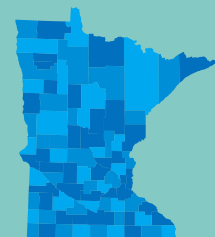


May 2022

# Amendments to aquatic life (Class 2) use designations for streams



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# Acronyms or abbreviations

2Ae	Aquatic Life and Recreation - Exceptional Cold water Aquatic Life and Habitat
2Ag	Aquatic Life and Recreation - General Cold water Aquatic Life and Habitat
2Bde	Aquatic Life and Recreation also protected as a source of drinking water - Exceptional Warm Water Habitat
2Bdg	Aquatic Life and Recreation also protected as a source of drinking water - General Warm Water Habitat
2Bdm	Aquatic Life and Recreation also protected as a source of drinking water - Modified Warm Water Habitat
2Be	Aquatic Life and Recreation - Exceptional Cool and Warm Water Aquatic Life and Habitat
2Bg	Aquatic Life and Recreation - General Cool and Warm Water Aquatic Life and Habitat
2Bm	Aquatic Life and Recreation - Modified Cool and Warm Water Aquatic Life and Habitat
AUID	Assessment Unit Identification
BCG	Biological Condition Gradient
ch.	Chapter
CWA	Clean Water Act (33 U.S.C. § 1251 et seq.)
DNR	Minnesota Department of Natural Resources
EPA	U.S. Environmental Protection Agency
HUC 8	8-digit Hydrological Unit Code
HUC 10	10-digit Hydrological Unit Code
HUC 12	12-digit Hydrological Unit Code
IBI	Index of Biological (Biotic) Integrity
IWM	Intensive Watershed Monitoring
Minn. R.	Minnesota Rules
Minn. Stat.	Minnesota Statutes
MN	Minnesota
MPCA or Agency	Minnesota Pollution Control Agency
MSHA	MPCA Stream Habitat Assessment
NPDES	National Pollutant Discharge Elimination System
PLS	Public Land Survey
TALU	Tiered Aquatic Life Uses
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
UAA	Use Attainability Analysis
U.S.C.	United States Code
WID	Water Body Identification
WQS	Water Quality Standards

# Definitions

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The following definitions of terms used in this document are based on standard use and are provided for the convenience of the reader. Unless otherwise specified, these definitions are specific to this document.

**Aquatic Biota:** 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. See [Minn. R. 7050.0150](#), subp. 4.

**Aquatic Life Use:** A designated use that protects aquatic biota including fish, insects, mollusks, crustaceans, plants, microscopic organisms and all other aquatic-dependent organisms. Attainment of aquatic life uses are measured directly in Minnesota using Indices of Biological Integrity (IBIs) and biological criteria. Chemical and physical standards are also used to protect aquatic life uses.

**Aquatic Life Use Goals:** A goal for the condition of aquatic biota; required by the Clean Water Act (CWA). Minimum aquatic life use goals are established using the CWA interim goal (“...water quality which provides for the protection and propagation of fish, shellfish, and wildlife...”). A Tiered Aquatic Life Uses (TALU) framework establishes multiple aquatic life use goals or tiers to protect attainable biological conditions. The objectives for these goals are established in Minnesota Rule using narrative standards, numeric standards, or both. Attainment of these goals is directly measured in Minnesota using IBIs and associated “Biological Criteria” or “Biocriteria.”

**Assemblage:** A taxonomic subset of a biological community such as fish in a stream community. See [Minn. R. 7050.0150](#), subp. 4.

**Beneficial Use:** A designated use described under [Minn. R. 7050.0140](#) and listed under [Minn. R. 7050.0400](#) to [Minn. R. 7050.0470](#) for each surface water or segment thereof, whether or not the use is being attained. (The term “designated use” may be used interchangeably.) See also “Existing Use.”

**Biological Assessment:** An evaluation of the biological condition of a water body using surveys of the structure and function of an assemblage of resident biota. It also includes the interdisciplinary process of determining condition and relating that condition to chemical, physical, and biological factors that are measured along with the biological sampling. Guidance for performing biological assessments in Minnesota is described in MPCA (2018a; <https://www.pca.state.mn.us/sites/default/files/wq-iw1-04j.pdf>). (The term “bioassessment” may be used interchangeably.)

**Biological Condition Gradient (BCG):** A concept describing how aquatic communities change in response to increasing levels of stressors. In application, the BCG is an empirical, descriptive model that rates biological communities on a scale from natural to highly degraded. See [Minn. R. 7050.0150](#), subp. 4.

**Biological Criteria,<sup>1</sup> Narrative or Biocriteria, Narrative:** 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. See [Minn. R. 7050.0150](#), subp. 4.

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<sup>1</sup> The term “biological criteria” can be used interchangeably with “biological standard.” Minnesota rule uses the term “standard” to mean “a number or numbers established for a pollutant or water quality characteristic to protect a specified beneficial use” ([Minn. R. 7050.0218, subp. 3](#)). The U.S. Environmental Protection Agency (EPA)’s use of the term “criteria” is similar to Minnesota’s use of “standard.” “Biological criteria” and “biocriteria” are the terms most commonly used in the United States to refer to numerical values, which represent the biological condition or health necessary to protect designated uses. Using

**Biological Criteria,<sup>1</sup> Numeric or Biocriteria, Numeric:** 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. See proposed definition in [Minn. R. 7050.0150](#), subp. 4.

**Biological Integrity:** The ability of an aquatic ecosystem to support and maintain an assemblage of organisms having a species composition, diversity, and functional organization comparable to that of natural habitats within a region.

**Biological Monitoring:** The measurement of a biological entity (taxon, species, assemblage) as an indicator of environmental conditions. Ambient biological surveys and toxicity tests are common biological monitoring methods. (The term “biomonitoring” may be used interchangeably.)

**Clean Water Act (CWA):** An act passed by the U.S. Congress to control water pollution (formally referred to as the Federal Water Pollution Control Act of 1972). [33 U.S.C. § 1251](#) et seq.

**Criteria:** Narrative descriptions or numerical values which describe the chemical, physical, or biological conditions in a water body necessary to protect designated uses. See also the definitions for “biological criteria/biocriteria” and “standard”.

**Designated Use:** See “beneficial use.”

**Existing Use:** Those uses actually attained in the surface water on or after November 28, 1975. See definition in [Minn. R. 7050.0255](#), subp. 15.

**Hydrological Unit Code (HUC):** Watersheds in the United States are divided into a series of hierarchical units. Each watershed at each level is designated by a hydrological unit code. At the highest level (Level 1), watersheds are divided into regions and are assigned a two-digit code. For example, the Upper Mississippi watershed is assigned the two-digit code “07” (see below). The region is subdivided into subregions and an additional two digits are added to the code for each of the subregions creating a unique four-digit code for each. Each subsequent level is subdivided and assigned a unique, hierarchical code down to level six. The seventh level is part of the Minnesota Department of Natural Resources (DNR) watershed system. The minor watersheds are a further division of the 12-digit HUCs and are similar to 14-digit HUCs. These watersheds are used to organize water quality monitoring, assessment, and management activities.

Level	Name	Digits	Example code (HUC)	Example name
1	Region	2	07	Upper Mississippi
2	Subregion	4	0701	Mississippi Headwaters
3	Basin	6	070102	Upper Mississippi-Crow-Rum
4	Subbasin	8	07010206	Mississippi River - Twin Cities
5	Watershed	10	0701020606	Minnehaha Creek
6	Subwatershed	12	070102060601	Sixmile Creek
7	Minor watershed	NA	20053	Sixmile Creek

**Index of Biological Integrity or Index of Biotic Integrity (IBI):** 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. See MPCA 2017a, b.

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*Minnesota rule terminology, these values would be called “biological criteria” or “biocriteria” before promulgation and “biological standards” following promulgation in rule. However, to be consistent with the terminology used by federal agencies and by other states and tribes, the terms “biological criteria” and “biocriteria” are used in this document and in rule to refer to both the promulgated and unpromulgated values.*



**Standard:** Regulatory limits on a particular pollutant, or a description of the condition of a water body, presumed to support or protect the beneficial use or uses. Standards may be narrative or numeric and are commonly expressed as a chemical concentration, a physical parameter, or a biological assemblage endpoint. See also the definitions for “biological criteria/biocriteria” and “criteria”.

**Stressors:** Physical, chemical, and biological factors that can adversely affect aquatic organisms. The effect of stressors is apparent in biological responses because stressor conditions are outside the conditions for which an organism is adapted. This leads to changes in the fitness of organisms and changes in the composition of organisms found in aquatic communities. Under the effect of stressors, the normal functioning of organisms is disturbed (e.g., increased metabolism, interruption of behavior) which results in negative impacts such as decreased fitness, reduced growth, increased disease prevalence, interruption of reproductive behavior, increased emigration, and increased mortality. Examples of stressors in aquatic systems are low levels of dissolved oxygen, suspended sediments, toxic pollutants, habitat alteration, altered hydrology, and reduced connectivity.

**Use Attainability Analysis (UAA):** A structured scientific assessment of the physical, chemical, biological, and economic factors affecting attainment of the uses of water bodies. A UAA is required to remove a designated use specified in section [101\(a\)\(2\) of the CWA](#) that is not an existing use. The allowable reasons for removing a designated use are described in [40 CFR § 131.10 \(g\)](#). See definition in [Minn. R. 7050.0150](#), subp. 4.

**Tiered Aquatic Life Use (TALU) Framework:** A TALU framework is the structure of designated aquatic life uses that incorporates a hierarchy of use subclasses. The TALUs in a TALU framework are based on representative ecological attributes reflected in the narrative description of each TALU tier and embodied in the measurements that extend to expressions of that narrative through numeric biological criteria and, by extension, to chemical and physical indicators, and standards.

**Tiered Aquatic Life Uses (TALUs):** Tiered aquatic life uses or TALUs are designated uses assigned to water bodies based on their ecological potential and the ability to protect or restore a water body to that attainable level. This means that the assignment of a TALU tier to a specific water body is done based on reasonable restoration or protection expectations and attainability. Knowledge of the current condition of a water body and an accompanying and adequate assessment of stressors affecting that water body are needed to make these assignments.

**Total Maximum Daily Load (TMDL):** The maximum amount of a pollutant that a body of water can receive while still meeting WQS. Alternatively, a TMDL is an allocation of a water pollutant deemed acceptable to still attain the beneficial use assigned to the water body. See [40 CFR § 130.7](#).

**Water Body Identification (WID):** The MPCA assigns a unique code to water bodies which is used for tracking information on these waters including assigned beneficial uses and assessment outcomes. For streams, this code consists of an 8-digit HUC code followed by a unique, 3-digit identifier (XXXXXXXX-XXX). Lake and wetlands are assigned a 2-digit county code, a 4-digit identifier, and a 2-digit subbasin code (XX-XXXX-XX). WIDs are also referred to as Assessment Unit Identification (AUID) codes.

**Water Quality Standards (WQS):** A law or regulation that consists of the beneficial use or uses of a water body, the narrative or numerical WQS that are necessary to protect the use or uses of that particular water body, and antidegradation.

# A. Overview

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The Minnesota Pollution Control Agency (MPCA) routinely reviews use designations to ensure that beneficial uses assigned to streams, lakes and wetlands are protective and attainable as defined by the Clean Water Act (CWA) and Minnesota Rule. As a result of routine monitoring and rule changes by the Minnesota Department of Natural Resources (DNR), the MPCA has identified water bodies where the currently designated beneficial use does not accurately reflect an attainable use. The most important reason to assign accurate beneficial uses to these water bodies is that the designated use for each water body needs to be correct and appropriate because the designated use affects many of the water quality protection and restoration efforts at the MPCA (e.g., assessment, stressor identification, National Pollutant Discharge Elimination System [NPDES] permitting, Total Maximum Daily Loads [TMDLs]). Fundamentally, assigning the correct beneficial uses to Minnesota's waters also serves to accurately document the types and condition of Minnesota's aquatic resources.

The recommended use designations in this document only affect Class 2 (i.e., aquatic life and recreation) and are focused on aquatic life beneficial uses. The amendments to [Minn. R. 7050.0470](#) described herein serve as the technical documentation for these designations. This document includes several sections including an overview of the use review process, a list of reaches proposed to be designated, and a technical justification for each use designation. Additional documentation for use designations which affect Class 2A are also provided in Appendix A. This information is provided before these use designations are formally proposed as part of an effort to provide stakeholders with ample time to review these designations and to engage with the MPCA staff regarding concerns with these draft designations.

The use designations in this document can be divided into two groups: 1) Tiered Aquatic Life Use (TALU) reviews and 2) cold water/warm water reviews (Classes 2A and 2B/2Bd) (Table 1). Most use designations are the result of routine use reviews that are performed as part of MPCA's Intensive Watershed Monitoring (IWM) efforts. Of these, most reviews are TALU reviews in watersheds that were monitored in 2016<sup>2</sup> and 2017<sup>3</sup>. In addition, to TALU reviews, cold water (Class 2A) and cool/warm water (Classes 2B and 2Bd) uses are reviewed using IWM data largely from IWM efforts in 2012-2017. The intention of Class 2A and 2B/2Bd reviews is to assign the correct designation to these waters before these watersheds are monitored and assessed again in IWM Cycle II. In addition, a number of Class 2A and 2B/2Bd designations were triggered by DNR amendments to [Minn. R. 6264.0050](#), which the MPCA agreed were appropriate to amend in [Minn. R. 7050.0470](#).

For many draft use designations, the new use designation carries with it more or less stringent water quality standards (WQS). In cases where designation results in less stringent WQS, this cannot be considered a downgrading or the removal of an existing use. In all cases, these waters had not been reviewed previously because the use designation was assigned by default or data/tools for reviewing use attainability were not previously available. For example, with Class 2A and 2B/2Bd designations, the use designations were solely based on the DNR's trout waters list ([Minn. R. 6264.0050](#)). Because the MPCA and DNR have different management goals and are accountable to different state and federal rules, the MPCA's Class 2A and the DNR's trout waters list are not necessarily aligned although these designations largely overlap. Overall, the recommended use designations in this document represent a

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<sup>2</sup> Watersheds monitored in 2016: Kettle, Mississippi River – Brainerd, Mississippi River – Sartell, Otter Tail, and Upper St. Croix.

<sup>3</sup> Watersheds monitored in 2017: Blue Earth, Cottonwood, Lower Rainy, North Fork Crow, Pomme de Terre, Rainy Lake, Rapid, Redwood, and Snake.

more accurate beneficial use assignment for these waters that are aligned with Minnesota and Federal water quality rules.

In total, the recommended use designations in this document include designations for 232 stream assessment units (AUIDs; 859 river miles) (Table 1). There is also a single reach (07040004-763) which was originally designated Class 2A as a trout protection water, but which has now been demonstrated to support a cold water habitat. There is no use designation change for this reach, but the presence of a cold water habitat is confirmed and documented in this report. The list of draft use designations are in Table 2. In this table and throughout this document, use designations are organized hierarchically by major watershed and then by 8-digit hydrological unit code (HUC 8). Within HUCs, water bodies are sorted by WID number. Following the use designation table, there is a description of the use designation process for both TALU and cold water reviews. The final section, and the bulk of this document, are descriptions of the evidence supporting the draft use designation for each water body. Additional supplemental evidence is provided in Appendix A.

**Table 1: Summary of use designation proposals for streams (parentheses around “2Ag” indicate the reach was designated 2A as a trout protection water).**

Current use	Proposed use	# of WIDs	River miles	First MPCA biological use review
2Ag	2Ae	1	4.2	Yes
(2Ag)	2Ag	1	0.8	Yes
(2Ag)	2Bdg	23	12.4	Yes
2Ag	2Bdg	43	143.2	Yes
2Bg	2Ag/2Ag <sup>o</sup>	25	67.3	Yes
2Bg	2Be	17	92.4	Yes
2Bg	2Bm	123	539.0	Yes

**Table 2: List of recommended use designations (Abbreviations: 2Bg = General cool and warm water aquatic life and habitat; 2Bdg = General cool and warm water aquatic life and habitat also protected as a source of drinking water; 2Be = Exceptional cool and warm water aquatic life and habitat; 2Bm = Modified cool and warm water aquatic life and habitat; 2Ag = General cold water aquatic life and habitat; 2Ae = Exceptional cold water aquatic life and habitat; DNR = Minnesota Department of Natural Resources; TALU = Tiered Aquatic Life Use review; CWR = Cold water Review; (2Ag) = the parentheses indicate the reach was designated 2A as a trout protection water and was not managed for trout; \* indicates the stream has not undergone a Use Attainability Analysis and is currently designated General Use by default; ° aquatic life designation justified using results other than an MPCA biological survey).**

WID	Water-body name	Current use class	Draft use class	Miles	County	Use review type
<b>Minn. R. 7050.0470, subp. 1. Lake Superior Basin</b>						
<b>1.A.(1) Lake Superior - North Watershed (04010101)</b>						
04010101-692	Wilson Creek	2Ag°	2Bdg	0.34	Lake	CWR
04010101-A01	Unnamed creek (Greenwood River Tributary)	2Ag°	2Bdg*	0.57	Cook	DNR
04010101-D87	Unnamed creek (Sugar Loaf Creek)	2Ag°	2Bdg*	0.70 <sup>4</sup>	Cook	DNR
04010101-D97	Unnamed creek (Greenwood River Tributary)	(2Ag°)	2Bdg*	0.43	Cook	DNR
<b>1.A.(2) Lake Superior - South Watershed (04010102)</b>						
04010102-985	Nicadoo Creek	2Bg*	2Ag°	0.17	Lake	DNR
04010102-A25	Unnamed creek (Skunk Creek Tributary)	2Ag°	2Bdg*	(0.30) <sup>4</sup>	Lake	DNR
04010102-A39	Unnamed creek (Split Rock River Tributary)	(2Ag°)	2Bdg*	0.56	Lake	DNR
04010102-B70	Unnamed creek	(2Ag°)	2Bdg*	0.39	Lake	DNR
04010102-C46	Unnamed creek (Encampment River Tributary)	2Bg*	2Ag°	1.79	Lake	DNR
04010102-C48	Stony Creek	2Bg* <sup>5</sup>	2Ag°	(1.27) <sup>6</sup>	Lake	DNR
04010102-C53	Unnamed creek (Encampment River Tributary)	2Ag°	2Bdg*	1.18	Lake	DNR
<b>1.A.(3) St. Louis River Watershed (04010201)</b>						
04010201-617	Spider Creek (Spider Muskrat Creek)	2Ag°	2Bdg	1.22	St. Louis	DNR
04010201-823	Unnamed creek (Peters Creek)	2Ag°	2Bdg*	1.51	Itasca	DNR
04010201-824	Unnamed creek (Peters Creek)	2Ag°	2Bdg*	1.25	Itasca	DNR
04010201-862	Spider Creek (Spider Muskrat Creek)	2Ag°	2Bdg*	0.71	St. Louis	DNR

<sup>4</sup> The draft use designation for this WID is changing the length of the 2Ag reach to align it with the DNR's trout waters designation. Therefore, the draft use designation only affects part of this WID. These stream miles represent only the portion where the Class 2Ag would be removed.

<sup>5</sup> The portion of this WID in PLS section T55 R10W S27 (as 04010102-A38), is currently designated Class 2Ag\* in the beneficial use table for the Lake Superior – South Watershed (04010102).

<sup>6</sup> The length of this WID is 1.37 mi, but 0.10 mi is currently designated Class 2Ag. As a result, these stream miles represent only the portion where the Class 2Ag would be removed.

WID	Water-body name	Current use class	Draft use class	Miles	County	Use review type
04010201-863	Spider Creek (Spider Muskrat Creek)	2Ag <sup>o</sup>	2Bdg*	0.61	St. Louis	DNR
04010201-864	Spider Creek (Spider Muskrat Creek)	2Ag <sup>o</sup>	2Bdg*	0.84	St. Louis	DNR
04010201-865	Spider Creek (Spider Muskrat Creek)	2Ag <sup>o</sup>	2Bdg*	1.49	St. Louis	DNR
<b>1.A.(4) Cloquet River - Headwaters Watershed (04010202)</b>						
04010202-617	Unnamed creek (Carey Creek)	2Ag <sup>o</sup>	2Bdg*	0.86	St. Louis	DNR
04010202-657	Pine Creek	2Bg*	2Ag	4.58	Lake, St. Louis	CWR
04010202-672	Hellwig Creek	2Ag <sup>o</sup>	2Bdg	4.75	St. Louis	CWR
<b>1.A.(5) Nemadji River Watershed (04010301)</b>						
04010301-763	Spring Creek	(2Ag <sup>o</sup> )	2Bdg*	0.51	Carleton	DNR
04010301-765	Unnamed creek (Skunk Creek Tributary)	(2Ag <sup>o</sup> )	2Bdg*	0.76	Carleton	DNR
04010301-767	Unnamed creek (Skunk Creek Tributary)	(2Ag <sup>o</sup> )	2Bdg*	0.50	Carleton	DNR
<b>Minn. R. 7050.0470, subp. 2. Lake of the Woods Basin</b>						
<b>2.A.(1) Rainy River - Headwaters Watershed (09030001)</b>						
09030001-676	Hog Creek	2Bg*	2Ag	1.13	Lake	CWR
09030001-874	Unnamed creek (Ash River Tributary)	(2Ag <sup>o</sup> )	2Bdg*	0.60	Saint Louis	DNR
09030001-875	Unnamed creek (Ash River Tributary)	(2Ag <sup>o</sup> )	2Bdg*	0.18	Saint Louis	DNR
09030001-876	Unnamed creek (Ash River Tributary)	(2Ag <sup>o</sup> )	2Bdg*	0.60	Saint Louis	DNR
09030001-877	Unnamed creek (Ash River Tributary)	(2Ag <sup>o</sup> )	2Bdg*	0.60	Saint Louis	DNR
09030001-887	Unnamed creek (Blackduck River Tributary)	(2Ag <sup>o</sup> )	2Bdg*	1.07	Saint Louis	DNR
09030001-924	Unnamed creek (Ninemile Creek Tributary)	(2Ag <sup>o</sup> )	2Bdg*	0.44	Saint Louis	DNR
09030001-929	Unnamed creek (Ninemile Creek Tributary)	(2Ag <sup>o</sup> )	2Bdg*	0.34	Saint Louis	DNR
09030001-932	Unnamed creek (Ninemile Creek Tributary)	(2Ag <sup>o</sup> )	2Bdg*	0.15	Saint Louis	DNR
09030001-974	Larch Creek	2Bg*	2Ag	3.64	Cook	CWR
09030001-979	Harriet Creek	2Bg*	2Ag	4.26	Lake	CWR
09030001-987	Dunka River	2Bg*	2Ag	4.82	Saint Louis	CWR
09030001-A29	Unnamed creek (Ash River Tributary)	(2Ag <sup>o</sup> )	2Bdg*	0.25	Saint Louis	DNR
09030001-A30	Unnamed creek (Blackduck River Tributary)	(2Ag <sup>o</sup> )	2Bdg*	0.29	Saint Louis	DNR
09030001-A32	Unnamed creek (Ash River Tributary)	(2Ag <sup>o</sup> )	2Bdg*	1.63	Saint Louis	DNR
09030001-A34	Unnamed creek (Ninemile Creek Tributary)	(2Ag <sup>o</sup> )	2Bdg*	0.30	Saint Louis	DNR
<b>2.A.(2) Vermilion River Watershed (09030002)</b>						
09030002-648	East Two River	2Ag <sup>o</sup>	2Bdg	3.24	Saint Louis	CWR

WID	Water-body name	Current use class	Draft use class	Miles	County	Use review type
<b>2.A.(4) Little Fork River (09030005)</b>						
09030005-545	Unnamed creek (Lost River Tributary)	(2Ag <sup>o</sup> )	2Bdg*	(0.26) <sup>7</sup>	Saint Louis	DNR
09030005-546	Unnamed creek (Lost River Tributary)	(2Ag <sup>o</sup> )	2Bdg*	(0.28) <sup>7</sup>	Saint Louis	DNR
<b>Minn. R. 7050.0470, subp. 3. Red River of the North Basin</b>						
<b>3.A.(3) Otter Tail River Watershed (09020103)</b>						
09020103-526	Toad River	2Ag <sup>o</sup>	2Bdg	10.59	Becker	CWR
09020103-665	Unnamed creek (Toad River Tributary)	2Ag <sup>o</sup>	2Bdg*	0.85	Becker	CWR
09020103-764	Judicial Ditch 2	2Bg*	2Bm	2.09	Otter Tail, Wilkin	TALU
<b>3.A.(7) Wild Rice River Watershed (09020108)</b>						
09020108-534	Buckboard Creek	2Ag <sup>o</sup>	2Bdg	7.41	Clearwater	CWR
<b>3.A.(9) Upper/Lower Red Lake Watershed (09020302)</b>						
09020302-540	Mud River	2Ag <sup>o</sup>	2Bdg	2.89	Beltrami	CWR
09020302-542	Meadow Creek	2Ag <sup>o</sup>	2Bdg	4.33	Beltrami	CWR
09020302-544	O'Brien Creek	2Ag <sup>o</sup>	2Bdg*	8.57	Beltrami	CWR
09020302-546	Spring Creek	2Ag <sup>o</sup>	2Bdg	2.82	Beltrami	CWR/DNR
<b>3.A.(12) Clearwater River Watershed (09020305)</b>						
09020305-530	Lost River	2Ag <sup>o</sup>	2Bdg	4.46	Clearwater	CWR
09020305-654	Clearwater River	2Ag <sup>o</sup>	2Bdg	5.82	Beltrami	CWR
09020305-900	Unnamed creek (Spring Lake Creek)	2Ag <sup>o</sup>	2Bdg*	1.07	Beltrami	DNR
<b>Minn. R. 7050.0470, subp. 4. Upper Mississippi River Basin</b>						
<b>4.A.(2) Leech Lake River Watershed (07010102)</b>						
07010102-527	Pokety Creek	2Ag <sup>o</sup>	2Bdg	4.54	Hubbard	CWR/DNR
<b>4.A.(3) Mississippi River – Grand Rapids Watershed (07010103)</b>						
07010103-594	Sand Creek	2Ag <sup>o</sup>	2Bdg	8.66	Itasca	CWR
07010103-595	Warba Creek	2Ag <sup>o</sup>	2Bdg	4.81	Itasca	CWR/DNR
07010103-599	Michaud Brook	2Ag <sup>o</sup>	2Bdg	1.02	Cass	CWR/DNR
07010103-601	Libby Brook	2Ag <sup>o</sup>	2Bdg*	1.05	Aitkin	CWR/DNR

<sup>7</sup> The draft use designation for this WID is changing the length of the 2Ag reach to align it with the DNR's trout waters designation. Therefore, the draft use designation only affects part of this WID. These stream miles represent only the portion where the Class 2Ag would be removed.

WID	Water-body name	Current use class	Draft use class	Miles	County	Use review type
07010103-602	Libby Brook	2Ag°	2Bdg	2.72	Aitkin	CWR/DNR
07010103-603	Hasty Brook	2Ag°	2Bdg	6.75	St. Louis, Carlton	CWR
07010103-606	Hasty Brook	2Ag°	2Bdg	10.29	St. Louis, Carlton	CWR
07010103-608	Bruce Creek	2Ag°	2Bdg	3.53	Itasca	CWR/DNR
07010103-609	Bruce Creek	2Ag°	2Bdg*	2.59	Itasca	CWR/DNR
07010103-623	Trib. To Mississippi River (Two River Springs)	2Ag°	2Bdg	1.34	Aitkin	CWR
07010103-722	Unnamed creek	2Bg*	2Ag	2.19	Itasca	CWR
07010103-762	Morrison Brook	2Ag°	2Bdg	2.80	Aitkin	CWR
<b>4.A.(4) Mississippi River - Brainerd Watershed (07010104)</b>						
07010104-590	Unnamed ditch	2Bg*	2Bm	0.95	Aitkin	TALU
07010104-666	Ripple River	2Bg*	2Bm	2.26	Aitkin	TALU
07010104-679	Unnamed creek	2Bg*	2Bm	3.78	Crow Wing	TALU
07010104-683	Unnamed creek	2Bg*	2Be	4.56	Morrison	TALU
07010104-684	Unnamed creek	2Bg*	2Bm	2.77	Morrison	TALU
07010104-685	Unnamed creek	2Bg*	2Bm	1.88	Morrison	TALU
07010104-691	Unnamed ditch	2Bg*	2Bm	3.96	Aitkin	TALU
07010104-697	Unnamed ditch	2Bg*	2Bm	5.52	Aitkin	TALU
07010104-701	Little Willow River Old Channel	2Bg*	2Bm	5.66	Aitkin	TALU
<b>4.A.(5) Pine River Watershed (07010105)</b>						
07010105-525	Brittan Creek	2Ag°	2Bdg	1.27	Cass	CWR
07010105-528	Bungo Creek	2Ag°	2Bdg	6.31	Cass	CWR/DNR
07010105-535	Bungo Creek	2Ag°	2Bdg*	0.81	Cass	CWR/DNR
<b>4.A.(9) Mississippi River - Sartell Watershed (07010201)</b>						
07010201-545	Platte River	2Bg*	2Be	13.90	Morrison, Benton	TALU
07010201-622	Unnamed creek	2Bg*	2Bm	4.19	Morrison	TALU
07010201-632	Unnamed creek	2Bg*	2Bm	3.92	Stearns	TALU
07010201-640	Unnamed creek	2Bg*	2Bm	2.89	Benton	TALU
07010201-652	Little Rock Creek	2Ag°	2Bdg	8.10	Morrison	CWR
<b>4.A.(10) Sauk River Watershed (07010202)</b>						
07010202-660	Trib. to Sauk River	2Bg	2Ag	1.22	Stearns	CWR
07010202-725	Stony Creek	2Bg*	2Ag	2.34	Stearns	CWR

WID	Water-body name	Current use class	Draft use class	Miles	County	Use review type
<b>4.A.(12) North Fork Crow River Watershed (07010204)</b>						
07010204-532	County Ditch 47	2Bg*	2Bm	9.53	Kandiyohi, Meeker	TALU
07010204-548	Unnamed creek	2Bg*	2Bm	3.57	Meeker	TALU
07010204-553	Unnamed creek (County Ditch 4)	2Bg*	2Bm	1.48	Meeker	TALU
07010204-557	Silver Creek	2Bg*	2Bm	4.25	Meeker	TALU
07010204-563	County Ditch 10	2Bg*	2Bm	2.56	Wright	TALU
07010204-578	County Ditch 32	2Bg*	2Bm	2.04	Stearns	TALU
07010204-580	County Ditch 7	2Bg*	2Bm	2.66	Stearns	TALU
07010204-584	Judicial Ditch 1	2Bg*	2Bm	3.36	Stearns	TALU
07010204-585	Jewitts Creek (County Ditch 19, 18, and 17)	2Bg*	2Bm	8.57	Meeker	TALU
07010204-600	Unnamed creek	2Bg*	2Bm	0.98	Kandiyohi	TALU
07010204-614	County Ditch 19	2Bg*	2Bm	1.03	Meeker	TALU
07010204-643	County Ditch 26	2Bg*	2Bm	2.29	Meeker	TALU
07010204-652	County Ditch 26	2Bg*	2Bm	1.45	Kandiyohi	TALU
07010204-700	County Ditch 36	2Bg*	2Bm	1.35	Stearns	TALU
07010204-748	Grove Creek	2Bg*	2Bm	1.00	Meeker	TALU
07010204-751	Washington Creek (County Ditch 9)	2Bg*	2Bm	3.61	Meeker	TALU
07010204-753	Washington Creek (County Ditch 9)	2Bg*	2Bm	1.80	Meeker	TALU
07010204-755	County Ditch 36	2Bg*	2Bm	4.58	Meeker	TALU
07010204-757	Unnamed creek (Battle Creek)	2Bg*	2Bm	4.95	Meeker	TALU
07010204-759	French Creek	2Bg*	2Bm	1.70	Wright	TALU
07010204-761	Sucker Creek	2Bg*	2Bm	11.43	Meeker, Wright	TALU
07010204-763	Crow River, North Fork	2Bg*	2Bm	7.85	Pope, Stearns	TALU
<b>Minn. R. 7050.0470, subp. 5. Minnesota River Basin</b>						
<b>5.A.(2) Pomme de Terre River Watershed (07020002)</b>						
07020002-515	County Ditch 22	2Bg*	2Bm	2.19	Stevens	TALU
07020002-545	Unnamed creek	2Bg*	2Bm	1.83	Swift	TALU
07020002-547	Unnamed creek	2Bg*	2Bm	1.11	Swift	TALU
07020002-566	Unnamed creek	2Bg*	2Bm	0.36	Big Stone, Swift	TALU
07020002-576	Unnamed creek	2Bg*	2Bm	1.37	Stevens	TALU



WID	Water-body name	Current use class	Draft use class	Miles	County	Use review type
<b>5.A.(6) Redwood River Watershed (07020006)</b>						
07020006-513	Redwood River	2Ag°	2Bdg	6.72	Lyon	CWR
07020006-517	Judicial Ditch 14 & 15	2Bg*	2Bm	7.86	Redwood	TALU
07020006-518	Judicial Ditch 33	2Bg*	2Bm	1.73	Redwood	TALU
07020006-520	Judicial Ditch 33	2Bg*	2Bm	2.90	Redwood	TALU
07020006-521	Ramsey Creek	2Ag°	2Bdg	0.62	Redwood	CWR
07020006-524	Ramsey Creek	2Bg*	2Bm	2.92	Redwood	TALU
07020006-529	County Ditch 33	2Bg*	2Bm	4.42	Redwood	TALU
07020006-540	Judicial Ditch 32	2Bg*	2Bm	7.33	Redwood, Yellow Medicine	TALU
07020006-553	Unnamed creek	2Bg*	2Bm	5.36	Redwood	TALU
07020006-554	Judicial Ditch 30	2Bg*	2Bm	1.74	Lincoln	TALU
07020006-556	County Ditch 7	2Bg*	2Bm	5.28	Lincoln	TALU
07020006-558	Unnamed creek	2Bg*	2Bm	0.88	Lyon	TALU
07020006-559	Unnamed creek	2Bg*	2Bm	7.55	Lyon	TALU
07020006-560	Judicial Ditch 3	2Bg*	2Bm	3.09	Lyon, Redwood	TALU
07020006-561	Unnamed creek	2Bg*	2Bm	4.86	Lyon, Redwood	TALU
07020006-565	Threemile Creek	2Bg*	2Bm	6.19	Lyon	TALU
07020006-567	Clear Creek	2Bg*	2Bm	22.80	Lyon, Redwood	TALU
07020006-572	Unnamed creek	2Bg*	2Bm	2.45	Lyon	TALU
07020006-574	Unnamed creek	2Bg*	2Bm	0.67	Lincoln	TALU
07020006-576	County Ditch 31	2Bg*	2Bm	1.86	Lyon	TALU
07020006-578	County Ditch 60	2Bg*	2Bm	4.22	Lyon	TALU
07020006-580	Unnamed creek	2Bg*	2Bm	2.75	Lyon	TALU
<b>5.A.(7) Minnesota River - Mankato Watershed (07020007)</b>						
07020007-627	Unnamed creek (Minnesota River Tributary)	(2Ag°)	2Bdg*	0.85	Nicollet	CWR
07020007-668	Unnamed Creek	2Bg*	2Ag	2.71	Renville	CWR
<b>5.A.(8) Cottonwood River Watershed (07020008)</b>						
07020008-530	Judicial Ditch 30, West Branch	2Bg*	2Bm	5.67	Redwood	TALU
07020008-537	County Ditch 38	2Bg*	2Bm	1.66	Cottonwood	TALU
07020008-543	County Ditch 54	2Bg*	2Bm	4.81	Redwood	TALU
07020008-550	County Ditch 24	2Bg*	2Bm	5.51	Redwood	TALU

WID	Water-body name	Current use class	Draft use class	Miles	County	Use review type
07020008-557	County Ditch 38	2Bg*	2Bm	5.20	Redwood	TALU
07020008-561	County Ditch 68	2Bg*	2Bm	5.34	Redwood	TALU
07020008-564	County Ditch 60	2Bg*	2Bm	1.62	Brown	TALU
07020008-565	County Ditch 5	2Bg*	2Bm	1.92	Brown	TALU
07020008-569	Unnamed ditch	2Bg*	2Bm	5.88	Lyon	TALU
07020008-573	Unnamed creek	2Bg*	2Bm	0.57	Lyon	TALU
07020008-576	Unnamed creek	2Bg*	2Bm	2.33	Lyon	TALU
07020008-586	Unnamed creek	2Bg*	2Bm	3.61	Murray	TALU
07020008-589	County Ditch 19	2Bg*	2Bm	6.10	Murray	TALU
07020008-594	Unnamed ditch	2Bg*	2Bm	0.98	Redwood	TALU
07020008-595	Unnamed creek	2Bg*	2Bm	2.42	Redwood	TALU
07020008-596	Judicial Ditch 35	2Bg*	2Bm	2.97	Redwood	TALU
07020008-597	County Ditch 26	2Bg*	2Bm	3.12	Redwood	TALU
07020008-598	Sleepy Eye Creek	2Bg*	2Bm	45.92	Redwood, Brown	TALU
07020008-602	Plum Creek (Judicial Ditch 20A)	2Bg*	2Bm	3.60	Murray	TALU
07020008-604	Coal Mine Creek	2Bg*	2Bm	17.33	Redwood, Brown	TALU
07020008-606	Unnamed creek	2Bg*	2Bm	0.61	Brown, Cottonwood	TALU
07020008-609	Judicial Ditch 30	2Bg*	2Bm	5.78	Brown	TALU
07020008-610	Highwater Creek	2Bg*	2Bm	2.85	Cottonwood	TALU
07020008-613	Unnamed creek	2Bg*	2Bm	1.46	Lyon	TALU
07020008-615	Unnamed creek	2Bg*	2Bm	0.57	Lyon	TALU
07020008-623	Unnamed creek	2Bg*	2Bm	3.35	Redwood	TALU
<b>5.A.(9) Blue Earth River Watershed (07020009)</b>						
07020009-545	Judicial Ditch 8	2Bg*	2Bm	2.91	Martin	TALU
07020009-551	Unnamed ditch	2Bg*	2Bm	5.42	Faribault	TALU
07020009-556	Foster Creek	2Bg*	2Bm	6.71	Faribault	TALU
07020009-567	Elm Creek, North Fork	2Bg*	2Bm	6.27	Jackson	TALU
07020009-568	Judicial Ditch 14 (Badger Creek)	2Bg*	2Bm	11.76	Faribault	TALU
07020009-571	Judicial Ditch 13 Branch A	2Bg*	2Bm	8.05	Faribault	TALU
07020009-599	Unnamed ditch	2Bg*	2Bm	4.61	Faribault	TALU
07020009-603	County Ditch 25	2Bg*	2Bm	3.31	Faribault	TALU

