

May 3, 2022

Jacob A. Frie
Environmental Services Supervisor
Land Services Department
322 Laurel St, Ste 15
Brainerd, MN 56401

RE: Priority Resources and Issues Request for the Mississippi River Brainerd One Watershed, One Plan
Local Comprehensive Water Planning Process

Dear Jacob A. Frie:

The Minnesota Pollution Control Agency (MPCA) appreciates the opportunity to provide input at the outset of the One Watershed, One Plan (1W1P) local comprehensive local water planning process for the Mississippi River Brainerd Watershed. The MPCA has developed technical information, reports, Total Maximum Daily Load (TMDL) studies, tools, and potential strategies for the protection and restoration of waterbodies that may be useful for inclusion in the comprehensive local water plan. These reports and pertinent information can be found on the Mississippi River Brainerd Watershed webpage at [Mississippi River - Brainerd | Minnesota Pollution Control Agency \(state.mn.us\)](https://www.pca.state.mn.us/mississippi-river-brainerd).

Priority Resources for the Mississippi River Brainerd Watershed

The federal Clean Water Act required states to adopt water quality standards to protect the nation's waters. These standards define how much pollution can be in the surface and/or groundwater while still allowing it to meet its designated uses, such as for drinking water, fishing, swimming, irrigation, or industrial purposes.

Numerous lakes and streams were monitored in 2016 -2017 and the data was assessed in 2018. The MPCA has identified 54 lake and stream water quality impairments that are listed on the U.S. Environmental Protection Agency (EPA) approved 2020 303 (d) list of impaired waters. Twenty-three of these impaired waterbodies have an approved TMDL plan. The remaining impaired waters have targeted TMDL completion dates within the next 10 years, or will not require a TMDL due to nonpollutant causes. Please see Table 1 below for a detailed list of the impairments and TMDL approvals. The MPCA recommends the Mississippi River Brainerd Planning Group focus on addressing the impaired waters with completed TMDLs listed below.

Table 1. Impaired Waters in the Mississippi River Brainerd Watershed as listed in the 2020 Impaired Waters List

Affected use: Pollutant/Stressor	Water body name	Water body description	Year Listed	AUID	Use Class	County	TMDL Status
Aquatic Life: Poor Aquatic Macroinvertebrate Index of Biological Integrity	Buffalo Creek	Unnamed cr to Unnamed cr	2020	07010104-610	2Bg	Crow Wing	
	Buffalo Creek (Little Buffalo Creek)	Wright St to Mississippi R	2006	07010104-695	2Bg	Crow Wing	
	Hay Creek	Unnamed cr to Little Elk R	2020	07010104-682	2Bg	Morrison	

Affected use: Pollutant/Stressor	Water body name	Water body description	Year Listed	AUID	Use Class	County	TMDL Status
	Sisabagamah Creek	Unnamed cr to Mississippi R	2020	07010104-659	2Bg	Aitkin	TMDL Completed in 2020
	Unnamed creek	Headwaters to Sand Cr	2020	07010104-679	2Bg	Crow Wing	TMDL Completed in 2020
	Unnamed creek	Unnamed outlet to Mississippi R	2020	07010104-684	2Bg	Morrison	
	Unnamed ditch (Little Willow River Diversion)	Little Willow Ditch old channel to Mississippi R	2020	07010104-691	2Bg	Aitkin	
	Whiteley Creek	Headwaters to Rice Lk (18-0145-00)	2020	07010104-589	1B, 2Ag	Crow Wing	
Aquatic Life: Low Dissolved Oxygen	Rice River	Headwaters (Porcupine Lk 01-0066-00) to Section 5 Cr	2020	07010104-505	2Bg	Aitkin	
	Rice River	Section 5 Cr to Wakefield Bk	2020	07010104-649	2Bg	Aitkin	
	Swan River	Headwaters (Big Swan Lk 77-0023-00) to Mississippi R	2010	07010104-502	2Bg	Morrison	
	Unnamed creek	Unnamed outlet to Mississippi R	2020	07010104-684	2Bg	Morrison	
Aquatic Life: Poor Fish Index of Biological Integrity	Buffalo Creek (Little Buffalo Creek)	Wright St to Mississippi R	2002	07010104-695	2Bg	Crow Wing	
	Crow Wing	Lake or Reservoir	2020	18-0155-00	2B	Crow Wing	
	Elm Island	Lake or Reservoir	2020	01-0123-00	2B	Aitkin	
	Green Prairie Fish	Lake or Reservoir	2020	49-0035-00	2B	Morrison	
	Little Swan River	Spring Br to Swan R	2020	07010104-570	2Bg	Todd	
	Little Willow River Old Channel	Unnamed ditch to Flood Diversion Channel	2020	07010104-701	2Bg	Aitkin	No TMDL Needed – 4C
	Moose	Lake or Reservoir	2020	77-0026-00	2B	Todd	
	Rabbit Creek	Rabbit Lk to Sisabagamah Cr	2020	07010104-688	2Bg	Aitkin	No TMDL Needed – 4D

