MINNESOTA POLLUTION CONTROL AGENCY

National Pollutant Discharge Elimination System (NPDES)/

State Disposal System (SDS) Permit Program Fact Sheet

Permit Reissuance

MN0024368

Permittee:	City of Northfield 1450 Hwy 3 N Northfield, MN 55057-1494
Facility name:	Northfield Wastewater Treatment Facility 1450 Hwy 3 N Northfield, MN 55057-1494
Current permit expiration date:	May 31, 2025
Public comment period begins:	July 20, 2026
Public comment period ends:	September 18, 2026
Receiving water:	Cannon River - Class 2Bg, 3, 4A, 4B, 5, 6 water
Permitting contact:	Holly Sandberg 714 Lake Ave, Ste 220 Detroit Lakes, MN 56501 218-846-8111 holly.sandberg@state.mn.us

Table of Contents

Purpose and participation

Applicable statutes
This fact sheet has been prepared according to the 40 C.F.R. § 124.8 and 124.56 and Minn. R. 7001.0100, subp. 3, in regards to a draft NPDES/SDS permit to construct and/or operate wastewater treatment facilities and to discharge into waters of the State of Minnesota.

Purpose
This fact sheet outlines the principal issues related to the preparation of this draft permit and documents the decisions that were made in the determination of the effluent limitations and conditions of this permit.

The primary reason for reissuing the permit is due to permit expiration.

Public participation
You may submit written comments on the terms of the draft permit or on the Commissioner's preliminary determination. Your written comments must include the following:

1. A statement of your interest in the permit application or the draft permit.
2. A statement of the action you wish the Minnesota Pollution Control Agency (MPCA) to take, including specific references to sections of the draft permit that you believe should be changed.
3. The reasons supporting your position, stated with sufficient specificity as to allow the Commissioner to investigate the merits of your position.

You may also request that the MPCA Commissioner hold a public informational meeting. A public informational meeting is an informal meeting which the MPCA may hold to help clarify and resolve issues.

In accordance with Minn. R. 7000.0650 and Minn. R. 7001.0110, your petition requesting a public informational meeting must identify the matter of concern and must include the following: items one through three identified above; a statement of the reasons the MPCA should hold the meeting; and the issues you would like the MPCA to address at the meeting.

In addition, you may submit a petition for a contested case hearing. A contested case hearing is a formal hearing before an administrative law judge. Your petition requesting a contested case hearing must include a statement of reasons or proposed findings supporting the MPCA decision to hold a contested case hearing pursuant to the criteria identified in Minn. R. 7000.1900, subp. 1, and a statement of the issues proposed to be addressed by a contested case hearing and the specific relief requested. To the extent known, your petition should include a proposed list of witnesses to be presented at the hearing, a proposed list of publications, references, or studies to be introduced at the hearing, and an estimate of time required for you to present the matter at hearing.

You must submit all comments, requests, and petitions during the public comment period identified on page one of this notice. All written comments, requests, and petitions received during the public comment period will be considered in the final decisions regarding the permit. If the MPCA does not receive any written comments, requests, or petitions during the public comment period, the Commissioner or other MPCA staff as authorized by the Commissioner will make the final decision concerning the draft permit.

Comments, petitions, and/or requests must be submitted by the last day of the public comment period to:

Holly Sandberg
Minnesota Pollution Control Agency
714 Lake Ave, Ste 220
Detroit Lakes, MN 56501

The permit will be reissued if the MPCA determines that the proposed Permittee or Permittees will, with respect to the facility or activity to be permitted, comply or undertake a schedule to achieve compliance with all applicable state and federal pollution control statutes and rules administered by the MPCA and the conditions of the permit and that all applicable requirements of Minn. Stat. ch. 116D and the rules promulgated thereunder have been fulfilled.

More detail on all requirements placed on the facility may be found in the Permit document.

General information
The permit is based on an NPDES/SDS permit application dated 11/27/2024 and additional documents found in the administrative record.

Description of permitted facility
The existing facility has a continuous discharge from SD 006. This is a Class A. facility.

The facility is designed to treat:

- an average wet-weather (AWW) flow of 5.2 million gallons per day (mgd)
- five-day biochemical oxygen demand (BOD_5) of 7,440 pounds per day (lbs/day)
- total suspended solids (TSS) of 9,333 lbs/day
- total phosphorus (TP) of 780 lbs/day
- ammonia nitrogen of 1,120 lbs/day

The facility treatment process consists of a raw wastewater pumping station, flow metering, fine screens, vortex grit removal, six rapid-mix tanks, chemical addition of ferric chloride and polymer for phosphorus removal, two flocculation tanks, two lamella plate clarifiers, ten upflow biological aerated filters, a filter backwash tank, and ultraviolet light disinfection. There are two rotating biological contactors (RBC) and secondary clarifiers that are still present but are not in use. Additionally, the biosolids treatment system consists of two raw biosolids storage tanks, two screw presses, and lime/heat pasteurization using the Schwing Bioset® process to produce exceptional quality biosolids. The biosolids are stored onsite until they are land applied.

The preliminary determination to reissue this wastewater permit is tentative.

Changes to the facility may result in an increase in pollutant loading to surface waters or other causes of degradation to surface waters. If a change to the facility will result in a net increase in pollutant loading or other causes of degradation that exceed the maximum loading authorized through conditions specified in the existing permit, the changes to the facility are subject to antidegradation requirements found in Minn. R. 7050.0250 to 7050.0335.

The Cannon River - Class 2Bg, 3, 4A, 4B, 5, 6 water was designated an Outstanding Resource Value Water (ORVW) on November 5, 1984.

This Permit also complies with Minn. R. 7053.0275 regarding anti-backsliding.