WID	Water-body name	Current use class	Draft use class	Miles	County	Use review type
07020009-605	County Ditch 5	2Bg*	2Bm	1.64	Faribault	TALU
07020009-610	Judicial Ditch 98	2Bg*	2Bm	4.24	Martin	TALU
07020009-611	Judicial Ditch 7	2Bg*	2Bm	13.02	Faribault	TALU
07020009-612	County Ditch 31	2Bg*	2Bm	8.18	Faribault	TALU
07020009-614	Judicial Ditch 14	2Bg*	2Bm	10.51	Faribault, Martin	TALU
07020009-615	Judicial Ditch 14	2Bg*	2Bm	2.77	Faribault	TALU
07020009-616	County Ditch 17	2Bg*	2Bm	3.17	Faribault	TALU
07020009-619	Judicial Ditch 116	2Bg*	2Bm	8.41	Blue Earth, Martin	TALU
07020009-620	County Ditch 89/Judicial Ditch 24	2Bg*	2Bm	4.81	Blue Earth	TALU
07020009-621	Unnamed creek	2Bg*	2Bm	7.46	Faribault, Freeborn	TALU
07020009-622	Thisius Branch	2Bg*	2Bm	1.94	Faribault	TALU
07020009-623	Judicial Ditch 14	2Bg*	2Bm	1.07	Faribault, Freeborn	TALU
07020009-624	Unnamed creek	2Bg*	2Bm	4.63	Faribault	TALU
07020009-628	County Ditch 26	2Bg*	2Bm	1.74	Faribault	TALU
07020009-634	Dutch Creek	2Bg*	2Bm	1.90	Martin	TALU
07020009-636	Dutch Creek	2Bg*	2Bm	0.97	Martin	TALU
07020009-639	South Creek	2Bg*	2Bm	3.77	Martin	TALU
07020009-643	Blue Earth River, West Branch	2Bg*	2Bm	0.66	Faribault	TALU
07020009-645	Blue Earth River, Middle Branch	2Bg*	2Bm	1.01	Faribault	TALU
07020009-647	Coon Creek	2Bg*	2Bm	9.23	Faribault	TALU
07020009-650	Blue Earth River, East Branch	2Bg*	2Bm	4.49	Faribault	TALU
07020009-652	Blue Earth River, East Branch	2Bg*	2Bm	1.97	Faribault	TALU
07020009-655	Brush Creek	2Bg*	2Bm	4.50	Faribault	TALU
07020009-657	Cedar Creek (Cedar Run Creek)	2Bg*	2Bm	1.24	Martin	TALU
07020009-658	Badger Creek	2Bg*	2Bm	1.35	Faribault	TALU
07020009-660	Judicial Ditch 38	2Bg*	2Bm	4.82	Martin	TALU
07020009-663	Unnamed creek	2Bg*	2Bm	0.20	Martin	TALU
07020009-667	County Ditch 72	2Bg*	2Bm	2.33	Martin	TALU
07020009-669	County Ditch 8	2Bg*	2Bm	7.34	Faribault	TALU
<b>5.A.(12) Minnesota River – Lower Watershed (07020012)</b>						
07020012-710	Bluff Creek	2Bg*	2Ag	7.17	Carver	CWR

WID	Water-body name	Current use class	Draft use class	Miles	County	Use review type
07020012-866	Unnamed creek	2Bg*	2Ag°	0.64	Hennepin	CWR
<b>Minn. R. 7050.0470, subp. 6. Saint Croix River Basin</b>						
<b>6.A.(1) Upper St. Croix River Watershed (07030001)</b>						
07030001-520	Redhorse Creek, West Fork	2Bg*	2Be	0.57	Pine	TALU
07030001-541	Crooked Creek	2Bg*	2Be	2.32	Pine	TALU
07030001-545	Bangs Brook	2Ag°	2Ae	4.24	Pine	TALU
07030001-554	Little Sand Creek	2Bg*	2Be	5.58	Pine	TALU
07030001-555	Little Sand Creek	2Bg*	2Be	3.34	Pine	TALU
07030001-562	Kenney Brook	2Ag°	2Bdg	1.20	Pine	CWR
07030001-613	Upper Tamarack River	2Bg*	2Be	4.35	Pine	TALU
07030001-615	Crooked Creek, East Fork	2Bg*	2Be	6.23	Pine	TALU
07030001-618	Sand Creek	2Bg*	2Be	7.99	Pine	TALU
<b>6.A.(2) Kettle River Watershed (07030003)</b>						
07030003-503	Kettle River	2Bg*	2Be	5.50	Pine	TALU
07030003-505	Kettle River	2Bg*	2Be	4.87	Pine	TALU
07030003-506	Kettle River	2Bg*	2Be	2.19	Pine	TALU
07030003-560	Little Pine Creek	2Bg*	2Be	1.62	Pine	TALU
07030003-618	Skunk Creek	2Bg*	2Ag	3.25	Pine	CWR
07030003-622	Willow River	2Bg*	2Be	8.19	Pine	TALU
07030003-624	Pine River	2Bg*	2Be	13.75	Pine	TALU
07030003-626	Unnamed creek	2Bg*	2Bm	3.79	Pine	TALU
07030003-628	Moose Horn River, West Branch	2Bg*	2Be	5.09	Carlton	TALU
07030003-629	Moose Horn River	2Bg*	2Be	2.38	Carlton	TALU
<b>6.A.(3) Snake River Watershed (07030004)</b>						
07030004-515	Spring Brook	2Bg*	2Ag	3.38	Kanabec	CWR
<b>Minn. R. 7050.0470, subp. 7. Lower Mississippi River Basin</b>						
<b>7.A.(4) Zumbro River Watershed (07040004)</b>						
07040004-763	Unnamed Creek	(2Ag°)	2Ag	0.84	Wabasha	CWR
07040004-764	Unnamed Creek	(2Ag°)	2Bdg	1.10	Wabasha	CWR
07040004-950	Tompkins Creek	2Bg*	2Ag°	1.62	Olmsted	DNR
07040004-951	Tompkins Creek	2Bg*	2Ag°	0.44	Olmsted	DNR

WID	Water-body name	Current use class	Draft use class	Miles	County	Use review type
07040004-A00	Unnamed spring/unnamed creek	2Bg*	2Ag°	1.25	Dodge, Olmsted	DNR
<b>7.A.(5) Mississippi River - La Crescent Watershed (07040006)</b>						
07040006-576	Pine Creek	2Bg*	2Ag	13.14	Houston, Winona	CWR
<b>7.A.(7) Mississippi River - Reno Watershed (07060001)</b>						
07060001-521	Crooked Creek, North Fork	2Bg*	2Ag°	1.22	Houston	DNR
07060001-693	Winnebago Creek	2Bg*	2Ag	0.92	Houston	CWR
07060001-696	Unnamed Creek (Shamrock Creek)	2Bg*	2Ag°	1.50	Houston	DNR
07060001-698	Unnamed Creek (Shamrock Creek)	2Bg*	2Ag°	0.20	Houston	DNR
<b>7.A.(8) Upper Iowa River Watershed (07060002)</b>						
07060002-535	Unnamed creek	2Bg*	2Ag	2.44	Houston	CWR

## B. Use designation reviews

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The draft use designations in this document are divided into two types: 1) tiered aquatic life uses and 2) cold water/warm water reviews. A summary of each use designation type and an overview of the process for reviewing each follows.

### i. Tiered Aquatic Life Uses

The TALU designations in this document are the result of routine monitoring during the 2016-17 IWM efforts (Figure 1). Determination of the proposed uses were made through a review to determine the attainable aquatic life use goal for each stream reach. This process is detailed in the “Technical guidance for designating aquatic life uses in Minnesota streams and rivers” (MPCA 2015). This review is called a Use Attainability Analysis (UAA). A UAA is a detailed process that considers several lines of evidence including biological condition, habitat limitation, the nature of any habitat alterations, and restorability of the habitat (see Figure 3 in MPCA [2015]). The UAA begins with a review of biological condition (i.e., fish and macroinvertebrate assemblages). If both assemblages meet the Exceptional Use biocriteria, then the reach is eligible for designation as an Exceptional Use. If both assemblages meet the General Use biocriteria, the reach will be designated General Use<sup>8</sup>. If one or both assemblages do not meet the General Use, then the process proceeds to a review of the habitat. This step involves a review of habitat attributes to determine if habitat is limiting attainment of the General Use. This step uses habitat models to predict if habitat is limiting the biology (MPCA 2015). If habitat is not limiting either assemblage, then the reach would be designated General Use. However, if habitat is limiting, then it would need to be determined if this habitat condition is the result of legal alterations to the water body (e.g., ditching). If the alterations were done so illegally, the reach would not be eligible for a Modified Use and the reach would be designated General Use. If the water body was legally altered, then the reach would be reviewed to determine if it is restorable or if it is likely to recover on its own in the next five years. If either is true, then the reach would be designated a General Use. However, if it is not restorable or not likely to recover on its own, available data would be reviewed to determine if the General Use was attained on or after November 28, 1975 (i.e., existing use). If there is evidence that the General Use was attained, including if channel modifications occurred after the existing use date, then the reach would be designated General Use. Otherwise the reach would be eligible for the Modified Use. Through this process, available data are considered including the condition of fish and macroinvertebrate assemblages, multiple habitat measures, chemistry data, and data from adjacent or nearby stream reaches. For example, a biological model called the Biological Condition Gradient (Gerritsen et al. 2013; Figure 2) is often used as a line of evidence when considering biological scores falling within confidence limits around the biocriteria. In this process, all available data are reviewed with data collected on or after November 28, 1975 most relevant to the establishment of existing use ([40 CFR § 131.3\(e\)](#)).

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<sup>8</sup> Streams are designated General Use by default. When data is sufficient for a use designation review and these data demonstrate that the General Use is the highest attainable use, the General Use will be considered a confirmed General Use. The distinction between default and confirmed General Use is noted in the use designation tables incorporated by reference in [Minn. R. 7050.0470](#). By definition, any stream reaches designated as Exceptional or Modified uses have undergone a UAA or UAA-like process and the use is confirmed.

Figure 1: Map of watersheds sampled during 2016-17 Intensive Watershed Monitoring.

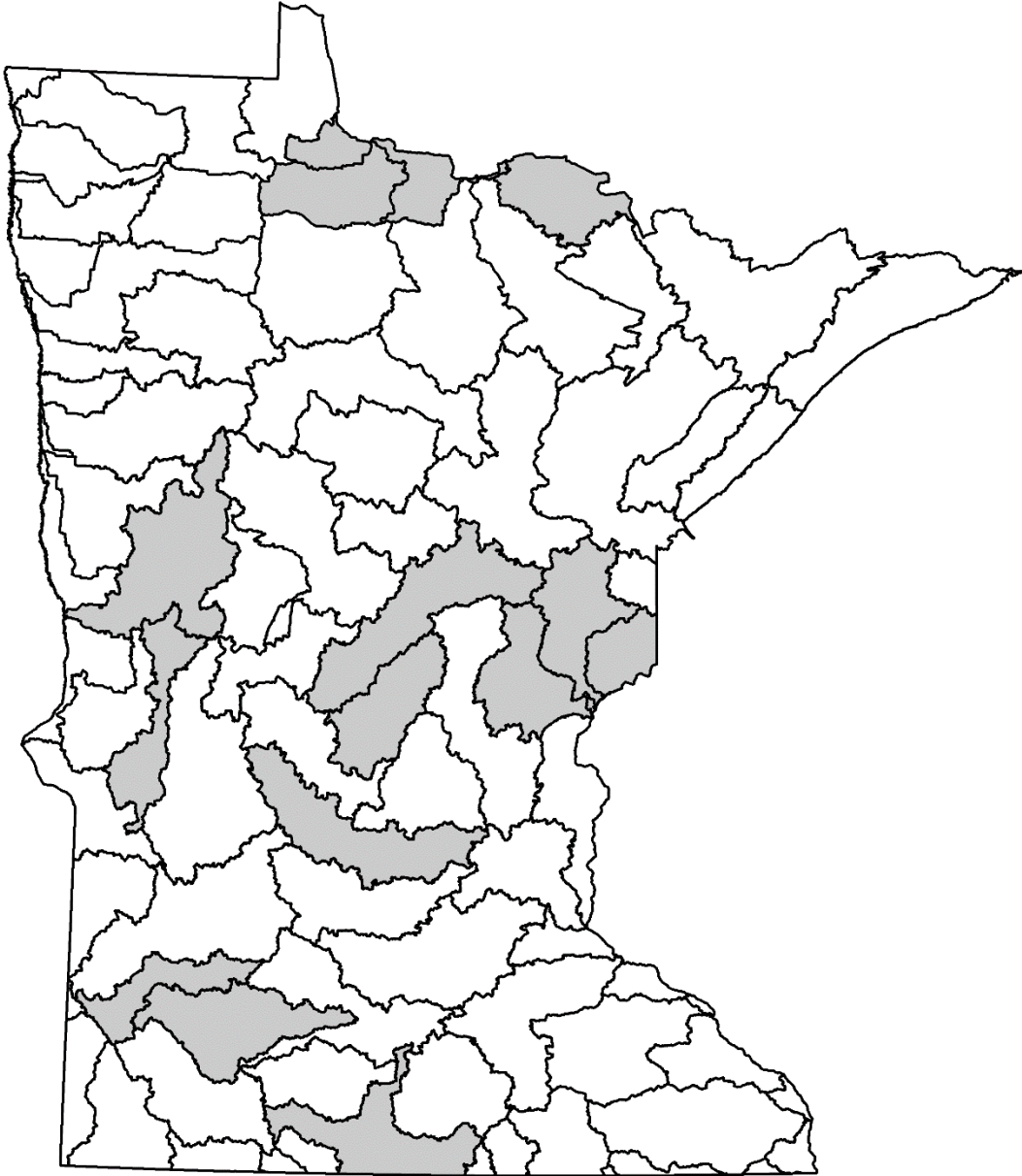
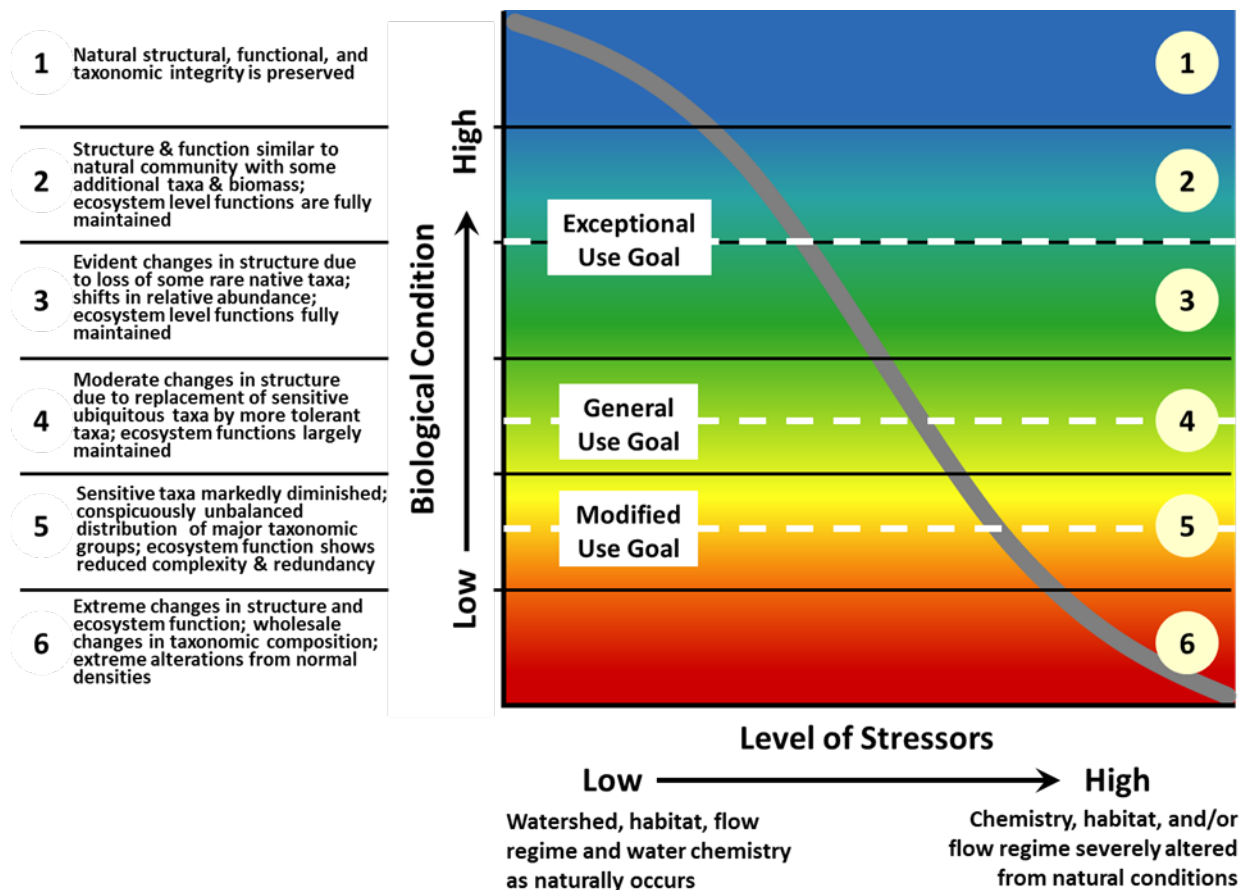


Figure 2. BCG illustrating the location of biocriteria for protection of Minnesota’s tiered aquatic life use goals.



For each TALU designation, supporting evidence is documented in the “Descriptions of proposed use designations” section of this document. This includes documenting the UAA steps relevant to the specific use designation. For each TALU designation, the assessment and stressor identification results are also summarized. In addition to providing a narrative description of the TALU use designation reviews in the “Descriptions of proposed use designations” section, detailed habitat and biological information is tabulated. For each WID, the IBI scores (MPCA 2017a, b) are summarized for the biological stations on that stream reach. These results are color coded (Table 3) in relation to the tiered biocriteria (Table 4; MPCA 2014a). Habitat scores are also provided in these summary tables for each WID. The habitat scores include the number of good habitat attributes, the number of poor habitat attributes, the ratio of good to poor habitat attributes, and the MPCA Stream Habitat Assessment (MSHA) score (MPCA 2014b). The habitat scores are color coded (Table 3) based on predictions of the probability that the respective biological assemblage will attain the General Use biocriterion for that station. Table 5 provides the habitat assessment thresholds used for determining habitat limitation. This table includes the 25% and 50% biological criteria attainment probabilities for each stream class, biological assemblage, and habitat metric. These thresholds were used as part of an MPCA assessment to determine if habitat was limiting the attainment of the biological criteria as required in the UAA (MPCA 2015). Three habitat tool outputs are considered jointly and the MSHA output is considered separately (Table 6). For example, if any one of the habitat tool metric models and the MSHA model predict less than a 25% probability of attaining the General Use biocriterion, the biological assemblage in the reach is considered to be limited by physical habitat structure. When probabilities are between 25% and 50% or the results are mixed between the metrics, additional information will need to be considered in this analysis. This information includes biological performance (e.g., proximity of IBI score to biocriterion), performance of the other assemblage, chemical data, and the stream’s physical



characteristics (i.e., recovery status, atypical features). See MPCA (2015) for a detailed description of this analysis.

**Table 3: Color coding for biological and habitat metric scores used in the summary tables for each proposed use designation. Description of table: The numeric thresholds for Index of Biological Integrity scores are provided in Table 4 and the habitat metrics are provided in Table 5. Abbreviations: Good = number of good habitat attributes, Poor = number of poor habitat attributes, P/G = ratio of Poor+1 and Good+1 habitat attributes, MSHA = Minnesota Stream Habitat Assessment**

Biological Score	Score in Relation to Tiered Biological Criteria			
Index of Biological Integrity Score	Above Exceptional Use	Between General and Exceptional Use	Between Modified and General Use	Below Modified Use
Habitat Metric	Probability of Meeting General Use			
Good	>75%	50-75%	25-50%	<25%
Poor	>75%	50-75%	25-50%	<25%
P/G	>75%	50-75%	25-50%	<25%
MSHA	>75%	50-75%	25-50%	<25%

**Table 4. Biological criteria for Exceptional, General, and Modified uses (MPCA 2014a; Abbreviations: RR = high gradient, GP = low gradient).**

Class #	Class Name	Exceptional Use	General Use	Modified Use
<b>Fish</b>				
1	Southern Rivers	71	49	NA
2	Southern Streams	66	50	35
3	Southern Headwaters	74	55	33
4	Northern Rivers	67	38	NA
5	Northern Streams	61	47	35
6	Northern Headwaters	68	42	23
7	Low Gradient Streams	70	42	15
10	Southern Cold Water	82	50	NA
11	Northern Cold Water	60	35	NA
<b>Macroinvertebrates</b>				
1	Northern Forest Rivers	77	49	NA
2	Prairie Forest Rivers	63	31	NA
3	Northern Forest Streams RR	82	53	NA
4	Northern Forest Streams GP	76	51	37
5	Southern Streams RR	62	37	24
6	Southern Forest Streams GP	66	43	30
7	Prairie Streams GP	69	41	22
8	Northern Cold Water	52	32	NA
9	Southern Cold Water	72	43	NA

**Table 5: Physical habitat structure assessment thresholds based on logistic regression models (see MPCA [2015]). Description of table fields: “<25%” and “<50%” are model predictions for habitat metrics where there is a <25% or <50% probability of attaining the General Use biocriterion. For example, the logistic regression models for the southern streams predict less than a 25% probability that the fish General Use biocriterion is attained when there are seven or fewer good habitat attributes. Abbreviations: Good = number of positive habitat attributes; Poor = number of negative habitat attributes; P/G = the ratio of Poor and Good habitat attributes; MSHA = MPCA Stream Habitat Assessment.**

<b>Assemblage</b>	<b>Type</b>	<b>Habitat Metric</b>	<b>&lt;25%</b>	<b>&lt;50%</b>
Fish	Southern Streams	Good	≤7	≤15
Fish	Southern Streams	Poor	≥10.5	≥4.5
Fish	Southern Streams	P/G	≥1.57	≥0.32
Fish	Southern Streams	MSHA	≤45	≤64
Fish	Southern Headwaters	Good	≤3.5	≤9
Fish	Southern Headwaters	Poor	≥6.5	≥2
Fish	Southern Headwaters	P/G	≥1.68	≥0.25
Fish	Southern Headwaters	MSHA	≤38	≤62
Fish	Northern Streams	Good	≤2.5	≤8.5
Fish	Northern Streams	Poor	≥16.5	≥10
Fish	Northern Streams	P/G	≥3.48	≥1.07
Fish	Northern Streams	MSHA	≤29	≤53
Fish	Northern Headwaters	Good	≤5.5	≤11.5
Fish	Northern Headwaters	Poor	≥13	≥8.5
Fish	Northern Headwaters	P/G	≥2.02	≥0.71
Fish	Northern Headwaters	MSHA	≤45	≤61
Fish	Low Gradient Streams	Good	≤3.5	≤7
Fish	Low Gradient Streams	Poor	≥10	≥5
Fish	Low Gradient Streams	P/G	≥2.65	≥0.74
Fish	Low Gradient Streams	MSHA	≤41	≤55
Macroinvertebrates	High Gradient Northern Forest Streams	Good	-	≤4
Macroinvertebrates	High Gradient Northern Forest Streams	Poor	≥11.5	≥7.5
Macroinvertebrates	High Gradient Northern Forest Streams	P/G	≥4.81	≥1.56
Macroinvertebrates	High Gradient Northern Forest Streams	MSHA	≤35	≤53
Macroinvertebrates	High Gradient Southern Streams	Good	≤5	≤9
Macroinvertebrates	High Gradient Southern Streams	Poor	≥6	≥2.5
Macroinvertebrates	High Gradient Southern Streams	P/G	≥1.12	≥0.28
Macroinvertebrates	High Gradient Southern Streams	MSHA	≤45	≤72
Macroinvertebrates	Low Gradient Southern Forest Streams	Good	≤4.5	≤9
Macroinvertebrates	Low Gradient Southern Forest Streams	Poor	≥7.5	≥2.5
Macroinvertebrates	Low Gradient Southern Forest Streams	P/G	≥1.25	≥0.36
Macroinvertebrates	Low Gradient Southern Forest Streams	MSHA	≤41	≤60
Macroinvertebrates	Low Gradient Prairie Streams	Good	≤12	≤17.5
Macroinvertebrates	Low Gradient Prairie Streams	Poor	≥10	≥5
Macroinvertebrates	Low Gradient Prairie Streams	P/G	≥0.88	≥0.32
Macroinvertebrates	Low Gradient Prairie Streams	MSHA	≤54	≤72

**Table 6: Decision matrix for determining habitat limitation based on probabilities of attaining the General Use.**

	Attainment Probability	MSHA		
		<25%	25-50%	>50%
<b>Habitat</b>	<25%	Yes	Probable	Possible
<b>Tool</b>	25-50%	Probable	Possible	Unlikely
<b>Metrics</b>	>50%	Possible	Unlikely	No

## ii. Cold water and warm/cool water reviews

The MPCA is recommending amendments to Class 2A<sup>9</sup> use classifications in [Minn. R. 7050.0470](#) based on new information and changes to DNR’s list of designated trout waters ([Minn. R. 6264.0050](#)). In many cases, the use designations in this document are based on changes to the DNR’s trout waters list and the MPCA is simply updating its use designations to match these changes. However, some the use designations are a departure from the DNR’s trout water designations. In some cases, these differences reflect differences in management or in the rules each agency implements. In other cases, use designation differences are administrative and reflect different time lines for updating designated uses in rule for each agency.

The MPCA’s use designation methodology for cold water habitats was updated in 2020 (State of Minnesota 2020a) with the adoption of revised language in [Minn. R. 7050.0420](#). With this update, differences in management goals between the MPCA and DNR in designating cold water systems were addressed. A small number of waters in [Minn. R. 6264.0050](#) are not appropriate for the MPCA to manage as cold water and there are some waters not included on the DNR trout waters list that the MPCA should manage as cold water habitats. The MPCA’s designation of cold water habitats is focused on identifying and protecting existing aquatic life uses which often aligns with the DNR’s trout waters list. Some differences in goals for streams between the MPCA and DNR are a result of DNR’s designation process, which can be impacted by property owner requests, fishing regulation considerations, and the designation of trout protection waters, which may or may not reflect the type of community that can be naturally supported in these systems. In addition, certain stream reaches may have been given the default Class 2B<sup>9</sup> designation because it had not been previously assessed by DNR and new data now indicates that the water body supports a cold water community. In some cases, the DNR may remove trout water from their list due to a change in management goals for that water. However, if it is demonstrated that the water body is an existing use (i.e., it supported cold water habitat on or after November 28, 1975), the MPCA is required to retain that designation ([Minn. R. 7050.0255](#)). As a result, the specific amendments to use designations in this document result in the designation of beneficial uses that are in alignment with the CWA and Minn. R. ch. 7050 and result in appropriate management of these systems.

The Class 2A and 2B/2Bd designations in this document are the result of either 1) MPCA biological monitoring from IWM efforts, 2) amendments to DNR’s trout waters list (State of Minnesota 2008, 2018, 2021), or 3) both. The first group is the result of aquatic life use reviews that took place as part of MPCA’s surface-water assessments. These recommended designations are independent of [Minn. R. 6264.0050](#) and represent needed designations to align these reaches with MPCA’s beneficial use framework. The destinations arising from amendments to DNR’s trout waters list largely follows

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<sup>9</sup> In this section, “Class 2A” broadly refers to all cold water habitats including Classes 2Ag and 2Ae and “Class 2B” broadly refers to all warm/cool water habitats including Classes 2Bd, 2Bde, 2Bdg, 2Bdm, 2B, 2Be, 2Bg, and 2Bm.

MPCA's historical practice of using [Minn. R. 6264.0050](#) to update [Minn. R. 7050.0470](#). However, the use designations listed in this document have gone through a use review by the MPCA to ensure that the designation complies with Minnesota rule and the CWA. In addition, there are a number of rule corrections made by the DNR that the MPCA is also proposing to make which did not undergo additional review since they are corrections to the current designations and in most cases, they are short reaches without additional data. In some cases, use designations are triggered by both MPCA IWM efforts and amendments to the DNR trout waters list.

Designation from cold water (Class 2A) to cool or warm water (Class 2B/2Bd)<sup>10</sup> or vice versa, requires a comprehensive review of biological, chemical, and physical measures as well as other data are used to determine the natural and existing use of a water body. Biological data are the primary source of information used to demonstrate if a cold water use is an existing use. Reviews of fish and macroinvertebrate data focus on the presence or absence and the proportion of cold water species (e.g., trout, sculpin, the amphipod *Gammarus*, and the small minnow mayfly *Baetis tricaudatus*). These reviews include assessments of contemporary and historical data. Of particular importance for use designation is the demonstration that these waters currently support or have supported sustained trout reproduction and/or that they have good year-to-year carry over (e.g., stocked trout survive over the winter). Some streams that do not support trout due to barriers, stream size constraints, or poor fish habitat should also be designated Class 2A based on the presence of a cold water macroinvertebrate community.

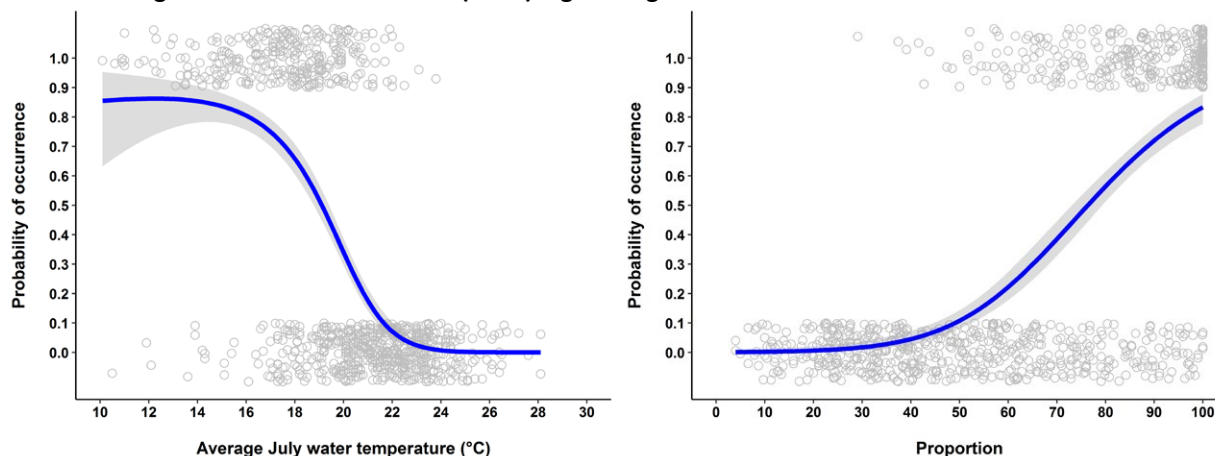
Temperature data are also important when reviewing the thermal designation of a water body. Temperature logger data (i.e., measurements recorded continuously every 15-30 min) are especially useful as they provide a more comprehensive estimate of summer conditions and can be used to estimate the percent of the time temperatures are suitable for supporting and maintaining cold water biota. For example, trout are unlikely to be sampled in streams where average July water temperatures exceed 20°C or less than 40% of the summer (June through August) is below 20°C (Figure 3, Table 7).

Other physical and chemical characteristics (e.g., habitat, flow, dissolved oxygen, presence of beaver dams, and migration barriers) of the water body are also used as part of the review to determine the existing use. In all cases, the objective of the use review is to determine whether or not a designated use is an existing use. This holds that uses attained in a surface water on or after November 28, 1975 must be protected (see 40 CFR 131.3). Cold water reviews are also done with consultation from DNR staff in order to compile all available information, consider DNR's management goals for the water, and to align class 2A waters with DNR's trout waters list when feasible.

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<sup>10</sup> The Class 2A, 2Ag, and 2Ae designations also carry Class 1B (see [Minn. R. 7050.0420](#)). As a result the addition of a Class 2A, 2Ag, or 2Ae designation results in the addition of a 1B designation. However, the linkage between Classes 2A, 2Ag, and 2Ae and Class 1B is currently under review. As a result, draft designations from cold water habitat to cool/warm water habitat in this document will at this time retain the Class 1B designation and be designated cool/warm water habitat also protected as a source of drinking water (Class 2Bd or 2Bdg).

**Figure 3. Probability of occurrence of trout species (brook, brown, and rainbow) in Minnesota streams as a function of A) average July water temperature and B) proportion of summer (June through August) exceeding 20°C. Fits are generalized additive model (GAM) logistic regressions.**



**Table 7. Criteria used by DNR and MPCA for brook trout growth, stress, and lethal temperature ranges (from Brown [1974])**

Classification	Temperature Range (°C)	Description
Growth	7.8 to 20.0°C	Temperature range favorable for growth
Stress	>20.0 to 25.0°C	Stress and avoidance behaviors
Lethal	>25.0°C	Mortality can be expected at prolonged exposure

In cases where MPCA monitoring data triggered the use review, it was the result of an initial screening of fish, macroinvertebrate, and temperature data that indicated the current use designation may not be appropriate (MPCA 2015). For use designations triggered by DNR rule amendments, all available data were reviewed as described. This may have included a review of DNR data alone or both DNR and MPCA data. In cases where only DNR was available, a determination to retain the current use was sometimes made because sufficient data were not available to determine the existing use. For these reaches, additional data would need to be collected for the MPCA to propose a use designation in a future rulemaking.

The outcomes of the review process include: 1) retain the current designated use, 2) designate a different use for the entire reach, or 3) designate a different use for part of the reach. In cases where the evidence is insufficient to support changing the designated use, no change is proposed. In these cases, a recommendation to collect additional data may occur to determine the appropriate use designation. In general, it will be the MPCA’s responsibility to build the case for a use designation. Overall, the use designations in this document are only a portion of the water bodies that have been scrutinized for use designations, but the outcome of many of these reviews is to retain the current use designation.

## C. Rule language changes

As part of this rule, there will be amendments to the documents incorporated by reference in [Minn. R. 7050.0470](#), which list the specific use designations. No other changes to rule language is currently under consideration for these rule amendments.

## D. Descriptions of proposed use designations

The following documentation of the recommended use designations correspond to the list of water bodies in Table 2. The streams are identified by WID (i.e., water body assessment identifier) code, which

identifies the HUC 8 watershed where the streams are located and assigns a unique, 3-digit code to the reach. As with Table 2, the WIDs are organized by major watershed, HUC 8, and then by WID number within the HUC 8. At the beginning of each HUC 8 watershed, there is a link to the MPCA webpage for that watershed which includes available reports and other information.

The abbreviations and symbols used in the use designation descriptions and TALU tables are as follows:

### Use designations

- 2Be** = Exceptional cool and warm water aquatic life and habitat
- 2Bg** = General cool and warm water aquatic life and habitat
- 2Bdg** = General cool and warm water aquatic life and habitat also protected as a source of drinking water
- 2Bm** = Modified cool and warm water aquatic life and habitat
- 2Ae** = Exceptional cold water aquatic life and habitat
- 2Ag** = General cold water aquatic life and habitat

### TALU table abbreviations

- Type** = stream type code (see Table 4)
- IBI** = Index of Biological Integrity score
- ND** = No data because fish or macroinvertebrates were not sampled or the sample was not assessable
- Good** = number of good habitat attributes
- Poor** = number of poor habitat attributes
- P/G** = ratio of Poor+1 and Good+1 habitat attributes
- MSHA** = Minnesota Stream Habitat Assessment

## 1. Lake Superior Basin

### a. Lake Superior – North Watershed (04010101)

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/lake-superior-north>

**Wilson Creek (04010101-692):** The reach of Wilson Creek from the west line of Public Land Survey (PLS) System<sup>11</sup> section of T60 R6W S24 to Cross River is recommended to be designated Class 2Bdg. MPCA biological monitoring from one station (13LS041) did not sample any cold water fish species and only a single cool water fish species (longnose dace) was sampled. The macroinvertebrate sample included 1 cold water taxa (*Leuctra*) which comprised 0.6% of the sample. Temperature logger data had an average July water temperature of 20.9°C and temperatures were in the growth range for brook trout only 49.3% of the summer. This stream is the outlet for Wilson Lake and would not be expected to support a cold water habitat. The DNR does not manage this stream as a trout water and it was designated as a

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<sup>11</sup> The convention for identifying land units is the PLS or PLS System established by the U.S. Department of the Interior.

trout protection water for the Cross River. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Lake Superior - North Watershed (04010101).

**Mooring station 13LS041 (04010101-692)**



**Unnamed creek (Greenwood River Tributary) (04010101-A01):**

The reach of an unnamed creek (Greenwood River Tributary) from its headwaters (Redcoat Lake [16-0058-00]) to an unnamed creek is recommended to be designated Class 2Bdg. The DNR does not classify this reach as a trout water or trout protection water ([Minn. R. 6264.0050](#)) because it is not connected to a trout water within the same PLS System section. This reach is located in PLS section T63 R2E S15 which is included as part of the trout water designation for an unnamed creek (Greenwood River Tributary) (04010101-765). However, 04010101-A01 is considered to be jurisdictionally disconnected from 04010101-765 because it flows to a different Greenwood River tributary (04010101-D98). In addition, 04010101-A01 is separated from any downstream cold water habitats by a wetland. As a result, this reach does not currently support and would not be expected to support cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Lake Superior - North Watershed (04010101).

**Unnamed creek (Sugar Loaf Creek) (04010101-D87<sup>12</sup>):** The reach of an unnamed creek (Sugar loaf Creek) within the PLS System section T58 R5W S19 is recommended to be designated Class 2Bdg. The DNR does not classify the portion of this stream in PLS System section T58 R5W S18 as a trout water or trout protection water ([Minn. R. 6264.0050](#)). This reach is intermittent and when the DNR reviewed the trout water designation for Sugarloaf Creek, this section was not included. In addition, 04010101-A01 is separated from any downstream cold water habitats by a wetland. As a result, this reach does not currently support and would not be expected to support cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Lake Superior - North Watershed (04010101).

**Unnamed creek (Greenwood River Tributary) (04010101-D97):** The reach of an unnamed creek (Greenwood River Tributary) from its headwaters to the south line of PLS System section T63 R2W S15 is recommended to be designated Class 2Bdg. The DNR does not classify this reach as a trout water or trout protection water ([Minn. R. 6264.0050](#)) because it is not connected to a trout water within the same PLS System section. This reach is located in PLS sections T63 R2E S14, 15 which are part of the trout water designation for an unnamed creek (Greenwood River Tributary) (04010101-765). However,

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<sup>12</sup> The draft use designation does not change the use for the entire reach, but only the portion in PLS System section T58 R5W S18. As a result the boundaries of 04010101-D87 will be modified to reflect this revision.

04010101-D97 is considered to be jurisdictionally disconnected from 04010101-765 because it flows to the Greenwood River (04010101-528). In addition, 04010101-A01 is separated from any downstream cold water habitats by a wetland. As a result, this reach does not currently support and would not be expected to support cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Lake Superior - North Watershed (04010101).

## **b. Lake Superior – South Watershed (04010102)**

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/lake-superior-south>

**Nicadoo Creek (04010102-985):** The reach of Nicadoo Creek from the west line of PLS System section T57 R8W S26 to the south line of PLS System section T57 R8W S26 is recommended to be designated Class 2Ag. The DNR inadvertently did not include the reach of this river in the PLS System sections T58 R5W S18 and T58 R5W S19 off the list of PLS sections in [Minn. R. 6264.0050](#) and rectified this omission in 2020 through rule making (State of Minnesota 2020b). This reach is currently designated Class 2Bg by default in the beneficial use table for the Lake Superior – South Watershed (04010102) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable<sup>13</sup> MPCA biological data from this reach to perform a full cold water use review. However, because this reach was erroneously designated, it is short (0.17 mi), and it is an extension of existing Class 2Ag reaches (04010102-984, 04010102-986, 04010102-987, and 04010102-988), it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Lake Superior – South Watershed (04010102). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Skunk Creek Tributary) (04010102-A25<sup>14</sup>):** The reach of an unnamed creek (Skunk Creek Tributary) in PLS System section T54 R9W S18 is recommended to be designated Class 2Bdg. The DNR clarified the trout water designation for this reach in 2020 through rule making (State of Minnesota 2020b). This reach was included under the Skunk Creek (04010102-551, 04010102-552) designation, but the 2020 rule now includes this reach separately as an “unnamed stream.” This designation in [Minn. R. 6264.0050](#) does not include PLS System section T54 R9W S18 and therefore the DNR does not classify this reach as a trout water or trout protection water because it is not connected to a trout water within the same PLS System section. This reach was designated Class 2Ag by default in the beneficial use table for the Lake Superior – South Watershed (04010102) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Lake Superior – South Watershed (04010102). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Split Rock River Tributary) (04010102-A39):** The reach of an Unnamed creek (Split Rock River Tributary) from its headwaters to the south line of PLS System section T55 R9W S28 is

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<sup>13</sup> Assessable biological data are data that are collected following MPCA standard protocols from habitats that are appropriate for the data collection method and for the biological assessment tool (i.e., IBIs).