Affected use: Pollutant/Stressor	Water body name	Water body description	Year Listed	AUID	Use Class	County	TMDL Status
	Rice River	Headwaters (Porcupine Lk 01-0066-00) to Section 5 Cr	2002	07010104-505	2Bg	Aitkin	
	Rice River	Section 5 Cr to Wakefield Bk	2020	07010104-649	2Bg	Aitkin	
	Sisabagamah Creek	Sisabagamah Lk to Rabbit Cr	2020	07010104-677	2Bg	Aitkin	No TMDL Needed – 4D
	Unnamed creek	Unnamed ditch to Mississippi R	2020	07010104-681	2Bg	Morrison	No TMDL Needed – 4C
Aquatic Life: Total suspended solids (TSS)	Mississippi River	Pine R to Crow Wing R	2016	07010104-656	2Bg	Crow Wing	TMDL Completed in 2020
Aquatic Life: Turbidity	Mississippi River	Willow R to Pine R	1998	07010104-655	2Bg	Aitkin	TMDL Completed in 2020
Aquatic Recreation: Escherichia coli (E. coli)	Buffalo Creek (Little Buffalo Creek)	Wright St to Mississippi R	2020	07010104-695	2Bg	Crow Wing	TMDL Completed in 2020
	Hay Creek	Headwaters to Grave Lk	2020	07010104-645	2Bg	Crow Wing	TMDL Completed in 2020
	Little Elk River	T129 R30W S1, north line to Mississippi R	2020	07010104-521	2Bg	Morrison	TMDL Completed in 2020
	Pike Creek	T129 R30W S21, west line to Mississippi R	2020	07010104-522	2Bg	Morrison	TMDL Completed in 2020
	Rice River	Section 5 Cr to Wakefield Bk	2020	07010104-649	2Bg	Aitkin	
	Schwanke Creek	Unnamed cr to Big Swan Lk	2020	07010104-627	2Bg	Todd	TMDL Completed in 2020
	Swan River	Headwaters (Big Swan Lk 77-0023-00) to Mississippi R	2020	07010104-502	2Bg	Morrison	TMDL Completed in 2020
	Unnamed creek	Headwaters to Big Swan Lk	2020	07010104-626	2Bg	Todd	TMDL Completed in 2020
	Unnamed creek	Long Lk (77- 0027-00) to Big Swan Lk	2020	07010104-629	2Bg	Todd	TMDL Completed in 2020
	Unnamed	Headwaters to	2020	07010104-632	2Bg	Todd	