Any point source discharger of sewage, industrial, or other wastes for which a NPDES permit has been issued by the Minnesota Pollution Control Agency (MPCA) that contains effluent limits more stringent than those that would be established by Minn. R. 7053.0215 to 7053.0265 shall continue to meet the effluent limits established by the permit, unless the permittee establishes that less stringent effluent limits are allowable pursuant to federal law, under section 402(o) of the Clean Water Act, United States Code, title 33, section 1342.

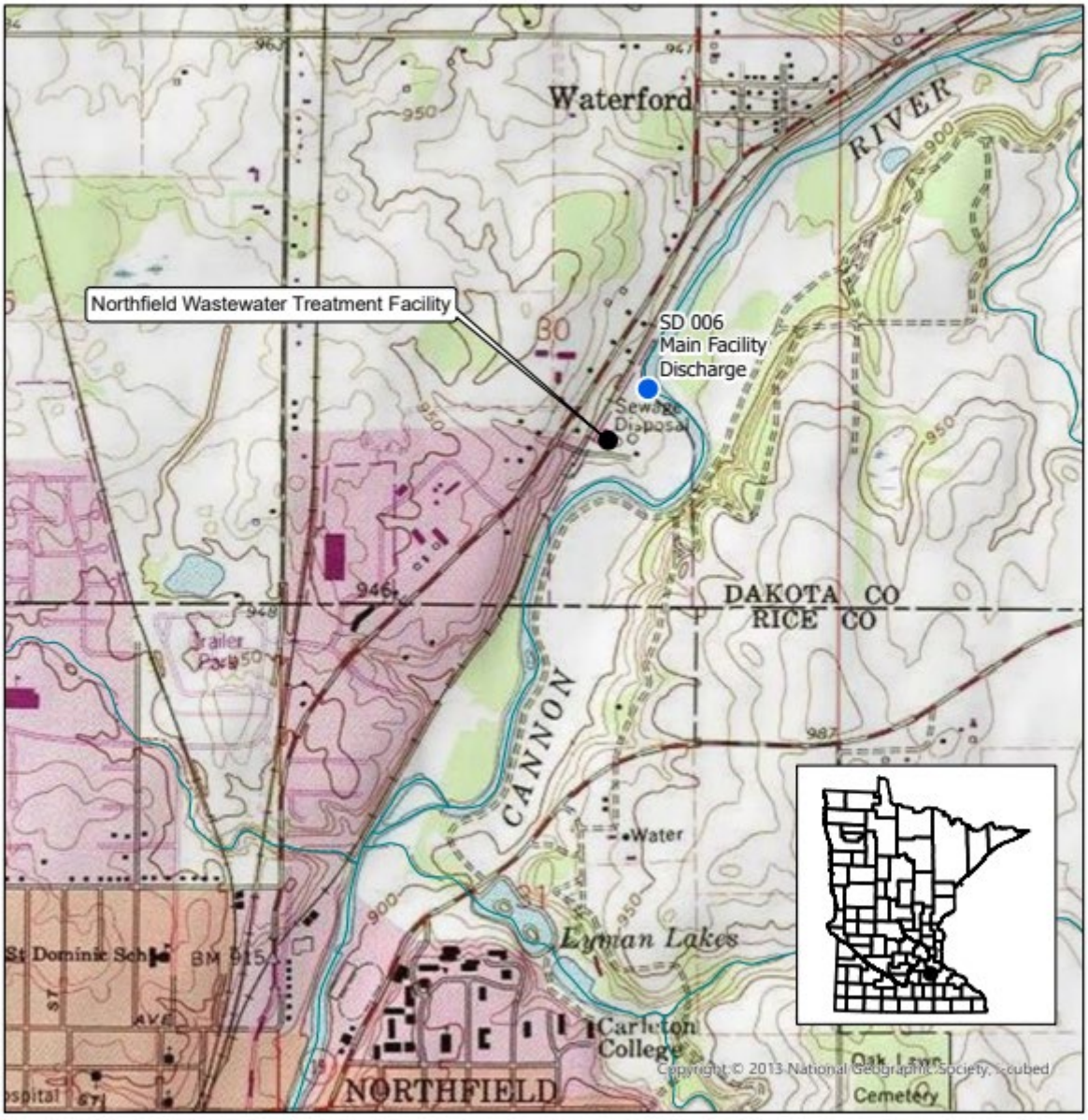
Facility location
The facility is located in Section 30, Township 112 North, Range 19 West, City of Northfield, Northfield Township, Dakota County, Minnesota (latitude: 44.47554217, longitude: -93.14887891). The address for the facility is 1450 Highway 3 North, Northfield, Minnesota 55057-1494 Dakota County.

Outfall location

The outfall, SD 006, for the facility is located in the NW ¼ of Section 30, Township 112 North, Range 19 West, city of Northfield, Dakota County, Minnesota. The outfall is on the north/northeast side of the facility and has a continuous discharge to the Cannon River - Class 2Bg, 3, 4A, 4B, 5, 6 water. The latitude and longitude of the outfall SD 006 is 44° 28' 45" and 93° 08" 45".

