estimate; and 5) final submission date of completed contract proposal. Allow at least three weeks from publication date (four weeks from the date article is submitted for publication). Surveys show that subscribers are interested in hearing about contracts for estimates as low as \$1,000. Contact editor for further details.

Besides the following listing, readers are advised to check: <http://www.mmd.admin.state.mn.us/solicitations.htm> as well as the Office of Grants Management (OGM) at: <http://www.grants.state.mn.us/public/>.

## Dakota County

### Notice of Request for Proposal (RFP) For Evaluation Consultant for Autism Spectrum Disorder (ASD) Grant

**Notice is hereby given** that Dakota County, through its Social Services Department, seeks proposals for an evaluation consultant for autism spectrum disorder (ASD) Grant. Dakota County has been awarded a two-year grant from Minnesota Department of Human Services (DHS) to focus on ensuring access to services and supports for individuals in Dakota and Ramsey Counties with an autism spectrum disorder or similar support needs. As part of the grant, Dakota County is partnering with individuals, families, county staff and providers to identify current gaps in support. Additionally, Dakota County is coordinating person-centered planning, provider training and service development to meet those needs. The grant has a particular focus on respite services but is also addressing other services and supports that help reduce the need for respite.

Grant deliverables include:

- Increase access to respite for primary caregivers of individuals with autism
- Train service/support providers on autism and methods of effective support
- Create plan to sustain activities beyond funding period and outside of Dakota and Ramsey Counties

Dakota County is seeking a vendor to provide consultation and evaluation services as part of the two-year ASD grant it received from DHS. Specifically, Dakota County is seeking assistance for designing methods of data collection to track and report grant deliverables, as well as support in defining and measuring long-term impact and sustainability of grant activities.

To access the complete RFP online, or to acquire additional information about Dakota County visit our website at: <http://www.co.dakota.mn.us/Government/DoingBusiness/BidProposalsInformation/Pages/default.aspx>

Contact: Loni Aadalen, Contract Specialist  
Dakota County Community Services Division  
1 Mendota Road West, Suite 500  
West St. Paul, MN 55118-4773  
Phone: 651-554-5893  
Email: [loni.aadalen@co.dakota.mn.us](mailto:loni.aadalen@co.dakota.mn.us)

Loni Aadalen, **will accept written questions until Thursday, December 29** from 10:00 a.m. to 11:00 a.m. (CDT) in Conference Room 110A at the address listed above or via e-mail at [loni.aadalen@co.dakota.mn.us](mailto:loni.aadalen@co.dakota.mn.us). See proposal for details.

**Deadline for proposals is 4:00 p.m. on Monday, January 9, 2017.** No late proposal will be considered.

# Non-State Public Bids, Contracts & Grants

## Metropolitan Airports Commission (MAC)

### Notice of Call for Bids for 2017 Air Handling Unit Replacement P6

**Airport Location:** Minneapolis-St. Paul International Airport

**Project Name:** 2017 Air Handling Unit Replacement P6

**MAC Contract No:** 106-2-822

**Bids Close At:** 2:00 p.m. on Tuesday, January 17, 2017

**Notice to Contractors:** Sealed Bid Proposals for the project listed above will be received by the MAC, a public corporation, at the office thereof located at 6040-28th Avenue South, Minneapolis, Minnesota 55450, until the date and hour indicated. This project is to replace a make-up air unit and exhaust air unit in the Valet Parking area of Terminal 1 of the MSP Airport.

**Note:** You can sign up on our Web site ([www.metroairports.org](http://www.metroairports.org)) to receive email notifications of new business opportunities or go directly to [https://public.govdelivery.com/accounts/MNORGMAC/subscriber/topics?gsp-CODE\\_RED](https://public.govdelivery.com/accounts/MNORGMAC/subscriber/topics?gsp-CODE_RED) and choose this and other topics about which you are interested.

**Targeted Group Businesses (TGB):** The goal of the MAC for the utilization of TGB on this project is 4%.

**Bid Security:** Each bid shall be accompanied by a "Bid Security" in the form of a certified check made payable to the MAC in the amount of not less than five percent (5%) of the total bid, or a surety bond in the same amount, running to the MAC, with the surety company thereon duly authorized to do business in the State of Minnesota.

**Availability of Bidding Documents:** Bidding documents are on file for inspection at the office of Alliiance; at the Minnesota Builders Exchange; Dodge Data and Analytics; and NAMC-UM Plan Room. Bidders desiring bidding documents may secure a complete set from: Franz Repographics; 2781 Freeway Boulevard, Suite 100; Brooklyn Center, MN 55430; PH: 763.503.3401; FX: 763.503.3409. Make checks payable to: Alliiance. Deposit per set (refundable): \$150. Requests for mailing sets will be invoiced for mailing charges. Deposit will be refunded upon return of bidding documents in good condition within 10 days of opening of bids.

**MAC Internet Access of Additional Information:** A comprehensive Notice of Call for Bids for this project will be available on December 19, 2016, at MAC's web address of <http://www.metroairports.org/Airport-Authority/Business-Opportunities/Solicitations.aspx> (construction bids).



**Several convenient ways to order:**

- **Retail store** Open 8 a.m. - 3 p.m. Monday - Friday, 660 Olive Street, St. Paul
- **Phone** (credit cards): 8 a.m. - 4 p.m. Monday - Friday, 651.297.3000 (Twin Cities) or 1.800.657.3757 (nationwide toll-free)
- **On-line orders:** [www.minnesotasbookstore.com](http://www.minnesotasbookstore.com)
- **Minnesota Relay Service:** 711
- **Fax** (credit cards): 651.215.5733 (fax line available 24 hours)
- **Mail orders:** Orders can be sent to Minnesota's Bookstore, 660 Olive Street, St. Paul, MN 55155

Minnesota's Bookstore accepts VISA, MasterCard, American Express & Discover for all purchases.