<sup>14</sup> The draft use designation does not change the use for the entire reach, but only the portion in PLS System section T54 R9W S18. As a result the boundaries of 04010102-A25 will be modified to reflect this revision. The lower portion of 04010102-A25 (west line of T54 R9W S17 to Skunk Creek) will retain its Class 2Ag designation.



recommended to be designated Class 2Bdg. This reach was designated as a trout protection water due to its PLS section affiliation with the Split Rock River (04010102-519). However, the DNR inadvertently included PLS System section T55 R9W S28 in the list of PLS sections for the Split Rock River (04010102-519) in [Minn. R. 6264.0050](#) and rectified this in 2020 through rule making (State of Minnesota 2020b). As part of this rule, the DNR also added an unnamed creek (West Split Rock River Tributary) (04010102-A63) which includes PLS System section T55 R9W S28. However, 04010102-A39 is not a tributary to 04010102-519 or 04010102-A63 and it is therefore jurisdictionally disconnected from these trout waters. As a result, the DNR does not classify this reach as a trout water or trout protection water. This reach (04010102-A39) is currently designated Class 2Ag by default in the beneficial use table for the Lake Superior – South Watershed (04010102) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Lake Superior – South Watershed (04010102). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (04010102-B70):** The reach of an unnamed creek from its headwaters to the south line of PLS System section T55 R8W S21 is recommended to be designated Class 2Bdg. The DNR inadvertently included PLS System section T55 R8W S21 in the list of PLS sections for an unnamed creek<sup>15</sup> (04010102-537, 04010102-B69) in [Minn. R. 6264.0050](#) and rectified this in 2020 through rule making (State of Minnesota 2019). This reach was designated as a trout protection water due to its PLS section affiliation with this unnamed creek (04010102-537, 04010102-B69). As a result, the DNR does not classify this reach as a trout water or trout protection water. This reach (04010102-B70) is currently designated Class 2Ag by default in the beneficial use table for the Lake Superior – South Watershed (04010102) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Lake Superior – South Watershed (04010102). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Encampment River Tributary) (04010102-C46):** The reach of an unnamed creek (Encampment River Tributary) from the west line of PLS System section T54 R10W S8 to an unnamed creek is proposed to be designated Class 2Ag. The MPCA inadvertently left this reach off the list of designated waters in [Minn. R. 7050.0470](#) due to a lack of line work in the GIS layer. New line work has been created to sync this designation with the DNR’s trout waters list ([Minn. R. 6264.0050](#)). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, because this reach was erroneously designated and it is an extension of an existing Class 2Ag reach (04010102-678), it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Lake Superior – South Watershed (04010102). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

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<sup>15</sup> This creek is called “Shipwreck Creek” by the DNR.

**Stony Creek (04010102-C48):** The reach of Stony Creek from the south line of PLS System section T55 R10W S22 to the east line of PLS System section T55 R10W S22 is recommended to be designated Class 2Ag. The DNR inadvertently included PLS System section T55 R10W S22 with the Stoney (Rock) Creek trout waters designation in [Minn. R. 6264.0050](#). Instead section T55 R10W S22 should have been included on the list of PLS sections for Stoney (Rock) Creek. The DNR rectified this in 2020 through rule making (State of Minnesota 2020b). The portion of this reach within section T55 R10W S22 is currently designated Class 2Bg by default in the beneficial use table for the Lake Superior – South Watershed (04010102) incorporated by reference in [Minn. R. 7050.0470](#). The portion of this reach in section T55 R10W S27 is currently designated Class 2Ag. There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, because this reach was erroneously designated and it is an extension of existing Class 2Ag reaches (04010102-A36 and the portion of this reach in section T55 R10W S27), it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Lake Superior – South Watershed (04010102). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Encampment River Tributary) (04010102-C53):** The reach of an unnamed creek (Encampment River Tributary) from its headwaters to the south line of PLS System section T54 R10W S9 is recommended to be designated Class 2Bdg. The MPCA is correcting the use designation and line work for this stream based on the DNR's trout waters list. The DNR does not classify this reach as a trout water or trout protection water ([Minn. R. 6264.0050](#)). This reach is a tributary to a trout stream, but the upper section is jurisdictionally disconnected from this reach because it is not connected to a trout water within the same PLS System section. This reach was incorrectly designated Class 2Ag by default in the beneficial use table for the Lake Superior – South Watershed (04010102) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Lake Superior – South Watershed (04010102). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

### c. St. Louis River Watershed (04010201)

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/st-louis-river>

**Spider Creek (Spider Muskrat Creek) (04010201-617):** The reach of Spider Creek (Spider Muskrat Creek) from an unnamed creek to Whiteface River is recommended to be designated Class 2Bdg. The DNR removed Spider Creek from the trout waters list ([Minn. R. 6264.0050](#)) in 2008 (State of Minnesota 2008) for two main reasons: (1) three years (2003-2005) of temperature logger data indicate that it is not suitable to support a cold water fish assemblage and (2) since its designation in the 1960's there has been no evidence of trout reproduction or any return from trout stocking efforts. Data collected by the MPCA in 2009 support DNR's sampling result of no trout sampled in any visits from 1947 to 2009 in the lower portions of this stream (04010201-617, 04010201-862, 04010201-863, 04010201-864, and 04010201-865). A single cold water fish species (mottled sculpin) and five cool-water fish species (brassy minnow, brook stickleback, northern redbelly dace, longnose dace, and burbot) were sampled. One macroinvertebrate sample included three cold water taxa (*Brachycentrus*, *Lype*, and *Ephemarella*) in low numbers (1.8% of sample) and a second sample contained no cold water taxa. Water temperature logger data was collected from two stations in 2003, 2004, 2005, and 2009 had average July water

temperatures of 17.8.-21.9°C and temperatures in the growth range for brook trout 52-87% of the summer. These data indicate that water temperatures in these stream reaches are marginally cold, but during some periods and years it is unsuitable for cold water biota. The biological data in the lower portion of Spider Creek were also marginal and are indicative of a cool or warm water habitat. The Class 2Ag designation for the upper portions of Spider Creek (04010201-866, 04010201-867, and 04010201-869) will be retained based on the presence of brook trout in the 2015 Barr Engineering electrofishing sample. No water temperature data were available for the

**Monitoring station 98LS049 (04010201-617)**



upper reaches of the Spider Creek and no cold water macroinvertebrate taxa were collected. Additional study is needed to determine if the upper reaches of Spider Creek are an existing cold water habitat and if so what is the extent of that habitat. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. See Appendix A for a detailed description of this use designation review. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the St. Louis River Watershed (04010201). In addition to this reach, a number of tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliation with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg in the beneficial use table for the St. Louis River Watershed (04010201): 04010201-870, 04010201-871, 04010201-872, 04010201-874, and 04010201-875.

**Unnamed creek (Peters Creek) (04010201-823):** The reach of an unnamed creek (Peters Creek) from the north line of PLS section T54 R22W S23 to unnamed creek (04010201-825) is recommended to be designated Class 2Bdg. This stream was stocked by the DNR with brook trout in 1974 and 1977. A survey in 1977, 5 days after stocking, collected 11 trout. Most of the trout collected in this survey had signs of fin rot indicating that this stream is not suitable for trout management. A survey in the fall of 1980 did not collect any trout. Two DNR reports indicate that dense alder thickets, mucky substrate, limited flow, and low gradient result in marginal trout habitat in this stream. As a result, the DNR concluded that Peter's Creek has limited potential for trout management. This reach was removed from the trout waters list ([Minn. R. 6264.0050](#)) by the DNR in 2018 (State of Minnesota 2018). See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the St. Louis River Watershed (04010201).

**Unnamed creek (Peters Creek) (04010201-824):** The reach of an unnamed creek (Peters Creek) from unnamed creek (04010201-825) to Pancake Lake is recommended to be designated Class 2Bdg. See 04010201-823 (Unnamed creek [Peters Creek]) for a complete description of the use change proposal. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the St. Louis River Watershed (04010201). In addition to this reach, a tributary was designated Class 2Ag as a trout protection water due to its PLS section affiliation with this reach. As a result, the Class 2Ag designation for the following reach will be changed to Class 2Bdg in the beneficial use table for the St. Louis River Watershed (04010201): 04010201-825.

**Spider Creek (Spider Muskrat Creek) (04010201-862):** The reach of Spider Creek (Spider Muskrat Creek) from an unnamed creek to an unnamed creek is recommended to be designated Class 2Bdg. See 04010201-617 (Spider Creek [Spider Muskrat Creek]) for a complete description of the use change proposal. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the St. Louis River Watershed (04010201). In addition to this reach, a tributary was designated Class 2Ag as a trout protection water due to its PLS section affiliation with this reach. As a result, the Class 2Ag designation for the following reach will be changed to Class 2Bdg in the beneficial use table for the St. Louis River Watershed (04010201): 04010201-872.

**Spider Creek (Spider Muskrat Creek) (04010201-863):** The reach of Spider Creek (Spider Muskrat Creek) from an unnamed creek to an unnamed creek is recommended to be designated Class 2Bdg. See 04010201-617 (Spider Creek [Spider Muskrat Creek]) for a complete description of the use change proposal. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the St. Louis River Watershed (04010201). In addition to this reach, a tributary was designated Class 2Ag as a trout protection water due to its PLS section affiliation with this reach. As a result, the Class 2Ag designation for the following reach will be changed to Class 2Bdg in the beneficial use table for the St. Louis River Watershed (04010201): 04010201-871.

**Spider Creek (Spider Muskrat Creek) (04010201-864):** The reach of Spider Creek (Spider Muskrat Creek) from an unnamed creek to an unnamed creek is recommended to be designated Class 2Bdg. See 04010201-617 (Spider Creek [Spider Muskrat Creek]) for a complete description of the use change proposal. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the St. Louis River Watershed (04010201). In addition to this reach, a tributary was designated Class 2Ag as a trout protection water due to its PLS section affiliation with this reach. As a result, the Class 2Ag designation for the following reach will be changed to Class 2Bdg in the beneficial use table for the St. Louis River Watershed (04010201): 04010201-870.

**Spider Creek (Spider Muskrat Creek) (04010201-865):** The reach of Spider Creek (Spider Muskrat Creek) from an unnamed creek to an unnamed creek is recommended to be designated Class 2Bdg. See 04010201-617 (Spider Creek [Spider Muskrat Creek]) for a complete description of the use change proposal. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the St. Louis River Watershed (04010201). In addition to this reach, a tributary was designated Class 2Ag as a trout protection water due to its PLS section affiliation with this reach. As a result, the Class 2Ag designation for the following reach will be changed to Class 2Bdg in the beneficial use table for the St. Louis River Watershed (04010201): 04010201-875.

**Monitoring station 19LS006 (04010201-865)**



#### d. Cloquet River Watershed (04010202)

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/cloquet-river>

**Unnamed creek (Carey Creek) (04010202-617):** The reach of an unnamed creek (Carey Creek) from its headwaters to Island Lake Reservoir is recommended to be designated Class 2Bdg. Carey Creek was stocked with trout from 1955 through 1989. A three year (2010-2012) temperature study was performed by the DNR to determine thermal conditions and this stream's ability to support trout. Summer (June-September) water temperatures were above the threshold for stress for brook trout 50% or more of the summer season indicating that this stream is too warm for trout. A DNR fish survey in 2010 did not collect any trout. As a result, the DNR concluded that Carey Creek is not suitable for management of trout. This reach was removed from the designated trout waters list ([Minn. R. 6264.0050](#)) by the DNR in 2018 (State of Minnesota 2018). See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Cloquet River Watershed (04010202).

**Pine Creek (04010202-657):** The reach of Pine Creek from unnamed creek to unnamed creek (04010202-565) is proposed to be designated Class 2Ag. This reach of Pine Creek was reviewed because fish samples had good proportions of cold water fish species, indicating the ability to support these assemblages. Two stations (10EM029 and 15LS012) were sampled for fish on this reach in 2015 and 10EM029 was also sampled in 2010. One of the 2010 visits included brook trout. In 2010, the DNR also conducted a fish survey and sampled three locations on this reach. Both adult and young-of-the-year brook trout were sampled at all three of these stations indicating natural reproduction of trout. The DNR also deployed four temperature loggers, but only one was indicative of a cold water thermal regime. However the measured thermal variability is plausibly the result of fluctuating water levels of the upstream lake. Despite inconclusive temperature logger data, the observed biological communities indicate that this reach supports a cold water habitat. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Cloquet River Watershed (04010202).

**Monitoring stations 15LS012 (left) and 10EM029 (right) (04010202-657)**



**Hellwig Creek (04010202-672):** The reach of Hellwig Creek from unnamed creek to the east line of PLS section T52 R17 S15 is recommended to be designated Class 2Bdg. This reach was originally designated by the DNR as a trout water due to stocking efforts in the 1960's. The DNR surveyed this reach in 2006 and did not sample any trout in 04010202-672. Brook and brown trout were sampled downstream of this WID. Fish and macroinvertebrates were sampled by the MPCA from one station (98LS019) in 1998,

2015, and 2016. Two fish visits did not sample any cold or cool water fish species. One visit did sample one cold water fish species (mottled sculpin) and 2 cool water species (brook stickleback and finescale dace). No trout were sampled. Cold water fish species individuals comprised 0-3.7% (0-11.1% of taxa) of the fish samples. Macroinvertebrates we sampled twice (1998 and 2015) and neither included any cold water taxa. Temperature logger data was collected from the biological station in 2015 had an average July water temperature of 20.1°C and temperatures were in the growth range for brook trout 67.4% of the summer.

#### Monitoring station 98LS019 (04010202-672)



Temperature logger data were collected by the DNR near Hwy 53 (mile 3.1) in this reach during 2002, 2003, and 2004. These data were similar to the MPCA temperature logger data with 57-75% of the summer in the stressful or lethal range for brook trout. The DNR is considering removing the trout water designation above the first Hwy 53 crossing and maintaining in the downstream reaches. This possible change to the DNR's designation matches the MPCA's recommended designation. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Cloquet River Watershed (04010202). In addition to this reach, three tributaries were designated Class 2Ag as trout protection waters due to PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reach will be changed to Class 2Bdg in the beneficial use table for the Cloquet River Watershed (04010202): 04010202-541, 04010202-638, and 04010202-639.

### e. Nemadji River Watershed (04010301)

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/nemadji-river>

**Spring Creek (04010301-763):** Spring Creek from its headwaters to the north line of PLS System section T46 R17W S8 is recommended to be designated Class 2Bdg. The DNR does not classify this reach as a trout water or trout protection water ([Minn. R. 6264.0050](#)). This reach is located in PLS section T46 R17W S8 which is included in the trout waters designation for Nemadji Creek (04010301-545) and Nemadji River (04010301-757). However, Spring Creek (04010301-763) is considered to be jurisdictionally disconnected because it flows to Spring Creek (04010301-764). As a result, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA proposes to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Nemadji River Watershed (04010301).

**Unnamed creek (Skunk Creek Tributary) (04010301-765):** An unnamed creek (Skunk Creek Tributary) from its headwaters to the north line of PLS System section T46 R17W S8 is recommended to be designated Class 2Bdg. The DNR does not classify this reach as a trout water or trout protection water ([Minn. R. 6264.0050](#)). This reach is located in PLS section T46 R17W S8 which is included in the trout waters designation for Nemadji Creek (04010301-545) and Nemadji River (04010301-757). However, this unnamed creek (Skunk Creek Tributary) (04010301-765) is considered to be jurisdictionally disconnected because it flows to Skunk Creek (04010301-504). As a result, this reach was erroneously

designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA proposes to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Nemadji River Watershed (04010301).

**Unnamed creek (Skunk Creek Tributary) (04010301-767):** An unnamed creek (Skunk Creek Tributary) from its headwaters to the north line of PLS System section T46 R17W S8 is recommended to be designated Class 2Bdg. The DNR does not classify this reach as a trout water or trout protection water ([Minn. R. 6264.0050](#)). This reach is located in PLS section T46 R17W S8 which is included in the trout waters designation for Nemadji Creek (04010301-545) and the Nemadji River (04010301-757). However, this unnamed creek (Skunk Creek Tributary) (04010301-767) is considered to be jurisdictionally disconnected because it flows to Skunk Creek (04010301-504). As a result, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Nemadji River Watershed (04010301).

## 2. Lake of the Woods Basin

### a. Rainy River - Headwaters Watershed (09030001)

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/rainy-river-headwaters>

**Hog Creek (09030001-676):** The reach of Hog Creek from unnamed creek to unnamed creek is recommended to be designated Class 2Ag. The DNR currently classifies the entire reach of Hog Creek, from Hog Lake (16-0653-00) to Perent Lake (38-0220-00), as warm water. Only limited information regarding the past management of Hog Creek was available. A survey by the DNR was conducted in 1968 that included watershed information, physical characteristics, and aquatic plant diversity. The US Forest Service (USFS) conducted four community-based fish surveys at mile 6.7 (47.8142, -91.0345) in 2010 and 2011. The fish community sampled in these surveys were dominated by species typically found in cold water streams and included cool water (longnose dace, northern redbelly dace) and cold water (mottled sculpin) species. A more recent biological monitoring survey was conducted by the MPCA in 2014 and 2015 and sampled burbot, longnose dace, and northern redbelly dace. Macroinvertebrates were also sampled during this effort and contained several cold water obligates, including a state threatened species (*Boyeria grafiiana*). Temperature data was collected from mile 6.7 and indicated that the thermal regime is supportive of a brook trout fishery, with summer (June-August) water temperatures in the growth range for brook trout 78.3-89.6% of the summer and average July temperatures of 17.8-19.8°C. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg classification and replace it with the use assigned to Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001).

**Monitoring stations 14RN100 (left) and 05RN071 (right) (09030001-676)**



**Unnamed creek (Ash River Tributary) (09030001-874):** The reach of an unnamed creek (Ash River Tributary) from its headwaters to unnamed creek is recommended to be designated Class 2Bdg. The DNR inadvertently included PLS System section T68 R20W S27 in the list of PLS sections for the Blackduck River (09030001-820) in [Minn. R. 6264.0050](#) and rectified this in 2020 through rule making (State of Minnesota 2020b). This reach was designated as a trout protection water due to its PLS section affiliation with the Blackduck River. However, the DNR does not manage this reach as a trout water or trout protection water. This reach (09030001-874) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Ash River Tributary) (09030001-875):** The reach of an unnamed creek (Ash River Tributary) from an unnamed creek to an unnamed creek is recommended to be designated Class 2Bdg. The DNR inadvertently included PLS System section T68 R20W S27 in the list of PLS sections for the Blackduck River (09030001-820) in [Minn. R. 6264.0050](#) and rectified this in 2020 through rule making (State of Minnesota 2020b). This reach was designated as a trout protection water due to its PLS section affiliation with the Blackduck River. However, the DNR does not manage this reach as a trout water or trout protection water. This reach (09030001-875) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Ash River Tributary) (09030001-876):** The reach of an unnamed creek (Ash River Tributary) from its headwaters to an unnamed creek is recommended to be designated Class 2Bdg. The DNR inadvertently included PLS System section T68 R20W S27 in the list of PLS sections for the



Blackduck River (09030001-820) in [Minn. R. 6264.0050](#) and rectified this in 2020 through rule making (State of Minnesota 2020b). This reach was designated as a trout protection water due to its PLS section affiliation with the Blackduck River. However, the DNR does not manage this reach as a trout water or trout protection water. This reach (09030001-876) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Ash River Tributary) (09030001-877):** The reach of an unnamed creek (Ash River Tributary) from its headwaters to an unnamed creek is recommended to be designated Class 2Bdg. The DNR inadvertently included PLS System section T68 R20W S27 in the list of PLS sections for the Blackduck River (09030001-820) in [Minn. R. 6264.0050](#) and rectified this in 2020 through rule making (State of Minnesota 2020b). This reach was designated as a trout protection water due to its PLS section affiliation with the Blackduck River. However, the DNR does not manage this reach as a trout water or trout protection water. This reach (09030001-877) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Blackduck River Tributary) (09030001-887):** The reach of an Unnamed creek (Blackduck River Tributary) from its headwaters to the north line of the PLS System section T67 R20W S2 is recommended to be designated Class 2Bdg. The DNR inadvertently included PLS System section T67 R20W S2 in the list of PLS sections for the Blackduck River (09030001-820) in [Minn. R. 6264.0050](#) and rectified this in 2020 through rule making (State of Minnesota 2020b). As part of this rule, the DNR also designated the downstream reaches of this creek (09030001-858) as a trout water. However, the DNR does not manage this reach (09030001-887) as a trout water or trout protection water. This reach (09030001-887) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Ninemile Creek Tributary) (09030001-924):** The reach of an unnamed creek (Ninemile Creek Tributary) from its headwaters to Chub Lake is recommended to be designated Class 2Bdg. The MPCA is correcting the use designation based on the DNR's trout waters list ([Minn. R. 6264.0050](#)). This reach is a tributary to a Ninemile Creek (09030001-827), but PLS system section T67 R19W S27 is not

part of the designation for Ninemile Creek and Chub Lake (69-0815-00) is between this reach and Ninemile Creek. Therefore the upper section of this tributary (09030001-924) is jurisdictionally disconnected from the Ninemile Creek designation. As a result, the DNR does not manage this stream reach as a trout water or trout protection water. This reach (09030001-924) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Ninemile Creek Tributary) (09030001-929):** The reach of an unnamed creek (Ninemile Creek Tributary) from its headwaters to an unnamed creek is recommended to be designated Class 2Bdg. The MPCA is correcting the use designation based on the DNR's trout waters list ([Minn. R. 6264.0050](#)). The reach of this tributary in PLS system section T67 R19W S18 was formerly part of the DNR's trout waters designation for Ninemile Creek (09030001-827). With the DNR's recent revision of its list of trout waters (State of Minnesota 2020b), the tributary to Ninemile Creek was designated as a separate trout water. In this revision, PLS system section T67 R19W S18 is not included in the Ninemile Creek tributary designation. In addition, there is a lake (69-0813-00) between the upstream and downstream reaches of this tributary. Therefore the upper section of this tributary (09030001-929) is jurisdictionally disconnected from the unnamed creek (Ninemile Creek Tributary) (09030001-928) designation. As a result, the DNR does not manage this stream reach as a trout water or trout protection water. This reach (09030001-929) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Ninemile Creek Tributary) (09030001-932):** The reach of an unnamed creek (Ninemile Creek Tributary) from its headwaters to the east line of PLS System section T67 R19W S18 is recommended to be designated Class 2Bdg. The MPCA is correcting the use designation based on the DNR's trout waters list ([Minn. R. 6264.0050](#)). The reach of this tributary in PLS system section T67 R19W S18 was formerly part of the DNR's trout waters designation for Ninemile Creek (09030001-827). With the DNR's recent revision of its list of trout waters (State of Minnesota 2020b), the tributary to Ninemile Creek was designated as a separate trout water. In this revision, PLS system section T67 R19W S18 is not included in the Ninemile Creek tributary designation. In addition, there is a Class 2Bg stream reach and a lake (69-0813-00) between the upstream and downstream reaches of this tributary. Therefore the upper section of this tributary (09030001-932) is jurisdictionally disconnected from the unnamed creek (Ninemile Creek Tributary) (09030001-928) designation. As a result, the DNR does not manage this stream reach as a trout water or trout protection water. This reach (09030001-932) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously

designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

#### Monitoring station 14RN084 (09030001-979)



**Larch Creek (09030001-974):** The reach of Larch Creek from its headwaters to the BWCA boundary is recommended to be designated Class 2Ag. No information regarding the past management of Larch Creek was available from the DNR. A more recent biological monitoring survey was conducted at mile 1.5 by the MPCA in 2014 and 2015. Two fish surveys were conducted during the summer of 2014 and sampled a community with some cold (mottled sculpin) and cool (burbot) water species. In addition, the MPCA macroinvertebrate survey from 2014 contained 3 cold water obligate taxa, and one from the summer of 2015. Beaver activity was noted during the summer of 2015 and may be a plausible explanation for the reduced number of cold water taxa observed in 2015. A continuous-recording stream temperature logger was deployed in this reach by the MPCA during the summer of 2014 and 2015. Although only 78.3% of the summer (June-August) was recorded in 2014, a high percentage (97.7%) of this time was within the growth range for brook trout and demonstrated that the thermal regime may be supportive of a brook trout fishery. Furthermore, thermal stress for brook trout was low and was recorded only 2.3% of the time with the lethal threshold never exceeded during the deployment period. Temperature data from 2015 was incomplete, with only the month of June and 3 days of July recorded, with 100% of the measurements within the growth range for brook trout. The summer average temperatures for 2014 and 2015 were 16.3°C and 15.4°C, respectively. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001).

**Harriet Creek (09030001-979):** The reach of Harriet Creek from Harriet Lake to Silver Island Lake is recommended to be designated Class 2Ag. The DNR currently classifies the section of Harriet Creek, from Harriet Lake to Silver Island Lake, as a warm water stream. DNR fish surveys in 1968 and 2002 did not collect any cold water fish species. Additional information regarding past DNR management of Harriet Creek is limited. Both the MPCA fish and macroinvertebrate surveys, along with continuous temperature data, indicate a reasonable potential for this reach to support cold water biological communities. The MPCA macroinvertebrate survey from 2014 contains 6 cold water taxa, including a state threatened species (*Boyeria grafiana*). The 2015 macroinvertebrate sample contained 2 of these same taxa. Although not strongly indicative of a cold water community, fish samples were dominated by cool (longnose and pearl dace) and cold (mottled sculpin) water species. Fish community surveys by the US Forest Service from two additional stations in 2010 and 2011 were similar to the samples collected by the MPCA. Temperature data was collected from mile 1.30 and indicated that the thermal regime is potentially sufficient to support brook trout, with thermal stress recorded 27.7% of the time and the lethal threshold reached 1.5% of the time during the summer (June through August) of 2015. The summer average temperature during 2015 was 18.1°C. See Appendix A for a detailed description of this

use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001).

**Dunka River (09030001-987):** The reach of Dunka River from unnamed ditch to Birch Lake is recommended to be designated Class 2Ag. The DNR currently classifies the entire Dunka River, from the headwaters to Birch Lake, as a warm water stream. Community-based fish surveys were completed by the DNR in 1968 and 1975, which indicated that the lower reaches contained some cold water fish species (mottled sculpin), while the upper reaches were dominated by cool/warm water species. More recent biological monitoring surveys conducted by the MPCA in 2014, 2015, and 2019, sampled brook trout at most stations. Some young-of-the-year brook trout were sampled, indicating that natural reproduction of trout is occurring in the lower reaches of the Dunka River. Mottled sculpin and several other cool water fish species (longnose dace, brook stickleback, northern redbelly dace, finescale dace, and pearl dace) were also present in this reach. The MPCA also collected temperature data from mile 1.9 and 2.6 during the summers of 2014 and 2015. Temperature data from mile 1.9 indicates that the thermal regime is supportive of a brook trout fishery with water temperatures in the growth range for brook trout 82.5% of the summer (June through August) in 2014. The thermal regime at miles 1.9 and 2.6 during 2015 were more marginal for trout with temperature in the growth range for brook trout 52.6-52.9% of the summer. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001).

**Monitoring stations 15RN035 (left) and 14RN006 (right) (09030001-987)**



**Unnamed creek (Ash River Tributary) (09030001-A29):** The reach of an unnamed creek (Ash River Tributary) from an unnamed creek to the north line of PLS System section T68 R20W S27 line is recommended to be designated Class 2Bdg. This reach was designated as a trout protection water due to its PLS section affiliation with the Blackduck River. The DNR inadvertently included PLS System section T68 R20W S27 in the list of PLS sections for the Blackduck River (09030001-820) in [Minn. R. 6264.0050](#) and rectified this in 2020 through rule making (State of Minnesota 2020b). As a result, the DNR does not manage this stream reach as a trout water or trout protection water. This reach (09030001-A29) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this

change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Blackduck River Tributary) (09030001-A30):** The reach of an unnamed creek (Blackduck River Tributary) from its headwaters to the south line of PLS System section T68 R20W S27 is recommended to be designated Class 2Bdg. This reach was designated as a trout protection water due to its PLS section affiliation with the Blackduck River. The DNR inadvertently included PLS System section T67 R20W S2 in the list of PLS sections for the Blackduck River (09030001-820) in [Minn. R. 6264.0050](#) and rectified this in 2020 through rule making (State of Minnesota 2020b). As part of this rule the DNR also separately designated the stream reach downstream of 09030001-A30 as a trout water. However, the DNR does not manage 09030001-A30 as a trout water or trout protection water. This reach (09030001-A30) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Ash Creek Tributary) (09030001-A32):** The reach of an unnamed creek (Ash River Tributary) from the south line to east line of PLS System section T67 R20W S31 is recommended to be designated Class 2Bdg. The MPCA is correcting the use designation based on the DNR's trout waters list ([Minn. R. 6264.0050](#)). This reach is a tributary to the Ash River (09030001-819), but PLS system section T67 R20W S31 is not part of the DNR's designation for the Ash River. Therefore, the upper section of this reach (09030001-A32) is jurisdictionally disconnected from the Ash River designation and the DNR does not manage 09030001-A32 as a trout water or trout protection water. This reach (09030001-A32) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Ninemile Creek Tributary) (09030001-A34):** The reach of an unnamed creek (Ninemile Creek Tributary) from its headwaters to the east line of PLS System section T67 R20W S24 is recommended to be designated Class 2Bdg. The MPCA is correcting this use designation based on the DNR's trout waters list. This reach is a tributary to a Ninemile Creek (09030001-827), but PLS system section T67 R20W S24 is not part of the DNR's trout waters designation for Ninemile Creek ([Minn. R. 6264.0050](#)). Therefore, the upper section of this reach (09030001-A34) is jurisdictionally disconnected from the Ninemile Creek designation and the DNR does not manage 09030001-A34 as a trout water or trout protection water. This reach (09030001-A34) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information,

[40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

## **b. Vermilion River Watershed (09030002)**

**MPCA website:** <https://www.pca.state.mn.us/water/watersheds/vermilion-river>

**East Two River (09030002-648):** The reach of East Two River from an unnamed creek to the west line of PLS section T62 R15W S32 is recommended to be designated Class 2Bdg. MPCA macroinvertebrate and fish surveys in 2016 did not sample any cold water species from this portion of East Two River. The MPCA's survey results are supported by a 1992 DNR survey which only collected sculpin from the same reach. A temperature logger deployed in 2015 at 15RN029, measured a mean July water temperature of 21.2°C and water temperatures in the stressful range for trout for 44.3% of the summer. Both DNR and MPCA data indicate that the upstream WID (09030002-647) at least supports a

**Monitoring station 15RN029 (09030002-648)**



marginal cold water habitat and as such the Class 2A should be maintained for the upstream section of East Two River. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Vermilion River Watershed (04010202). In addition to this reach, two tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg in the beneficial use table for the Vermilion River Watershed (04010202): 09030002-538, 09030002-628.

## **c. Rainy Lake Watershed (09030003)**

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/rainy-river-rainy-lake>

No draft use designations.

#### **d. Little Fork River Watershed (09030005)**

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/little-fork-river>

**Unnamed creek (Lost River Tributary) (09030005-545<sup>16</sup>):** The reach of an unnamed creek (Lost River Tributary) in PLS System section T66 R20W S36 is recommended to be designated Class 2Bdg. The MPCA is correcting the use designation based on the DNR's trout waters list ([Minn. R. 6264.0050](#)). This reach is a tributary to a Lost River Tributary (09030005-543), but PLS system section T66 R20W S36 is not part of the designation for the Lost River Tributary. Therefore the upper section of this reach (09030001-545) is jurisdictionally disconnected from the Lost River Tributary (09030005-543) designation and the DNR does not manage this reach as a trout water or trout protection water. This reach (09030001-545) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

**Unnamed creek (Lost River Tributary) (09030005-546<sup>17</sup>):** The reach of an unnamed creek (Lost River Tributary) in PLS System section T65 R20W S12 is recommended to be designated Class 2Bdg. The MPCA is correcting the use designation based on the DNR's trout waters list ([Minn. R. 6264.0050](#)). This reach is a tributary to a Lost River Tributary (09030005-543), but PLS system section T65 R20W S12 is not part of the designation for Lost River Tributary. Therefore the upper section of this reach (09030001-546) is jurisdictionally disconnected from the Lost River Tributary (09030005-543) designation and the DNR does not manage this reach as a trout water or trout protection water. This reach (09030001-546) is currently designated Class 2Ag by default in the beneficial use table for the Rainy River - Headwaters Watershed (09030001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Rainy River - Headwaters Watershed (09030001). Due to the lack of assessable biological data, this reach will remain an unconfirmed Class 2Bg in the beneficial use table.

#### **e. Rapid River Watershed (09030007)**

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/rapid-river>

No draft use designations.

#### **f. Rainy River - Lower Watershed (09030008)**

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/lower-rainy-river>

No draft use designations.

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<sup>16</sup> The draft use designation does not change the use for the entire reach, but only the portion in PLS System section T66 R20W S36. As a result the boundaries of 09030005-545 will be modified to reflect this revision.

<sup>17</sup> The draft use designation does not change the use for the entire reach, but only the portion in PLS System section T65 R20W S12. As a result the boundaries of 09030005-546 will be modified to reflect this revision.

### 3. Red River of the North Basin

#### a. Otter Tail River Watershed (09020103)

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/otter-tail-river>

**Toad River (09020103-526):** The reach of Toad River from Little Toad Lake to the southwest corner of PLS section T138 R38W S30 is recommended to be designated Class 2Bdg. No cold water fish species were observed at either MPCA biological monitoring station. No cold water macroinvertebrate taxa were observed in the sample from station 16RD026 and 3 taxa (7 individuals) were sampled at 16RD025. Temperature logger data indicated a summer (June-August) thermal regime that is marginal to not conducive to support a cold water community. Conditions during this period were in the lethal or stressful range for trout 30.6-56.8% of the summer. This included lethal temperatures for 4% of the recording time at 16RD026. The DNR recognizes that conditions may not be conducive to support a self-sustaining population of trout in this reach of the Toad River. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Otter Tail River Watershed (09020103). In addition to this reach, several tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg in the beneficial use table for the Otter Tail River Watershed (09020103): 09020103-667, 09020103-668, 09020103-669, 09020103-670, 09020103-671, 09020103-672, 09020103-673, 09020103-674, 09020103-675, 09020103-676, 09020103-677, 09020103-678, 09020103-679, 09020103-680, 09020103-681, 09020103-682, 09020103-683, 09020103-684, 09020103-685, 09020103-686, 09020103-687, 09020103-688, 09020103-689, 09020103-690, 09020103-691, 09020103-692, 09020103-693, 09020103-694, 09020103-695, 09020103-696, 09020103-697, 09020103-698, 09020103-699, 09020103-700, 09020103-701, 09020103-702, 09020103-703, 09020103-704, 09020103-705, 09020103-706, 09020103-707, 09020103-708, 09020103-709, 09020103-710, 09020103-711, 09020103-712, 09020103-713, 09020103-714, 09020103-715, 09020103-716, 09020103-717, 09020103-718, 09020103-719, 09020103-720, 09020103-721, 09020103-722, 09020103-723, 09020103-724, 09020103-725, 09020103-726, 09020103-727, 09020103-728, 09020103-729, 09020103-730, 09020103-731, 09020103-732, 09020103-733, 09020103-734, 09020103-735, 09020103-736, 09020103-737, 09020103-738, 09020103-739, 09020103-740, 09020103-741, 09020103-742, 09020103-743.

**Monitoring stations 16RD025 (left and right) (09020103-526)**





**Unnamed creek (Toad River Tributary)<sup>18</sup> (09020103-665):** The reach of an unnamed creek (Toad River Tributary) from Toad River to Dead Lake is recommended to be designated Class 2Bdg. No MPCA biological monitoring data were available from this reach, but see the use designation review for 09020103-526 and Appendix A for a detailed description of this use designation review. Based on the information in this review, 09020103-665 would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Otter Tail River Watershed (09020103).

**Judicial Ditch 2 (09020103-764):** The reach of Judicial Ditch 2 from an unnamed ditch along 190th Street to the Otter Tail River is proposed to be designated Class 2Bm. Biological data from both fish and macroinvertebrates collected from one station in 2016 demonstrated that it does not meet the fish or macroinvertebrate aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Lower Judicial Ditch No 2 watershed (HUC 12: 090201031002) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm. This reach met ammonia, chloride, Secchi tube, and pH standards and exceeded dissolved oxygen standards. Water quality data were not sufficient for assessment of any other aquatic life WQS (eutrophication and Total Suspended Solids (TSS)) due to small sample sizes. Stressor identification determined that the fish impairment is associated with a loss of longitudinal connectivity, flow regime instability, insufficient physical habitat, and to a lesser extent, high suspended sediment and low dissolved oxygen. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign the Class 2Bm designation. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Red River of the Otter Tail River Watershed (09020103).

**Monitoring station 16RD009 (09020103-764)**



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<sup>18</sup> The DNR calls this reach "Toad River" as well as the trout protection tributary in PLS section T138 R38W S31 (part of 09020103-769). Based on historical maps it appears that 09020103-665 was a tributary to Toad River, but the construction of a ditch flowing out of the south end of Dead Lake has reversed the flow of this tributary such that most of the flow from Toad River now goes through 09020103-665. The original Toad River channel (part of 09020103-769) is still present, but it may only have substantial flow during high water levels.

**Judicial Ditch 2 (09020103-764) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16RD009	2016	Fish	2	35	6.5	11.5	1.7	38
16RD009	2016	Macroinvertebrates	7	28	2	17.5	6.2	22

**b. Wild Rice River Watershed (09020108)**

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/wild-rice-river>

**Buckboard Creek (09020108-534):** The reach of Buckboard Creek from its headwaters to the north line of PLS system section T144 R38W S11 is recommended to be designated Class 2Bdg. Buckboard Creek was managed by the DNR as a cold water stream from 1970 to 1983. Brook trout and brown trout have been collected during DNR stream surveys after stocking events, but no natural reproduction has been documented. In addition, the DNR indicates that beaver activity impacts flow and water temperature and makes these reaches unsuitable to support trout. Trout management on Buckboard Creek was dropped by the DNR after the 1983 stream survey. Water temperature data collected at 15 min intervals during the summer of 2014 also indicate that conditions in this stream are not favorable for supporting a cold water community (average July water temperature = 20.2 °C). Fish and macroinvertebrate data collected by the MPCA further indicate this lower reach is a warm/cool water habitat. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Wild Rice River Watershed (09020108).

**Monitoring station 05RD100 (09020108-534)**



**c. Upper/Lower Red Lake (09020302)**

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/upperlower-red-lake>

**Mud River (09020302-540):** The reach of Mud River from the west line of PLS system section T150 R33W S28 to the north line of PLS survey section T150 R33W S21 is recommended to be designated Class 2Bdg. Survival and carryover of stocked fish has been documented as poor and as a result, stocking and management activities by the DNR have been discontinued. In 2014, the MPCA collected fish and macroinvertebrate community data from one monitoring station located on this reach. Two fish samples were collected. No cold water fish species were present in either sample and a single cool water species was present in one sample. Two cold water macroinvertebrate taxa (8 individuals) were present in a sample collected in 2014. Water temperature data was collected in 15 minute intervals from the monitoring station during 2014. The water temperature data indicate that conditions in Mud River are marginal for supporting a cold water community. Stressful to lethal thermal conditions for trout were

recorded for 46.0% of the summer (June through August). See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper/Lower Red Lake (09020302). In addition to this reach, three tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg in the beneficial use table for the Upper/Lower Red Lake (09020302): 09020302-583, 09020302-584, and 09020302-585.