Map of permitted facility

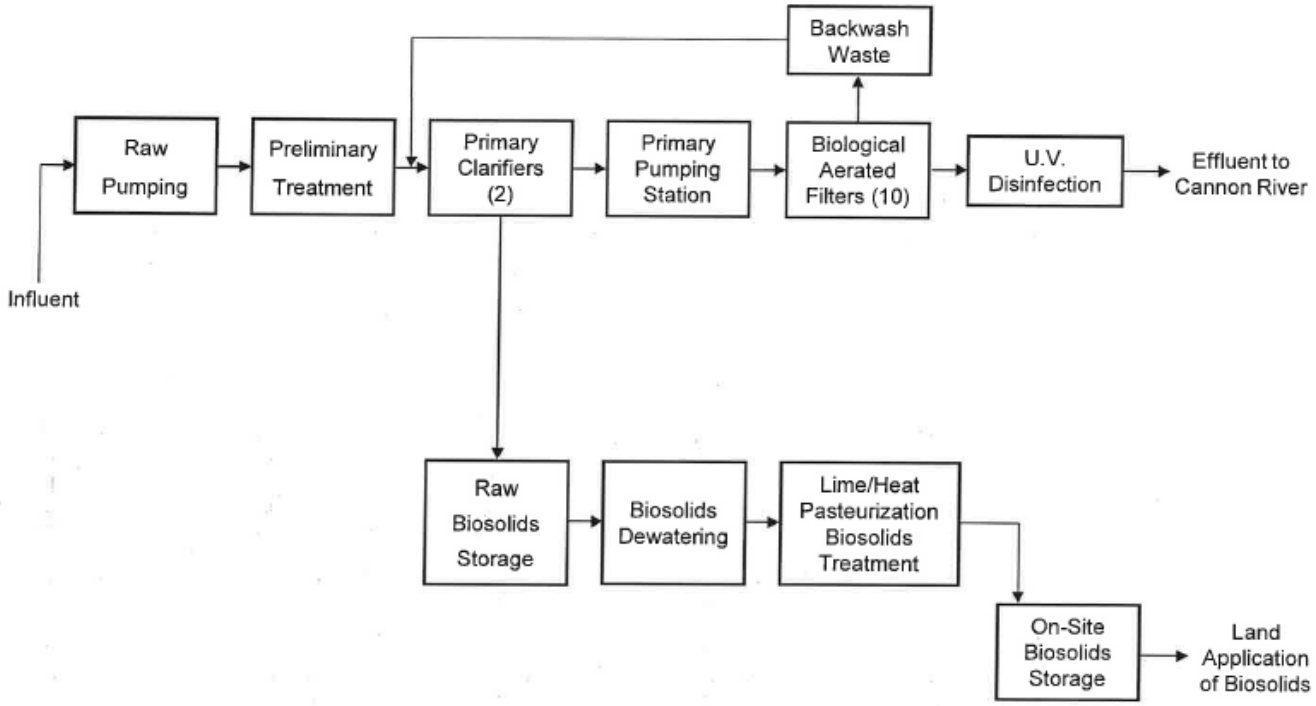
Facility Location Map
MN0024368: Northfield Wastewater Treatment Facility
T112N, R19W, Section 30
Northfield, Dakota County, Minnesota



Map produced by: MPCA Staff, 2/6/2026
Scale: 1:16,000

0 0.15 0.3 0.6 Miles

Flow schematic



Historical changes to facility or operation

There have been no changes to the facility since the last permit issuance. The Permittee does not propose any changes during the next permit issuance.

Significant changes from the previous permit

The draft permit contains the following changes from the last issued permit:

- Effluent monitoring for total sulfate has been added; this is because the facility discharges upstream of waters used for the production of wild rice.
- Effluent monitoring frequency for dissolved oxygen has been changed from once per day to three times per week; this is because the facility utilizes UV disinfection.
- There is a change in the chronic WET monitoring value. The monitoring value was updated due to a recent update to the facility's 7Q10 flow. The value has changed from 10 TUc to 11.2 TUc. This is a monitoring value, not a WET limit.

Special conditions

- The draft permit includes a new reporting requirement; the Permittee is to complete and submit an enhanced nitrogen management plan. The plan is due within the first 18 months after the permit issuance date.

Tribal Engagement

Minnesota Pollution Control Agency (MPCA) recognizes tribal sovereignty and is committed to honoring treaty rights. As such, MPCA is committed to ensuring that every person and community has healthy air, sustainable lands, and clean water. Additionally, MPCA is committed to making decisions that do not place disproportionate pollution burdens on any person or community. The MPCA expects regulated facilities to operate in compliance with environmental regulations designed to protect the environment and human health. When environmental regulations are violated, MPCA uses enforcement actions to hold regulated facilities accountable and require corrective action to identify and investigate actual and potential impacts and take remedial actions that will protect human health and the environment.

Timeline of tribal engagement for this permit:

- Anticipated to be June 2026 – Pre-public notice of draft permit and fact sheet sent to Tribal contacts.
- Prior to public notice, if any changes result from pre-public notice review – Notification of permit changes sent to Tribal contacts.
- Anticipated to be July or August 2026 – Public notice draft permit and fact sheet sent to Tribal contacts.
- Anticipated to be October 2026 – Final issued permit sent to Tribal contacts.

Significant Industrial Users (SIUs)

The Permittee has been delegated the authority to operate as the control authority under the General Pretreatment Regulations. The Permittee's pretreatment program was originally approved on April 5, 2013.

The facility has four SIUs, all of which have a control mechanism associated with the facility. Of the four SIUs, three of them are subject to Categorical Standards.

Table 1: Facility SIU's

Name	Total Average Flow (gpd)	Flow from Process Wastewater (gpd)	Flow from non-process wastewater (gpd)	Principal Products or raw materials used	Considered an SIU? (Y/N)	Is there currently a control mechanism and/or local limits? (Y/N)	Is the IU subject to Categorical Standards? (Y/N)
Post Consumer Brands	224,000	224,000	N/A	Breakfast cereals/food production	Y	Y	N
Sheldahl	65,000	65,000	N/A	Flexible circuits – heavy metals	Y	Y	Y
All Flex Inc.	37,000	37,000	N/A	Flexible circuits-heavy metals	Y	Y	Y
Aurora Pharmaceuticals	5,000	5,000	N/A	Pet Pharmaceuticals	Y	Y	Y

Recent compliance history

A Compliance Evaluation Inspection (CEI) occurred on September 22, 2025, by Kyle McGeary and Mark Hugeback of the MPCA. The CEI consisted of a visual inspection of the facility and a discussion with Justin Wagner, Utilities Manager, and Darick Kvam, Wastewater Plant Supervisor. There was also a review of the monthly DMRs for the time-period of December 2022 through September 2025.