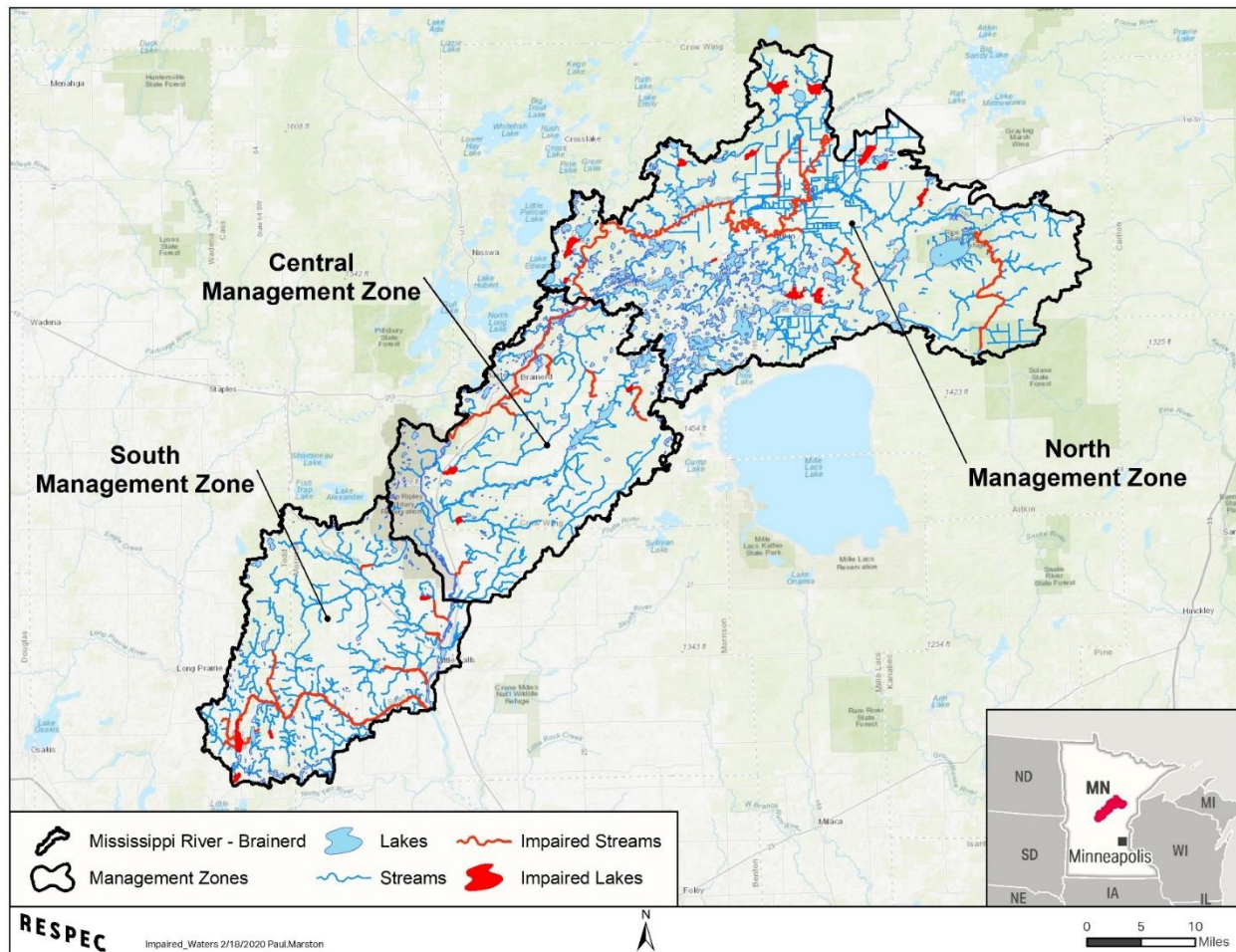
Affected use: Pollutant/Stressor	Water body name	Water body description	Year Listed	AUID	Use Class	County	TMDL Status
	creek	Long Lk					
Aquatic Recreation: Nutrients	Big Swan	Lake or Reservoir	2010	77-0023-00	2B	Todd	TMDL Completed in 2020
	Blind	Lake or Reservoir	2010	01-0188-00	2B	Aitkin	
	Casey	Lake or Reservoir	2020	18-0087-00	2B	Crow Wing	
	Crow Wing	Lake or Reservoir	2010	18-0155-00	2B	Crow Wing	TMDL Completed in 2020
	Elm Island	Lake or Reservoir	2010	01-0123-00	2B	Aitkin	TMDL Completed in 2020
	Esquagamah	Lake or Reservoir	2010	01-0147-00	2B	Aitkin	
	Fawn	Lake or Reservoir	2020	18-0240-00	2B	Crow Wing	TMDL Completed in 2020
	Fleming	Lake or Reservoir	2010	01-0105-00	2B	Aitkin	TMDL Completed in 2020
	Grave	Lake or Reservoir	2020	18-0110-00	2B	Crow Wing	
	Gun	Lake or Reservoir	2010	01-0099-00	2B	Aitkin	TMDL Completed in 2020
	Lower Mission	Lake or Reservoir	2020	18-0243-00	2B	Crow Wing	TMDL Completed in 2020
	Moose	Lake or Reservoir	2020	77-0026-00	2B	Todd	TMDL Completed in 2020
	Portage	Lake or Reservoir	2020	01-0069-00	2B	Aitkin	
	Ripple	Lake or Reservoir	2020	01-0146-00	2B	Aitkin	TMDL Completed in 2020
	Sebie	Lake or Reservoir	2020	18-0161-00	2B	Crow Wing	TMDL Completed in 2020
	Trace	Lake or Reservoir	2008	77-0009-00	2B	Todd	TMDL Completed in 2020
	Upper Dean	Lake or Reservoir	2020	18-0170-00	2B	Crow Wing	No TMDL Needed – 4D
	Waukenabo	Lake or Reservoir	2010	01-0136-00	2B	Aitkin	

Priority Issues for the Mississippi River Brainerd Watershed

1. Water Quality Protection and Restoration in Lakes and Streams

This watershed was divided into different zones during the Mississippi River Brainerd Watershed Restoration and Protection Strategy (WRAPs) process to help differentiate the restoration and protection priorities as seen in the map below. The lakes and streams in these areas were prioritized and can be found in the WRAPs document.