**Monitoring station 14RD107 (09020302-540)**



**Meadow Creek (09020302-542):** The reach of Meadow Creek from the east line of PLS system section T151 R30W S6 to the west line of PLS system section T151 R31W S2 is recommended to be designated Class 2Bdg. Stocking reports indicate that brook trout fingerlings were last stocked in 1975. After a 1977 population assessment documented no trout were present, a recommendation was made to remove Meadow Creek from the designated trout waters list due to poor habitat, warm temperatures, and beaver activity. The DNR removed Meadow Creek from the trout waters list ([Minn. R. 6264.0050](#)) in 2018 (State of Minnesota 2018). In 2014, the MPCA

**Monitoring station 14RD107 (09020302-542)**



collected fish and macroinvertebrate community data from one monitoring station on this reach. No cold water fish or macroinvertebrate taxa were sampled. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper/Lower Red Lake (09020302). In addition to this reach, five tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliation with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg in the beneficial use table for the Upper/Lower Red Lake (09020302): 09020302-578, 09020302-579, 09020302-580, 09020302-581, and 09020302-582.

**O'Brien Creek (09020302-544):** The reach of O'Brien Creek from the south line of PLS system section T149 R32W S2 to the north line of PLS system section T150 R32W S23 is recommended to be designated Class 2Bdg. DNR surveys in the 1970s and 1980s indicated that water temperatures were marginal for trout due to the presence of beaver ponds on this reach. There is no indication of natural reproduction or good carryover of trout in this reach. Brown trout were last stocked in O'Brien Creek in 1985. The DNR removed O'Brien Creek from the trout waters list ([Minn. R. 6264.0050](#)) in 2018 (State of Minnesota 2018) because management of trout was deemed to not be feasible. No MPCA monitoring data on this

stream reach is present. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper/Lower Red Lake (09020302). In addition to this reach, nine tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg in the beneficial use table for the Upper/Lower Red Lake (09020302): 09020302-586, 09020302-587, 09020302-588, 09020302-589, 09020302-590, 09020302-591, 09020302-592, 09020302-596, and 09020302-597.

**Spring Creek (09020302-546):** The reach of Spring Creek from the south line of PLS system section T149 R30W S10 to the north line of PLS system section T149 R30W S5 is recommended to be designated Class 2Bdg. A reconnaissance survey by the DNR in 1970 indicated that flows were too low in Spring Creek to support trout. There is no indication of natural reproduction or good carryover of trout in this reach. Trout were last stocked in Spring Creek in 1979. The DNR removed Spring Creek from the trout waters list

([Minn. R. 6264.0050](#)) in 2018 (State of Minnesota 2018) because management of trout was deemed to not be feasible. Reasons for removal of the trout waters designation included poor habitat, low flows, beaver activity, and warm water temperatures. MPCA biological monitoring corroborates the DNR's decision due to the lack of cold water fish or macroinvertebrate taxa. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper/Lower Red Lake (09020302). In addition to this reach, three tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg in the beneficial use table for the Upper/Lower Red Lake (09020302): 09020302-593, 09020302-594, and 09020302-595.

**Monitoring station 05RD082 (09020302-546)**



#### **d. Clearwater River Watershed (09020305)**

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/clearwater-river>

**Lost River (09020305-530):** The reach of Lost River from an unnamed creek to the north line of PLS system section T148 R38W S20 is recommended to be designated Class 2Bdg. The MDNR currently classifies this section of the Lost River as marginal trout water. Stocking reports indicate that brook trout fingerlings were stocked from 1947 to 1975. No official report or documentation regarding the cessation of stocking could be located. No DNR survey data for this reach was available. The MPCA collected fish community data from two monitoring stations located on this reach. One station was sampled in 2014 and 2015 and the other station was sampled in 2005. All fish samples consisted of predominantly warm water species. Water temperature data was collected in 15 minute intervals at both sampling stations. The water temperature data indicate that conditions in the Lost River are marginal for supporting a cold

water community (average July water temperature 19.9-23.1°C). Thermal stress was recorded 33.6-40.0% of the summer (June through August) at both stations with the lethal threshold exceeded for 18.5% of the summer at one station. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Clearwater River Watershed (09020305). In addition to this reach, several tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg in the beneficial use table for the Clearwater River Watershed (09020305): 09020305-545, 09020305-621, 09020305-622, 09020305-623, 09020305-624, 09020305-625, 09020305-626, 09020305-627, 09020305-628, 09020305-629, 09020305-630, 09020305-631, 09020305-632, 09020305-633, 09020305-634, and 09020305-635.

**Clearwater River (09020305-654):** The reach of the Clearwater River from an unnamed creek to Clearwater Lake is recommended to be designated Class 2Bdg. The DNR currently classifies the section of the Clearwater River, from an unnamed creek (09020305-654) to Clearwater Lake, as a marginal trout water. According to the DNR, trout are occasionally captured by anglers from this reach and are likely migrants from the active management area located 10 miles upstream. The DNR does not actively manage this section of the Clearwater River for trout and has indicated that water temperatures are not conducive to trout survival. There is no evidence of natural reproduction of trout in this stream reach. In 2011 and 2015, the MPCA collected fish and macroinvertebrates community data from one monitoring station located on this reach. Both fish samples consisted of a diverse, predominantly warm water community with low numbers of a cold water species (mottled sculpin). No trout were collected by the MPCA. No cold water macroinvertebrate taxa were present in either the 2011 or 2015 samples. Water temperature data was collected in 15 minute intervals from the monitoring station during 2016. The water temperature data indicate that conditions in the Clearwater River are marginal for supporting a cold water community. Thermal stress was recorded 52.8% of the time during the summer and the average July temperature was 20.9°C. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Clearwater River Watershed (09020305). In addition to this reach, six tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg

**Monitoring station 05RD106 (09020305-530)**



**Monitoring station 10EM085 (09020305-654)**



in the beneficial use table for the Clearwater River Watershed (09020305): 09020305-608, 09020305-609, 09020305-610, 09020305-611, 09020305-612, and 09020305-613.

**Unnamed creek (Spring Lake Creek) (09020305-900):** The reach of the Clearwater River from its headwaters to the north line of PLS system section T148 R35W S34 is recommended to be designated Class 2Bdg. A 1970 DNR reconnaissance survey report recommended removal of the trout water designation. Stocking of trout ceased in 1977. The DNR removed this unnamed creek from the trout waters list ([Minn. R. 6264.0050](#)) in 2018 (State of Minnesota 2018) because management of trout was deemed to not be feasible. Reasons for removal of the trout waters designation included poor habitat, low flows, beaver activity, and warm water temperatures. No MPCA monitoring data is available for this stream reach. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Clearwater River Watershed (09020305). In addition to this reach, a tributary was designated Class 2Ag as a trout protection water due to its PLS section affiliation with this reach. As a result, the Class 2Ag designation for the following reach will be changed to Class 2Bdg in the beneficial use table for the Clearwater River Watershed (09020305): 09020305-637.

## 4. Upper Mississippi River Basin

### a. Leech Lake River Watershed (07010102)

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/leech-lake-river>

**Pokety Creek (07010102-527):** The reach of Pokety Creek from the north line of PLS System section T144 R33W S24 to the Necktie River is recommended to be designated Class 2Bdg. The DNR removed this stream from the trout waters list ([Minn. R. 6264.0050](#)) in 2018 (State of Minnesota 2018) because management of trout was deemed to not be feasible. Stocking reports indicated that brook trout fingerlings were stocked in years 1958-63, 1965-68, and 1970-1975. A 1959 MDNR winter reconnaissance report noted that trout would likely not survive the winter unless they resided near spring holes found in section 24 or 25. The report also noted that Pokety Creek was a possible candidate for put-and-take stocking management. DNR sampling was conducted during the early 1990s and no trout were sampled. Temperature data were collected by the DNR at two locations on Pokety Creek during 2012 and 2013. Thermal stress was recorded 19.8-41.5% of the summer (June through September). The lethal threshold was also reached 7.7% of the summer. Fish community data was collected by the MPCA at one station on Pokety Creek during 2012. No cold water fish species were sampled and four cool water fish species were sampled. Macroinvertebrates were also sampled in 2012 and no cold water taxa were collected. Water temperature data collected by the MPCA at 15-minute intervals during the summer of 2012 indicated that conditions are not suitable for supporting trout with an average July temperature of 21.4°C and summer (June through August) temperatures in the growth range only 43.9% of the time. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make

#### Monitoring station 12UM097 (07010102-527)



this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Leech Lake River Watershed (07010102). In addition to this reach, three tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bg in the beneficial use table for the Leech Lake River Watershed (07010102): 07010102-603, 07010102-604, and 07010102-605.

### **b. Mississippi River – Grand Rapids Watershed (07010103)**

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/mississippi-river-grand-rapids>

**Sand Creek (07010103-594):** The reach of Sand Creek from Lammon Aid Lake to the Swan River is recommended to be designated Class 2Bdg. No trout and a single cold water fish species (mottled sculpin) were observed at three biological monitoring stations monitored in 2015. A single cold water macroinvertebrate taxon (4 individuals) was sampled at one station. Temperature logger data indicated that the summer (June-August) thermal regime is not conducive for the maintenance of a cold water community. Temperature loggers were deployed at 3 locations in 2014 and 2015 and measured water temperatures that were in the lethal or stressful range for trout 33-55% of the summer. This also included lethal temperatures for 1-9% of the recording period at these stations. Average July temperatures ranged from 20.1 to 22.7°C. The DNR recognizes that conditions are not conducive to support a self-sustaining population of trout in this reach of the Sand Creek and that conditions are more indicative of a warm water habitat. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103). In addition to this reach, two tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg in the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103): 07010103-668 and 07010103-669.

**Monitoring stations 15UM074 (left) and 15UM106 (right) (07010103-594)**



**Warba Creek (07010103-595):** The reach of Warba Creek from its headwaters to the Swan River is recommended to be designated Class 2Bdg. This reach was removed from the trout waters list ([Minn. R. 6264.0050](#)) by the DNR in 2018 (State of Minnesota 2018). Survival and carryover of stocked fish had been documented as poor and as a result, stocking and management activities by the DNR had been discontinued in 1971. In 1999, 2015, and 2016, the MPCA collected fish and macroinvertebrates community data from three monitoring stations located on this reach. Four fish samples were collected. No cold water fish species were present in these samples and low numbers of four cool water species were present. Three cold water macroinvertebrate taxa (8 individuals) were present in among 2

samples, accounting for 10 total individuals. Water temperature data was collected using temperature loggers from the monitoring stations during 2014-2016. The water temperature data indicate that conditions in Warba Creek are marginal for supporting a cold water community. Stressful to lethal thermal conditions for trout accounted for 24-42% of the summer (June through August). One of these logger deployments indicated water temperatures that may be suitable for trout (76% of the summer in the growth range) however, the average July temperature for this deployment and the others was at or above 20°C. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103). In addition to this reach, several tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg in the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103): 07010103-684, 07010103-685, 07010103-686, 07010103-687, and 07010103-688.

**Monitoring stations 15UM083 (upper left), 99UM056 (upper right), and 15UM082 (lower) (07010103-595)**





**Michaud Brook (07010103-599):** The reach of Michaud Brook from its headwaters to Michaud Lake is recommended to be designated Class 2Bdg. This reach was removed from the trout waters list ([Minn. R. 6264.0050](#)) by the DNR in 2018 (State of Minnesota 2018). There is no documentation regarding why this reach was listed as a trout water or if it was ever managed for trout. In 2015 and 2016, the MPCA collected fish and macroinvertebrate community data from one monitoring station located on this reach. Three fish samples were collected. No cold water fish species were present in these samples and a single cool water species was present. A single cold water macroinvertebrate taxon (1 individual) was present in one of two samples collected from this stream reach. Water temperature data was collected using temperature loggers from the biological monitoring station during 2015-2016. The data collected from 2015 was incomplete and is not considered here. The water temperature data from 2016 indicated that conditions in Michaud Brook are marginal for supporting a cold water community. Stressful to lethal thermal conditions for trout accounted for 44% of the summer (June through August) and average July temperature was 20.5°C. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103).

**Monitoring station 15UM031 (07010103-599)**



**Unnamed creek (Libby Brook) (07010103-601):** The reach of Unnamed creek (Libby Brook) from its headwaters to an unnamed lake (01-0037-00) is recommended to be designated Class 2Bdg. This reach was removed from the trout waters list ([Minn. R. 6264.0050](#)) by the DNR in 2018 (State of Minnesota 2018). In 2015 and 2016, the MPCA collected fish and macroinvertebrate community data from one monitoring station located on this reach. Two fish samples were collected. No cold water fish species were present in these samples and three cool water species were sampled. A single cold water macroinvertebrate taxon (*Lype diversa*) was present in the sample collected from this stream reach. Water temperature data was collected using temperature loggers from the biological monitoring station from 2014 through 2016. The water temperature data indicated that conditions in Libby Brook are marginal for supporting a cold water habitat. Stressful to lethal thermal conditions for trout accounted for 37-41% of the summer (June through August) and the average July temperature was 20.2-20.7°C. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103).

**Unnamed creek (Libby Brook) (07010103-602):** The reach of Unnamed creek (Libby Brook) from an unnamed lake (01-0037-00) to the Mississippi River is recommended to be designated Class 2Bdg. See 07010103-601 (Unnamed creek [Libby Brook]) and Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103).

**Monitoring station 15UM017 (07010103-602)**



**Hasty Brook (07010103-603):** The reach of Hasty Brook from an unnamed ditch to Prairie Lake is recommended to be designated Class 2Bdg. The DNR has recommended removal of Hasty Brook from the trout waters list ([Minn. R. 6264.0050](#)). This stream was stocked with trout in 1961 and 1963 most likely to determine if it could support a trout fishery. DNR surveys in 1991 and 1997 collected no trout and determined that water temperatures were too warm most years for trout survival. In 2020 and 2015, the MPCA collected fish and macroinvertebrates community data from one monitoring station located on this reach. No cold or cool water fish species were present in these samples and a single cold water macroinvertebrate taxon (2 individuals) was present in one of two samples collected from this stream reach. Water temperature data was collected in 2010, 2014 and 2015 from three locations using temperature loggers. Water temperature data indicated that conditions in Hasty Brook are marginal for supporting a cold water community. Stressful to lethal thermal conditions for trout accounted for 33-56% of the summer (June through August) and average July temperature was 20.1-21.3°C. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in

[Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103). In addition to this reach, a number of tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bg in the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103): 07010103-653, 07010103-654, 07010103-655, 07010103-656, 07010103-657, and 07010103-658.

**Monitoring station 09UM088 (07010103-603)**



**Hasty Brook (07010103-606):** The reach of Hasty Brook from its headwaters to an unnamed ditch is recommended to be designated Class 2Bdg. See 07010103-603 (Hasty Brook) and Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River – Grand

Rapids Watershed (07010103). In addition to this reach, a number of tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bg in the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103): 07010103-649, 07010103-650, 07010103-651, and 07010103-652.

**Bruce Creek (07010103-608):** The reach of Bruce Creek from its headwaters (unnamed lake [31-0015-00]) to the south line of PLS system section T54 R23W S25 is recommended to be designated Class 2Bdg. The DNR removed this stream from the trout waters list ([Minn. R. 6264.0050](#)) in 2018 (State of Minnesota 2018) because management of trout was deemed to not be feasible. Stocking reports indicated that brook trout were stocked from 1951 to 1997. DNR surveys in 1977, 1981, and 1990 did not collect any trout. The cessation of trout management and delisting of Bruce Creek was the result channelization, numerous beaver dams, and low gradient creating unsuitable trout habitat. One biological station was sampled for fish and macroinvertebrates in 2015. No cold water fish species (mottled sculpin) were sampled and a four cool water taxa (northern redbelly dace, finescale dace, pearl dace, brook stickleback) were sampled. No cold water macroinvertebrate taxa were sampled by the MPCA although a 1982 survey indicated the presence of *Gammarus* near this reach. Overall, the fish and macroinvertebrate communities observed lacked cold water taxa. Continuously-recording stream temperature loggers were deployed at two locations during the summers of 2014, 2015, and 2016. Water temperatures were in the growth range for brook trout 65-80% of the summer and average July temperatures 19.0-20.3°C. Although water temperatures in Bruce Creek are marginally suitable to support cold water taxa, DNR and MPCA monitoring indicate that a cold water community is not present in this stream. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the

**Monitoring station 15UM081 (07010103-608)**

Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103). In addition to this reach, two tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bg in the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103): 07010103-647 and 07010103-648.



**Bruce Creek (07010103-609):** The reach of Bruce Creek from the west line of PLS system section T54 R22W S31 to the west line of PLS system section T53 R22W S7 is recommended to be designated Class 2Bdg. See 07010103-608 (Bruce Creek) and Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103).

**Trib. To Mississippi River (Two River Springs) (07010103-623):** The reach of Bruce Creek from an unnamed creek to the west line of PLS system section T51 R24W S26 is recommended to be designated Class 2Bdg. This stream reach (07010103-623) is managed as a warm water feeder by the DNR. There is no evidence indicating that this reach is naturally a cold water habitat or that trout reproduction occurs in this reach. In 2015, the MPCA sampled fish and macroinvertebrates from one monitoring station located on this reach. No cold or cool water fish species were present and no cold water

macroinvertebrate taxa were present in these samples. Water temperature data were collected using temperature loggers from the biological monitoring station during 2014 through 2016. Water temperature data indicated that conditions in Two River Springs are not indicative of a cold water habitat. Stressful to lethal thermal conditions for trout accounted for 56-67% of the summer (June through August) and average July temperature was 21.4-22.5°C. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103).

**Unnamed creek (07010103-722):** The reach of an unnamed creek from an unnamed creek to Bray Lake is recommended to be designated Class 2Ag. This reach was removed from the trout waters list ([Minn. R. 6264.0050](#)) by the DNR in 1980 because it was determined that it could not support a trout fishery. In 2016, the MPCA collected fish and macroinvertebrates community data from one monitoring station located on this reach. A single cool water fish species (finescale dace) was present. Five cold water macroinvertebrate taxa (*Doncricotopus bicaudatus*, *Glossosoma intermedium*, *Goera*, *Isoperla*, and *Lype diversa*) was present and comprised to 3.7% of the sample. Water temperature data was collected using temperature loggers from the biological monitoring station during 2016. The water temperature data from 2016 indicated that conditions in the tributary to Bray Lake could support a cold water community. Stressful to lethal thermal conditions for trout accounted for 36% of the summer (June through August) and average July temperature was 19.8°C. Although, no cold water fish were encountered during surveys, in-stream habitat suggests that non-trout cold and cool water fish (i.e. burbot, longnose dace, and pearl dace) could utilize this habitat. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103).

**Monitoring station 15UM056 (07010103-722)**



**Morrison Brook (07010103-762):** The reach of Morrison Brook from an unnamed creek to the south line of PLS system section T52 R26W S14 is recommended to be designated Class 2Bdg. There is no evidence of trout reproduction or presence of trout in the lower section (07010103-762) of Morrison Brook. In 2010, 2015, and 2016, the MPCA sampled fish from one monitoring station located on this reach. One cold water species (mottled sculpin) was present. Macroinvertebrates were sampled in 2009 and 2015 and no cold water macroinvertebrate taxa were present in

**Monitoring station 09UM087 (07010103-762)**



these samples. Water temperature data was collected using temperature loggers from the biological monitoring station during 2010, 2014, 2015, and 2016. Water temperature data indicated that conditions in this section of Morrison Brook are marginal for a cold water habitat. Stressful to lethal thermal conditions for trout accounted for 25-38% of the summer (June through August) and average July temperature was 19.4-21.0°C. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103). In addition to this reach, a tributary was designated Class 2Ag as trout protection water due to its PLS section affiliation with this reach. As a result, the Class 2Ag designation for the following reach will be changed to Class 2Bg in the beneficial use table for the Mississippi River – Grand Rapids Watershed (07010103): 07010103-665.

### c. Mississippi River - Brainerd Watershed (07010104)

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/mississippi-river-brainerd>

**Unnamed ditch (07010104-590):** The reach of an unnamed ditch from an unnamed ditch to an unnamed ditch is recommended to be designated Class 2Bm. Biological data collected from one station in 1999 demonstrated that it does not meet the fish or macroinvertebrate aquatic life use goals for Class 2B. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that this reach was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Gun Lake watershed (HUC 12: 070101040107) which cannot be feasibly restored. In addition, no

**Monitoring station 99UM015 (07010104-590)**



evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were not assessed because these data were expired (i.e., more than 10 years old) at the time this watershed was assessed. No additional water quality data are available from this reach. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Mississippi River - Brainerd Watershed (07010104).

#### Unnamed ditch (07010104-590) biological and habitat data

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
99UM015	1999	Fish	7	0	3	10	2.8	39
99UM015	1999	Macroinvertebrates	4	18	0.5	10.5	7.7	39

**Ripple River (07010104-666):** The reach of the Ripple River from an unnamed wetland (01-0394-00) to Lingroth Lake outlet is recommended to be designated Class 2Bm. Biological data collected from one station in 2016 and 2017 demonstrated that it does not meet the fish aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Mallard Lake-Ripple River watershed (HUC 12: 070101040203) which cannot be feasibly

restored. In addition, no evidence indicates that the fish assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish and macroinvertebrate assemblages were assessed as not supporting the aquatic life use goals for Class 2Bm. Dissolved oxygen was not assessed due to the possible influence of upstream wetlands. Total phosphorus, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Mississippi River - Brainerd Watershed (07010104).

**Monitoring station 16UM040 (07010104-666)**



**Ripple River (07010104-666) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16UM040	2016	Fish	5	40	9.5	12	1.2	39
16UM040	2017	Fish	5	40	5	16	2.8	40
16UM040	2017	Macroinvertebrates	4	57	0	12	13.0	40

**Unnamed creek (07010104-679):** The reach of an unnamed creek from its headwaters to Sand Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2016 and 2017 demonstrated that it does not meet the macroinvertebrate aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper Sand Creek watershed (HUC 12: 070101040504) which cannot be feasibly restored. In addition, no evidence indicates that the macroinvertebrate assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm. Ammonia, TSS, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus, dissolved oxygen, and Secchi tube, had at least one sample that exceeded standards, but data were not sufficient for assessment. Stressor identification determined that the macroinvertebrate

**Monitoring station 16UM042 (07010104-679)**



impairment is associated with elevated nutrients, low dissolved oxygen, and physical habitat. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Mississippi River - Brainerd Watershed (07010104).

**Unnamed creek (07010104-679) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16UM042	2016	Fish	7	71	2.5	7.5	2.4	32
16UM042	2016	Fish	4	17	0	12	13.0	29
16UM042	2017	Macroinvertebrates	4	20	2	12	4.3	20

**Unnamed creek (07010104-683):** The reach of Unnamed creek from its headwaters to Hay Creek is recommended to be designated Class 2Be. Biological data from both macroinvertebrates and fish collected in 2016 from one station demonstrated that this reach meets the aquatic life use goals for Exceptional Use. The channel in this reach is natural and habitat assessment demonstrated that it has fair to good habitat (MSHA = 65-67). Considering this information, it is reasonable to remove the Class 2Bg designation assigned to Class 2Bg and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River - Brainerd Watershed (07010104).

**Monitoring station 16UM060 (07010104-683)**



**Unnamed creek (07010104-683) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16UM060	2016	Fish	6	88	13.5	8	0.6	65
16UM060	2016	Macroinvertebrates	6	67	12	2	0.2	67

**Unnamed creek (07010104-684):** The reach of an unnamed creek from an unnamed outlet to the Mississippi River is recommended to be designated Class 2Bm. Biological data collected from one station in 2016 demonstrated that it does not meet the fish or macroinvertebrate aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the City of Little Falls-Mississippi River watershed (HUC 12:

**Monitoring station 16UM056 (07010104-684)**



070101040906) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm. Dissolved oxygen was assessed as not meeting standards. Phosphorus, ammonia, TSS, and Secchi tube data were not sufficient for assessment, but all measurements met WQS thresholds. There was a single pH sample that exceeded standards, but data were not sufficient for assessment. Stressor identification determined that the macroinvertebrate impairment is associated with low dissolved oxygen and physical habitat. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Mississippi River - Brainerd Watershed (07010104).

**Unnamed creek (07010104-684) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16UM056	2016	Fish	7	24	4	11.5	2.5	37
16UM056	2016	Macroinvertebrates	6	14	3	11	3.0	36

**Unnamed creek (07010104-685):** The reach of an unnamed creek from an unnamed outlet to the Mississippi River is recommended to be designated Class 2Bm. Biological data collected from one station in 2016 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Swan River watershed (HUC 12: 070101040805) which cannot be feasibly restored. In addition, no evidence indicates that the fish assemblage attained the aquatic

**Monitoring station 16UM007 (07010104-685)**



life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish and macroinvertebrate assemblages were assessed as supporting the aquatic life use goals for Class 2Bm. Dissolved oxygen was not assessed due to the possible influence of upstream wetlands. Phosphorus, ammonia, TSS, pH, and Secchi tube data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Mississippi River - Brainerd Watershed (07010104).

**Unnamed creek (07010104-685) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16UM007	2016	Fish	7	35	6.5	8	1.2	45
16UM007	2016	Macroinvertebrates	6	50	5	7	1.3	58



**Unnamed ditch (07010104-691):** The reach of an unnamed ditch from Little Willow Ditch (old channel) to Mississippi River is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet the aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Big Logan-Mississippi River and Little Willow River watersheds (HUC 12s: 070101040401 and 070101040304) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover

**Monitoring station 17UM200 (07010104-691)**



naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm. No additional water quality data are available from this reach. Stressor identification determined that the macroinvertebrate impairment is associated with poor habitat, low flows, and low dissolved oxygen caused by upstream wetlands. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Mississippi River - Brainerd Watershed (07010104).

**Unnamed ditch (07010104-691) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17UM200	2017	Fish	7	39	2	10.5	3.8	39
17UM200	2017	Macroinvertebrates	4	33	2	7	2.7	46

**Unnamed ditch (07010104-697):** The reach of an unnamed ditch from Blind Lake to a Mississippi River flood diversion channel is recommended to be designated Class 2Bm. Biological data collected from two stations in 1999 and 2016 demonstrated that it does not meet the aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Blind Lake watershed (HUC 12: 070101040303) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that the fish assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish and macroinvertebrate assemblages were assessed as supporting the aquatic life use goals for Class 2Bm. Phosphorus, dissolved oxygen, ammonia, TSS, and Secchi tube data were not sufficient for assessment, but all measurements met WQS thresholds. Available pH data were not sufficient for assessment, but one measurement did not meet WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Mississippi River - Brainerd Watershed (07010104).

**Unnamed ditch (07010104-697) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16UM063	2016	Fish	6	24	11.5	13	1.1	48
99UM035	1999	Fish	6	0	6	16	2.4	47
99UM035	1999	Fish	6	36	6	18	2.7	38
16UM063	2017	Macroinvertebrates	4	60	0	12	13.0	43
99UM035	1999	Macroinvertebrates	4	44	1	10	5.5	38
99UM035	1999	Macroinvertebrates	4	59	1	10	5.5	38

**Monitoring stations 16UM063 (left) and 99UM035 (right) (07010104-697)**



**Little Willow River (old channel) (07010104-701):** The reach of the Little Willow River (old channel) from an unnamed ditch to a flood diversion channel is recommended to be designated Class 2Bm. Biological data collected from one station in 2016 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the Little Willow River watershed (HUC 12: 070101040304) and adjacent watersheds which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm. Chloride, ammonia, and pH was assessed as meeting WQS. Ammonia and TSS, data were not sufficient for assessment, but all measurements met WQS thresholds. Phosphorus, dissolved oxygen, and Secchi tube data were not sufficient for assessment, but each had at least one measurement that exceeded WQS thresholds. Stressor identification concluded that the biological impairment was not caused by a pollutant and this reach was assigned to Category 4C of the impaired waters list. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class

**Monitoring station 16UM007 (07010104-701)**



2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Mississippi River - Brainerd Watershed (07010104).

**Little Willow River Old Channel (07010104-701) biological and habitat data**

Station	Year	Assemblage	Type	Biology			Habitat		
				IBI	Good	Poor	P/G	MSHA	
16UM020	2016	Fish	7	28	4	10	2.2	28	
16UM020	2017	Fish	7	0	5	13	2.3	21	
16UM020	2017	Macroinvertebrates	4	47	2.5	11.5	3.6	37	

**d. Pine River Watershed (07010105)**

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/pine-river>

**Monitoring station 12UM140 (07010105-525)**



**Brittan Creek (07010105-525):** The reach of Brittan Creek from Dabill Creek to the South Fork of Pine River is recommended to be designated Class 2Bdg. No DNR sampling data from Brittan Creek (07010105-525) could be located. Historically Dabill Creek (07010105-526), upstream of Brittan Creek (07010105-525), was managed for brook trout in the headwaters region located upstream of County State Aid Highway (CSAH) 2. In 2003 the trout water designation was extended downstream through Brittan Creek (07010105-525). No documentation could be located to provide rationale for this change. Available information indicates that Brittan Creek was never managed for trout and was

thought to be very marginal for trout survival due to the lack of trout habitat and high water temperatures. Fish and macroinvertebrates were sampled during 2012 and 2013 at one monitoring station located on Brittan Creek. All samples consisted of communities indicative of a warm water, low gradient stream. No trout were collected and a single cold water fish species (mottled sculpin) was collected in low numbers. The macroinvertebrate samples only included a single cold water taxon (*Doncricotopus bicaudatus*) which comprised 0-2.1% of the individuals in the samples. In 2012, water temperature was measured continuously using a temperature logger located within the MPCA’s biological sampling reach. The average temperature for July was very marginal for trout survival (22.2°C) with temperatures only in the growth range 50.1% of the summer (June through August). Temperatures were lethal to brook trout 3.2% of the summer. See Appendix A for a detailed description of this use designation review. Considering this information it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Pine River Watershed (07010103).

**Bungo Creek (07010105-528):** The reach of Bungo Creek from an unnamed creek to the east line of the PLS System section T138 R30W S31 is recommended to be designated Class 2Bdg. The DNR removed this stream from the trout waters list ([Minn. R. 6264.0050](#)) in 2018 (State of Minnesota 2018) because management of trout was deemed to not be feasible. Limited information regarding the past management of Bungo Creek was available, but the DNR believes that Bungo Creek likely supported a brook trout fishery before 1975. No documentation of brook trout natural reproduction within Bungo Creek or its tributaries could be found. Only one stocking record, documenting the release of 2000 brook trout yearlings in 1971, could be found. In 1975, the DNR sampled two sites on Bungo Creek and

no trout were sampled at either site. Evidence of any additional DNR surveys or management activities conducted on Bungo Creek could not be found. The MPCA sampled the fish community data from two stations on Bungo Creek in 2012 and 2013. All samples consisted of predominantly warm water species. During both years of sampling, one cold water species (mottled sculpin) was sampled in low numbers at one station. No cold water macroinvertebrates were collected from either biological station. Water temperature data was collected at 15 minute intervals using data loggers from both sampling stations in 2012 and 2013. Average July water temperatures ranged from 20.8-23.5°C and were in the growth range for brook trout 38.4-49.2% of the summer (June through August). The lethal threshold for brook trout was reached 4.1-10.1% of the summer. See Appendix A for a detailed description of this use designation review. Considering this information it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Pine River Watershed (07010103). In addition to this reach, a number of tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg in the beneficial use table for the Pine River Watershed (07010105): 07010105-565, 07010105-566, 07010105-567, and 07010105-568.

**Monitoring stations 12UM139 (left) and 12UM132 (right) (07010105-528)**



**Bungo Creek (07010105-535):** The reach of Bungo Creek from the south line of the PLS System section T137 R31W S23 to an unnamed creek is recommended to be designated Class 2Bdg. See 07010105-535 (Bungo Creek) and Appendix A for a detailed description of this use designation review. Considering this information it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Pine River Watershed (07010103). In addition to this reach, a tributary was designated Class 2Ag as a trout protection water due to its PLS section affiliation with this reach. As a result, the Class 2Ag designation for the following reach will be changed to Class 2Bdg in the beneficial use table for the Pine River Watershed (07010105): 07010105-568.

**e. Mississippi River - Sartell Watershed (07010201)**

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/mississippi-river-sartell>

**Platte River (07010201-545):** The reach of the Platte River from an unnamed creek (above railroad bridge) to the Mississippi River is recommended to be designated Class 2Be. Biological data from both macroinvertebrates and fish collected in 2003, 2017, and 2017 from three stations demonstrated that this reach meets the aquatic life use goals for Exceptional Use. The channel in this reach is natural and habitat assessment demonstrated that two stations have fair to good habitat (MSHA = 63-81). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with

Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River - Sartell Watershed (07010201).

**Platte River (07010201-545) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
03UM003	2003	Fish	5	67	-	-	-	-
03UM003	2017	Fish	5	59	15.5	9	0.6	72
03UM004	2003	Fish	5	78	-	-	-	-
03UM004	2016	Fish	5	74	19	6	0.4	73
16UM122	2017	Fish	5	88	-	-	-	-
03UM003	2017	Macroinvertebrates	7	86	15.5	6	0.4	63
03UM004	2017	Macroinvertebrates	5	85	13.5	3.5	0.3	81
16UM122	2017	Macroinvertebrates	5	71	12	3.5	0.3	75

**Monitoring stations 03UM003 (upper left), 03UM004 (upper right), and 16UM122 (lower) (07010201-545)**



**Unnamed creek (07010201-622):** The reach of the Little Willow River (old channel) from an unnamed ditch to a flood diversion channel is recommended to be designated Class 2Bm. Biological data collected from one station in 2010 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Rice Creek watershed (HUC 12: 070102010407) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was

**Monitoring station 10EM166 (07010201-622)**



assessed as not supporting the aquatic life use goals for Class 2Bm and macroinvertebrates were not assessed. Phosphorus, TSS, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen and Secchi tube data were not sufficient for assessment, but each had at least one measurement that exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Mississippi River - Sartell Watershed (07010201).

**Unnamed creek (07010201-622) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
10EM166	2010	Fish	7	36	4	10.5	2.3	31
10EM166	2010	Macroinvertebrates	6	7	1.5	11	4.8	31

**Unnamed creek (07010201-632):** The reach of an unnamed creek from its headwaters to an unnamed creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2015

**Monitoring station 15EM008 (07010201-632)**



demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Two River Lake watershed (HUC 12: 070102010102) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate

assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrates assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm and the fish were not assessed due to the small size of the stream. Dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus data were also not sufficient for assessment, but two measurements exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Mississippi River - Sartell Watershed (07010201).

**Unnamed creek (07010201-632) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
15EM008	2015	Fish	6	0	11	10.5	1.0	52
15EM008	2015	Fish	6	0	10.5	7.5	0.7	56
15EM008	2015	Macroinvertebrates	5	34	2.5	8.5	2.7	49

**Unnamed creek (07010201-640):** The reach of an unnamed creek from an unnamed creek to geographic coordinates (decimal degrees NAD83) 45.782, -94.149 is recommended to be designated Class 2Bm. Biological data collected from one station in 1999 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Zuleger Creek watershed (HUC 12: 070102010503) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that

**Monitoring station 99UM043 (07010201-640)**



poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was not assessed because the sample was expired (i.e., more than 10 years old at the time of assessment). Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Mississippi River - Sartell Watershed (07010201).

**Unnamed creek (07010201-640) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
99UM043	1999	Fish	6	36	3.5	16.5	3.9	43

**Little Rock Creek (07010201-652):** The reach of Little Rock Creek from the south line of PLS system section T39 R30W S22 to the west line of PLS system section T38 R31W S23 is recommended to be designated Class 2Bdg. Portions of Little Rock Creek support or have supported natural reproduction of brown trout. However, evidence indicates that a section of the reach designated as a trout water (07010201-652) is naturally a warm water habitat. The upstream portion of the DNR's trout water designation (above 230<sup>th</sup> Avenue) is lower gradient with finer substrates (i.e., sand and silt) compared to the downstream portion of the creek.

**Monitoring station 99UM058 (07010201-652)**



There are also springs which add ground water and cool water temperatures below 230<sup>th</sup> Avenue. Observations of the upstream reach indicate that this portion is intermittent, frequently having no flow or only pools of stagnant water. MPCA and DNR biological and water temperature data, including historic data, indicates that the upstream portions of Little Rock Creek (upstream of 230<sup>th</sup> Avenue) could not support trout. MPCA monitoring of fish and macroinvertebrates in 1999, 2015 and 2016 did not collect any cold water species. Water temperature data was collected using a temperature logger from the biological monitoring station during 2015 and indicated that conditions in this reach of Little Rock Creek are too warm to support a cold water community. Stressful to lethal thermal conditions for brook trout accounted for 47.5% of the summer (June through August) and average July temperature was 21.0°C. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River - Sartell Watershed (07010201). In addition to this reach, a number of tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliations with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg in the beneficial use table for the Mississippi River - Sartell Watershed (07010201): 07010201-600, 07010201-601, 07010201-602, 07010201-603, 07010201-604, and 07010201-605.

## **f. Sauk River Watershed (07010202)**

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/sauk-river>

**Tributary to Sauk River (07010202-660):** The reach of a tributary of the Sauk River from an unnamed creek to the Sauk River is recommended to be designated Class 2Ag. This tributary is not currently listed as a designated trout water by the DNR ([Minn. R. 6264.0050](#)), but MPCA temperature and biological data indicate that this stream is a cold water habitat. The MPCA deployed water temperature loggers on this reach in 2018, 2019, and 2021 at two stations. Average July water temperatures ranged from 16.9-18.6°C and summer (June through August) temperatures were in the growth range for brook trout 96-98% of the time. The fish community was not indicative of a cold water habitat although two cool water species were sampled (brook stickleback, northern redbelly dace). The lack of cold water fish species may be due to the isolated nature of this stream which prevents colonization. The macroinvertebrate community was indicative of a cold water habitat with seven cold water taxa (*Aquarius*, *Diplocladius cultriger*, *Glossosoma*, *Heterotrissocladius*, *Limnephilus*, *Odontomesa*, *Prodiamesa*). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Sauk River Watershed (07010202).

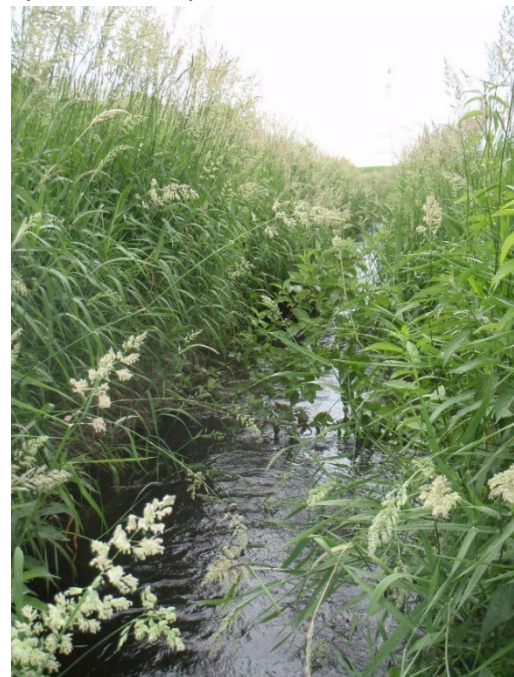


**Monitoring stations 08UM016 (left) and 21UM001 (right) (07010202-660)**



**Stony Creek (07010202-725):** The reach of Stony Creek from the geographic coordinates (decimal degrees NAD83) 45.550, -94.836 to the east line of the PLS System section T124 R33W S22 is recommended to be designated Class 2Ag. Stony Creek is not currently listed as a designated trout water by the DNR ([Minn. R. 6264.0050](#)), but this stream was a DNR designated trout stream from 1950 until 1977. Little information is available regarding the trout population status in Stony Creek between 1948 and 1977, other than anecdotal evidence from landowners that brook trout were common in the creek. DNR removed the trout stream designation in 1977 due to degradation, low populations of trout, little fishing pressure, and requests for water appropriation. Improvement to land use management and temperature measurements in the early 2000s indicated that Stony Creek may be able to support trout. Brook trout fingerlings were stocked in 2002 and yearlings were stocked in 2004. A DNR fish survey in 2003, collected five yearling trout displaying excellent growth. A DNR fish survey in 2004 collected 21 trout (all from the April stocking) and a DNR fish survey in 2005 collected 25 adults from the 2004 stocking. In 2006, 5 young-of-the-year and 2 adult trout were captured, indicating natural reproduction of brook trout in Stony Creek. A MPCA fish survey in 2008 also collected brook trout although the 2018 MPCA survey did not collect any trout. The MPCA deployed water temperature loggers on this reach of Stony Creek in 2003 and 2018 at two different locations. Average July water temperatures ranged from 18.2-19.5°C and summer (June through August) temperatures were in the growth range for brook trout 76.2-81.0% of the time. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Sauk River Watershed (07010202).