Based on the results of the inspection, the following violations were noted:

- One exceedance of the TSS calendar month average limit and one exceedance of the TSS % removal was identified.
- There were two releases and one bypass over the review period. The releases were due to a PLC failure in the pretreatment cabinet which led to a loss of signal. The bypass occurred due to a tripped breaker; the wastewater bypassed secondary treatment but did receive UV disinfection prior to the point of release.

A Letter of Warning (LOW) was issued to the facility on October 22, 2025, to address these violations.

A Pretreatment Audit Inspection occurred on October 19, 2022, by Jaramie Logelin of the MPCA. Based on the results of the inspection, there were no requirements found to be non-compliance during the inspection.

Recent and existing monitoring table

Table 2: Recent monitoring history for Surface Discharge Station SD 006

Parameter	Limit Type	Limit	Units	June 2025	July 2025	Aug 2025	Sept 2025	Oct 2025	Nov 2025	Dec 2025	Jan 2026	Feb 2026	Mar 2026	Apr 2026
$CBOD_5$	CalMoAvg	25	mg/L	5	6.2	4.3	5.2	5.3	7.3	4.9	6.9	7.5	6.4	4.9
$CBOD_5$	CalMoAvg	322	kg/d	40	53	38	44	42	54	32	49	53	46	38
$CBOD_5$	MxCalWkAvg	40	mg/L	6.1	8.3	6.3	6.3	7.3	9.3	8	8.3	11	7	8.3
$CBOD_5$	MxCalWkAvg	515	kg/d	51	67	55	53	60	68	54	59	78	49	58
$CBOD_5$% Removal	MnCalMoAvg	85	%	98	97	98	98	98	98	98	98	97	98	98
Copper, Total	DailyMax	1.45	kg/d	0.1	0	0	0.1	0.21	0.13	0.16	0.23	0.2	0.17	0.19
Copper, Total	DailyMax	113	ug/L	12	0	0	13	26	17	23	33	29	23	24
Fecal Coliform	CalMoGeoMn	200	#/100ml	32	43	72	110	47						7.3
Flow	CalMoAvg		mgd	2.098	2.184	2.252	2.151	2.007	1.834	1.684	1.794	1.849	1.831	2.014
Flow	CalMoMax		mgd	2.464	2.849	2.594	2.363	2.323	2.198	2.123	1.963	2.126	1.944	2.37
Flow	CalMoTot		Mgal	62.926	67.694	69.808	64.537	62.228	55.022	52.212	55.605	51.785	56.767	60.415
Mercury, Dissolved	CalMoMax		ng/L				0							
Mercury, Total	CalMoMax		ng/L				0.85							
Nitrite Plus Nitrate, Total	CalMoAvg		mg/L	16	9.59	14	9.72	21	20	21	17	16	19	22
Nitrogen, Ammonia, Total	CalMoAvg		kg/d							1.53	7.3	5.3	3.7	
Nitrogen, Ammonia, Total	CalMoAvg		mg/L							0.23	1.01	0.74	0.52	
Nitrogen, Ammonia, Total	CalMoAvg	8.9	mg/L	1.6	1.4	1.1	2							
Nitrogen, Ammonia, Total	CalMoAvg	20	mg/L											0.71
Nitrogen, Ammonia, Total	CalMoAvg	34	mg/L					0.81	0.72					
Nitrogen, Ammonia, Total	CalMoAvg	175	kg/d	13	11.64	9.4	17							
Nitrogen, Ammonia, Total	CalMoAvg	393	kg/d											5.5
Nitrogen, Ammonia, Total	CalMoAvg	668	kg/d					6.34	5.26					
Nitrogen, Kjeldahl, Total	CalMoAvg		mg/L	7	2.91	3.74	3.06	3.01	3.18	2.18	4.95	5.02	2.29	3.57
Nitrogen, Total	CalMoAvg		mg/L	23	13	17	13	24	23	24	22	21	22	25
Oxygen, Dissolved	CalMoMin		mg/L	7.31	7.65	8.19	8.2	8.33	8.52	8.67	8.8	9.12	9.1	8.92
pH	CalMoMax	9	SU	7.5	7.4	7.4	7.3	7.2	7.2	7.2	7.4	7.5	7.3	7.3
pH	CalMoMin	6	SU	7.1	6.8	7	6.9	6.9	7	6.9	7	7	7	7

Parameter	Limit Type	Limit	Units	June 2025	July 2025	Aug 2025	Sept 2025	Oct 2025	Nov 2025	Dec 2025	Jan 2026	Feb 2026	Mar 2026	Apr 2026
Phosphorus, Total	12MoTotal	6,223	kg/yr	1045.2	1070.4	1058.6	1046	1067.7	1079.7	1092.1	1166.5	1286.9	1363.1	1486.1
Phosphorus, Total	CalMoAvg		kg/d					4.4	4.9	4.5	5.6	6.9	4.1	5.8
Phosphorus, Total	CalMoAvg	1	mg/L	0.4	0.3	0.3	0.3	0.6	0.7	0.7	0.8	0.96	0.6	0.7
Phosphorus, Total	CalMoAvg	24.8	kg/d	3.55	2.64	2.52	2.57							
TDS	CalMoAvg		mg/L				1223						1385	
TSS	CalMoAvg	30	mg/L	13	14	15	17	22	10	7.6	8.7	9.8	9.9	6.5
TSS	CalMoAvg	386	kg/d	108	119	132	142	174	75	50	61	70	70	50
TSS	MxCalWkAvg	45	mg/L	19	18	19	20	31	14	9.7	9	12	12	6.7
TSS	MxCalWkAvg	578	kg/d	155	143	164	171	241	101	66	65	84	87	52
TSS % Removal	MnCalMoAvg	85	%	93	90	91	93	92	97	97	98	94	97	98
TSS, grab (Mercury)	CalMoMax		mg/L				29							

Receiving water(s)

Use classification

Minn. R. 7053.0205, subp. 8, authorizes the MPCA to develop WQBELs for point source discharges to waters of the state of Minnesota to protect receiving waters for the applicable use classifications.