Figure 1. Mississippi River Brainerd Watershed Management Zones



a. North Management Zone

The north management zone is comprised of high-quality waterbodies, with a largely natural landscape of forest and wetlands with minimal stress from anthropogenic disturbances. The impairments in this management zone are mostly caused by natural causes, such as low dissolved oxygen (DO) water discharging from large wetland complexes following large rain events, and fish connectivity issues caused by beaver dams. Thus, conservation efforts to protect the abundant high-quality resources in this region of the watershed are the focus for this zone. Restoration efforts should focus on addressing the waterbodies that have had a completed TMDL study, have pollutant sources not attributed to natural causes, or are impaired but close to the water quality standard.

b. Central Management Zone

The central management zone is unique as it is not dominated by any one distinct landscape, and is the transition zone from the heavily forested northeast region of the watershed to the agricultural zone in the southwest. The central management zone is also where the largest population center is located within the watershed. As such, the priority in this management zone is to balance protection of the high-quality water resources from future stressors and restore impaired resources.

c. South Management Zone

The south management zone is differentiated from the other two management zones because of the landscape largely consisting of agriculture, and the presence of a majority of the watershed's feedlots. As such, the overarching priority for this management zone is focusing efforts on restoration of the degraded waterbodies.

2. Stormwater

The Mississippi River Brainerd Watershed has three permitted small Municipal Separate Storm Sewer Systems (MS4s), all of which have applicable wasteload allocations in completed TMDLs. Surface water quality is a priority issue, and stormwater runoff management practices identified in the WRAPS and completed TMDLs should be incorporated into the comprehensive plan.

Little Buffalo Creek, located within the city of Brainerd, is a priority and was intensively investigated during the stressor identification process. Rapid increase in stream flow caused by storm water runoff may be the biggest factor affecting the fish and macroinvertebrate communities in the creek. With this rapid rise in water levels and stream velocity, the fish and macroinvertebrates may not be able to find refuge; they could be washed downstream or experience injury or death. This rapid change in stage is also causing significant bank failures along the length of the stream. As banks fail, sediment is being transported downstream and in-stream habitat is degraded. Ultimately, the fine sands are accumulating in the bottom section where the stream gradient is low; this is creating an impediment to fish passage at some flows.

3. Feedlots

Bacteria and sediment in runoff from feedlot operations, as well as unrestricted cattle access to streams, can cause aquatic recreation and aquatic life impairments. Feedlot and land application compliance can prevent bacteria and sediment impairments from occurring. Enforcement in non-compliant cases can also assist in resolving impairments that already exist. Numerous programs are available to assist feedlot owners in updating their operations to minimize their effects on surface water quality. Feedlot compliance and assistance should be prioritized where they are located near impaired or threatened water bodies.

4. Nutrient Reduction

Excessive nutrients pose a significant problem for Minnesota's rivers and lakes, including downstream waters. Excessive algal growth, low DO levels, toxicity to aquatic life and unhealthy drinking water are some of the significant problems caused by excessive nutrients in our water bodies. Addressing all of the previously mentioned priority issues, will help in addressing reducing nutrients. However, additional nutrient reduction strategies can be found in [Minnesota Nutrient Reduction Strategy \(state.mn.us\)](https://state.mn.us/minnreduces).

Minnesota's tourism and economy depend on healthy waters that provide recreational opportunities, safe drinking water, productive agriculture, healthy fish, and wildlife habitat. Prioritizing implementation strategies to improve water quality in the Mississippi River Brainerd Watershed will be beneficial not only for the communities within the watershed, but for all of Minnesota.

MPCA Environmental Justice Priorities in the Mississippi River Brainerd Watershed: The MPCA is committed to making sure that pollution does not have a disproportionate impact on any group of people — the principle of environmental justice. This means that all people — regardless of their race, color, national origin or income — benefit from equal levels of environmental protection and have opportunities to participate in decisions that may affect their environment or health.

There are a number of tools available to determine where underserved communities could receive the most benefit from watershed work in the South Fork Crow River Watershed. Using these tools, the MPCA staff can identify areas of the watershed where low income, linguistically isolated, or minority people are most likely to benefit from the work done in the 1W1P process. Please consider engaging our assistance in identifying and prioritizing these areas.

See the MPCA website (<https://www.pca.state.mn.us/about-mpca/mpca-and-environmental-justice>) for more information regarding environmental justice.

The MPCA is committed to participation in the Mississippi River Brainerd Watershed 1W1P process, as well as assistance with other products and services that we provide toward the goals of improved water quality. Thank you again for the opportunity to provide our comments toward the development of your comprehensive local water plan.

Sincerely,



This document has been electronically signed.

Bonnie Goshey
Environmental Specialist
Watershed Division

BF:jdf

cc: Chris Pence, BWSR
Chad Anderson, MPCA
Juline Holleran, MPCA
Jeff Risberg, MPCA