**Monitoring station 08UM024 (07010202-725)**



### g. North Fork Crow River Watershed (07010204)

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/north-fork-crow-river>

**County Ditch 47 (07010204-532):** The reach of County Ditch 47 from its headwaters to the Middle Fork of the Crow River is recommended to be designated Class 2Bm. Biological data collected from two stations in 2007, 2015, and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No 47 watershed (HUC 12: 070102040209) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and dissolved oxygen data were also not sufficient for assessment, but at least one measurement for each parameter exceeded WQS thresholds. Although data were not sufficient for assessment, nutrients and dissolved oxygen are potential biological stressors in this ditch. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Monitoring stations 15EM035 (left) and 07UM016 (right) (07010204-532)**



**County Ditch 47 (07010204-532) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
15EM035	2015	Fish	6	14	7	14	1.9	40
07UM016	2007	Fish	7	23	3.5	11	2.7	43
07UM016	2017	Fish	7	31	1.5	12.5	5.4	26
15EM035	2015	Macroinvertebrates	7	36	5.5	14	2.3	50
07UM016	2007	Macroinvertebrates	7	32	6	17.5	2.6	43
07UM016	2017	Macroinvertebrates	7	39	1	22.5	11.8	29

**Unnamed creek (07010204-548):** The reach of an unnamed creek from an unnamed creek to an unnamed creek is recommended to be designated Class 2Bm. Fish data collected from one station in 2000 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for

drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the City of Kingston-North Fork Crow River watershed (HUC 12: 070102040306) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was not assessed in assessment year 2019 because these data were expired (i.e., more than 10 years old at the time of assessment). No water quality data were available. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Monitoring station 00UM057 (07010204-548)**



**Unnamed creek (07010204-548) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
00UM057	2000	Fish	7	0	1	13	7	31

**Unnamed creek (County Ditch 4) (07010204-553):** The reach of an unnamed creek (County Ditch 4) from an unnamed creek to Lake Koronis is recommended to be designated Class 2Bm. Fish data collected from one station in 2007 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Lake Koronis-North Fork Crow River watershed (HUC 12: 070102040108) which cannot be feasibly restored. Some of the WID channel is natural, but these reaches are short and overall this system is ditched upstream of 07010204-553. In addition, no evidence indicates that the fish

**Monitoring station 07UM041 (07010204-553)**



assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The water quality parameters with a sufficient datasets for assessment were TSS, Secchi tube, and pH and all were below WQS thresholds. Although not exceeding standards, TSS and Secchi tube are elevated and sedimentation is a potential stressor.

Ammonia and dissolved oxygen data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus data were also not sufficient for assessment, but at least one measurement exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Unnamed creek (County Ditch 4) (07010204-553) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM041	2007	Fish	7	21	3.0	10.0	2.8	44
07UM041	2017	Fish	7	0	4.0	11.5	2.5	30
07UM041	2007	Macroinvertebrates	7	37	4.5	17.0	3.3	44
07UM041	2017	Macroinvertebrates	7	57	5.5	12.0	2.0	39

**Silver Creek (07010204-557):** The reach of Silver Creek from an unnamed creek to Collinwood Lake is recommended to be designated Class 2Bm. Biological data collected from one station in 2007 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. The length of this ditch section is 4.25 mi and is part of a ditch network in adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and dissolved oxygen data were also not sufficient for assessment, but at least one measurement for each parameter exceeded WQS thresholds. Although not assessable, eutrophication and dissolved oxygen are potential biological stressors. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Monitoring station 07UM019 (07010204-557)**



**Silver Creek (07010204-557) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM019	2007	Fish	6	26	8.0	13.5	1.6	54
07UM019	2017	Fish	6	27	9.5	12.0	1.2	42
07UM019	2017	Macroinvertebrates	5	13	4.0	8.5	1.9	37

**County Ditch 10 (07010204-563):** The reach of County Ditch 10 from an unnamed ditch to an unnamed ditch is recommended to be designated Class 2Bm. Biological data collected from one station in 2007 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Twelvemile Creek watershed (HUC 12: 070102040605) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or

**Monitoring station 07UM099 (07010204-563)**



macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were not assessed in assessment year 2019 because these data were expired (i.e., more than 10 years old at the time of assessment). Total phosphorus and chlorophyll-a data were not sufficient for assessment. Total phosphorus exceeded WQS thresholds, but available chlorophyll-a data were below thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in

[Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**County Ditch 10 (07010204-563) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM099	2007	Fish	6	30	6.0	14.0	2.1	54
07UM099	2007	Macroinvertebrates	6	27	7.5	6.0	0.8	54

**County Ditch 32 (07010204-578):** The reach of County Ditch 32 from an unnamed ditch to the North Fork of the Crow River is recommended to be designated Class 2Bm. Fish data collected from one **Monitoring station 07UM033 (07010204-578)**



station in 2007 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Headwaters of the North Fork Crow River watershed (HUC 12: 070102040102) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the

fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was not assessed in assessment year 2019 because these data were expired (i.e., more than 10 years old at the time of assessment). All water quality data assessments were inconclusive due to limited data. Total phosphorus, dissolved oxygen, TSS, and Secchi tube had at least one measurement exceeding WQS thresholds whereas all pH measurements met WQS thresholds. Although not assessable, eutrophication and TSS are potential biological stressors or threats. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**County Ditch 32 (07010204-578) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM033	2007	Fish	6	33	6.0	15.0	2.3	49

**County Ditch 7 (07010204-580):** The reach of County Ditch 7 from an unnamed ditch to the North Fork of the Crow River is recommended to be designated Class 2Bm. Fish data collected from one station in 2007 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No 7-North Fork Crow River watershed (HUC 12: 070102040104) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or

**Monitoring station 07UM038 (07010204-580)**



macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. Although this ditch had been recently cleaned before the 2017 sampling, the 2007 biological visit also demonstrated limiting habitat. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were not assessed in assessment year 2019 because the ditch had been recently cleaned at the time of biological sampling. Total phosphorus, dissolved oxygen, TSS, Secchi tube, and pH each had at least one measurement exceeding WQS thresholds whereas all ammonia measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**County Ditch 7 (07010204-580) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM038	2007	Fish	6	0	7.0	14.0	1.9	46
07UM038	2017	Fish	6	19	5.0	20.0	3.5	32

**Judicial Ditch 1 (07010204-584):** The reach of Judicial Ditch 1 from an unnamed ditch to the North Fork of the Crow River is recommended to be designated Class 2Bm. Biological data collected from two

stations in 2007, 2015, and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Headwaters of the North Fork Crow River watershed (HUC 12: 070102040102) which cannot be feasibly restored. In addition, no evidence indicates that the macroinvertebrate assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish and macroinvertebrate assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus, dissolved oxygen, TSS and Secchi tube data were also not sufficient for assessment, but at least one measurement exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Judicial Ditch 1 (07010204-584) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM034	2007	Fish	6	11	13.0	10.5	0.8	61
07UM034	2017	Fish	6	44	5.0	17.0	3.0	41
15EM063	2015	Macroinvertebrates	7	24	5.0	14.5	2.6	34
07UM034	2017	Macroinvertebrates	7	27	2.0	17.5	6.2	34

**Monitoring stations 07UM034 (left) and 15EM063 (right) (07010204-584)**



**Jewitts Creek (County Ditch 19, 18, and 17) (07010204-585):** The reach of Jewitts Creek from its headwaters (Lake Ripley [47-0134-00]) to the North Fork of the Crow River is recommended to be designated Class 2Bm. Biological data collected from five stations in 2000, 2001, 2007, 2008, and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Jewitts Creek watershed (HUC 12: 070102040305) which cannot be feasibly restored. In addition, no evidence indicates that the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. One macroinvertebrate sample was above the Class 2Bg threshold, but overall, macroinvertebrate data indicate that this assemblage does not meet Class 2Bg goals. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish and macroinvertebrate assemblages were assessed as not supporting

the aquatic life use goals for Class 2Bm. Ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Chloride, dissolved oxygen, and eutrophication parameters were also not sufficient for assessment or data were inconclusive, but at least one measurement exceeded WQS thresholds. This reach is listed for chloride and dissolved oxygen impairments. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Monitoring stations 07UM031 (upper left), 01UM002 (upper right) 01UM001, (middle left), 00UM097 (middle right), and 07UM028 (lower) (07010204-585)**





**Jewitts Creek (County Ditch 19, 18, and 17) (07010204-585) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM031	2007	Fish	7	0	3.0	7.5	2.1	47
07UM031	2008	Fish	7	0	3.0	7.0	2.0	43
01UM002	2001	Fish	6	1	7.0	14.5	1.9	55
01UM002	2008	Fish	6	0	8.0	16.0	1.9	37
01UM001	2001	Fish	6	0	3.5	19.5	4.6	41
01UM001	2008	Fish	6	0	7.0	11.0	1.5	51
00UM097	2000	Fish	7	21	6.0	5.0	0.9	50
00UM097	2008	Fish	7	33	12.5	3.0	0.3	63
07UM028	2007	Fish	7	32	6.0	6.0	1.0	49
07UM028	2007	Fish	7	32	4.5	5.0	1.1	63
07UM028	2008	Fish	7	9	6.5	5.5	0.9	61
07UM028	2017	Fish	7	24	5.5	4.5	0.8	46
07UM031	2008	Macroinvertebrates	7	23	4.5	13.5	2.6	43
01UM002	2001	Macroinvertebrates	7	13	2.5	13.5	4.1	55
01UM002	2008	Macroinvertebrates	7	19	7.5	13.5	1.7	37
01UM001	2001	Macroinvertebrates	7	16	2.0	14.0	5.0	41
01UM001	2008	Macroinvertebrates	7	51	7.5	9.0	1.2	51
00UM097	2000	Macroinvertebrates	7	16	6.0	12.5	1.9	50
00UM097	2008	Macroinvertebrates	7	9	15.0	6.5	0.5	63
07UM028	2007	Macroinvertebrates	7	31	8.0	9.0	1.1	49
07UM028	2008	Macroinvertebrates	7	15	11.5	10.0	0.9	61
07UM028	2017	Macroinvertebrates	7	24	5.5	20.0	3.2	40

**Unnamed creek (07010204-600):** The reach of an unnamed creek from an unnamed ditch to the Middle Fork of the Crow River is recommended to be designated Class 2Bm. Biological data collected from one station in 2007 and 2018 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Jewitts Creek watershed (HUC 12: 070102040305) which cannot be feasibly restored. In addition, no evidence indicates that the fish and macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed

**Monitoring station 07UM006 (07010204-600)**



at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The macroinvertebrates were not assessed in 2019 due to the impact of hydrological modifications during sampling which resulted from management of waterfowl habitat upstream. Dissolved oxygen, TSS, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and Secchi tube data were also not sufficient for assessment, but at least one measurement exceeded WQS thresholds.

Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Unnamed creek (07010204-600) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM006	2007	Fish	6	26	9.5	12.0	1.2	57
07UM006	2018	Fish	6	33	8.0	10.0	1.2	52
07UM006	2007	Macroinvertebrates	7	27	10.0	6.0	0.6	57

**County Ditch 19 (07010204-614):** The reach of County Ditch 19 from Chicken Lake to Jewitts Creek is recommended to be designated Class 2Bm. Fish data collected from one station in 2008 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Jewitts Creek watershed (HUC 12: 070102040305) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were not assessed in assessment year 2019 because these data were expired (i.e., more than 10 years old at the time of assessment). No water quality data were available for assessment. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Monitoring station 08UM067 (07010204-614)**



**County Ditch 19 (07010204-614) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
08UM067	2008	Fish	6	8	8.0	12.0	1.4	63
08UM067	2008	Macroinvertebrates	7	16	11.5	9.0	0.8	63

**County Ditch 26 (07010204-643):** The reach of County Ditch 26 from an unnamed lake to Long Lake is recommended to be designated Class 2Bm. Fish and macroinvertebrate data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Long Lake watershed (HUC 12: 070102040301) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at

this time and is not likely to recover naturally due to drainage maintenance. The fish and macroinvertebrate assemblages were assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Water quality data were not sufficient for assessment. All measurements of ammonia, TSS, and pH met WQS thresholds and total phosphorus, dissolved oxygen, and Secchi tube had at least one measurement which exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Monitoring station 07UM017 (07010204-643)**



**County Ditch 26 (07010204-643) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM017	2017	Fish	6	0	5.0	18.0	3.2	25
07UM017	2017	Macroinvertebrates	7	7	3.0	21.5	5.6	34

**County Ditch 26 (07010204-652):** The reach of County Ditch 26 from an unnamed ditch to an unnamed ditch is recommended to be designated Class 2Bm. Fish data collected from one station in 2007 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Lake Calhoun-Middle Fork Crow River watershed (HUC 12: 070102040207) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or

**Monitoring station 07UM005 (07010204-652)**



macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Assessable macroinvertebrate data was not collected in 2007 or 2017 due to low water levels. Water quality data were not sufficient for assessment. All measurements of ammonia, TSS, Secchi tube, and pH met WQS thresholds and total phosphorus and dissolved oxygen had at least one measurement exceed WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**County Ditch 26 (07010204-652) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM005	2007	Fish	7	31	3.0	9.0	2.5	38
07UM005	2017	Fish	7	0	8.0	8.5	1.1	39
07UM005	2007	Macroinvertebrates	7	-	6.5	9.0	1.3	55
07UM005	2017	Macroinvertebrates	7	-	7.5	18.0	2.2	39

**County Ditch 36 (07010204-700):** The reach of County Ditch 36 from County Ditch 38 to Sedan Brook is recommended to be designated Class 2Bm. Fish data collected from one station in 2009 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Sedan Brook watershed (HUC 12: 070102040101) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Water quality data were not sufficient for assessment. All measurements of ammonia, total phosphorus, TSS, Secchi tube, and pH met WQS thresholds and dissolved oxygen had at one measurement that exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Monitoring station 09UM057 (07010204-700)**



**County Ditch 36 (07010204-700) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
09UM057	2009	Fish	6	25	7.5	17.5	2.2	33

**Grove Creek (07010204-748):** The reach of Grove Creek from an unnamed creek to the north line of PLS system section T120 R32W S36 is recommended to be designated Class 2Bm. Fish and macroinvertebrate data collected from one station in 2009 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the Grove Creek watershed (HUC 12: 070102040302) and adjacent watersheds which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Water quality data were not sufficient for assessment. All measurements of ammonia, Secchi tube, and pH met WQS thresholds and total phosphorus, TSS, and dissolved oxygen had at least one measurement which exceeded WQS thresholds. This WID is currently listed as impaired for dissolved oxygen. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Monitoring station 09UM059 (07010204-748)**



**Grove Creek (07010204-748) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
09UM059	2009	Fish	7	11	3.0	5.5	1.6	39
09UM059	2009	Macroinvertebrates	7	31	4.5	14.0	2.7	39

**Washington Creek (County Ditch 9) (07010204-751):** The reach of Washington Creek (County Ditch 9) from geographic coordinates (decimal degrees NAD83) 45.108, -94.342 to 45.146, -94.314 is recommended to be designated Class 2Bm. Fish and macroinvertebrate data collected from one station in 2009 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Washington Creek watershed (HUC 12: 070102040404) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that either

**Monitoring station 07UM030 (07010204-751)**



the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the Class 2Bm aquatic life use goal in assessment year 2019. Water quality data were not sufficient for assessment. All measurements of ammonia, TSS, Secchi tube, and pH met WQS thresholds and total phosphorus and dissolved oxygen had at least one measurement exceeding WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Washington Creek (County Ditch 9) (07010204-751) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM030	2017	Fish	7	30	9.5	4.0	0.5	54
07UM030	2009	Macroinvertebrates	5	32	4.0	7.5	1.7	57
07UM030	2017	Macroinvertebrates	5	18	3.0	9.0	2.5	43

**Washington Creek (County Ditch 9) (07010204-753):** The reach of Washington Creek (County Ditch 9) from County Ditch 36 to the east line of PLS system section T120 R29W S27 is recommended to be designated Class 2Bm. Fish data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Washington Creek watershed (HUC 12: 070102040404) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and it is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as not

**Monitoring station 07UM014 (07010204-753)**



supporting the Class 2Bm aquatic life use goal in assessment year 2019. Macroinvertebrate data were not assessable because the sample reach was impounded at the time of sampling. Water quality data were not sufficient for assessment. All measurements of chloride and pH met WQS thresholds and total phosphorus, dissolved oxygen, TSS, and Secchi tube had at least one measurement exceeding WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Washington Creek (County Ditch 9) (07010204-753) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM014	2017	Fish	5	18	5.5	14.0	2.3	37
07UM014	2017	Macroinvertebrates	6	-	4.0	12.0	2.6	37

**County Ditch 36 (07010204-755):** The reach of County Ditch 36 from Powers Lake outlet to geographic coordinates (decimal degrees NAD83) 45.167, -94.333 is recommended to be designated Class 2Bm. Fish and macroinvertebrate data collected from one station in 2007 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No. 36 watershed (HUC 12: 070102040403) which cannot be feasibly restored. In addition, no evidence indicates

**Monitoring station 07UM020 (07010204-755)**



that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish and macroinvertebrate assemblages were assessed as not supporting the Class 2Bm aquatic life use goal in assessment year 2019. Water quality data were not sufficient for assessment. All measurements of ammonia, dissolved oxygen, TSS, Secchi tube, and pH met WQS thresholds and total phosphorus had at least one measurement exceeding WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**County Ditch 36 (07010204-755) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM020	2007	Fish	6	14	10.0	12.0	1.2	57
07UM020	2017	Fish	6	7	9.5	15.0	1.5	39
07UM020	2017	Macroinvertebrates	6	25	7.0	10.0	1.4	48

**Unnamed creek (Battle Creek) (07010204-757):** The reach of an unnamed creek (Battle Creek) from the south line of PLS system section T120 R31W S32 to geographic coordinates (decimal degrees NAD83) 45.203, -94.542 is recommended to be designated Class 2Bm. Fish data collected from two stations in 2008 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Lake Mary watershed (HUC 12: 070102040304) which cannot be feasibly restored. In addition, no evidence indicates that the fish assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage

maintenance. The biological assemblages were not assessed because these data were expired (i.e., more than 10 years old) at the time this watershed was assessed. In addition, biological data from 08UM069 was not assessable due to low water levels at the time of sampling. Water quality data were not sufficient for assessment. All measurements of chloride, TSS, and pH met WQS thresholds and total phosphorus, BOD<sub>5</sub>, and dissolved oxygen had at least one measurement exceeding WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Unnamed creek (Battle Creek) (07010204-757) biological and habitat data**

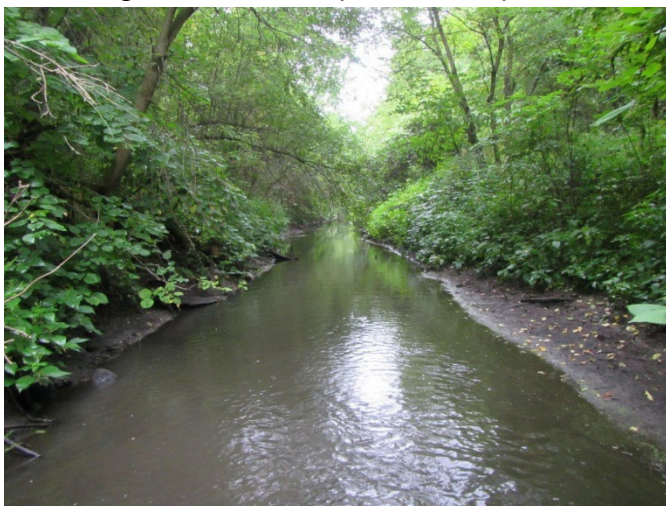
Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
08UM071	2008	Fish	6	0	8.0	13.5	1.6	59
08UM069	2008	Fish	7	-	1.0	15.0	8.0	33
08UM071	2008	Macroinvertebrates	7	46	13.5	10.0	0.8	59

**Monitoring stations 08UM071 (left) and 08UM069 (right) (07010204-757)**



**French Creek (07010204-759):** The reach of French Creek from French Lake to the west line of PLS system section T120 R28W S15 is recommended to be designated Class 2Bm. Fish and macroinvertebrate data collected from one station in 2007 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the French Lake-North Fork Crow River watershed (HUC 12: 070102040602) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish and macroinvertebrate assemblages were assessed as not supporting the aquatic life

**Monitoring station 07UM048 (07010204-759)**





use goals for Class 2Bm in assessment year 2019. Water quality data were not sufficient for assessment. All measurements of total phosphorus, ammonia, TSS, Secchi tube, and pH met WQS thresholds and dissolved oxygen had two measurements exceeding WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**French Creek (07010204-759) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM048	2007	Fish	6	23	7.0	12.5	1.7	38
07UM048	2017	Fish	6	0	6.0	15.5	2.4	30
07UM048	2017	Macroinvertebrates	5	8	6.0	7.0	1.1	42

**Sucker Creek (07010204-761):** The reach of Sucker Creek from its headwaters to 53rd Street SW is recommended to be designated Class 2Bm. Fish and macroinvertebrate data collected from two stations in 2007 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Cokato Lake watershed (HUC 12: 070102040603) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were not assessed because these data were expired (i.e., more than 10 years old) at the time this watershed was assessed. Water quality data were not sufficient for assessment. All measurements of ammonia, chloride, TSS, Secchi tube, and pH met WQS thresholds and total phosphorus and dissolved oxygen had at least one measurement exceed WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Monitoring stations 07UM058 (left) and 07UM100 (right) (07010204-761)**



**Sucker Creek (07010204-761) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM058	2007	Fish	6	7	1.5	17.0	7.2	39
07UM100	2007	Fish	6	21	8.0	10.5	1.3	45
07UM058	2007	Macroinvertebrates	6	24	4.5	8.0	1.6	39
07UM100	2007	Macroinvertebrates	6	23	3.5	10.0	2.4	45

**Crow River, North Fork (07010204-763):** The reach of the North Fork of the Crow River from its headwaters (Grove Lake [61-0023-00]) to County Ditch 32 is recommended to be designated Class 2Bm. Fish and macroinvertebrate data collected from two stations in 2007 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Headwaters of the North Fork Crow River watershed (HUC 12: 070102040102) which cannot be feasibly restored. In addition, no

**Monitoring station 07UM084 (07010204-763)**



evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were not assessed because these data were expired (i.e., more than 10 years old) at the time this watershed was assessed. Water quality data were not sufficient for assessment. All measurements of total phosphorus, ammonia, chloride, and pH met WQS thresholds and TSS, Secchi tube, and dissolved oxygen had at least one measurement exceed WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the North Fork Crow River Watershed (07010204).

**Crow River, North Fork (07010204-763) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07UM084	2007	Fish	6	43	10.0	13.0	1.3	49
07UM084	2007	Fish	6	28	4.0	12.0	2.6	39
07UM032	2007	Fish	7	37	2.0	12.0	4.3	45
07UM032	2007	Fish	7	35	4.0	11.0	2.4	51
07UM084	2007	Macroinvertebrates	7	26	3.5	14.5	3.4	39
07UM032	2007	Macroinvertebrates	7	29	4.5	15.5	3.0	51

## 5. Minnesota River Basin

### a. Pomme de Terre River Watershed (07020002)

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/pomme-de-terre-river>

**County Ditch 22 (07020002-515):** The reach of County Ditch 22 from an unnamed ditch to an unnamed creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2001, 2007, and 2016 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the County Ditch No. 22 watershed (HUC 12: 070200020501) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish

**Monitoring station 01MN001 (07020002-515)**



assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus was also not sufficient for assessment, but one measurement exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Pomme de Terre River Watershed (07020002).

**County Ditch 22 (07020002-515) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
01MN001	2001	Fish	7	0	1.5	15	6.4	25
01MN001	2007	Fish	7	0	1.5	13.5	5.8	29
01MN001	2016	Fish	7	0	1.5	14.5	6.2	22

**Unnamed creek (07020002-545):** The reach of an unnamed creek from an unnamed creek to the Pomme de Terre River is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 and 2018 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Lake Oliver watershed (HUC 12: 070200020603) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019.

**Monitoring station 17MN005 (07020002-545)**



Macroinvertebrates were not assessed because the sample was collected a few days after a large rain event. Secchi tube and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen and TSS were also not sufficient for assessment, but at least one measurement exceeded WQS thresholds. Total phosphorus also exceeded WQS thresholds, but measurements of chlorophyll-*a* indicated that the eutrophication standard was not exceeded. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating

the use designation table for the Pomme de Terre River Watershed (07020002).

**Unnamed creek (07020002-545) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN005	2018	Fish	7	18	2	7	2.7	42
17MN005	2017	Macroinvertebrates	7	5	3.5	18	4.2	44

**Unnamed creek (07020002-547):** The reach of an unnamed creek from an unnamed creek to the Pomme de Terre River is recommended to be designated Class 2Bm. Biological data collected from one station in 2007, 2017, and 2018 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Judicial Ditch No 2-Pomme de Terre River watershed (HUC 12:

**Monitoring station 07MN024 (07020002-547)**



070200020602) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish and macroinvertebrate assemblages were assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. A single total phosphorus measurement exceeded WQS thresholds, but too few samples were collected for assessment and response variables were not sampled. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to

assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Pomme de Terre River Watershed (07020002).

**Unnamed creek (07020002-547) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07MN024	2007	Fish	3	0	2	8.5	3.2	29
07MN024	2018	Fish	3	18	6	8	1.3	42
07MN024	2017	Macroinvertebrates	7	4	3.5	14.5	3.4	41

**Unnamed creek (07020002-566):** The reach of an unnamed creek from an unnamed creek to Artichoke Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 and 2018 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Artichoke Creek watershed (HUC 12: 070200020502) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019.

**Monitoring station 17MN002 (07020002-566)**



Macroinvertebrates were not assessed because the stream was dry preceding the macroinvertebrate sampling visit. Secchi tube, TSS, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen was also not sufficient for assessment, but at least one measurement exceeded the WQS threshold. Total phosphorus and chlorophyll-*a* exceeded WQS and this reach is listed for eutrophication. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Pomme de Terre River Watershed (07020002).

**Unnamed creek (07020002-566) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN002	2018	Fish	7	28	1	13.5	7.3	28
17MN002	2017	Macroinvertebrates	7	-	0	19.5	20.5	22

**Unnamed creek (07020002-576):** The reach of an unnamed creek from an unnamed creek to geographic coordinates (decimal degrees NAD83) 45.545, -95.964 is recommended to be designated Class 2Bm. Biological data collected from one station in 2007 and 2016 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Muddy Creek watershed (HUC 12:

070200020404) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, chloride, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all

**Monitoring station 07MN017 (07020002-576)**



measurements met WQS thresholds. Three total phosphorus measurements exceeded WQS thresholds, but too few samples were collected for assessment and response variables were not sampled. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Pomme de Terre River Watershed (07020002).

**Unnamed creek (07020002-576) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07MN017	2007	Fish	7	20	4	7	1.6	49
07MN017	2016	Fish	7	0	1	14	7.5	31

**b. Redwood River Watershed (07020006)**

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/redwood-river>

**Redwood River (07020006-513):** The reach of Redwood River from the south line of PLS System section T110 R42W S17 to the east line of PLS System section T111 R42W S32 is recommended to be designated Class 2Bdg. This reach of the Redwood River is currently classified by the DNR as a designated trout stream ([Minn. R. 6264.0050](#)). Current DNR management consists of annual stocking of harvestable size trout for a put-and-take fishery. The DNR manages this water as a marginal trout water which has little expectation for trout carryover between years and natural reproduction. As such, there is no evidence of natural reproduction and only anecdotal information suggesting some carryover of trout. Low numbers of brown trout were present in some non-reportable (inconsistent methods) MPCA fish samples from the early 1990s. Most MPCA fish samples did not include any cold water fish species and only a single cool water fish species (brassy minnow) was present. A single cold water

**Monitoring station 90MN029 (07020006-513)**



macroinvertebrate individual (*Eukiefferiella*) was collected from 2 samples. Both fish and macroinvertebrate communities are indicative of a warm or cool water community in this stream reach. Water temperatures measured by continuous data loggers (2010 and 2017) in this stream reach are too high to support cold water aquatic life with water temperatures in the growth range for brook trout only 3.6-28.4% of the summer and lethal temperatures measured 11.9-19.5% of the summer. Average July water temperatures were also high and ranged from 23.3 to 24.3°C. Degradation within the watershed has occurred, but no evidence of a historical cold water community has been found. Furthermore, the water temperatures are very high for a cold water habitat indicating that the stream is not a degraded cold water habitat. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Redwood River Watershed (07020006). In addition to this reach, a number of tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliation with this reach. Many of these tributaries are spring fed and as a result, the Class 2Ag designation for the following reaches will be retained in the beneficial use table for the Redwood River Watershed (07020006): 07020006-541, 07020006-542, 07020006-543, 07020006-544, 07020006-545, 07020006-546, 07020006-547, and 07020006-548.

**Judicial Ditch 14 & 15 (07020006-517):** The reach of Judicial Ditch 14 and 15 from its headwaters to Clear Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No. 14 and 15 watershed (HUC 12: 070200060502) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish and macroinvertebrate assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Monitoring station 17MN213 (07020006-517)**



**Judicial Ditch 14 & 15 (07020006-517) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN213	2017	Fish	3	43	8.5	3	0.4	48
17MN213	2017	Macroinvertebrates	7	36	2	15.5	5.5	32

**Judicial Ditch 33 (07020006-518):** The reach of Judicial Ditch 33 from County Ditch 35 to an unnamed creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2001 and 2006 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No. 33 watershed (HUC 12: 070200060602) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were not assessed because these data were expired (i.e., more than 10 years old) at the time this watershed was assessed. No water quality data were available. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Monitoring station 01MN053 (07020006-518)**



**Judicial Ditch 33 (07020006-518) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
01MN053	2001	Fish	7	0	1.5	13.5	5.8	34
01MN053	2006	Fish	7	15	1	13.5	7.3	19
01MN053	2001	Macroinvertebrates	7	9	1	22.5	11.8	34

**Judicial Ditch 33 (07020006-520):** The reach of Judicial Ditch 33 from Judicial Ditch 32 to Ramsey Creek is recommended to be designated Class 2Bm. Biological data collected from two stations in 2005 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that the fish assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No. 33 watershed (HUC 12: 070200060602) and adjacent watersheds which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage

**Monitoring station 17MN224 (07020006-520)**





maintenance. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The macroinvertebrate assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Judicial Ditch 33 (07020006-520) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN224	2017	Fish	2	0	5	11	2.0	40
17MN224	2017	Fish	2	7	4.5	16.5	3.2	32
92MN046	2005	Fish	2	0	6.5	15.5	2.2	34
17MN224	2017	Macroinvertebrates	7	39	9	12.5	1.4	48
17MN224	2017	Macroinvertebrates	7	48	9	12.5	1.4	48

**Ramsey Creek (07020006-521):** The reach of Redwood River from the south line of PLS System section T110 R42W S17 to the east line of PLS System section T111 R42W S32 is recommended to be designated Class 2Bdg. This reach is managed as a put-and-take trout water and brown trout are stocked annually. There is no evidence of natural reproduction and only limited indication of some carry over. Low numbers of brown trout were present in some MPCA fish samples, but these were fish stocked by the DNR. A no cold water macroinvertebrate species have been collected from this reach. Both fish and macroinvertebrate communities in this stream reach are indicative of a warm or cool water community. Water temperatures in this stream reach are too high to support cold water aquatic life with water temperatures in the growth range for brook trout only 39.1-47.4% of the summer. Temperature logger data also demonstrated that water temperatures are above the lethal threshold for brook trout 7.6-15.0% of the time and July average water temperatures are over 23°C. Stream degradation is present for this system, but there is no indication that the stream was naturally a cold water habitat. Although this

**Monitoring station 92MN047 (07020006-521)**



stream is managed as an annual put and take fishery by the DNR, and is an important resource as such in the area, the thermal regime and lack of trout carryover demonstrates this stream should be designated a warm water habitat by the MPCA to better reflect the fish and macroinvertebrate community naturally present in the stream. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Redwood River Watershed (07020006).

**Ramsey Creek (07020006-524):** The reach of Ramsey Creek from Judicial Ditch 33 to the east line of PLS System section T113 R36W S34 is recommended to be designated Class 2Bm. Biological data collected from one station in 2007 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was

maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Ramsey Creek watershed (HUC 12: 070200060603) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were not assessed because these data were expired (i.e., more than 10 years old) at the time this watershed was assessed. No water quality data were available. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Monitoring station 07MN075 (07020006-524)**



**Ramsey Creek (07020006-524) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07MN075	2007	Fish	2	14	6.5	11.5	1.7	50
07MN075	2007	Macroinvertebrates	7	19	5.5	10.5	1.8	50

**County Ditch 33 (07020006-529):** The reach of County Ditch 33 from its headwaters to Redwood River is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of extensive ditching in the upper reaches of the County Ditch No. 33-Redwood River watershed (HUC 12: 070200060703) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages

**Monitoring station 91MN040 (07020006-529)**



attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Total phosphorus, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds.

Dissolved oxygen was also not sufficient for assessment, but at least one measurement exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**County Ditch 33 (07020006-529) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
91MN040	2017	Fish	3	47	4	7.5	1.7	42
91MN040	2017	Macroinvertebrates	7	20	0	16.5	17.5	23

**Judicial Ditch 32 (07020006-540):** The reach of Judicial Ditch 32 from an unnamed creek to Judicial Ditch 33 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial

**Monitoring station 17MN227 (07020006-540)**



Ditch No. 32 watershed (HUC 12: 070200060601) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Total phosphorus, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen was also not sufficient for assessment, but at least one measurement exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Judicial Ditch 32 (07020006-540) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN227	2017	Fish	3	46	3.5	9.5	2.3	26
17MN227	2017	Macroinvertebrates	7	18	0	20	21.0	19

**Unnamed creek (07020006-553):** The reach of an unnamed creek from an unnamed creek to Ramsey Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that this reach does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Ramsey

**Monitoring station 17MN222 (07020006-553)**



Creek watershed (HUC 12: 070200060603) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The macroinvertebrate assemblage was assessed

as supporting the aquatic life use goals for Class 2Bm. Total phosphorus, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen was also not sufficient for assessment, but at least one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Unnamed creek (07020006-553) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN222	2017	Fish	7	15	2.5	10	3.1	31
17MN222	2017	Macroinvertebrates	7	22	2.5	17	5.1	39

**Judicial Ditch 30 (07020006-554):** The reach of Judicial Ditch 30 from an unnamed ditch to Coon Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Upper Coon Creek watershed (HUC 12: 070200060203) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Total phosphorus,

**Monitoring station (07020006-554) photos: 17MN231**



dissolved oxygen, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Judicial Ditch 30 (07020006-554) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN231	2017	Fish	3	29	3.5	9.5	2.3	30
17MN231	2017	Macroinvertebrates	7	29	3	17.5	4.6	31

**County Ditch 7 (07020006-556):** The reach of County Ditch 7 from County Ditch 40 to an unnamed creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Judicial Ditch No. 12 watershed (HUC 12: 070200060102) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. Macroinvertebrates were not sampled from this ditch due to the lack of sampleable habitat indicating that habitat is also limiting the macroinvertebrate community. The poor habitat condition cannot be reversed at this time and is not

**Monitoring station 17MN209 (07020006-556)**



likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, dissolved oxygen, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**County Ditch 7 (07020006-556) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN209	2017	Fish	3	40	6.5	6	0.9	39

**Unnamed creek (07020006-558):** The reach of an unnamed creek from an unnamed ditch to Threemile Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the lower reaches of the Runholt-Mellenthin Dam watershed (HUC 12: 070200060402) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the

aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm. Total phosphorus, dissolved oxygen, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this

**Monitoring station 17MN215 (07020006-558)**



information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Unnamed creek (07020006-558) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN215	2017	Fish	3	43	2.5	11.5	3.6	23
17MN215	2017	Macroinvertebrates	7	19	1	20.5	10.8	25

**Monitoring station 17MN221 (07020006-559)**



**Unnamed creek (07020006-559):** The reach of an unnamed creek from its headwaters to the Redwood River is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the upper

reaches of the County Ditch No 19-Redwood River watershed (HUC 12: 070200060303) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, dissolved oxygen, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The

MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Unnamed creek (07020006-559) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN221	2017	Fish	3	0	3	10	2.8	33

**Judicial Ditch 3 (07020006-560):** The reach of Judicial Ditch 3 from its headwaters to the Redwood River is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Judicial Ditch No 3-Redwood River watershed (HUC 12: 070200060701) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm. Ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and dissolved oxygen measurements were also not sufficient for assessment, but one measurement each exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Monitoring station 17MN223 (07020006-560)**



**Judicial Ditch 3 (07020006-560) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN223	2017	Fish	7	19	2	10.5	3.8	17
17MN223	2017	Macroinvertebrates	7	17	0	21.5	22.5	18

**Unnamed creek (07020006-561):** The reach of an unnamed creek from its headwaters to the Redwood River is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Judicial Ditch No 3-Redwood River watershed (HUC 12: 070200060701) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, dissolved oxygen, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Monitoring station 17MN218 (07020006-561)**



**Unnamed creek (07020006-561) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN218	2017	Fish	3	46	4.5	3.5	0.8	41
17MN218	2017	Macroinvertebrates	7	31	1	19	10.0	29

**Threemile Creek (07020006-565):** The reach of Threemile Creek from the west line of PLS System section T113 R41W S34 to the east line of PLS System section T112 R41W S12 is recommended to be designated Class 2Bm. Biological data collected from one station in 2005 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of extensive ditching in portions of the Lower Threemile Creek watershed (HUC 12: 070200060404) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28,

**Monitoring station 92MN036 (07020006-565)**





1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, chloride, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen, TSS, and Secchi tube was also not sufficient for assessment, but at least one measurement exceeded WQS thresholds. This reach was listed as impaired for turbidity. Total phosphorus concentrations also exceeded WQS thresholds, but measurements of chlorophyll-*a* indicated that the eutrophication standard was not exceeded. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Threemile Creek (07020006-565) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
92MN036	2005	Fish	2	37	4	12.5	2.7	45
92MN036	2017	Fish	2	42	11	10.5	1.0	47
92MN036	2017	Macroinvertebrates	5	25	4.5	7.5	1.5	47

**Clear Creek (07020006-567):** The reach of Clear Creek from its headwaters to geographic coordinates (decimal degrees NAD83) 44.466, -95.323 is recommended to be designated Class 2Bm. Biological data collected from three stations in 2005, 2007, and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Upper Judicial Ditch No 31 and Lower Judicial Ditch No 31 watersheds (HUC 12s: 070200060501 and 070200060503) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen also not sufficient for assessment, but at least one measurement exceeded WQS thresholds. This reach was listed as impaired for TSS. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Clear Creek (07020006-567) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN214	2017	Fish	7	26	5	8	1.5	38
07MN071	2007	Fish	2	25	10	12	1.2	46
92MN042	2005	Fish	2	32	5	14	2.5	39
17MN214	2017	Macroinvertebrates	7	27	1	18.5	9.8	32
07MN071	2007	Macroinvertebrates	7	18	7	13.5	1.8	46

Monitoring stations 17MN214 (left) and 07MN071 (right) (07020006-567)



**Unnamed creek (07020006-572):** The reach of an unnamed creek from geographic coordinates (decimal degrees NAD83) 44.532, -95.888 to 44.535, -95.855 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No 63 watershed (HUC 12: 070200060403) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological

assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

Monitoring station 17MN226 (07020006-572)



Unnamed creek (07020006-572) biological and habitat data

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN226	2017	Fish	3	40	8.5	3.5	0.5	48
17MN226	2017	Fish	3	46	5.5	0.5	0.2	52
17MN226	2017	Macroinvertebrates	5	29	5	7.5	1.4	59

**Unnamed creek (07020006-574):** The reach of an unnamed creek from an unnamed creek to the south line of PLS System section T109 R44W S20 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of extensive ditching in portions of the Judicial Ditch No 12 watershed (HUC 12: 070200060102) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage

**Monitoring station 17MN206 (07020006-574)**



maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Unnamed creek (07020006-574) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN206	2017	Fish	7	23	1	15	8.0	35
17MN206	2017	Macroinvertebrates	7	2	2	19	6.7	28

**County Ditch 31 (07020006-576):** The reach of County Ditch 31 from an unnamed creek to geographic coordinates (decimal degrees NAD83) 44.262, -96.035 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is part of extensive ditching in the upper reaches of the Judicial Ditch No 31-Redwood River watershed (HUC 12: 070200060103) which cannot be feasibly restored. Habitat

**Monitoring station 17MN210 (07020006-576)**



assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**County Ditch 31 (07020006-576) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN210	2017	Fish	3	32	2	10.5	3.8	19
17MN210	2017	Macroinvertebrates	7	16	1	19.5	10.3	32

**County Ditch 60 (07020006-578):** The reach of County Ditch 60 from an unnamed creek to geographic coordinates (decimal degrees NAD83) 44.496, -95.698 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that the macroinvertebrate assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975.