The facility has a continuous discharge via surface discharge station SD 006 to the Cannon River - Class 2Bg, 3, 4A, 4B, 5, 6 water.

All waters of the state of Minnesota must be classified based on considerations of best usage in the interest of the public and in conformance with the requirements of the applicable statutes, as described in Minn. R. 7050.0140.

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

The beneficial use subclass designators "e," "g," and "m" are added to the Class 2 designator as specific additional designators. The additional subclass designators do not replace the Class 2 designator. All requirements for Class 2 stream and river habitats in Minn. R. 7050.0222 and 7052.0100 continue to apply in addition to requirements for Class 2Bg. These subclass designators are applied to lotic waters only.

There are no endangered or threatened species living in the receiving water.

More information on the classification of waters can be found in Minn. R. 7050.0140.

Impairments

A recent impaired waters review was completed on April 8, 2026. The following information is a summary of the recent impaired waters review; the full impaired waters review memo is available upon request.

The facility discharges to the Cannon River in the Cannon River Watershed. There are 36 impairments downstream for the following parameters: aluminum, benthic macroinvertebrates bioassessments, Escherichia coli (E. coli), fecal coliform, fish bioassessments, mercury in fish tissue, mercury in water column, nutrients, polychlorinated biphenyls – fish tissue (PCB-F), sulfate, and turbidity.

The following are the TMDLs that are applicable to this facility's discharge:

Statewide Mercury TMDL- Mercury in Fish Tissue and Mercury in Water Column Impairments

Cannon River Watershed TMDL

Total Phosphorus

- WLA = 19.68 kg/day (Oct-May), 11.81 kg/day (Jun-Sep), and 6,224 kg/y (page 82, Table 36, Appendix G, Page 242)
- The WLA is equivalent to the current permitted effluent TP limit of 6,223 kg/yr. The current permit also includes total phosphorus limits of 1.0 mg/L and 24.80 kg/day.

E. coli

- WLA = 24.802 billion organisms per day (page 245, Table 128)
- The WLA is based on the AWWDF of 5.2 mgd and the E. coli standard of 126 org/100 mL.
- This WLA is equivalent to the current permitted effluent fecal coliform limit.

Total Suspended Solids

- WLA = 0.651 tons/day (page 247, Table 131)
- 0.651 tons/day is equivalent to 590.74 kg/day.
- The WLA is less stringent than the current permitted effluent TSS mass limit of 386 kg/day.

Lower Mississippi River Basin Fecal Coliform TMDL

- WLA = 1.18 t-org/mo (page 32, Table 5.21A)
- The WLA is based on the AWWDF of 5.2 mgd and the fecal coliform standard of 200 org/100 mL.
- This WLA is equivalent to the current permitted effluent fecal coliform limit.

South Metro Mississippi TMDL Turbidity Impairment

- TSS WLA = 140,890 kg/year and 386.00 kg/day (Appendix A, page 88)
- This facility is included in Appendix A, Section A.1., Minnesota Wastewater Permits with TSS Limits ≤ 32 mg/L and Eligible for Future Waste Load Allocation Increase.
- This WLA is equivalent to the current permitted effluent TSS mass limit of 386 kg/day.

This facility discharges upstream of the following waters used in the production of wild rice:

WID	Water Name	Reach Description
07040002-501	Cannon River	Belle Cr to split near mouth
25-0016-00	Larson	7 MI NW OF Red Wing
25-0017-01	Sturgeon	7 MI NW OF Red Wing
07040003-627	Mississippi River	Chippewa R (WI) to L & D #6
79-0005-02	Robinson	at Wabasha MN
28-0005-02	Target	0.7 MI S OF La Crescent, MN
28-0005-01	Lawrence	at Brownsville MN
07060001-509	Mississippi River	Root R to MN/IA border

This facility discharges upstream of a nitrate stressed impairment.

WID	Water name	Reach desc	Stressor group	Stressor status
07040002-509	Cannon River	Northfield Dam to Lake Byllesby inlet	Nitrates	Stressor

There are aluminum, sulfate, and PCB-F impairments in this review. TMDLs are not underway for these impairments at this time.

Existing permit effluent limits

Please see the "Recent and Existing Monitoring Table" above for a summary of existing permit effluent limits.

Technology-Based Effluent Limits (TBELs)

Limits are applied pursuant to Minn. R. 7053.0215, subp. 1, for 5-day carbonaceous biochemical oxygen demand ($CBOD_5$), $CBOD_5$ percent removal, TSS, TSS percent removal, and potential of hydrogen (pH). The $CBOD_5$ and the TSS monthly average limits are used to determine the calendar week average maximum limits.

Table 3: TBELs in existing permit

Pollutant	Calendar month average	Maximum calendar week average	Calendar month max/ Calendar month min	Minimum calendar month average
$CBOD_5$	25 mg/L 322 kg/day	40 mg/L 515 kg/day		
$CBOD_5$ % Removal				85%
pH			9.0 SU 6.0 SU	
TSS	30 mg/L 386 kg/day	45 mg/L 578 kg/day		
TSS % Removal				85%

Water Quality-Based Effluent Limits (WQBELs)

Limits for total phosphorus are applied pursuant to Minn. R. 7053.0205, subp. 8, and Minn. R. 7050.0222 to protect for lake and river eutrophication standards. Limits for ammonia nitrogen are applied based on 7053.0205, subp. 8, and 7050.0220 to protect for ammonia and/or DO standards.