**Monitoring station 17MN217 (07020006-578)**



This ditch is also part of an extensive ditch network in the County Ditch No 60 watershed (HUC 12: 070200060302) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and it is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**County Ditch 60 (07020006-578) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN217	2017	Fish	3	14	6.5	4	0.7	44
17MN217	2017	Fish	3	59	8.5	3.5	0.5	49
17MN217	2017	Macroinvertebrates	5	15	1	10	5.5	35

**Unnamed creek (07020006-580):** The reach of an unnamed creek from an unnamed creek to geographic coordinates (decimal degrees NAD83) 44.288, -95.996 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is part of extensive ditching in the upper reaches of the Judicial Ditch No 31-Redwood River watershed (HUC 12: 070200060103) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover

**Monitoring station 17MN211 (07020006-580)**



naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus was also not sufficient for assessment, but one measurement exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Redwood River Watershed (07020006).

**Unnamed creek (07020006-580) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN211	2017	Fish	3	42	5.5	3	0.6	42
17MN211	2017	Macroinvertebrates	7	28	7	11.5	1.6	48

**c. Minnesota River - Mankato Watershed (07020007)**

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/minnesota-river-mankato>

**Unnamed creek (Minnesota River Tributary) (07020007-627):** The reach of an unnamed creek (Minnesota River Tributary) from its headwaters to Sevenmile Creek is recommended to be designated Class 2Bdg. This reach was originally designated Class 2Ag as a trout protection water because it is located in PLS System sections T109 R27W S11, 12. This was based on the section affiliation with Sevenmile Creek (07020007-562) which is a designated trout water. However, this unnamed creek (07020007-627) flows to the Minnesota River and does not flow into Sevenmile Creek. As a result, 07020007-627 is jurisdictionally disconnected from the trout water designation on Sevenmile Creek and the DNR does not manage this reach as a trout water or trout protection water. There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, this reach was erroneously designated and would not be expected to support a cold water habitat consistent with Class 2A. Considering this information, [40 CFR § 131.10\(g\)\(1\)](#) applies to this reach and it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Minnesota River - Mankato Watershed (07020007).

**Unnamed Creek (07020007-668):** The reach of an unnamed creek from its headwaters to the Minnesota River is recommended to be designated Class 2Ag. Macroinvertebrate sampling by the MPCA collected *Diplectrona*, a rather rare, sensitive and obligate cold water invertebrate species. Four other cold water invertebrate taxa were also collected (*Gammarus*, *Hesperophylax*, *Parachaetochladius*, and *Prodiamesa*). In total, the cold water macroinvertebrate taxa individuals comprised 20.3% of the sample. MPCA fish sampling identified a species-poor fish community with no cold or cool water species present. A reconnaissance survey by the DNR observed as similar fish community.

**Monitoring station 13MN003 (07020007-668)**



The poor fish community could be the result of poor connectivity with the Minnesota River and because this stream is a small headwater stream without habitat to support a more diverse community. Furthermore, temperatures in this stream are very cold which also likely limits the fish species which can colonize this stream. A water temperature data logger was deployed at the biological station in 2015. Water temperatures were in the growth range for brook trout 99.9% of the summer with an average July temperature of 16.1°C. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Minnesota River - Mankato Watershed (07020007).

#### **d. Cottonwood River Watershed (07020008)**

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/cottonwood-river>

**Judicial Ditch 30, West Branch (07020008-530):** The reach of the West Branch of Judicial Ditch 30 from an unnamed creek to the East Branch of Judicial Ditch 30 is recommended to be designated Class 2Bm. Biological data collected from one station in 2001 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No. 30 watershed (HUC 12: 070200080801) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were not assessed because these data were expired (i.e., more than 10 years old) at the time this watershed was assessed. No water quality data were available. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach

**Monitoring station 01MN038 (07020008-530)**



and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Judicial Ditch 30, West Branch (07020008-530) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
01MN038	2001	Fish	7	0	1	11.5	6.3	36
01MN038	2001	Macroinvertebrates	7	15	0	17	18.0	36

**County Ditch 38 (07020008-537):** The reach of County Ditch 38 from its headwaters to the north line of PLS System section T107 R37W S32 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 (17MN176) demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of extensive ditching in the Augusta Lake watershed (HUC 12: 070200080504) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate

**Monitoring station 17MN176 (07020008-537)**



assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. No water quality data were available. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**County Ditch 38 (07020008-537) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN176	2017	Fish	7	20	1	13.5	7.3	29
17MN176	2017	Macroinvertebrates	7	18	0	22.5	23.5	30

**County Ditch 54 (07020008-543):** The reach of County Ditch 54 from its headwaters to Sleepy Eye Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No. 54-Sleepy Eye Creek watershed (HUC 12: 070200080702) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and dissolved oxygen data were also not sufficient for assessment, but one measurement for each parameter exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Monitoring station 91MN068 (07020008-543)**



**County Ditch 54 (07020008-543) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
91MN068	2017	Fish	3	46	3	10.5	2.9	31
91MN068	2017	Macroinvertebrates	7	24	1	19	10.0	34

**County Ditch 24 (07020008-550):** The reach of County Ditch 24 from an unnamed creek to Sleepy Eye Creek is recommended to be designated Class 2Bm. Biological data collected from two stations in 2007 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No. 24 watershed (HUC 12: 070200080704) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).



**County Ditch 24 (07020008-550) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07MN073	2007	Fish	3	4	4	8.5	1.9	35
17MN114	2017	Fish	3	33	3	11.5	3.1	22
17MN114	2017	Fish	3	25	2.5	9.5	3.0	22
07MN073	2007	Macroinvertebrates	7	10	1	17.5	9.3	35
17MN114	2017	Macroinvertebrates	7	35	1	19	10.0	31

**Monitoring stations 07MN073 (left) and 17MN114 (right) (07020008-550)**



**County Ditch 38 (07020008-557):** The reach of County Ditch 38 from its headwaters to County Ditch 85 is recommended to be designated Class 2Bm. Biological data collected from two stations in 2010, 2015, and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No. 38-Sleepy Eye Creek watershed (HUC 12: 070200080705) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. One fish sample was above the Class 2Bg biocriterion, but it was only one point above and is within the confidence interval for this fish stream type. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Ammonia, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus, TSS, and dissolved oxygen data were also not sufficient for assessment, but at least one measurement exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**County Ditch 38 (07020008-557) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
10EM007	2010	Fish	3	39	6	7.5	1.2	37
10EM007	2015	Fish	3	56	8.5	7.5	0.9	36
10EM007	2015	Fish	3	48	7	6	0.9	33
17MN116	2017	Fish	3	38	4.5	7	1.5	37
10EM007	2010	Macroinvertebrates	7	12	4	17.5	3.7	37
10EM007	2015	Macroinvertebrates	7	21	4	17.5	3.7	29
10EM007	2015	Macroinvertebrates	7	10	4	17.5	3.7	29
17MN116	2017	Macroinvertebrates	7	29	8.5	10	1.2	48

**Monitoring stations 10EM007 (left) and 17MN116 (right) (07020008-557)**



**County Ditch 68 (07020008-561):** The reach of County Ditch 68 from its headwaters to Sleepy Eye Creek is recommended to be designated Class 2Bm. Biological data collected from two stations in 2015 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No. 38-Sleepy Eye Creek watershed (HUC 12: 070200080705) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. One fish sample was above the Class 2Bg biocriterion, but it was only one point above and is within the confidence interval for this fish stream type. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen data were also not sufficient for assessment, but at least one measurement exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**County Ditch 68 (07020008-561) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN117	2017	Fish	3	43	4	8.5	1.9	26
15EM071	2015	Fish	3	56	9	2	0.3	59
17MN117	2017	Macroinvertebrates	7	34	1.5	18	7.6	41

**Monitoring stations 17MN117 (left) and 15EM071 (right) (07020008-561)**



**County Ditch 60 (07020008-564):** The reach of County Ditch 60 from an unnamed ditch to Judicial Ditch 30 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No. 30 watershed (HUC 12: 070200080801) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975.

Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Monitoring station 17MN108 (07020008-564)**



**County Ditch 60 (07020008-564) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN108	2017	Fish	3	39	11	3.5	0.4	42
17MN108	2017	Macroinvertebrates	7	31	6	10	1.6	44

**County Ditch 5 (07020008-565):** The reach of County Ditch 5 from County Ditch 5 to Judicial Ditch 30 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No. 30 watershed (HUC 12: 070200080801) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use

**Monitoring station 17MN106 (07020008-565)**



goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus data was also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**County Ditch 5 (07020008-565) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN106	2017	Fish	7	29	2.5	11.5	3.6	27

**Unnamed ditch (07020008-569):** The reach of an unnamed ditch from an unnamed ditch to County Ditch 44 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Lake Marion watershed (HUC 12: 070200080201) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Monitoring station 17MN171 (07020008-569)**



**Unnamed ditch (07020008-569) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN171	2017	Fish	7	37	1	14	7.5	22
17MN171	2017	Macroinvertebrates	7	13	0	19	20.0	31

**Unnamed creek (07020008-573):** The reach of an unnamed creek from an unnamed creek to Lake Marshall is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of extensive ditching in the lower reaches of the Lake Marshall watershed (HUC 12: 070200080202) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the

**Monitoring station 17MN170 (07020008-573)**



macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was not assessed due to the impact of a nearby lake on the fish community. Dissolved oxygen, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Unnamed creek (07020008-573) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN170	2017	Macroinvertebrates	7	11	0	20.5	21.5	24
17MN170	2017	Macroinvertebrates	7	16	0	20.5	21.5	24

**Unnamed creek (07020008-576):** The reach of an unnamed creek from Heck Slough to an unnamed creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of extensive ditching in the Town of Amirdt watershed (HUC 12: 070200080203) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was not assessed due to the impact of a rain event before fish sampling. Total phosphorus, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen data were also not sufficient for assessment, but two measurements exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Monitoring station 17MN164 (07020008-576)**



**Unnamed creek (07020008-576) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN164	2017	Fish	3	25	3	11	3.0	33
17MN164	2017	Macroinvertebrates	7	6	7	18	2.4	33

**Unnamed creek (07020008-586):** The reach of an unnamed creek from Robbins Slough to Plum Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No. 20A watershed (HUC 12: 070200080301) which cannot be feasibly restored. In addition, no evidence indicates that the macroinvertebrate assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975.

**Monitoring station 17MN148 (07020008-586)**



Habitat assessments demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus data were also not sufficient for assessment, but two measurements exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Unnamed creek (07020008-586) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN148	2017	Fish	3	71	11	3	0.3	50
17MN148	2017	Fish	3	61	10	3	0.4	57
17MN148	2017	Macroinvertebrates	5	21	2	8.5	3.2	47

**County Ditch 19 (07020008-589):** The reach of County Ditch 19 from its headwaters to Dutch Charley Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Upper Dutch Charley Creek watershed (HUC 12: 070200080501) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The

**Monitoring station 17MN139 (07020008-589)**



poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**County Ditch 19 (07020008-589) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN139	2017	Fish	3	53	4.5	6	1.3	39
17MN139	2017	Macroinvertebrates	7	27	3	14	3.8	45

**Unnamed ditch (07020008-594):** The reach of an unnamed ditch from an unnamed ditch to Sleepy Eye Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No. 54-Sleepy Eye Creek watershed (HUC 12: 070200080702) which cannot be feasibly restored. In addition, no evidence indicates that the fish assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Monitoring station 17MN122 (07020008-594)**



**Unnamed ditch (07020008-594) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN122	2017	Fish	3	51	7.5	2.5	0.4	40
17MN122	2017	Macroinvertebrates	7	43	12.5	6.5	0.6	49



**Unnamed creek (07020008-595):** The reach of an unnamed creek from an unnamed creek to Sleepy Eye Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Headwaters of Sleepy Eye Creek watershed (HUC 12: 070200080701) which cannot be feasibly restored. In addition, no evidence indicates that the fish assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance.

**Monitoring station 17MN124 (07020008-595)**



The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, dissolved oxygen, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and TSS data were also not sufficient for assessment, but at least one measurement for each parameter exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Unnamed creek (07020008-595) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN124	2017	Fish	3	53	6.5	4	0.7	39
17MN124	2017	Macroinvertebrates	7	42	4	11	2.4	41

**Judicial Ditch 35 (07020008-596):** The reach of County Ditch 35 from an unnamed ditch to Sleepy Eye Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No 35 watershed (HUC 12: 070200080706) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat

**Monitoring station 17MN113 (07020008-596)**



assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and it is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Judicial Ditch 35 (07020008-596) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN113	2017	Fish	3	53	4.5	9	1.8	31
17MN113	2017	Macroinvertebrates	7	28	5	14.5	2.6	35

**County Ditch 26 (07020008-597):** The reach of County Ditch 26 from its headwaters to Sleepy Eye Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No. 38-Sleepy Eye Creek watershed (HUC 12: 070200080705) and upstream watersheds which cannot be feasibly restored. In addition, no evidence indicates that the macroinvertebrate assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Secchi tube and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Monitoring station 17MN118 (07020008-597)**



**County Ditch 26 (07020008-597) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN118	2017	Macroinvertebrates	7	13	0	19	20.0	31

**Sleepy Eye Creek (07020008-598):** The reach of Sleepy Eye Creek from its headwaters to the east line of the PLS System section T109 R33W S6 is recommended to be designated Class 2Bm. Biological data collected from five stations in 2007 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence

indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the Sleepy Eye Creek watershed (HUC 10: 0702000807) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm. Ammonia, chloride, eutrophication (total phosphorus and chlorophyll-*a*), TSS, Secchi tube, and pH WQS standards were met. Dissolved oxygen data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Sleepy Eye Creek (07020008-598) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN123	2017	Fish	2	0	1.5	14	6.0	26
17MN119	2017	Fish	2	30	8.5	12.5	1.4	43
17MN115	2017	Fish	2	33	4	18	3.8	28
07MN072	2007	Fish	2	46	4	14	3.0	41
97MN014	2017	Fish	2	54	5.5	18	2.9	29
17MN123	2017	Macroinvertebrates	7	26	1	17.5	9.3	21
17MN119	2017	Macroinvertebrates	5	25	2	12	4.3	46
17MN115	2017	Macroinvertebrates	5	29	2	10.5	3.8	45
07MN072	2007	Macroinvertebrates	7	22	3	16.5	4.4	41
97MN014	2017	Macroinvertebrates	5	25	3	9	2.5	40

Monitoring stations 17MN123 (top left), 17MN119 (top right), 17MN115 (middle left), 07MN072 (middle right), and 97MN014 (bottom) (07020008-598)



**Plum Creek (Judicial Ditch 20A) (07020008-602):** The reach of Plum Creek (Judicial Ditch 20A) from Robbins Slough to Plum Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2007 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No. 20A watershed (HUC 12: 070200080301) which cannot be feasibly restored. In addition, no evidence indicates that the macroinvertebrate assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, dissolved oxygen, TSS, and Secchi tube data were not sufficient for assessment, but all measurements met WQS thresholds. Available pH data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. This reach is listed as impaired for turbidity. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

Monitoring station 07MN085 (07020008-602)



**Plum Creek (Judicial Ditch 20A) (07020008-602) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07MN085	2007	Fish	3	0	5.5	3.5	0.7	58
07MN085	2017	Fish	3	57	7.5	1	0.2	48
07MN085	2017	Fish	3	58	6.5	2	0.4	44
07MN085	2017	Macroinvertebrates	7	26	8	13	1.6	47

**Coal Mine Creek (07020008-604):** The reach of Coal Mine Creek from its headwaters to the south line of PLS System section T109 R35W S22 is recommended to be designated Class 2Bm. Biological data collected from two stations in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Coal Mine Creek watershed (HUC 12: 070200080604) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Ammonia, chloride, eutrophication (total phosphorus [exceeds] and chlorophyll-*a* [meets]), Secchi tube, and pH WQS standards were met. Available TSS data were not sufficient for assessment, but all measurements met the WQS threshold. Dissolved oxygen data were also not sufficient for assessment, but three measurements exceeded the WQS threshold. Considering this information,

[40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Coal Mine Creek (07020008-604) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN126	2017	Fish	7	30	1	13.5	7.3	24
17MN109	2017	Fish	2	38	7.5	13	1.6	34
17MN126	2017	Macroinvertebrates	7	10	0	19.5	20.5	30
17MN109	2017	Macroinvertebrates	7	40	6	14	2.1	30

**Monitoring stations 17MN126 (left) and 17MN109 (right) (07020008-604)**



**Unnamed creek (07020008-606):** The reach of an unnamed creek from an unnamed creek to geographic coordinates (decimal degrees NAD83) 44.134, -95.095 is recommended to be designated Class 2Bm. Biological data collected from one station in 2001, 2010, and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that the macroinvertebrate assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of extensive ditching in the Mound Creek watershed (HUC 12: 070200080602) which cannot be feasibly restored. During one macroinvertebrate sampling visit, macroinvertebrates were not sampled from this ditch due to the lack of sampleable habitat which indicated that habitat is limiting the macroinvertebrate community. Habitat assessments further demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Ammonia, TSS, Secchi tube, and pH data were

**Monitoring station 91MN065 (07020008-606)**



not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and dissolved oxygen data were also not sufficient for assessment, but at least one measurement for each parameter exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Unnamed creek (07020008-606) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
91MN065	2001	Fish	3	8	8.5	5	0.6	54
91MN065	2010	Fish	3	82	7	3	0.5	47
91MN065	2017	Fish	3	60	3	7.5	2.1	27
91MN065	2010	Macroinvertebrates	7	11	9	13	1.4	47
91MN065	2017	Macroinvertebrates	7	-	1.5	21	8.8	28

**Judicial Ditch 30 (07020008-609):** The reach of Judicial Ditch 30 from the west line of PLS System section T110 R33W S15 to the east line of PLS System section T110 R33W S36 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No. 30 watershed (HUC 12: 070200080801) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as not supporting the aquatic

**Monitoring station 17MN107 (07020008-609)**



life use goals for Class 2Bm in assessment year 2019. The macroinvertebrate assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Secchi tube, pH, and eutrophication (total phosphorus [exceeds] and chlorophyll-*a* [meets]) WQS standards were met. Dissolved oxygen data were not sufficient for assessment, but at least one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Judicial Ditch 30 (07020008-609) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN107	2017	Fish	2	0	4.5	15.5	3.0	33
17MN107	2017	Macroinvertebrates	7	34	2	11.5	4.2	29

**Highwater Creek (07020008-610):** The reach of Highwater Creek from its headwaters to geographic coordinates (decimal degrees NAD83) 43.990, -95.395 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of extensive ditching in the upper reaches of the Upper Highwater Creek watershed (HUC 12: 070200080503) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were not assessed because these data were expired (i.e., more than 10 years old) at the time this watershed was assessed. No water quality data were available. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Monitoring station 01MN007 (07020008-610)**



**Highwater Creek (07020008-610) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
01MN007	2001	Fish	3	33	2	14.5	5.2	35
01MN007	2001	Macroinvertebrates	7	5	0	19.5	20.5	35

**Unnamed creek (07020008-613):** The reach of an unnamed creek from the west line of PLS System section T110 R40W S6 to Meadow Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class

**Monitoring station 17MN168 (07020008-613)**



2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of extensive ditching in the lower reaches of the Lake Marshall watershed (HUC 12: 070200080202) which cannot be feasibly restored. In addition, no evidence indicates that the macroinvertebrate assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to



recover naturally due to drainage maintenance. The macroinvertebrate assemblage was not assessed because these data were expired (i.e., more than 10 years old) at the time this watershed was assessed. Dissolved oxygen, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Unnamed creek (07020008-613) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN168	2017	Macroinvertebrates	7	10	2	15.5	5.5	27

**Unnamed creek (07020008-615):** The reach of Highwater Creek from the south line of PLS System section T1110 R40W S9 to an unnamed creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that the macroinvertebrate assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of extensive ditching in the lower reaches of the Town of Amirdt watershed (HUC 12: 070200080203) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Monitoring station 17MN165 (07020008-615)**



**Unnamed creek (07020008-615) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN165	2017	Fish	3	56	11	1.5	0.2	53
17MN165	2017	Fish	3	63	11.5	1.5	0.2	57
17MN165	2017	Macroinvertebrates	5	17	1	12.5	6.8	40

**Unnamed creek (07020008-623):** The reach of an unnamed creek from the west line of PLS System section T109 R39W S14 to Plum Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that

it was maintained for drainage before November 28, 1975. This ditch consists of a >3 mile section of ditch and other hydrologically connected ditch sections which cannot be feasibly restored. In addition, no evidence indicates that the macroinvertebrate assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Cottonwood River Watershed (07020008).

**Monitoring station 17MN146 (07020008-623)**



**Unnamed creek (07020008-623) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN146	2017	Fish	3	59	10.5	1.5	0.2	48
17MN146	2017	Macroinvertebrates	5	29	3	6.5	1.9	48

**e. Blue Earth River Watershed (07020009)**

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/blue-earth-river>

**Judicial Ditch 8 (07020009-545):** The reach of Judicial Ditch 8 from its headwaters to Judicial Ditch 3 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No. 3 watershed (HUC 12: 070200090906) which cannot be feasibly restored. In addition, no evidence indicates that the macroinvertebrate assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was not assessed due to low flows at the time of sampling. Secchi tube and pH data were not sufficient for assessment, but all

**Monitoring station 17MN335 (07020009-545)**



measurements met WQS thresholds. Dissolved oxygen data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Judicial Ditch 8 (07020009-545) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN335	2017	Macroinvertebrates	7	11	0.5	17.5	12.3	38

**Unnamed ditch (07020009-551):** The reach of an unnamed ditch from its headwaters to the Blue Earth River is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Middle Branch Blue Earth River watershed (HUC 12: 070200090303) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and dissolved oxygen data were also not sufficient for assessment, but at least one measurement for each parameter exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Monitoring station 17MN351 (07020009-551)**



**Unnamed ditch (07020009-551) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN351	2017	Fish	3	44	3	11	3.0	18
17MN351	2017	Macroinvertebrates	7	26	0	20.5	21.5	14

**Foster Creek (07020009-556):** The reach of Foster Creek from the east line of PLS System section T103 R24W S35 to the west line of the PLS System section T102 R24W S6 is recommended to be designated Class 2Bm. Biological data collected from two stations in 2007 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Foster Creek watershed (HUC 12: 070200090502) which

cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and it is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Foster Creek (07020009-556) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN367	2017	Fish	2	34	5.5	11.5	1.9	44
92MN076	2007	Fish	2	37	10	12.5	1.2	45
92MN076	2017	Fish	2	41	2	16.5	5.8	33
17MN367	2017	Macroinvertebrates	7	32	4	13.5	2.9	34
17MN367	2017	Macroinvertebrates	7	36	4	13.5	2.9	34
92MN076	2017	Macroinvertebrates	7	18	3	13.5	3.6	38

**Monitoring stations 17MN367 (left) and 92MN076 (right) (07020009-556)**



**Elm Creek, North Fork (07020009-567):** The reach of the North Fork of Elm Creek from its headwaters to Elm Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Headwaters of the Elm Creek watershed (HUC 12: 070200090901) which cannot be feasibly restored. In addition, no evidence indicates that the fish assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Monitoring station 17MN321 (07020009-567)**



**Elm Creek, North Fork (07020009-567) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN321	2017	Fish	3	29	8	3.5	0.5	39

**Judicial Ditch 14 (Badger Creek) (07020009-568):** The reach of Judicial Ditch 14 (Badger Creek) from the west line of PLS System section T101 R28W S18 to Little Badger Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet

**Monitoring station 17MN345 (07020009-568)**



aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Badger Creek watershed (HUC 12: 070200090802) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition

cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and dissolved oxygen were also not sufficient for assessment, but one measurement for each parameter exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Judicial Ditch 14 (Badger Creek) (07020009-568) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN345	2017	Fish	3	38	4	9	2.0	28
17MN345	2017	Macroinvertebrates	7	14	4	16.5	3.5	37

**Judicial Ditch 13 Branch A (07020009-571):**

The reach of Judicial Ditch 13 Branch A from the Minnesota/Iowa border to Judicial Ditch 13 is recommended to be designated Class 2Bm. Biological data collected from one station in 2007 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No 13. (Branch A) watershed (HUC 12: 070200090402) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The Secchi tube WQS standard was met. Total phosphorus, ammonia, dissolved oxygen, TSS, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Monitoring station 17MN356 (07020009-571)**



**Judicial Ditch 13 Branch A (07020009-571) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07MN061	2007	Fish	7	20	5	7	1.3	52
17MN356	2017	Fish	3	42	4	6	1.4	34
17MN356	2017	Macroinvertebrates	7	22	2	20.5	7.2	30

**Unnamed ditch (07020009-599):** The reach of an unnamed ditch from an unnamed creek to the East Branch of the Blue Earth River is recommended to be designated Class 2Bm. Biological data collected from one station in 2010 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Upper East Branch of the Blue Earth River watershed (HUC 12: 070200090503) and upstream watersheds which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Monitoring station 10EM119 (07020009-599)**



**Unnamed ditch (07020009-599) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
10EM119	2010	Fish	3	49	7	3	0.5	49
10EM119	2010	Macroinvertebrates	7	34	3	11	3.0	49

**County Ditch 25 (07020009-603):** The reach of County Ditch 25 from its headwaters to County Ditch 5 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No. 5 watershed (HUC 12: 070200090506) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28,

**Monitoring station 17MN360 (07020009-603)**



1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**County Ditch 25 (07020009-603) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN360	2017	Fish	3	32	3	11	3.0	18
17MN360	2017	Macroinvertebrates	7	22	1	21.5	11.3	29

**County Ditch 5 (07020009-605):** The reach of County Ditch 5 from Judicial Ditch 6 to the East Branch of the Blue Earth River is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No. 5 watershed (HUC 12:

**Monitoring station 17MN358 (07020009-605)**



070200090506) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**County Ditch 5 (07020009-605) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN358	2017	Fish	7	32	3	10	2.8	41
17MN358	2017	Macroinvertebrates	7	28	0	18.5	19.5	26



**Judicial Ditch 98 (07020009-610):** The reach of Judicial Ditch 98 from its headwaters to Sager Lake is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the East Chain Lake watershed (HUC 12: 070200090603) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm

**Monitoring station 17MN332 (07020009-610)**



in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and dissolved oxygen were also not sufficient for assessment, but one measurement for each parameter exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Judicial Ditch 98 (07020009-610) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN332	2017	Fish	3	50	5	6	1.2	46
17MN332	2017	Macroinvertebrates	7	16	5.5	9	1.5	52

**Judicial Ditch 7 (07020009-611):** The reach of Judicial Ditch 7 from the Minnesota/Iowa border to the West Branch of the Blue Earth River is recommended to be designated Class 2Bm. Biological data collected from two stations in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No 7 watershed (HUC 12: 070200090202) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, dissolved oxygen, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and TSS data were also not sufficient for assessment, but at least one measurement for each parameter exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is

reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Judicial Ditch 7 (07020009-611) biological and habitat data**

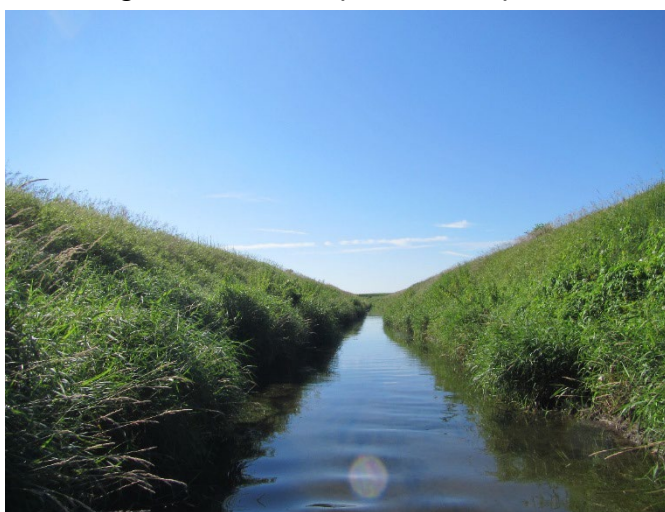
Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN344	2017	Fish	2	39	14	8	0.6	59
17MN372	2017	Fish	2	33	10	6.5	0.7	52
17MN344	2017	Macroinvertebrates	5	20	4	9.5	2.1	56
17MN372	2017	Macroinvertebrates	7	26	11.5	9	0.8	47

**Monitoring stations 17MN344 (left) and 17MN372 (right) (07020009-611)**



**County Ditch 31 (07020009-612):** The reach of County Ditch 31 from the Minnesota/Iowa border to Coon Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No. 31-Coon Creek watershed (HUC 12: 070200090404) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in

**Monitoring station 17MN353 (07020009-612)**



[Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**County Ditch 31 (07020009-612) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN353	2017	Fish	2	25	4	16	3.4	28
17MN353	2017	Macroinvertebrates	7	3	5	20.5	3.6	36

**Judicial Ditch 14 (07020009-614):** The reach of Judicial Ditch 14 from its headwaters to Judicial Ditch 14 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Badger Creek watershed (HUC 12: 070200090802) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that either the fish or

**Monitoring station 17MN346 (07020009-614)**



macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Judicial Ditch 14 (07020009-614) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN346	2017	Fish	3	36	9.5	3	0.4	44
17MN346	2017	Macroinvertebrates	7	39	1	15.5	8.3	35

**Judicial Ditch 14 (07020009-615):** The reach of Judicial Ditch 14 from County Ditch 14 to the East Branch of the Blue Earth River is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Lower East Branch Blue Earth River watershed (HUC 12: 070200090507) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to

**Monitoring station 17MN352 (07020009-615)**



drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Secchi tube, TSS, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and dissolved oxygen data were also not sufficient for assessment, but one measurement for each parameter exceeded WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Judicial Ditch 14 (07020009-615) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN352	2017	Fish	3	54	5.5	5.5	1.0	22
17MN352	2017	Macroinvertebrates	7	26	4	18	3.8	36
17MN352	2017	Macroinvertebrates	7	22	4	18	3.8	36

**County Ditch 17 (07020009-616):** The reach of County Ditch 17 from its headwaters to the Blue Earth River is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the City of Blue Earth-Blue Earth River watershed (HUC 12: 070200090803) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate

**Monitoring station 17MN350 (07020009-616)**



assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**County Ditch 17 (07020009-616) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN350	2017	Fish	3	38	6.5	4.5	0.7	34
17MN350	2017	Macroinvertebrates	7	33	1.5	17	7.2	27

**Judicial Ditch 116 (07020009-619):** The reach of Judicial Ditch 116 from its headwaters to Willow Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that the macroinvertebrate assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the

**Monitoring station 17MN342 (07020009-619)**



Judicial Ditch No 116 watershed (HUC 12: 070200091001) and adjacent watersheds which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Judicial Ditch 116 (07020009-619) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN342	2017	Fish	3	57	7.5	3.5	0.5	46
17MN342	2017	Macroinvertebrates	7	33	1.5	13	5.6	23

**County Ditch 89/Judicial Ditch 24 (07020009-620):** The reach of County Ditch 89/Judicial Ditch 24 from its headwaters to Willow Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No. 116 watershed (HUC 12: 070200091001) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Monitoring station 17MN343 (07020009-620)**



**County Ditch 89/Judicial Ditch 24 (07020009-620) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN343	2017	Fish	3	16	3	10	2.8	24
17MN343	2017	Macroinvertebrates	7	27	0.5	15.5	11.0	30

**Unnamed creek (07020009-621):** The reach of an unnamed creek from its headwaters to Foster Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Foster Creek watershed (HUC 12: 070200090502) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the

**Monitoring station 17MN366 (07020009-621)**



aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Unnamed creek (07020009-621) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN366	2017	Fish	3	50	6	4	0.7	34
17MN366	2017	Macroinvertebrates	7	23	1	17.5	9.3	24

**Thisius Branch (07020009-622):** The reach of Thisius Branch from County Ditch 1 to Foster Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the County Ditch No. 1 watershed (HUC 12: 070200090501) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition

**Monitoring station 17MN365 (07020009-622)**



cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Thisius Branch (07020009-622) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN365	2017	Fish	3	36	3.5	5	1.3	33
17MN365	2017	Macroinvertebrates	7	17	1	20.5	10.8	23

**Judicial Ditch 14 (07020009-623):** The reach of Judicial Ditch 14 from an unnamed creek to Foster Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Foster Creek watershed (HUC 12: 070200090502) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Monitoring station 17MN368 (07020009-623)**



**Judicial Ditch 14 (07020009-623) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN368	2017	Fish	3	37	5	5	1.0	43
17MN368	2017	Fish	3	48	6.5	10.5	1.5	34
17MN368	2017	Macroinvertebrates	7	13	5	12	2.2	39

**Unnamed creek (07020009-624):** The reach of an unnamed creek from the Minnesota/Iowa border to Brush Creek is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Brush Creek watershed (HUC 12: 070200090504) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or

**Monitoring station 17MN363 (07020009-624)**





macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Unnamed creek (07020009-624) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN363	2017	Fish	3	37	5.5	5	0.9	39
17MN363	2017	Macroinvertebrates	7	20	2	16	5.7	33

**County Ditch 26 (07020009-628):** The reach of County Ditch 26 from its headwaters to County State-Aid Highway 13 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Lower East Branch of the Blue Earth River watershed (HUC 12: 070200090507) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic

**Monitoring station 17MN357 (07020009-628)**



life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**County Ditch 26 (07020009-628) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN357	2017	Fish	3	36	2	10.5	3.8	35
17MN357	2017	Macroinvertebrates	7	4	4.5	14.5	2.8	35

**Dutch Creek (07020009-634):** The reach of Dutch Creek from its headwaters to County State-Aid Highway 13 is recommended to be designated Class 2Bm. Biological data collected from one station in 2007 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Dutch Creek watershed (HUC 12: 070200090701) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were not assessed because these data were expired (i.e., more than 10 years old) at the time this watershed was assessed. No water quality data were available. This reach is listed as impaired for turbidity. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Monitoring station 07MN078 (07020009-634)**



**Dutch Creek (07020009-634) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
07MN078	2007	Fish	3	26	8.5	0.5	0.2	52
07MN078	2007	Macroinvertebrates	7	29	7	9.5	1.3	52

**Dutch Creek (07020009-636):** The reach of Dutch Creek from the south line of PLS System section T102 R31W S13 to the south line of PLS System section T102 R31W S18 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Dutch Creek watershed (HUC 12: 070200090701) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor

**Monitoring station 17MN328 (07020009-636)**



habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. This reach is listed as impaired for turbidity. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Dutch Creek (07020009-636) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN328	2017	Fish	3	27	12.5	2.5	0.3	40
17MN328	2017	Macroinvertebrates	7	41	7.5	10.5	1.4	32

**South Creek (07020009-639):** The reach of South Creek from the geographic coordinates (decimal degrees NAD83) 43.642, -94.337 to 43.661, -94.300 is recommended to be designated Class 2Bm. Biological data collected from two stations in 2015 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the Lower South Creek watershed (HUC 12: 070200090604) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**South Creek (07020009-639) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN338	2017	Fish	2	36	13	8.5	0.7	49
15EM040	2015	Fish	2	33	7.5	11	1.4	38
17MN338	2017	Macroinvertebrates	7	10	4	10	2.2	25
15EM040	2015	Macroinvertebrates	5	25	4	8.5	1.9	32

Monitoring stations 17MN338 (left) and 15EM040 (right) (07020009-639)



**Blue Earth River, West Branch (07020009-643):** The reach of the West Branch of the Blue Earth River from the Minnesota/Iowa border to 15th Street is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the West Branch of the Blue Earth River watershed (HUC 12: 070200090203) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm. Ammonia, chloride, Secchi tube, and pH WQS standards were met. Available TSS data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and dissolved oxygen data were also not sufficient for assessment, but at least one measurement for each parameter exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

Monitoring station 17MN312 (07020009-643)



**Blue Earth River, West Branch (07020009-643) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN312	2017	Fish	2	26	5.5	16.5	2.7	28
17MN312	2017	Macroinvertebrates	7	25	10	9	0.9	33

**Blue Earth River, Middle Branch (07020009-645):** The reach of the Middle Branch of the Blue Earth River from the Minnesota/Iowa border to the geographic coordinates (decimal degrees NAD83) 43.514, -94.104, is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Middle Branch of the Blue Earth River watershed (HUC 12: 070200090303) which cannot be feasibly restored. In addition, no evidence indicates that the fish assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as

**Monitoring station 17MN311 (07020009-645)**



supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, chloride, Secchi tube, and pH WQS standards were met. Available TSS data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and dissolved oxygen data were also not sufficient for assessment, but at least one measurement for each parameter exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Blue Earth River, Middle Branch (07020009-645) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN311	2017	Fish	2	34	5.5	18	2.9	31
17MN311	2017	Macroinvertebrates	7	41	7.5	15	1.9	31

**Coon Creek (07020009-647):** The reach of the Coon Creek from its headwaters to the north line of PLS System section T101 R27W S4 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Judicial Ditch No. 13 (HUC 12: 070200090403) and County Ditch No. 31-Coon Creek (HUC 12: 070200090404) watersheds which cannot be feasibly restored. In addition, no evidence

**Monitoring station 17MN355 (07020009-647)**



indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, dissolved oxygen, ammonia, chloride, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Coon Creek (07020009-647) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN355	2017	Fish	2	37	9.5	12	1.2	45
17MN355	2017	Macroinvertebrates	7	32	5	16.5	2.9	32

**Blue Earth River, East Branch (07020009-650):** The reach of the East Branch of the Blue Earth River from the geographic coordinates (decimal degrees NAD83) 43.624, -93.663 to 43.654, -93.73 is recommended to be designated Class 2Bm. Biological data collected from three stations in 2001 and 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Upper East Branch of the Blue Earth River watershed (HUC 12: 070200090503) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. There was one sample from both the fish and macroinvertebrate assemblages (macroinvertebrate sample was within confidence limits) that scored above the General Use threshold, but overall biological data indicates that the General Use is not attainable. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, dissolved oxygen, ammonia, chloride, TSS, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Secchi tube data were also not sufficient for assessment, but four measurements exceeded the WQS threshold. This stream reach is listed for turbidity. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Blue Earth River, East Branch (07020009-650) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN373	2017	Fish	3	52	8	4.5	0.6	48
01MN054	2001	Fish	3	68	6	1	0.3	41
17MN364	2017	Fish	2	31	9.5	7.5	0.8	56
17MN373	2017	Macroinvertebrates	7	39	2	14.5	5.2	34
17MN373	2017	Macroinvertebrates	7	41	2	14.5	5.2	34
01MN054	2001	Macroinvertebrates	5	35	2	8.5	3.2	41
17MN364	2017	Macroinvertebrates	7	51	3.5	12	2.9	34

Monitoring stations 17MN373 (top), 01MN054 (middle), and 17MN364 (bottom) (07020009-650)



**Blue Earth River, East Branch (07020009-652):** The reach of the East Branch of the Blue Earth River from the north line of the PLS System section T102 R25W S23 to an unnamed ditch is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that the fish assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the Upper East Branch of the Blue Earth River watershed (HUC 12: 070200090503) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, chloride, Secchi tube, and pH WQS standards were met. Total phosphorus data were not

Monitoring station 17MN301 (07020009-652)



sufficient for assessment, but all measurements met WQS thresholds. Available TSS data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. This stream reach is listed for turbidity. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Blue Earth River, East Branch (07020009-652) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN301	2017	Fish	2	46	4	11	2.4	43
17MN301	2017	Fish	2	50	6	14	2.1	33

**Brush Creek (07020009-655):** The reach of the Coon Creek from an unnamed creek to the East Branch of the Blue Earth River is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Brush Creek watershed (HUC 12: 070200090504) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages

**Monitoring station 17MN300 (07020009-655)**



were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, chloride, Secchi tube, and pH WQS standards were met. Total phosphorus and TSS data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen data were also not sufficient for assessment, but four measurements exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Brush Creek (07020009-655) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN300	2017	Fish	2	38	14	7.5	0.6	58
17MN300	2017	Macroinvertebrates	7	26	1	20.5	10.8	21

**Cedar Creek (Cedar Run Creek) (07020009-657):** The reach of the Cedar Creek (Cedar Run Creek) from 60th Avenue to Cedar Lake is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network



in the Cedar Creek watershed (HUC 12: 070200090904) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. No water chemistry data were available. This reach is listed as impaired for dissolved oxygen. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Monitoring station 17MN326 (07020009-657)**



**Cedar Creek (Cedar Run Creek) (07020009-657) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN326	2017	Fish	3	47	9.5	3	0.4	50
17MN326	2017	Macroinvertebrates	7	36	9	12	1.3	41

**Badger Creek (07020009-658):** The reach of Badger Creek from Little Badger Creek to the geographic coordinates (decimal degrees NAD83) 43.640, -94.136 is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that the fish assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the Badger Creek watershed (HUC 12: 070200090802) and adjacent watersheds which cannot be feasibly restored. Habitat assessments

**Monitoring station 17MN302 (07020009-658)**



demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, chloride, and pH WQS standards were met. Total phosphorus, TSS, and Secchi tube data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen data were also not sufficient for assessment, but one measurement exceeded the WQS threshold.

Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Badger Creek (07020009-658) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN302	2017	Fish	2	34	11	11	1.0	35
17MN302	2017	Macroinvertebrates	7	48	5	11	2.0	26

**Judicial Ditch 38 (07020009-660):** The reach of the Judicial Ditch 38 (Cedar Run Creek) from its headwaters to 245th Avenue is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the Upper South Creek watershed (HUC 12: 070200090602) and adjacent watersheds which cannot be feasibly restored. In addition, no evidence indicates that the fish assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The fish assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Monitoring station 17MN334 (07020009-660)**



**Judicial Ditch 38 (07020009-660) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN334	2017	Fish	3	27	3	10.5	2.9	24

**Unnamed creek (07020009-663):** The reach of an unnamed creek from the west line of PLS System section T101 R30W S35 to the Minnesota/Iowa border is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the Upper South Creek watershed (HUC 12: 070200090602) and adjacent watersheds which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish and

macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Ammonia, dissolved oxygen, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Total phosphorus and TSS data were also not sufficient for assessment, but one measurement for each parameter exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Monitoring station 17MN333 (07020009-663)**



**Unnamed creek (07020009-663) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN333	2017	Fish	3	46	3	6.5	1.9	36
17MN333	2017	Macroinvertebrates	7	24	1	19	10.0	22

**County Ditch 72 (07020009-667):** The reach of County Ditch 72 from an unnamed ditch to 196th Avenue is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Martin Lake-Elm Creek watershed (HUC 12: 070200090905) which cannot be feasibly restored. In addition, no evidence indicates that the

**Monitoring station 17MN330 (07020009-667)**



macroinvertebrate assemblage attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the macroinvertebrate assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were assessed as supporting the aquatic life use goals for Class 2Bm in assessment year 2019. Total phosphorus, ammonia, dissolved oxygen, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**County Ditch 72 (07020009-667) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN330	2017	Fish	3	55	7.5	0.5	0.2	51
17MN330	2017	Macroinvertebrates	7	23	3.5	14	3.3	44

**County Ditch 8 (07020009-669):** The reach of County Ditch 8 from its headwaters to the geographic coordinates (decimal degrees NAD83) 43.618, -94.054 to the Minnesota/Iowa border is recommended to be designated Class 2Bm. Biological data collected from one station in 2017 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. This ditch is also part of an extensive ditch network in the upper reaches of the Lower East Branch of the Blue Earth River watershed (HUC 12: 070200090507) which cannot be feasibly restored. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. Habitat assessments demonstrated that poor habitat is limiting the fish and macroinvertebrate assemblages. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The macroinvertebrate assemblage was assessed as not supporting the aquatic life use goals for Class 2Bm in assessment year 2019. The fish assemblage was assessed as supporting the aquatic life use goals for Class 2Bm. Total phosphorus, ammonia, TSS, Secchi tube, and pH data were not sufficient for assessment, but all measurements met WQS thresholds. Dissolved oxygen data were also not sufficient for assessment, but one measurement exceeded the WQS threshold. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Blue Earth River Watershed (07020009).

**Monitoring stations 17MN354 (07020009-669)**



**County Ditch 8 (07020009-669) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
17MN354	2017	Fish	3	48	5	5.5	1.1	39
17MN354	2017	Macroinvertebrates	7	19	1	18.5	9.8	31

**f. Minnesota River – Lower Watershed (07020012)**

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/lower-minnesota-river>

**Bluff Creek (07020012-710):** The reach of an unnamed creek from its headwaters to the Minnesota River is recommended to be designated Class 2A. Temperature data collected by the MPCA, Metropolitan Council Environmental Services (MCES), and Riley Purgatory Bluff Creek Watershed District (RPBCWD) demonstrated that water temperatures in Bluff Creek are driven by groundwater inputs and are consistently cold. In nine years (2004-2012) of temperature logger data collected by the MCES, the

mean July water temperature was below 18°C. The macroinvertebrate community included six cold water taxa (*Hesperophylax*, *Eukiefferiella*, *Erioptera*, *Gammarus*, *Odontomesa*, and *Glossosoma*) and a high proportion of cold water individuals (13-25% of individuals in the samples). The presence of a fish barrier at the downstream end of Bluff Creek, impedes migration of cold water fish species, and is the primary reason that fish are not considered an indicator of cold water habitat for this reach. However, the fish species present in the reach above the barrier included brook stickleback and fathead minnows. Both of these taxa are tolerant of cold water conditions and are common in streams that have low water temperatures but lack cold water obligate taxa (e.g., trout and sculpin). As such, these taxa are supportive of a cold water designation despite their ability to tolerate poor stream conditions. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Minnesota River – Lower Watershed (07020012).

**Monitoring stations 00MN008 (left) and 00MN009 (right) (07020007-710)**



**Unnamed creek (07020012-866):** The reach of an unnamed creek from its headwaters to Long Meadow Lake is recommended to be designated Class 2Ag. Historical information indicates that this stream supported a brook trout population until the early 1940s, but at some point in the 1940s, this population was extirpated. In the 2000s, the DNR collected water temperature data that indicated conditions that could support brook trout. As a result, brook trout fingerlings were stocked in this creek in 2007. This stocking established a naturally reproducing population of brook trout. Based on cold water temperatures and the presence of a brook trout population, this stream supports a cold water habitat. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Minnesota River – Lower Watershed (07020012).

## 6. Saint Croix River Basin

### a. Upper St. Croix River Watershed (07030001)

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/upper-st-croix-river>

**Redhorse Creek, West Fork (07030001-520):** The reach of the West Fork of the Redhorse Creek from its headwaters to Redhorse Creek is recommended to be designated Class 2Be. Biological data from both macroinvertebrates and fish collected in 1996 from one station demonstrated that this reach meets the aquatic life use goals for Class 2Be. The channel in this reach is natural and habitat assessment

demonstrated that the biological station has good habitat (MSHA = 81). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper St. Croix River Watershed (07030001).

**Redhorse Creek, West Fork (07030001-520) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
96SC073	1996	Fish	6	70	22	3	0.2	81
96SC073	1996	Macroinvertebrates	4	84	6	2	0.4	81

**Crooked Creek (07030001-541):** The reach of Crooked Creek from the north line of PLS system section T41 R17W S32 to the St Croix River is recommended to be designated Class 2Be. Biological data from both macroinvertebrates and fish collected in 2016 from one station demonstrated that this reach meets the aquatic life use goals for Class 2Be. The channel in this reach is natural and habitat assessment demonstrated that the biological station has good habitat (MSHA = 76-81). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper St. Croix River Watershed (07030001).

**Monitoring station 16SC121 (07030001-541)**



**Crooked Creek (07030001-541) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16SC121	2016	Fish	5	81	13.5	8	0.6	76
16SC121	2016	Fish	5	82	12.5	8	0.7	80
16SC121	2016	Macroinvertebrates	3	77	8.5	4	0.5	80

**Bangs Brook (07030001-545):** The reach of Bangs Brook from the east line of PLS system section T41 R17W S15 to Crooked Creek is recommended to be designated Class 2Ae. Biological data from both macroinvertebrates and fish collected in 2010 and 2016 from one station demonstrated that this reach meets the aquatic life use goals for Class 2Ae Use. The channel in this reach is natural and habitat assessment demonstrated that the biological station has good habitat (MSHA = 80-87). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ae. The

**Monitoring station 10SC002 (07030001-545)**



MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper St. Croix River Watershed (07030001).

**Bangs Brook (07030001-545) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
10SC002	2010	Fish	11	65	25.5	3	0.2	87
10SC002	2010	Fish	11	73	22.5	6	0.3	80
10SC002	2016	Fish	11	35	20	7	0.4	85
10SC002	2010	Macroinvertebrates	8	53	25.5	2	0.1	87
10SC002	2016	Macroinvertebrates	8	58	22.5	2.5	0.1	85

**Little Sand Creek (07030001-554):** The reach of Little Sand Creek from an unnamed creek to Sand Creek is recommended to be designated Class 2Be. Biological data from both macroinvertebrates and fish collected in 2016 from one station demonstrated that this reach meets the aquatic life use goals for Class 2Be. The channel in this reach is natural and habitat assessments demonstrated that the biological station has fair to good habitat (MSHA = 61-73). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper St. Croix River Watershed (07030001).

**Little Sand Creek (07030001-554) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16SC201	2016	Fish	6	66	12.5	9	0.7	61
16SC201	2016	Macroinvertebrates	4	88	8.5	4.5	0.6	73

**Little Sand Creek (07030001-555):** The reach of Little Sand Creek from Zimbrick Creek to an unnamed creek is recommended to be designated Class 2Be. Biological data from both macroinvertebrates and fish collected in 2016 from one station demonstrated that this reach meets the aquatic life use goals for Class 2Be. The macroinvertebrate sample was one point below the Exceptional Use threshold, but this sample was collected during a period of drought in this watershed, indicating that under normal conditions the Exceptional Use can be met. In addition, the downstream WID (07030001-554) also demonstrated that the Exceptional Use aquatic life use goals are met for both fish and macroinvertebrates. The channel in this reach is natural and habitat assessment demonstrated that the biological station has good habitat (MSHA = 68). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper St. Croix River Watershed (07030001).

**Monitoring station 06SC035 (07030001-555)**



**Little Sand Creek (07030001-555) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
06SC035	2006	Fish	7	82	8.5	3	0.4	68
06SC035	2006	Fish	7	72	11.5	4	0.4	68
06SC035	2006	Macroinvertebrates	4	75	4.5	3.5	0.8	68

**Kenney Brook (07030001-562):** The reach of Kenney Brook from the north line of PLS section T41 R17W S20 to Crooked Creek is recommended to be designated Class 2Bdg. Data collected by the MPCA indicated that Kenney Brook supports warm water fish and macroinvertebrate assemblages. One cold water (slimy sculpin) and five cool water (northern red belly dace, redbreast dace, pearl dace, burbot, and brook stickleback) fish species were collected, but the fish community is dominated by warm water fish species. The DNR sampled trout in a 1918 survey, but did not sample trout during a 1981 survey. In 1981 survey, the DNR concluded that Kenney Brook is incapable of supporting trout. Temperature logger data from 2016 had a July average water temperature of 20.9°C and temperatures were in the growth range for brook trout 45.3% of the summer. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper St. Croix River Watershed (07030001).

**Monitoring station 16SC120 (07030001-562)**



**Upper Tamarack River (07030001-613):** The reach of the Upper Tamarack River from the Minnesota/Wisconsin State border to an unnamed creek is recommended to be designated Class 2Be. Both macroinvertebrate and fish data collected from 1996 through 2016 from one station demonstrated that this reach meets the aquatic life use goals for Class 2Be. Although the macroinvertebrate samples were mixed, most samples were above or near the Exceptional Use threshold indicating the Exceptional Use is attainable. The channel in this reach is natural and habitat assessment demonstrated that the biological station has good habitat (MSHA = 71-85). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper St. Croix River Watershed (07030001).

**Monitoring station 96SC037 (07030001-613)**



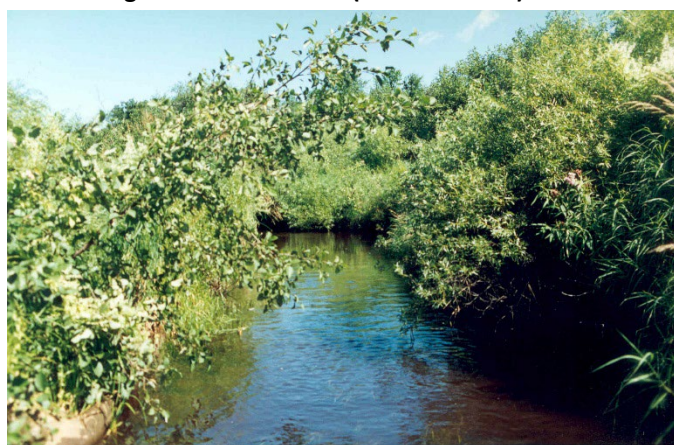


**Upper Tamarack River (07030001-613) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
96SC037	1996	Fish	5	82	24	0	0.0	80
96SC037	1996	Fish	5	77	22	2	0.1	71
96SC037	1997	Fish	5	85	21	2	0.1	78
96SC037	1998	Fish	5	63	24	0.5	0.1	75
96SC037	1999	Fish	5	76	22	2	0.1	79
96SC037	2000	Fish	5	90	26	0.5	0.1	77
96SC037	2014	Fish	5	97	21.5	2	0.1	84
96SC037	2016	Fish	5	97	24	2	0.1	83
96SC037	1996	Macroinvertebrates	3	82	14.5	0	0.1	71
96SC037	1998	Macroinvertebrates	3	96	14	0	0.1	75
96SC037	1999	Macroinvertebrates	3	77	15.5	0	0.1	79
96SC037	2000	Macroinvertebrates	3	86	16	0	0.1	77
96SC037	2014	Macroinvertebrates	3	56	17	0	0.1	85
96SC037	2016	Macroinvertebrates	3	80	15	1	0.1	81
96SC037	2019	Macroinvertebrates	3	64	-	-	-	-

**Crooked Creek, East Fork (07030001-615):** The reach of the East Fork of Crooked Creek from its headwaters to County State Aid Highway (CSAH) 32 is recommended to be designated Class 2Be. Both macroinvertebrate and fish data collected from 1996 through 2000 from one station demonstrated that this reach meets the aquatic life use goals for Class 2Be. One macroinvertebrate sample was 1 point

**Monitoring stations 17MN354 (07020009-669)**



below the Exceptional Use threshold, but given that 5 other samples were above this threshold and this sample was close, the Exceptional Use is attainable. The channel in this reach is natural and habitat assessment demonstrated that the biological station has good habitat (MSHA = 81). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper St. Croix River Watershed (07030001).

**Crooked Creek, East Fork (07030001-615) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
96SC079	1996	Fish	6	71	24.5	2	0.1	81
96SC079	1996	Macroinvertebrates	3	87	10.5	4	0.4	81
96SC079	1996	Macroinvertebrates	3	85	-	-	-	-
96SC079	1997	Macroinvertebrates	3	83	-	-	-	-
96SC079	1998	Macroinvertebrates	3	92	-	-	-	-
96SC079	1999	Macroinvertebrates	3	87	-	-	-	-
96SC079	2000	Macroinvertebrates	3	81	-	-	-	-

**Sand Creek (07030001-618):** The reach of Sand Creek from an unnamed creek to the St Croix River is recommended to be designated Class 2Be. Both macroinvertebrate and fish data collected from 1996 through 2016 from three stations demonstrated that this reach meets the aquatic life use goals for Class 2Be. One macroinvertebrate sample was below the Exceptional Use threshold, but two other samples were above this threshold and this sample is BCG level 3, indicating the Exceptional Use is attainable. The channel in this reach is natural and habitat assessment demonstrated that three stations have fair to good habitat (MSHA = 63-85). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper St. Croix River Watershed (07030001).

**Sand Creek (07030001-618) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16SC101	2016	Fish	5	86	9.5	11	1.1	70
96SC090	1996	Fish	5	89	18	8.5	0.5	76
96SC090	2016	Fish	5	86	18.5	6	0.4	85
96SC090	2016	Fish	5	77	18	6	0.4	85
06SC019	2006	Fish	5	80	18	4.5	0.3	75
16SC101	2016	Macroinvertebrates	4	84	7	4.5	0.7	73
96SC090	1996	Macroinvertebrates	3	96	11	5	0.5	76
96SC090	2016	Macroinvertebrates	3	64	8.5	7	0.8	63

**Monitoring stations 16SC101 (top left), 96SC090 (top right), and 06SC019 (bottom) (07030001-618)**



## b. Kettle River Watershed (07030003)

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/kettle-river>

**Kettle River (07030003-503):** The reach of the Kettle River from the Willow River to the Pine River is recommended to be designated Class 2Be. Both macroinvertebrate and fish data collected from 2006 through 2017 from two stations demonstrated that this reach meets the aquatic life use goals for Class 2Be. One macroinvertebrate sample was below the Exceptional Use threshold, but four other samples were above this threshold and this sample was BCG level 3, indicating the Exceptional Use is attainable. In addition, the next two upstream WIDs (07030003-505 and 07030003-506) also demonstrated an ability to meet the Exceptional Use. The channel in this reach is natural and habitat assessment demonstrated that two stations have fair to good habitat (MSHA = 61-79). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Kettle River Watershed (07030003).

**Monitoring station (07030003-503): 06SC020**



### Kettle River (07030003-503) biological and habitat data

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
06SC020	2006	Fish	4	77	-	-	-	73
06SC020	2014	Fish	4	83	-	-	-	79
06SC020	2017	Fish	4	85	-	-	-	63
92SC015	2016	Macroinvertebrates	1	84	-	-	-	61
92SC015	2017	Macroinvertebrates	1	98	-	-	-	68
06SC020	2016	Macroinvertebrates	1	81	-	-	-	68
06SC020	2006	Macroinvertebrates	1	82	-	-	-	-
06SC020	2006	Macroinvertebrates	1	82	-	-	-	-
06SC020	2014	Macroinvertebrates	1	64	-	-	-	67

**Kettle River (07030003-505):** The reach of the Kettle River from the Moose Horn River to the Willow River is recommended to be designated Class 2Be. Both macroinvertebrate and fish data collected from 1996 through 2017 from three stations demonstrated that this reach meets the aquatic life use goals for Class 2Be. In addition, the upstream (07030003-506) and downstream (07030003-503) WIDs also demonstrated an ability to meet the Exceptional Use. The channel in this reach is natural and habitat assessment demonstrated that three stations have good habitat (MSHA = 77-90). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Kettle River Watershed (07030003).

**Kettle River (07030003-505) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
92SC017	2017	Fish	5	82	11.5	9	0.8	65
96SC048	1996	Fish	5	81	16	10	0.6	62
16SC063	2017	Fish	4	84	-	-	-	67
92SC017	2017	Macroinvertebrates	1	77	-	-	-	-
96SC048	1996	Macroinvertebrates	3	90	9.5	7	0.8	62
16SC063	2016	Macroinvertebrates	1	84	-	-	-	59

**Monitoring stations 92SC017 (top left), 96SC048 (top right), and 16SC063 (bottom) (07030003-505):**

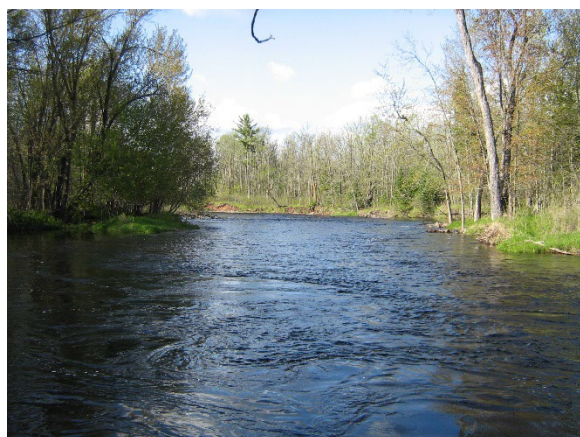


**Kettle River (07030003-506):** The reach of the Kettle River from Birch Creek to the Moose Horn River is recommended to be designated Class 2Be. Both macroinvertebrate and fish data collected from 1996 through 2006 from three stations demonstrated that this reach meets the aquatic life use goals for Class 2Be. One macroinvertebrate sample was below the Exceptional Use threshold, but four other samples were above this threshold and this sample was BCG level 3, indicating the Exceptional Use is attainable. In addition, the next two downstream WIDs (07030003-503 and 07030003-505) also demonstrated an ability to meet the Exceptional Use. The channel in this reach is natural and habitat assessments demonstrated that the two stations have good habitat (MSHA = 77-90). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Kettle River Watershed (07030003).

**Kettle River (07030003-506) biological and habitat data**

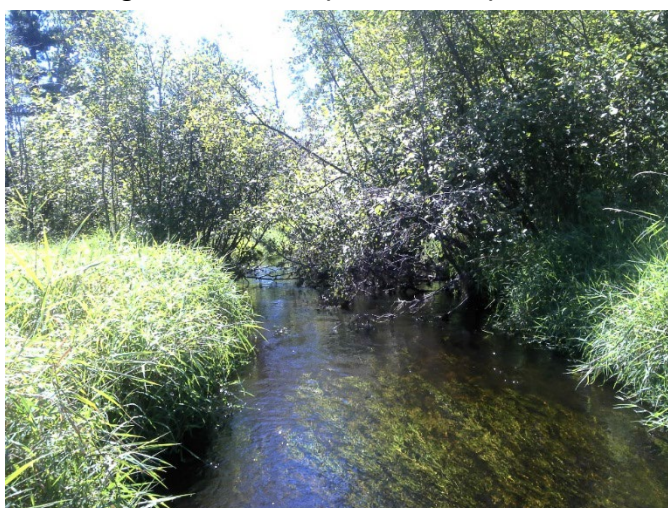
Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
06SC008	2006	Fish	5	80	15.5	5.5	0.4	70
06SC008	2006	Fish	5	86	13	6.5	0.5	64
96SC046	1996	Fish	5	84	16	11.5	0.7	63
06SC008	2006	Macroinvertebrates	3	84	12.5	2	0.2	64
06SC008	2006	Macroinvertebrates	3	79	12.5	2	0.2	64
96SC046	1998	Macroinvertebrates	3	88	13.5	3	0.3	63
96SC046	1996	Macroinvertebrates	3	93	13.5	3	0.3	63
96SC046	1996	Macroinvertebrates	3	95	13.5	3	0.3	63

**Monitoring stations 06SC008 (left) and 96SC046 (right) (07030003-506)**



**Little Pine Creek (07030003-560):** The reach of the Little Pine Creek from Little Pine Lake to the Pine River is recommended to be designated Class 2Be. Both macroinvertebrate and fish data collected in 2016 from one station demonstrated that this reach meets the aquatic life use goals for Class 2Be. The macroinvertebrate sample was 4 points below the Exceptional Use threshold, but this sample was collected shortly after flooding which impacted the sample. Under normal flow conditions the Exceptional Use is attainable for macroinvertebrates in this reach. The channel in this reach is natural and habitat assessments demonstrated that the biological station has fair to good habitat (MSHA = 65-72). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Kettle River Watershed (07030003).

**Monitoring station 16SC010 (07030003-560)**



**Little Pine Creek (07030003-560) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16SC010	2016	Fish	6	72	15.5	5	0.4	72
16SC010	2016	Macroinvertebrates	4	72	4.5	3	0.7	65

**Skunk Creek (07030003-618):** The reach of Skunk Creek from an unnamed creek to the Kettle River is recommended to be designated Class 2Ag. Summer water temperature data collected by the DNR in Skunk Creek averaged near 16°C with a maximum water temperatures below 19°C. As a result, temperatures are within the growth range for brook trout 100% of the summer and may be suitable to support trout. No cold water fish were sampled by the MPCA or DNR, but the community largely consists of species that are tolerant of low water temperatures even if they are not cold water obligates. The macroinvertebrate community included eight cold water species (*Ephemerella*, *Limnephilus*, *Lype diversa*, *Glossosoma*, *Diamesa*, *Eukiefferiella*, *Odontomesa*, and *Pagastia*) which comprised 2.8-11.8% of individuals in the samples. Although this stream is not a designated trout water, it is considered by the DNR to be a cold water feeder stream and stocking brook trout may be considered in the future. Based on the presence of a cold water macroinvertebrate community and water temperatures adequately low to support trout reproduction, Skunk Creek is capable of supporting a cold water habitat. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Kettle River Watershed (07030003).

**Monitoring station 16SC007 (07030003-618)**



**Willow River (07030003-622):** The reach of the Willow River from Big Slough Lake outlet to the Kettle River is recommended to be designated Class 2Be. Both macroinvertebrate and fish data collected in

**Monitoring station 16SC074 (07030003-622)**



2016 from one station demonstrated that this reach meets the aquatic life use goals for Class 2Be. The downstream WID (07030003-505), also demonstrated an ability to meet the Exceptional Use. The channel in this reach is natural and habitat assessment demonstrated that the single biological station has fair to good habitat (MSHA = 63-67). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Kettle River Watershed (07030003).

**Willow River (07030003-622) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16SC074	2016	Fish	5	79	9.5	10.5	1.1	63
16SC074	2016	Macroinvertebrates	4	93	6	4	0.7	67

**Pine River (07030003-624):** The reach of the Pine River from Bremen Creek to the Kettle River is recommended to be designated Class 2Be. Both macroinvertebrate and fish data collected from 1996 to 2016 from four stations demonstrated that this reach meets the aquatic life use goals for Class 2Be. One macroinvertebrate sample was below the Exceptional Use threshold, but four other samples were above this threshold and this sample was BCG level 3, indicating the Exceptional Use is attainable. In addition, the downstream WID (07030003-503), also demonstrates an ability to meet the Exceptional Use. The channel in this reach is natural and habitat assessment demonstrated that the biological stations have fair to good habitat (MSHA = 61-87). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Kettle River Watershed (07030003).

**Pine River (07030003-624) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16SC062	2016	Fish	5	74	10.5	7	0.7	61
96SC043	1996	Fish	5	70	14.5	7	0.5	79
10EM072	2010	Fish	5	72	15.5	6	0.4	87
10EM072	2015	Fish	5	84	16	6	0.4	80
98SC021	1998	Fish	5	88	-	-	-	-
98SC021	2016	Fish	5	87	17	7	0.4	72
16SC062	2016	Macroinvertebrates	4	83	3	3	1.0	68
96SC043	1996	Macroinvertebrates	3	89	7.5	3	0.5	79
10EM072	2010	Macroinvertebrates	3	77	10.5	6	0.6	87
10EM072	2015	Macroinvertebrates	3	87	10.5	1	0.2	83
98SC021	2016	Macroinvertebrates	3	69	10.5	4	0.4	77

**Monitoring stations 16SC062 (top left), 96SC043 (top right), 10EM072 (bottom left), and 98SC021 (bottom right) (07030003-624)**



**Unnamed creek (07030003-626):** The reach of an unnamed creek from its headwaters to the Kettle River is recommended to be designated Class 2Bm. Fish data collected from one station in 2007 demonstrated that it does not meet aquatic life use goals for Class 2Bg. This reach has been altered for drainage and available evidence (e.g., aerial imagery) indicates that it was maintained for drainage before November 28, 1975. In addition, no evidence indicates that either the fish or macroinvertebrate assemblages attained the aquatic life use goals for Class 2Bg on or after November 28, 1975. This ditch is also part of an extensive ditch network in the City of Willow River-Kettle River watershed (HUC 12: 070300030601) which cannot be feasibly restored. Habitat assessments demonstrated that poor habitat is limiting the fish assemblage. The poor habitat condition cannot be reversed at this time and is not likely to recover naturally due to drainage maintenance. The biological assemblages were not assessed because these data were expired (i.e., more than 10 years old) at the time this watershed was assessed. No additional water quality data are available from this reach. Considering this information, [40 CFR § 131.10\(g\)\(3\)](#) applies to this reach and it is reasonable to assign Class 2Bm. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the use designation table for the Kettle River Watershed (07030003).

**Unnamed creek (07030003-626) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
06SC082	2007	Fish	7	28	1	14	7.5	22
06SC082	2007	Macroinvertebrates	4	-	0	13	14.0	22

**Moose Horn River, West Branch (07030003-628):** The reach of the West Branch of the Moose Horn River from an unnamed creek to the Moose Horn River is recommended to be designated Class 2Be. Both macroinvertebrate and fish data collected in 2016 from one station demonstrated that this reach meets the aquatic life use goals for Class 2Be. The channel in this reach is natural and habitat assessments demonstrated that the biological station has good habitat (MSHA = 75-76). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Kettle River Watershed (07030003).

**Monitoring station 16SC034 (07030003-628)**



**Moose Horn River, West Branch (07030003-628) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16SC034	2016	Fish	6	83	18.5	3	0.2	76
16SC034	2016	Macroinvertebrates	3	82	15	4	0.3	75



**Moose Horn River (07030003-629):** The reach of the Moose Horn River from the north line of PLS section T47 R18W S4 to unnamed creek is recommended to be designated Class 2Be. Both macroinvertebrate and fish data collected in 2016 from one station demonstrated that this reach meets the aquatic life use goals for Class 2Be. The channel in this reach is natural and habitat assessments demonstrated that the biological station has fair habitat (MSHA = 57-63). Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Be. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Kettle River Watershed (07030003).

**Monitoring station 16SC056 (07030003-629)**



**Moose Horn River (07030003-629) biological and habitat data**

Station	Year	Biology			Habitat			
		Assemblage	Type	IBI	Good	Poor	P/G	MSHA
16SC056	2016	Fish	6	77	10	12.5	1.2	57
16SC056	2016	Macroinvertebrates	4	90	5.5	5.5	1.0	63

### c. Snake River (St. Croix) Watershed (07030004)

**MPCA webpage:** <https://www.pca.state.mn.us/water/watersheds/snake-river-st-croix-basin>

**Spring Brook (07030004-515):** The reach of Spring Brook from its headwaters to the Snake River is recommended to be designated Class 2Ag. No temperature logger data are available, but water temperature grab samples were generally cold (06SC114: 11.3-17.3°C; 96SC078: 22.5°C). Water temperatures may be higher in 96SC078 because this stream section appears to be impounded. This reach was previously managed for trout by the DNR, but this stream was removed from the trout waters list due to poor trout habitat. No cold water fish were sampled by the MPCA. The macroinvertebrate community included several cold water species (*Gammarus*, *Amphinemura*, *Glossosoma*, *Diplectrona modesta*, *Limnephilus*, *Lype diversa*, and *Heterotrissocladius*) which comprised 2-21% of individuals

**Monitoring station 06SC114 (07030003-618)**



(06SC114) in the sample. A single cold water macroinvertebrate taxon (*Gammarus*) was sampled from 96SC078. Review of temperature and macroinvertebrate data indicate that this stream supports a cold water macroinvertebrate community in its upper sections (i.e., upstream of large wetland complex). A combination of factors, largely natural, preclude the establishment and maintenance of a cold water fish community, including beaver activity, lack of coarse substrates, predation by northern pike, and surrounding land use practices. The continued presence of cold water macroinvertebrates suggests that the thermal

regime of the stream is sufficient to support cold water aquatic life. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Snake River (St. Croix) Watershed (07030004).

## 7. Lower Mississippi River Basin

### a. Zumbro River Watershed (07040004)

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/zumbro-river>

**Unnamed Creek (07040004-763):** No use designation change is proposed for the reach of an unnamed creek to Spring Creek. This reach was designated Class 2Ag as a trout protection water for Spring Creek (07040004-568). However, biological monitoring by the MPCA indicated that this stream supports a cold water habitat. Brown trout were collected in 2015 during two visits, including young-of-the-year fish.

The young-of-the-year fish indicate natural reproduction of trout in this stream. A macroinvertebrate sample was also collected which included several cold water taxa (*Gammarus*, *Glossosoma intermedium*, and *Pagastia*) with individuals of these taxa comprising 17% of the sample. No temperature loggers were deployed, but three grab samples from July and August ranged from 13.3-13.9°C. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to confirm the Class 2Ag designation. The MPCA proposes to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Zumbro River Watershed (07040004).

#### Monitoring station 15LM300 (07040004-763)



**Unnamed Creek (07040004-764):** The reach of an unnamed creek from an unnamed creek to an unnamed creek is recommended to be designated Class 2Bdg. This reach is not managed as a trout

#### Monitoring station 12LM017 (07040004-764)



water, but it is designated as a trout water because it falls within the PLS section which includes Spring Creek. Based on MPCA surveys, 07040004-764 does not support a cold water habitat. Both fish and macroinvertebrate communities are indicative of a warm water community. Available water temperature measurements in this stream reach indicated that it is too warm to support cold water aquatic life. In addition, a biological sampling visit in 2015 could not be performed due to inadequate flow. Although there is anthropogenic disturbance in this watershed, there is no evidence that these activities have resulted in the loss of a cold water habitat (e.g.,

increased temperature, reduced flows). A sampling station approximately 1.2 miles downstream of 12LM017 on a different WID (07040004-763) has much colder water temperatures and does support cold water aquatic life. These stations have similar contributing watersheds which indicates that there is a source of cold water between these stations and that the land use has not cause the loss of the cold water habitat in the downstream community. As a result, the evidence indicates that cold water habitat is not an existing or attainable use in 07040004-764. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Ag designation and replace it with Class 2Bdg. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Zumbro River Watershed (07040004). In addition to this reach, a number of tributaries were designated Class 2Ag as trout protection waters due to their PLS section affiliation with this reach. As a result, the Class 2Ag designation for the following reaches will be changed to Class 2Bdg in the beneficial use table for the Zumbro River Watershed (07040004): 07040004-762, 07040004-765, and 07040004-766.

**Tompkins Creek (07040004-950):** The reach of Tompkins Creek from an unnamed creek to the Middle Fork of the Zumbro River is recommended to be designated Class 2Ag. Based on DNR surveys, Tompkins Creek currently supports a naturally reproducing population of brook trout. The stream was managed for trout in the 1950s, but surveys in 1989 and 1995 did not collect any trout. However, temperature data in 1995 indicated that the thermal regime may be suitable to support trout. A reintroduction stocking was recommended and brook trout fingerlings were stocked in 1999 and 2000. Three subsequent surveys have collected brook trout with multiple year classes indicating natural reproduction. The size of the trout population and the size of adult trout in this creek has been somewhat hampered by poor trout habitat (i.e., few deep pools) and limited forage fish in the upper reaches. However, the thermal regime is cool enough to support trout and should be capable of supporting other cold water organisms (e.g., sculpin, macroinvertebrates). Based on the DNR's surveys which demonstrated that this stream reach supports a naturally reproducing population of brook trout, this reach should be designated Class 2Ag. Although not listed as a trout water, the MPCA will also propose to include the section of this stream in PLS system section T107 R16W S24 due to its close proximity to a DNR station with brook trout and the presence of an unconfirmed spring in this reach of Tompkins Creek. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Zumbro River Watershed (07040004).

**Tompkins Creek (07040004-951):** The reach of Tompkins Creek from an unnamed creek to an unnamed creek is recommended to be designated Class 2Ag. See 07040004-950 (Tompkins Creek) and Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Zumbro River Watershed (07040004).

**Unnamed spring (Tompkins Creek) (07040004-A00):** The reach of an unnamed spring (Tompkins Creek) from the south line of PLS system section T107 R16W S24 to an unnamed creek is recommended to be designated Class 2Ag. See 07040004-950 (Tompkins Creek) and Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Zumbro River Watershed (07040004).

## b. Mississippi River - La Crescent Watershed (07040006)

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/mississippi-river-la-crescent>

**Pine Creek (07040006-576):** The reach of Pine Creek from the north line of PLS System section T104 R5W S4 to Highway 16 is recommended to be designated Class 2Ag. This stream section is not a designated trout water, but the DNR considers it a marginal trout water due to higher water temperatures measured in 1991. Brown trout were collected by the MPCA during most surveys. This included young-of-the-year trout which indicated that natural reproduction is occurring in this reach. The macroinvertebrate community included five cold water taxa (*Baetis tricaudatus*, *Brachycentrus occidentalis*, *Eukiefferiella*, *Gammarus*, and *Heterotrissocladius*) and in more than half of the samples cold water taxa individuals comprised more than 15% of the sample. Temperature logger data from 2015 and 2016 had average July water temperatures ranging from 18.7-20.6°C and temperatures were in the growth range for brook trout 56.5-70.7% of the summer. There are also several springs along this stream reach and the upstream reach (07040006-507) and a tributary (Rose Valley Creek - 07040006-511) are cold water streams. Although previous data indicated marginal conditions in this stream section, more recent biological and temperature data indicate that trout populations have expanded into this stream section. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River - La Crescent Watershed (07040006).

**Monitoring station 15LM040 (upper) and brown trout (lower) (07040006-576)**



Monitoring stations 04LM061 (upper left), 15LM043 (upper right), 15LM039 (bottom left), and 04LM034 (bottom right) (07040006-576)



### c. Mississippi River - Reno Watershed (07060001)

MPCA website: <https://www.pca.state.mn.us/water/watersheds/mississippi-river-reno>

**Crooked Creek, North Fork (07060001-521):** The reach of the North Fork of Crooked Creek in PLS System section T102 R5W S16 and a short loop in section T102 R5W S21 is recommended to be designated Class 2Ag. This stream reach was previously designated a trout water by the DNR, but it was accidentally removed when language in [Minn. R. 6264.0050](#) was altered to allow winter ice fishing for non-trout species in Shamrock Reservoir. This reach was redesignated as a trout water by the DNR in 2018 (State of Minnesota 2018). This reach is currently designated Class 2Bg by default in the beneficial use table for the Mississippi River - Reno Watershed (07060001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, because this reach was erroneously designated and it is an extension of existing Class 2Ag reaches (07060001-522, 07060001-520), it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. See Appendix A for a detailed description of this use designation review. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River - Reno Watershed (07060001).

**Winnebago Creek (07060001-693):** The reach of Winnebago Creek from the west line of PLS System section T101 R4W S27 to the south line of the same section is recommended to be designated Class 2Ag. This stream is not a designated trout water, but the upstream WID (07060001-508) is a designated cold water stream and is stocked with trout. MPCA biological monitoring sampled both brown and rainbow

trout which comprised 10.7% of the sample. Some brown trout individuals were young-of-the-year indicating natural reproduction in this stream. The macroinvertebrate sample included 3 cold water taxa (*Gammarus*, *Baetis tricaudatus*, and *Brachycentrus occidentalis*) which comprised 13.4% of the sample. Temperature logger data had an average July water temperature of 17.4°C and temperatures were in the growth range 92.4% of the summer. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River - Reno Watershed (07060001).

**Monitoring station 15LM028 (07060001-693)**



**Unnamed Creek (Shamrock Creek) (07060001-696):** The reach of an unnamed creek (Shamrock Creek) from its headwaters to Shamrock Impoundment is recommended to be designated Class 2Ag. This stream reach was previously designated a trout water by the DNR, but it was accidentally removed when language in [Minn. R. 6264.0050](#) was altered to allow winter ice fishing for non-trout species in Shamrock Reservoir. The DNR surveyed Shamrock Creek in 1991, 2000, and 2016 in the downstream reach (07060001-698) and sampled both brown and brook trout in all three surveys. This reach was redesignated as a trout water by the DNR in 2018 (State of Minnesota 2018). This reach is currently designated Class 2Bg by default in the beneficial use table for the Mississippi River - Reno Watershed (07060001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, because this reach was erroneously removed from the trout waters list and DNR surveys indicate the presence of brown and brook trout populations, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. See Appendix A for a detailed description of this use designation review. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River - Reno Watershed (07060001).

**Unnamed Creek (Shamrock Creek) (07060001-698):** The reach of an unnamed creek (Shamrock Creek) from Shamrock Impoundment to Crooked Creek is recommended to be designated Class 2Ag. This stream reach was previously designated a trout water by the DNR, but it was accidentally removed when language in [Minn. R. 6264.0050](#) was altered to allow winter ice fishing for non-trout species in Shamrock Reservoir. The DNR surveyed Shamrock Creek in 1991, 2000, and 2016 and sampled both brown and brook trout in all three surveys. This reach was redesignated as a trout water by the DNR in 2018 (State of Minnesota 2018). Water temperature monitoring by the DNR in 1992 indicates that temperatures may be a limiting factor for trout in this reach, but the presence of young fish indicate that the stream may support natural reproduction or serve as a nursery for trout. This reach is currently designated Class 2Bg by default in the beneficial use table for the Mississippi River - Reno Watershed (07060001) incorporated by reference in [Minn. R. 7050.0470](#). There is no assessable MPCA biological data from this reach to perform a full cold water use review. However, because this reach was erroneously designated and DNR surveys indicate the presence of brown and brook trout populations, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. See Appendix A for a detailed description of this use designation review. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Mississippi River - Reno Watershed (07060001).

#### d. Upper Iowa River Watershed (07060002)

MPCA webpage: <https://www.pca.state.mn.us/water/watersheds/upper-iowa-river>

**Unnamed creek (07060002-535):** The reach of an unnamed creek from an unnamed creek to the Minnesota/Iowa border is recommended to be designated Class 2Ag. MPCA biological monitoring sampled both brook trout and mottled sculpin in this stream reach. These cold water species comprised 45.7% of the biomonitoring sample. The macroinvertebrate samples included 3 cold water taxa (*Eukiefferiella*, *Brachycentrus occidentalis*, *Baetis tricaudatus*, and *Limnephilus*) which comprised 2.9-8.0% of the samples. Temperature logger data had an average July water temperature of 16.0°C and temperatures were in the growth range for brook trout 97.2% of the summer. South of the Minnesota/Iowa border, Iowa has designated part of this creek a trout stream. In addition, this creek is a tributary to North Bear Creek in Iowa which is a designated trout stream. Iowa stocks North Bear Creek with catchable brook and rainbow trout and this stream supports a population of naturally reproducing brown trout. See Appendix A for a detailed description of this use designation review. Considering this information, it is reasonable to remove the Class 2Bg designation and replace it with Class 2Ag. The MPCA will propose to make this change in [Minn. R. 7050.0470](#) by updating the beneficial use table for the Upper Iowa River Watershed (07060002).

**Monitoring station 15LM005 (07060002-535)**



### 8. Cedar-Des Moines Rivers Basin

No draft designations

### 9. Missouri River Basin

No draft designations

# References

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- State of Minnesota (2020a) State Register, 1 June 2020. Volume 44, Number 49. pp. 1416 (44 SR 1416).
- State of Minnesota (2020b) State Register, 13 April 2020. Volume 44, Number 42. pp. 1421-1512 (43 SR 1153).



# Appendix A: Detailed descriptions of thermal habitat use designation reviews

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See attached documents

## Appendix B: Confirmed general use designations

In addition to the proposed Exceptional and Modified use designations in this document, the TALU reviews also determined that 374 stream WIDs (3530 miles) should be confirmed as General Use waters (Table 8). As described in MPCA (2015), General Use designations are based on a review of the biological communities, habitat, channel condition, and other attributes relevant to the use designation process. To be designated as an Exceptional Use, the only primary line of evidence needed is the biology although other relevant evidence may also be considered. The designation of Modified Use waters requires a UAA, and as a result the evidence needed to support these decisions is more stringent. Modified Use stream reaches need to at a minimum have 1) biology which does not attain the General Use thresholds, 2) habitat which is limiting biological attainment of the General Use, and 3) legally altered channel which is contributing to the poor habitat condition. As a result, the list of General Use waters consist of stream reaches that do not meet the Exceptional Use biological thresholds and one or more attributes make it ineligible for a Modified Use. Some reaches are not eligible to be designated as a Modified Use due to stream type including rivers and cold water habitat or those classified as northern, high-gradient invertebrate habitat. These stream types do not have a Modified Use category. The specific evidence (i.e., biology, habitat, and channel conditions) used to confirm the General Use for each stream reach is provided in Table 8.

**Table 8. List of stream reaches from the 2016 and 2017 Intensive Watershed Monitoring framework watersheds with confirmed General Use designations. Abbreviations: WID = waterbody identification code; X = evidence used to confirm General Use designation; CW = General Use confirmed due to cold water designation; R = General Use confirmed due to river classification designation; 2Bg = General Use cool/warm water habitat; 2Bdg = General Use cool/warm water habitat also protected as a source for drinking water; 2Ag = General Use cold water habitat.**

Watershed	WID	Waterbody name	Use	Assemblage	Biology	Habitat	Channel
Kettle	07030003-501	Grindstone River	2Bg	both	X	X	X
Kettle	07030003-502	Kettle River	2Bg	both	X		X
Kettle	07030003-509	Gillespie Brook	2Bg	both		X	X
Kettle	07030003-510	Kettle River	2Bg	both	X	X	X
Kettle	07030003-511	Kettle River	2Bg	both	X		X
Kettle	07030003-512	Kettle River, West Branch	2Bg	both		X	X
Kettle	07030003-513	Split Rock River	2Bg	both	X	X	
Kettle	07030003-514	Birch Creek	2Bg	both	X	X	X
Kettle	07030003-516	Grindstone River, South Branch	2Bg	both	X	X	X
Kettle	07030003-517	Kettle River	2Bg	both	X		X
Kettle	07030003-518	Unnamed creek	2Bg	both			X
Kettle	07030003-520	Unnamed creek	2Bg	both	X	X	X
Kettle	07030003-521	Moose Horn River	2Bg	both	X	X	X
Kettle	07030003-522	Deer Creek	2Bg	both		X	X

<b>Watershed</b>	<b>WID</b>	<b>Waterbody name</b>	<b>Use</b>	<b>Assemblage</b>	<b>Biology</b>	<b>Habitat</b>	<b>Channel</b>
Kettle	07030003-523	Unnamed creek	2Bg	fish only	X	X	X
Kettle	07030003-524	Wolf Creek	2Bg	inverts only	X	X	
Kettle	07030003-525	Cane Creek	2Bg	both		X	X
Kettle	07030003-526	Judicial Ditch 1	2Bg	fish only	X	X	
Kettle	07030003-528	Kettle River	2Bg	both	X		X
Kettle	07030003-529	Kettle River	2Bg	both	X	X	X
Kettle	07030003-531	Moose Horn River	2Bg	both	X	X	X
Kettle	07030003-535	Moose Horn River	2Ag	both	CW		X
Kettle	07030003-537	Dead Moose River	2Bg	both	X	X	X
Kettle	07030003-539	Unnamed creek	2Bg	both	X		
Kettle	07030003-540	County Ditch 2	2Bg	fish only	X		
Kettle	07030003-543	Grindstone River, North Branch	2Bdg	both		X	X
Kettle	07030003-544	Grindstone River, North Branch	2Bg	both	X	X	X
Kettle	07030003-547	King Creek	2Ag	both	CW	X	X
Kettle	07030003-548	Larsons Creek	2Ag	both	CW	X	X
Kettle	07030003-550	Spring Creek	2Ag	both	CW		X
Kettle	07030003-552	Kettle River	2Bg	both	X	X	X
Kettle	07030003-564	Unnamed creek	2Bg	fish only	X	X	X
Kettle	07030003-566	Little Bremen Creek	2Bg	fish only	X	X	X
Kettle	07030003-568	Bremen Creek	2Bg	fish only	X	X	X
Kettle	07030003-569	Unnamed creek	2Bg	fish only	X		
Kettle	07030003-575	Little Willow River	2Bg	both	X	X	X
Kettle	07030003-592	Silver Creek	2Bg	both	X	X	X
Kettle	07030003-598	Unnamed creek	2Bg	fish only	X		X
Kettle	07030003-604	Unnamed creek	2Bg	fish only	X	X	X
Kettle	07030003-609	Rhine Creek	2Bg	both	X	X	X
Kettle	07030003-615	Unnamed ditch	2Bg	both	X		
Kettle	07030003-616	Heikkila Creek	2Bg	both	X	X	X
Kettle	07030003-617	Friesland Ditch	2Bg	both		X	X

<b>Watershed</b>	<b>WID</b>	<b>Waterbody name</b>	<b>Use</b>	<b>Assemblage</b>	<b>Biology</b>	<b>Habitat</b>	<b>Channel</b>
Kettle	07030003-618	Skunk Creek	2Ag	both	CW	X	X
Kettle	07030003-619	Hay Creek	2Bg	both		X	X
Kettle	07030003-620	Bremen Creek	2Bg	both		X	X
Kettle	07030003-621	Willow River	2Bg	both		X	X
Kettle	07030003-623	Pine River	2Bg	both		X	X
Kettle	07030003-625	Unnamed creek	2Bg	both		X	
Kettle	07030003-630	Moose Horn River	2Bg	both	X	X	X
Mississippi River - Brainerd	07010104-502	Swan River	2Bg	both	X		X
Mississippi River - Brainerd	07010104-505	Rice River	2Bg	fish only		X	
Mississippi River - Brainerd	07010104-509	Nokasippi River	2Bg	both		X	X
Mississippi River - Brainerd	07010104-510	Nokasippi River	2Bg	fish only	X	X	X
Mississippi River - Brainerd	07010104-521	Little Elk River	2Bg	both	X		X
Mississippi River - Brainerd	07010104-522	Pike Creek	2Bg	both			X
Mississippi River - Brainerd	07010104-529	Little Elk River	2Bg	both	X	X	X
Mississippi River - Brainerd	07010104-530	Little Elk River	2Bg	both		X	X
Mississippi River - Brainerd	07010104-532	Little Nokasippi River	2Bg	both	X		X
Mississippi River - Brainerd	07010104-534	Daggett Brook	2Bg	both	X		X
Mississippi River - Brainerd	07010104-536	Wakefield Brook	2Bg	both	X		X
Mississippi River - Brainerd	07010104-543	Unnamed ditch	2Bg	both	X	X	
Mississippi River - Brainerd	07010104-566	Spring Branch	2Bg	fish only	X	X	X
Mississippi River - Brainerd	07010104-570	Little Swan River	2Bg	both		X	
Mississippi River - Brainerd	07010104-580	Sand Creek	2Bdg	both			X
Mississippi River - Brainerd	07010104-589	Whiteley Creek	2Ag	both	CW	X	X
Mississippi River - Brainerd	07010104-610	Buffalo Creek	2Bg	both		X	X
Mississippi River - Brainerd	07010104-627	Schwanke Creek	2Bg	both			X
Mississippi River - Brainerd	07010104-641	Cedar Creek	2Bg	both	X		X
Mississippi River - Brainerd	07010104-649	Rice River	2Bg	both		X	X
Mississippi River - Brainerd	07010104-659	Sisabagamah Creek	2Bg	both		X	
Mississippi River - Brainerd	07010104-660	Ripple River	2Bg	both	X	X	X

<b>Watershed</b>	<b>WID</b>	<b>Waterbody name</b>	<b>Use</b>	<b>Assemblage</b>	<b>Biology</b>	<b>Habitat</b>	<b>Channel</b>
Mississippi River - Brainerd	07010104-661	Ripple River	2Bg	both	X	X	X
Mississippi River - Brainerd	07010104-677	Sisabagamah Creek	2Bg	both		X	X
Mississippi River - Brainerd	07010104-678	Dean Brook	2Bg	both		X	X
Mississippi River - Brainerd	07010104-681	Unnamed creek	2Bg	both		X	X
Mississippi River - Brainerd	07010104-682	Hay Creek	2Bg	both		X	
Mississippi River - Brainerd	07010104-687	Little Swan River	2Bg	both	X	X	X
Mississippi River - Brainerd	07010104-688	Rabbit Creek	2Bg	both		X	X
Mississippi River - Brainerd	07010104-689	Little Willow River	2Bg	fish only	X	X	X
Mississippi River - Brainerd	07010104-692	Rice River	2Bg	both		X	X
Mississippi River - Brainerd	07010104-693	Rice River	2Bg	both	X	X	X
Mississippi River - Brainerd	07010104-695	Buffalo Creek (Little Buffalo Creek)	2Bg	both			X
Mississippi River - Brainerd	07010104-699	Hay Creek	2Bg	both		X	X
Mississippi River - Sartell	07010201-507	Platte River	2Bg	both	X	X	X
Mississippi River - Sartell	07010201-511	Bunker Hill Creek	2Ag	both	CW	X	X
Mississippi River - Sartell	07010201-516	Little Two River	2Bg	both	X		X
Mississippi River - Sartell	07010201-520	Skunk River	2Bg	both	X	X	X
Mississippi River - Sartell	07010201-521	Skunk River	2Bg	both	X		X
Mississippi River - Sartell	07010201-523	Two River	2Bg	both			X
Mississippi River - Sartell	07010201-524	North Two River	2Bg	both	X	X	X
Mississippi River - Sartell	07010201-525	Spunk Creek	2Bg	both			X
Mississippi River - Sartell	07010201-526	Watab River	2Bg	both	X		X
Mississippi River - Sartell	07010201-528	Watab River	2Bg	both		X	X
Mississippi River - Sartell	07010201-529	Watab River, North Fork	2Bg	both	X		X
Mississippi River - Sartell	07010201-532	South Two River	2Bg	fish only			X
Mississippi River - Sartell	07010201-537	County Ditch 12	2Bg	both	X		
Mississippi River - Sartell	07010201-539	Zuleger Creek	2Bg	both			X
Mississippi River - Sartell	07010201-546	Platte River	2Bg	fish only			X
Mississippi River - Sartell	07010201-554	Watab River, South Fork	2Bg	both			X
Mississippi River - Sartell	07010201-569	Hazel Creek	2Bg	both		X	X

<b>Watershed</b>	<b>WID</b>	<b>Waterbody name</b>	<b>Use</b>	<b>Assemblage</b>	<b>Biology</b>	<b>Habitat</b>	<b>Channel</b>
Mississippi River - Sartell	07010201-613	Krain Creek	2Bg	both	X	X	
Mississippi River - Sartell	07010201-618	Rice Creek	2Bg	both			X
Mississippi River - Sartell	07010201-625	Unnamed creek	2Bg	fish only		X	
Mississippi River - Sartell	07010201-630	Hay Creek	2Bg	both	X	X	X
Mississippi River - Sartell	07010201-633	Unnamed creek	2Bg	both	X		X
Mississippi River - Sartell	07010201-634	Unnamed creek	2Bg	both		X	X
Mississippi River - Sartell	07010201-636	Unnamed creek	2Bg	both	X	X	X
Mississippi River - Sartell	07010201-637	Unnamed creek	2Bg	both	X	X	X
Mississippi River - Sartell	07010201-639	Hillman Creek	2Bg	both	X	X	X
Mississippi River - Sartell	07010201-643	South Two River	2Bg	both			X
Mississippi River - Sartell	07010201-645	Little Mink Creek	2Bg	both	X	X	
Mississippi River - Sartell	07010201-647	Big Mink Creek	2Bg	both			X
Mississippi River - Sartell	07010201-649	Stony Creek	2Bg	both	X		X
Mississippi River - Sartell	07010201-651	Unnamed creek	2Bg	both			X
Mississippi River - Sartell	07010201-652	Little Rock Creek	2Bdg	both			X
Mississippi River - Sartell	07010201-653	Little Rock Creek	2Ag	both	CW		X
Otter Tail	09020103-502	Otter Tail River	2Bdg	both	R	R	X
Otter Tail	09020103-504	Otter Tail River	2Bdg	both	R	R	X
Otter Tail	09020103-506	Otter Tail River	2Bdg	both	R	R	X
Otter Tail	09020103-521	Otter Tail River	2Bdg	both	R	R	X
Otter Tail	09020103-526	Toad River	2Bdg	both			X
Otter Tail	09020103-529	Otter Tail River	2Bdg	both	X	X	X
Otter Tail	09020103-532	Otter Tail River	2Bdg	both	X		X
Otter Tail	09020103-561	Brandborg Creek	2Ag	both	CW		X
Otter Tail	09020103-563	Dead Horse Creek	2Ag	both	CW		X
Otter Tail	09020103-565	Solid Bottom (Elbow Lake Creek)	2Ag	both	CW	X	X
Otter Tail	09020103-574	Otter Tail River	2Bdg	both	R	R	X
Otter Tail	09020103-611	Otter Tail River	2Bg	both	X	X	X
Otter Tail	09020103-622	Unnamed creek	2Bg	both		X	X

<b>Watershed</b>	<b>WID</b>	<b>Waterbody name</b>	<b>Use</b>	<b>Assemblage</b>	<b>Biology</b>	<b>Habitat</b>	<b>Channel</b>
Otter Tail	09020103-653	Reed Creek	2Bg	both	X	X	X
Otter Tail	09020103-767	Pelican River	2Bg	both			X
Otter Tail	09020103-768	Pelican River	2Bg	both	R	R	X
Otter Tail	09020103-770	Toad River	2Bg	both	X		X
Otter Tail	09020103-772	Pelican River	2Bg	both		X	
Otter Tail	09020103-773	Otter Tail River	2Bdg	both	R	R	X
Otter Tail	09020103-774	Otter Tail River	2Bdg	both	R	R	X
Upper St. Croix	07030001-510	Lower Tamarack River	2Bdg	both	X	X	X
Upper St. Croix	07030001-511	Hay Creek	2Bdg	both	X	X	X
Upper St. Croix	07030001-512	Lower Tamarack River	2Bg	both	X	X	X
Upper St. Croix	07030001-513	McDermott Creek	2Bg	both		X	X
Upper St. Croix	07030001-514	Lower Tamarack River	2Bg	both	X	X	X
Upper St. Croix	07030001-518	Bear Creek	2Bg	both	X	X	X
Upper St. Croix	07030001-519	Redhorse Creek	2Bg	both	X	X	X
Upper St. Croix	07030001-522	Crooked Creek	2Ag	both	X	X	X
Upper St. Croix	07030001-528	Squib Creek	2Bg	both		X	X
Upper St. Croix	07030001-529	Keene Creek	2Bg	inverts only	X		X
Upper St. Croix	07030001-532	Keene Creek	2Bg	both	X	X	X
Upper St. Croix	07030001-533	Crooked Creek, East Fork	2Ag	both	CW	X	X
Upper St. Croix	07030001-535	Crooked Creek, West Fork	2Ag	both	CW	X	X
Upper St. Croix	07030001-537	Crooked Creek, West Fork	2Ag	both	CW	X	X
Upper St. Croix	07030001-546	Hay Creek	2Ag	both	CW		X
Upper St. Croix	07030001-548	Wolf Creek	2Ag	both	CW		X
Upper St. Croix	07030001-553	Partridge Creek	2Bg	both		X	X
Upper St. Croix	07030001-562	Kenney Brook	2Bdg	both		X	X
Upper St. Croix	07030001-579	Little Bear Creek	2Bg	fish only		X	
Upper St. Croix	07030001-581	Little Bear Creek	2Bg	both	X	X	X
Upper St. Croix	07030001-604	Sand Creek	2Ag	both	CW	X	
Upper St. Croix	07030001-605	Sand Creek	2Ag	both	CW	X	

<b>Watershed</b>	<b>WID</b>	<b>Waterbody name</b>	<b>Use</b>	<b>Assemblage</b>	<b>Biology</b>	<b>Habitat</b>	<b>Channel</b>
Upper St. Croix	07030001-606	Sand Creek	2Ag	both	CW	X	
Upper St. Croix	07030001-614	Upper Tamarack River	2Bdg	both	X	X	X
Upper St. Croix	07030001-616	Crooked Creek, East Fork	2Bg	both		X	X
Upper St. Croix	07030001-617	Sand Creek	2Bg	both	X	X	X
Upper St. Croix	07030001-619	St Croix River	2Bdg	both	R	R	X
Upper St. Croix	07030001-902	Little Hay Creek	2Ag	both	CW		X
Blue Earth	07020009-501	Blue Earth River	2Bg	fish only	R	R	X
Blue Earth	07020009-502	Elm Creek	2Bg	both			X
Blue Earth	07020009-503	Center Creek	2Bg	both			X
Blue Earth	07020009-504	Blue Earth River	2Bg	both	R	R	X
Blue Earth	07020009-507	Blue Earth River	2Bg	both	R	R	X
Blue Earth	07020009-508	Blue Earth River	2Bg	both	R	R	X
Blue Earth	07020009-509	Blue Earth River	2Bg	both	R	R	X
Blue Earth	07020009-514	Blue Earth River	2Bg	both	R	R	X
Blue Earth	07020009-515	Blue Earth River	2Bg	both	R	R	X
Blue Earth	07020009-516	Blue Earth River	2Bg	both	R	R	X
Blue Earth	07020009-518	Blue Earth River	2Bg	both	R	R	X
Blue Earth	07020009-521	Cedar Creek (Cedar Run Creek)	2Bg	both		X	X
Blue Earth	07020009-522	Elm Creek	2Bg	both			X
Blue Earth	07020009-553	Blue Earth River, East Branch	2Bg	both			X
Blue Earth	07020009-561	Elm Creek, South Fork	2Bg	both			X
Blue Earth	07020009-565	Blue Earth River	2Bg	both	R	R	
Blue Earth	07020009-566	Unnamed creek	2Bg	both			X
Blue Earth	07020009-577	Willow Creek	2Bg	both			X
Blue Earth	07020009-617	Unnamed creek	2Bg	both			X
Blue Earth	07020009-625	Unnamed creek	2Bg	both			X
Blue Earth	07020009-627	Judicial Ditch 3	2Bg	both			X
Blue Earth	07020009-631	Elm Creek	2Bg	both			X
Blue Earth	07020009-633	Lily Creek	2Bg	both			X



<b>Watershed</b>	<b>WID</b>	<b>Waterbody name</b>	<b>Use</b>	<b>Assemblage</b>	<b>Biology</b>	<b>Habitat</b>	<b>Channel</b>
Blue Earth	07020009-640	South Creek	2Bg	both	X	X	
Blue Earth	07020009-642	Little Badger Creek	2Bg	both		X	X
Blue Earth	07020009-644	Blue Earth River, West Branch	2Bg	both			X
Blue Earth	07020009-646	Blue Earth River, Middle Branch	2Bg	both			X
Blue Earth	07020009-648	Coon Creek	2Bg	both			X
Blue Earth	07020009-654	Brush Creek	2Bg	both		X	X
Blue Earth	07020009-665	Judicial Ditch 13	2Bg	both		X	
Cottonwood	07020008-501	Cottonwood River	2Bg	both	R	R	X
Cottonwood	07020008-502	Cottonwood River	2Bg	both			X
Cottonwood	07020008-503	Cottonwood River	2Bg	both			X
Cottonwood	07020008-504	Cottonwood River	2Bg	both			X
Cottonwood	07020008-507	Cottonwood River	2Bg	both	R	R	X
Cottonwood	07020008-508	Cottonwood River	2Bg	both	R	R	X
Cottonwood	07020008-509	Cottonwood River	2Bg	both	R	R	X
Cottonwood	07020008-517	Dutch Charley Creek	2Bg	both			X
Cottonwood	07020008-518	Dutch Charley Creek	2Bg	both			X
Cottonwood	07020008-519	Highwater Creek	2Bg	both		X	X
Cottonwood	07020008-520	Dry Creek	2Bg	both			X
Cottonwood	07020008-521	Mound Creek	2Bg	both			X
Cottonwood	07020008-523	Pell Creek	2Bg	both			X
Cottonwood	07020008-527	County Ditch 38	2Bg	both		X	
Cottonwood	07020008-529	Unnamed creek	2Bg	both			X
Cottonwood	07020008-545	Unnamed creek	2Bg	both			X
Cottonwood	07020008-548	Judicial Ditch 9	2Bg	both		X	X
Cottonwood	07020008-551	Willow Creek	2Bg	both		X	
Cottonwood	07020008-563	Unnamed creek	2Bg	both		X	
Cottonwood	07020008-574	Unnamed creek	2Bg	both			X
Cottonwood	07020008-578	Unnamed creek	2Bg	both	X		X
Cottonwood	07020008-581	Unnamed creek	2Bg	both			X

<b>Watershed</b>	<b>WID</b>	<b>Waterbody name</b>	<b>Use</b>	<b>Assemblage</b>	<b>Biology</b>	<b>Habitat</b>	<b>Channel</b>
Cottonwood	07020008-584	Unnamed creek	2Bg	both	X		
Cottonwood	07020008-587	Unnamed creek	2Bg	both	X		X
Cottonwood	07020008-588	Judicial Ditch 3	2Bg	both			X
Cottonwood	07020008-590	Unnamed creek	2Bg	both			X
Cottonwood	07020008-591	Unnamed creek	2Bg	both			X
Cottonwood	07020008-592	Unnamed creek	2Bg	both			X
Cottonwood	07020008-593	Unnamed creek	2Bg	both			X
Cottonwood	07020008-599	Sleepy Eye Creek	2Bg	both		X	X
Cottonwood	07020008-601	Meadow Creek	2Bg	both	X		
Cottonwood	07020008-603	Plum Creek (Judicial Ditch 20A)	2Bg	both		X	X
Cottonwood	07020008-617	Judicial Ditch 22	2Bg	both		X	X
Cottonwood	07020008-619	Unnamed creek	2Bg	both			X
Cottonwood	07020008-621	Unnamed creek	2Bg	both		X	X
Lower Rainy	09030008-502	Winter Road River	2Bg	both	X	X	X
Lower Rainy	09030008-506	Winter Road River	2Bg	both	X	X	X
Lower Rainy	09030008-507	Peppermint Creek	2Bg	both	X	X	X
Lower Rainy	09030008-510	Unnamed ditch (Pitt Creek)	2Ag	fish only	CW	X	
Lower Rainy	09030008-511	Silver Creek	2Bg	both	X	X	X
Lower Rainy	09030008-514	Unnamed creek	2Bg	both		X	
Lower Rainy	09030008-515	Baudette River, West Fork	2Bg	both		X	X
Lower Rainy	09030008-521	Unnamed ditch	2Bg	fish only	X		X
Lower Rainy	09030008-528	Little Peppermint Creek	2Bg	fish only	X	X	X
Lower Rainy	09030008-534	Silver Creek, East Branch	2Bg	inverts only			X
Lower Rainy	09030008-535	Baudette River	2Bg	fish only	X	X	X
Lower Rainy	09030008-536	Baudette River	2Bg	both			X
Lower Rainy	09030008-543	Black River, West Fork	2Bg	both	X	X	
Lower Rainy	09030008-545	Black River	2Bg	both		X	
Lower Rainy	09030008-546	Black River	2Bg	both	X	X	X
Lower Rainy	09030008-563	Unnamed creek	2Bg	both		X	

<b>Watershed</b>	<b>WID</b>	<b>Waterbody name</b>	<b>Use</b>	<b>Assemblage</b>	<b>Biology</b>	<b>Habitat</b>	<b>Channel</b>
North Fork Crow	07010204-502	Crow River	2Bg	both	R	R	X
North Fork Crow	07010204-503	Crow River, North Fork	2Bg	both	R	R	X
North Fork Crow	07010204-504	Crow River, North Fork	2Bg	both		X	
North Fork Crow	07010204-506	Crow River, North Fork	2Bg	both	R	R	X
North Fork Crow	07010204-507	Crow River, North Fork	2Bg	both	R	R	X
North Fork Crow	07010204-509	Eagle Creek	2Bg	both		X	
North Fork Crow	07010204-511	Crow River, Middle Fork	2Bg	both		X	
North Fork Crow	07010204-515	Mill Creek	2Bg	both			X
North Fork Crow	07010204-524	Mill Creek	2Bg	both			X
North Fork Crow	07010204-536	County Ditch 37	2Bg	both	X		
North Fork Crow	07010204-537	Crow River, Middle Fork	2Bg	both	X		X
North Fork Crow	07010204-539	Crow River, Middle Fork	2Bg	both			X
North Fork Crow	07010204-542	Unnamed creek (Regal Creek)	2Bg	both			X
North Fork Crow	07010204-543	Unnamed creek	2Bg	both		X	X
North Fork Crow	07010204-554	Sucker Creek	2Ag	both	CW	X	
North Fork Crow	07010204-556	Crow River, North Fork	2Bg	both	R	R	X
North Fork Crow	07010204-572	Stag Brook	2Bg	both			X
North Fork Crow	07010204-577	County Ditch B6	2Bg	both	X		
North Fork Crow	07010204-581	County Ditch 7	2Bg	both	X		
North Fork Crow	07010204-604	Collinwood Creek	2Bg	both	X	X	
North Fork Crow	07010204-642	Grove Creek	2Bg	both		X	X
North Fork Crow	07010204-667	Unnamed creek	2Bg	both			X
North Fork Crow	07010204-679	Twelvemile Creek	2Bg	both		X	X
North Fork Crow	07010204-682	Sucker Creek	2Bg	inverts only		X	X
North Fork Crow	07010204-696	Unnamed creek	2Bg	both		X	X
North Fork Crow	07010204-749	Grove Creek	2Bg	both		X	
North Fork Crow	07010204-758	Unnamed creek (Battle Creek)	2Bg	both		X	X
North Fork Crow	07010204-762	Sucker Creek	2Bg	both		X	X
North Fork Crow	07010204-764	Crow River, North Fork	2Bg	both	X	X	X

<b>Watershed</b>	<b>WID</b>	<b>Waterbody name</b>	<b>Use</b>	<b>Assemblage</b>	<b>Biology</b>	<b>Habitat</b>	<b>Channel</b>
Pomme de Terre	07020002-501	Pomme de Terre River	2Bg	both	R	R	X
Pomme de Terre	07020002-504	Pomme de Terre River	2Bg	both	X	X	X
Pomme de Terre	07020002-505	Pomme de Terre River	2Bg	both	X	X	X
Pomme de Terre	07020002-506	Pelican Creek	2Bg	both			X
Pomme de Terre	07020002-514	Pomme de Terre River	2Bg	both		X	X
Pomme de Terre	07020002-518	Unnamed creek	2Bg	both		X	X
Pomme de Terre	07020002-534	Unnamed creek	2Bg	both			X
Pomme de Terre	07020002-540	Unnamed creek	2Bg	both		X	X
Pomme de Terre	07020002-542	Unnamed creek	2Bg	both		X	X
Pomme de Terre	07020002-549	Judicial Ditch 2	2Bg	both		X	
Pomme de Terre	07020002-551	Unnamed creek	2Bg	fish only		X	X
Pomme de Terre	07020002-556	Dry Wood Creek	2Bg	both			X
Pomme de Terre	07020002-562	Pomme de Terre River	2Bg	both			X
Pomme de Terre	07020002-563	Pomme de Terre River	2Bg	both			X
Pomme de Terre	07020002-565	Pomme de Terre River	2Bg	both			X
Rainy Lake	09030003-632	Rat Root River, East Branch	2Bg	fish only	X	X	X
Rainy Lake	09030003-633	Rat Root River, East Branch	2Bg	both	X	X	X
Rainy Lake	09030003-634	Rat Root River	2Bg	both		X	X
Rainy Lake	09030003-635	Rat Root River	2Bg	fish only	X	X	X
Rapid	09030007-502	Rapid River	2Bg	both	R	R	X
Rapid	09030007-503	Rapid River, North Branch	2Bg	both		X	X
Rapid	09030007-504	Rapid River	2Bg	both	X	X	X
Rapid	09030007-506	Rapid River	2Bg	both	X	X	
Rapid	09030007-508	Troy Creek	2Bg	both	X	X	X
Rapid	09030007-509	Rapid River, East Branch	2Bg	both	X	X	X
Rapid	09030007-510	Bartons Brook	2Bg	both	X		
Rapid	09030007-511	Rapid River, East Branch	2Bg	both	X	X	X
Rapid	09030007-512	Moose Creek	2Bg	both	X	X	X
Rapid	09030007-513	Christy Creek	2Bg	fish only	X	X	X

<b>Watershed</b>	<b>WID</b>	<b>Waterbody name</b>	<b>Use</b>	<b>Assemblage</b>	<b>Biology</b>	<b>Habitat</b>	<b>Channel</b>
Rapid	09030007-523	Miller Creek	2Bg	fish only	X	X	X
Rapid	09030007-528	Unnamed creek	2Bg	both	X	X	X
Rapid	09030007-529	Unnamed ditch	2Bg	fish only	X		
Redwood	07020006-501	Redwood River	2Bg	both	R	R	X
Redwood	07020006-502	Redwood River	2Bg	both			X
Redwood	07020006-503	Redwood River	2Bg	both			X
Redwood	07020006-505	Redwood River	2Bg	both			X
Redwood	07020006-509	Redwood River	2Bg	both	R	R	X
Redwood	07020006-510	Redwood River	2Bg	both	X	X	X
Redwood	07020006-513	Redwood River	2Bdg	both	X	X	X
Redwood	07020006-521	Ramsey Creek	2Bdg	both		X	X
Redwood	07020006-527	Norwegian Creek	2Bg	both			X
Redwood	07020006-532	Unnamed creek	2Bg	both			X
Redwood	07020006-555	Unnamed creek	2Bg	fish only		X	X
Redwood	07020006-562	Unnamed creek	2Bg	fish only	X	X	
Redwood	07020006-564	Threemile Creek	2Bg	both			X
Redwood	07020006-568	Clear Creek	2Bg	both		X	X
Redwood	07020006-570	Coon Creek	2Bg	both			X
Redwood	07020006-573	Unnamed creek	2Bg	both		X	X
Snake	07030004-503	Snake River	2Bg	both	R	R	X
Snake	07030004-505	Snake River	2Bg	both	R	R	X
Snake	07030004-506	Snake River	2Bg	both	X	X	X
Snake	07030004-507	Chelsey Brook	2Bg	both	X	X	X
Snake	07030004-508	Snake River	2Bg	both		X	X
Snake	07030004-509	Hay Creek	2Bg	both	X	X	X
Snake	07030004-511	Ann River	2Bg	both		X	X
Snake	07030004-512	Groundhouse River	2Bg	both	X	X	X
Snake	07030004-513	Groundhouse River	2Bg	both		X	X
Snake	07030004-514	Bear Creek	2Bg	both		X	X

<b>Watershed</b>	<b>WID</b>	<b>Waterbody name</b>	<b>Use</b>	<b>Assemblage</b>	<b>Biology</b>	<b>Habitat</b>	<b>Channel</b>
Snake	07030004-515	Spring Brook	2Ag	both	CW		X
Snake	07030004-516	Unnamed creek	2Bg	inverts only	X	X	X
Snake	07030004-517	Cowans Brook	2Bg	both	X	X	
Snake	07030004-518	Little Ann River	2Bg	both	X	X	X
Snake	07030004-520	Unnamed creek	2Bg	inverts only	X	X	X
Snake	07030004-523	Snake River	2Bg	both		X	X
Snake	07030004-524	Snake River	2Bg	both	R	R	X
Snake	07030004-525	Snake River	2Bg	both		X	X
Snake	07030004-530	Pokegama Creek	2Bg	fish only	X	X	X
Snake	07030004-531	East Pokegama Creek	2Bg	both		X	X
Snake	07030004-532	Pokegama Creek	2Bg	both		X	X
Snake	07030004-534	Unnamed creek	2Bg	fish only		X	X
Snake	07030004-537	Dry Run	2Bg	fish only		X	X
Snake	07030004-538	Groundhouse River, West Fork	2Bg	both		X	X
Snake	07030004-541	Bergman Brook	2Bg	fish only		X	X
Snake	07030004-546	Mission Creek	2Ag	both	CW		X
Snake	07030004-547	Mission Creek	2Bdg	both			X
Snake	07030004-548	Mission Creek	2Bg	fish only			X
Snake	07030004-549	Knife River	2Bg	both		X	X
Snake	07030004-551	Knife River	2Bg	both		X	X
Snake	07030004-552	Bear Creek	2Bg	both		X	X
Snake	07030004-557	Unnamed creek	2Bg	both		X	X
Snake	07030004-558	Snowshoe Brook	2Bg	both	X	X	X
Snake	07030004-559	Unnamed creek	2Bg	both	X	X	X
Snake	07030004-560	Bean Brook	2Bg	fish only	X	X	X
Snake	07030004-562	Unnamed creek	2Bg	fish only	X	X	
Snake	07030004-563	Unnamed creek	2Bg	both		X	
Snake	07030004-566	Mud Creek (County Ditch 10)	2Bg	both			X
Snake	07030004-567	Mud Creek (County Ditch 10)	2Bg	both		X	X

<b>Watershed</b>	<b>WID</b>	<b>Waterbody name</b>	<b>Use</b>	<b>Assemblage</b>	<b>Biology</b>	<b>Habitat</b>	<b>Channel</b>
Snake	07030004-568	County Ditch 4	2Bg	both		X	
Snake	07030004-569	Unnamed creek	2Bg	fish only		X	X
Snake	07030004-570	Unnamed creek	2Bg	fish only	X	X	X
Snake	07030004-571	Camp Creek	2Bg	fish only	X	X	X
Snake	07030004-573	Groundhouse River, South Fork	2Bg	both	X	X	
Snake	07030004-574	Unnamed creek	2Bg	fish only	X		
Snake	07030004-577	Unnamed creek	2Bg	fish only		X	X
Snake	07030004-587	Snake River	2Bg	both	R	R	X
Snake	07030004-591	Unnamed creek	2Bg	fish only		X	X
Snake	07030004-593	Unnamed creek	2Bg	fish only		X	
Snake	07030004-596	Unnamed creek	2Bg	fish only	X	X	X
Snake	07030004-597	Unnamed creek	2Bg	fish only	X	X	X