Table 4: WQBELs in existing permit

Pollutant	Calendar month average	12 Month moving total	Daily maximum
Copper, Total			113 micrograms per liter[1] 1.45 kg/day[1]
Nitrogen, Ammonia, Total (as N)	20 mg/L[2] 393 kg/day[2] 34 mg/L[3] 668 kg/day[3] 8.9 mg/L[4] 175 kg/day[4]		
Phosphorus, Total (as P)	24.80 kg/day[4]	6223 kg/year[1]	

[1]Limit applies Jan-Dec
[2]Limit applies Apr-May
[3]Limit applies Oct-Nov
[4]Limit applies Jun-Sep

State Discharge Restrictions (SDRs)

SDRs are not considered WQBELs. The MPCA requires secondary treatment or the equivalent as a minimum to protect water quality and maintain in-stream water quality standards (WQS)[1]. Therefore, the restrictions are generally stringent enough to protect WQS, except where there is inadequate dispersion, or dilution at applicable minimum stream flows.

The 200 organisms per 100 milliliters (orgs/100mL) for fecal coliform is based on Minn. R. 7053.0215, subp.1. The 1.0 mg/L limit for total phosphorus is based on Minn. R. 7053.0255, subp. 3, for discharges that affect a lake.

[1] Minnesota Regulation WPC 15, Criteria for the Classification of the Interstate Waters of the State and the Establishment of Standard of Quality and Purity. Minnesota Pollution Control Agency, April 8, 1969.

Table 5: SDRs in existing permit

Pollutant	Calendar month average	Calendar month geometric mean
Fecal Coliform, MPN or Membrane Filter 44.5 C		200 orgs/100mL[1]
Phosphorus, Total (as P)	1.0 mg/L[2]	

[1] Limit applies April-October
[2] Limit applies January-December

Proposed permit effluent limits

Limits and monitoring requirements for surface water discharges are set in consideration of Minnesota state water discharge criteria also known as SDRs. SDRs are based on Minn. R. ch. 7053, Minnesota state WQBELs for the receiving water use classification, federal TBEL limits applicable to specific discharge types, or a combination of these limits to regulate the discharge of wastewater. When limits overlap for a particular pollutant, the most restrictive limit is applied in the permit. In addition, MPCA may derive limits that are specific to a particular discharge. These limits may be based on toxicity studies, professional judgment analysis, technology-based standards, and in some instances, standards developed by other U.S. states or regulatory agencies.

Waste stream stations

Limits and monitoring requirements for waste streams are assigned to ascertain their impact on wastewater treatment processes, contributions to other treatment facilities, and/or land treatment/discharge sites. Requirements are based on Minnesota Pollution Control Agency (MPCA) sampling policies and/or state health requirements.

This permit contains one waste stream station for monitoring and reporting purposes. The influent wastewater will be monitored as WS 001. The proposed monitoring requirements for the waste stream station are found in the limits and monitoring table in the accompanying draft permit document.

Technology-Based Effluent Limits (TBELs)

Limits are applied pursuant to Minn. R. 7053.0215, subp. 1, for $CBOD_5$ percent removal, TSS, TSS percent removal, and potential of hydrogen (pH).

Maximum calendar week average limits are calculated based on the facility type.

- Mechanical facilities' limits are calculated using an equation that takes into consideration the facility's AWW design flow, the calendar month average concentration limits and a conversion factor.

Table 6: TBELs in proposed permit

Pollutant	Calendar month average	Maximum Calendar Week Average	Calendar month max/ Calendar month min	Minimum calendar month average
$CBOD_5$	25 mg/L 322 kg/day	40 mg/L 515 kg/day		
$CBOD_5$ % Removal				85%
pH			9.0 SU 6.0 SU	
TSS	30 mg/L 386 kg/day	45 mg/L 578 kg/day		
TSS % Removal				85%

Water Quality-Based Effluent Limits (WQBELs)

Minn. R. 7053.0205, subp. 8, authorizes the MPCA to develop WQBELs for point source discharges to waters of the state of Minnesota to protect receiving waters for the applicable use classifications.

Minn. R. 7050.0155 requires that all waters must maintain a level of water quality that provides for the attainment and maintenance of the water quality standards of downstream waters, including the waters of another state.
WQBELs for total phosphorus (Minn. R. 7053.0255) are based on Class 2B waters (Minn. R. 7050.0222). See the 'Explanation of Total Phosphorus Review' section below for additional information regarding the development of the total phosphorus limit(s).

The quality of Class 2B surface waters shall be such as to permit the propagation and maintenance of a healthy community of cool or warm water aquatic biota, and their habitats. These waters shall be suitable for aquatic recreation of all kinds, including bathing, for which the waters may be usable. This class of surface water is not protected as a source of drinking water (Minn. R. 7050.0222, subp. 4).

The beneficial use subclass designators "e," "g," and "m" are added to the Class 2 designator as specific additional designators. The additional subclass designators do not replace the Class 2 designator. All requirements for Class 2 stream and river habitats in Minn. R. 7050.0222 and 7052.0100 continue to apply in addition to requirements for 2Bg stream and river habitats in Minn. R. 7050.0222. These subclass designators are applied to lotic waters only.

Limits are applied pursuant to Minn. R. 7050.0220 for the seasonal ammonia-nitrogen limits. Limits for ammonia nitrogen are applied based on 7053.0205, subp. 8, and 7050.0220 to protect for ammonia and/or DO standards. The limits for TP are applied pursuant to Minn. R. 7053.0205, subp. 8 to protect for lake eutrophication standards.

Table 7: WQBELs in proposed permit

Pollutant	Calendar month average	12 Month moving total	Daily maximum
Copper, Total			113 micrograms per liter[1] 1.45 kg/day[1]
Nitrogen, Ammonia, Total (as N)	20 mg/L[2] 393 kg/day[2] 34 mg/L[3] 668 kg/day[3] 8.9 mg/L[4] 175 kg/day[4]		
Phosphorus, Total (as P)	24.80 kg/day[4]	6223 kg/year[1]	

[1]Limit applies Jan-Dec [3]Limit applies Oct-Nov
[2]Limit applies Apr-May [4]Limit applies Jun-Sep

State Discharge Restrictions (SDRs)

SDRs are not considered WQBELs. The MPCA requires secondary treatment or the equivalent as a minimum to protect water quality and maintain in-stream WQS. Therefore, the restrictions are generally stringent enough to protect WQS, except where there is inadequate dispersion, or dilution at applicable minimum stream flows.

The 200 organisms per 100 milliliters (orgs/100mL) for fecal coliform is based on Minn. R. 7053.0215, subp. 1. The 1.0 mg/L limit for total phosphorus is based on Minn. R. 7053.0255, subp. 3, for discharges that affect a lake.

[1] Minnesota Regulation WPC 15, Criteria for the Classification of the Interstate Waters of the State and the Establishment of Standard of Quality and Purity. Minnesota Pollution Control Agency, April 8, 1969.

Table 8: SDRs in proposed permit

Pollutant	Calendar month average	Calendar month geometric mean
Fecal Coliform, MPN or Membrane Filter 44.5 C		200 orgs/100mL[1]
Phosphorus, Total (as P)	1.0 mg/L[2]	

[1] Limit applies April-October
[2] Limit applies January-December

Summary of proposed effluent limit and monitoring requirements

The following table lists the proposed limits and monitoring requirements for station SD 006.

Table 9: Proposed Effluent Limit and Monitoring Requirements

Pollutant, units	12-month moving total	Calendar month average	Maximum calendar week average	Calendar Quarter Maximum	Calendar month total	Calendar month maximum	Calendar month minimum	Calendar month geometric mean	Daily maximum	Frequency	Which months
$CBOD_5$		25 mg/L 322 kg/day	40 mg/L 515 kg/day							3 times per week	Jan-Dec
$CBOD_5$ % removal							85%			Once per month	Jan-Dec
Copper, Total									113 µg/L 1.45 kg/day	Twice per month	Jan-Dec
Fecal Coliform								Monitor only		3 times per week	Apr-Oct
Flow		Monitor only			Monitor only	Monitor only				Once per day	Jan-Dec
Mercury, Dissolved						Monitor only				Once per month	May, Sep
Mercury, Total						Monitor only				Once per month	May, Sep
Nitrite Plus Nitrate (as N), Total		Monitor Only								Once per month	Jan-Dec
Ammonia Nitrogen, Total		Monitor only								3 times per week	Dec-Mar
Ammonia Nitrogen, Total		34 mg/L 668 kg/day								3 times per week	Oct-Nov
Ammonia Nitrogen, Total		8.9 mg/L 175 kg/day								3 times per week	Jun-Sep
Ammonia Nitrogen, Total		20 mg/L 393 kg/day								3 times per week	Apr-May
Kjeldahl Nitrogen, Total		Monitor Only								Once per month	Jan-Dec

Pollutant, units	12-month moving total	Calendar month average	Maximum calendar week average	Calendar Quarter maximum	Calendar month total	Calendar month maximum	Calendar month minimum	Calendar month geometric mean	Daily maximum	Frequency	Which months
Nitrogen, Total (as N)		Monitor Only								Once per month	Jan-Dec
Oxygen, Dissolved							Monitor only			3 times per week	Jan-Dec
pH						9.0 SU	6.0 SU			Once per day	Jan-Dec
Phosphorus, Total	6,223 kg/yr									Once per month	Jan-Dec
Phosphorus, total		1.0 mg/L 24.80 kg/day								Once per week	Jun-Sep
Phosphorus, total		1.0 mg/L Monitor only kg/day								Once per week	Oct-May
TDS		Monitor only								Once per month	Mar, Sep
TSS		30 mg/L 386 kg/day	45 mg/L 578 kg/day							3 times per week	Jan-Dec
TSS % removal							85%			Once per month	Jan-Dec
TSS grab Hg						Monitor only.				Once per month	May, Sep
Sulfate, Total				Monitor only						Once per quarter	Mar, Jun, Sep, Dec

Explanation of total phosphorus limit review

Total phosphorus WQBEL

Federal law [40 C.F.R. § 122.44(d)] restricts mass increases of pollutants upstream of an impaired water and requires WQBEL(s) to be established for pollutant parameters where it is found that a NPDES/SDS discharger has the reasonable potential (RP) to cause or contribute to an excursion above a state WQS. An effluent limits analysis was completed to determine if the facility's discharge has RP to cause or contribute to an exceedance of a state WQS or contribute to any downstream impairment. As a result of the analysis, total phosphorus effluent limits were established for the facility to ensure protection of downstream waters and to comply with Lake Eutrophication Standards, River Eutrophication Standards, and SDRs. A summary of the effluent limits analysis and the assigned total phosphorus limit(s) are included below. For additional details regarding the effluent limits analysis, please see the "*Phosphorus effluent limit review: Cannon River Watershed Upstream of Lake Byllesby."* A copy of the MPCA memorandum is available upon request.

Lake Eutrophication Standards (LES)

Effluent from the facility is discharged upstream of Lake Byllesby, which currently exceeds numeric lake eutrophication standards. Minn. R. 7050.0222 (https://www.revisor.mn.gov/rules/?id=7050.0222) details eutrophication standards for lakes, shallow lakes, and reservoirs. Federal law [40 C.F.R. § 122.44(d)] restricts mass increases upstream of impaired waters and states that NPDES/SDS permits for all dischargers that have the RP to cause or contribute to downstream impaired waters are required to contain WQBELs derived from the WQS. When determining RP, the Code of Federal Regulations also states that the MPCA shall use procedures which account for existing controls on point and nonpoint sources of pollution. Permittees are found to have RP for TP if: 1) they discharge upstream of a nutrient impaired waterbody, 2) they discharge at TP concentrations greater than the ambient target; and 3) there is no geographical barrier capable of trapping a significant mass of nutrients between the outfall and the impairment. For all reasons listed above, the facility is found to have RP for TP. Therefore, the facility is assigned a 12-month moving total mass TP WQBEL as a result of the Waste Load Allocation (WLA) derived from the WQS. Final WLAs in combination with other point and nonpoint allocations are calculated to achieve the nutrient/eutrophication WQS.

Currently there are 24 dischargers upstream of Lake Byllesby with RP. The gross WLA was split between the affected dischargers, in consideration of facility size and type. More details regarding the method used to split the gross WLA into individual WLAs is provided in the MPCA memorandum for the watershed effluent limit analysis.

The TP effluent limit assigned to the facility to protect for eutrophication impairment is, 6,223 kilograms per year (kg/yr) as a 12-month moving total.

River Eutrophication Standards (RES)

A watershed scale analysis was completed to determine if total phosphorus effluent limits were necessary for the facilities located in the watershed to protect for RES. Guidance for the analysis, determination of RP, and WQBEL setting process is defined in the Procedures for Implementing River Eutrophication Standards for NPDES Wastewater Permits in Minnesota (MPCA 2015), which can be found on the MPCA's website at https://www.pca.state.mn.us/sites/default/files/wq-wwprm2-15.pdf. The complete "Phosphorus effluent limit review: Cannon River Watershed Upstream of Lake Byllesby" memorandum is available upon request from the MPCA.

The TP effluent limit assigned to the facility was developed to protect for the South Nutrient Region which has RES standards (Minn. R. 7050.0222) of:

Table 10: Nutrient Region Information

	South RES region
Total Phosphorus	≤ 150 µg/L
Chlorophyll-a (Chl-a)	≤ 40 µg/L
DO flux	≤ 4.5 mg/L
BOD_5	≤ 3.0 mg/L

For information regarding the method used to determine the pollutant load necessary to support the WQS, see the "Phosphorus effluent limit review: Cannon River Watershed Upstream of Lake Byllesby" memorandum that is available upon request from the MPCA.

State Discharge Restrictions (SDR)

The permit includes a SDR limit of 1.0 mg/L, January-December, calendar month average limit. This limit was assigned pursuant to Minn. R. 7053.0255.

Reasonable potential (RP) for chemical specific pollutants [40 C.F.R. § 122.44 (d)(1)]

Background for RP review:

This is a class A mechanical continuous flow facility. The discharge is located on the Cannon River. This section of the Cannon River is a class 2Bg, 3, 4A, 4B, 5, 6 water. This facility has also been monitoring for total mercury in their final outfall. The discharger has submitted six WET tests and three priority pollutant scans during their last permit cycle. The Average Dry Weather (ADW) design flow is used to calculate water quality-based effluent limits under critical low flow stream conditions. The ADW flow for this facility is 3.23 mgd. The newly updated low flow condition is defined by the once in ten year weekly average flow ($7Q_{10}$), which is determined to be 51 cfs. The analysis below is based on data submitted to date.

The chronic WET monitoring value has changed from 10 Toxic Unit chronic (Tuc) to 11.2 Tuc. This is because of the change in the river 7Q10 flow.

Federal regulations require the MPCA to evaluate the discharge to determine whether the discharge has the RP to cause or contribute to a violation of water quality standards. The MPCA must use acceptable technical procedures, accounting for variability (coefficient of variation, or CV), when determining whether the effluent causes, has the RP to cause, or contribute to an excursion of an applicable water quality standard. Projected effluent quality (PEQ) derived from effluent monitoring data is compared to Preliminary Effluent Limits (PELs) determined from mass balance inputs. Both determinations account for effluent variability. Where PEQ exceeds the PEL, there is RP to cause or contribute to a water quality standards excursion. When RP is indicated, the permit must contain a WQBEL for that pollutant.

Federal regulations require MPCA to evaluate the discharge to determine whether the discharge has the RP to cause or contribute to a violation of water quality standards. The Agency must use acceptable technical procedures, accounting for variability (CV), when determining whether the effluent causes, has the RP to cause, or contribute to an excursion of an applicable water quality standard. PEQ derived from effluent monitoring data is compared to PELs determined from mass balance inputs. Both determinations account for effluent variability. Where PEQ exceeds the PEL, there is RP to cause or contribute to a water quality standards excursion. When RP is indicated the permit must contain a WQBEL for that pollutant.

The priority pollutant scan information of the effluent was evaluated using RP procedures. Total zinc and total copper were the only contaminates with WQSs found in the three priority pollutant scans.

Mercury- Monitoring results of the effluent include 11 data points at a calculated CV of 1.3121. Projected effluent quality (PEQ) is derived as an upper bound value from the highest value measured (1.68 ng/l), and the determined variability (CV = 1.3121) and number of data points (11). The PEL calculation assumes that the background mercury concentration is at the water quality standard (6.9 ng/l) when the listed stream impairment is for fish consumption advice, and no local river water column analytical data exists. To ensure that the discharge does not cause or contribute to a water quality standards excursion for mercury impaired waters, the numeric water quality standard (6.9) is applied at the point of discharge for the mass balance equation for the subsequent preliminary effluent limit calculations. Where PEQ exceeds the PEL, there is RP to cause or contribute to a water quality standards excursion. Since PEQ does not

exceed the PEL in this case, RP to cause or contribute to an excursion above water quality standards is not indicated. A WQBEL is not needed.

Table 1 (insert) contains the inputs to the RP analysis for class 2B total copper WQS, the class 2B zinc WQS, class 2B total mercury WQS and the chronic WET monitoring requirement. These pollutants were evaluated based on analytical measurements that made evident the need for full determination. Where PEQs exceed PELs, a WQBEL is needed.

Table 1. Northfield WWTP RP-2026.

Parameter	Cu	Zn	Hg	Chronic WET
Parameter Unit	ug/L	ug/L	ng/L	Tuc
Plant flow ADW (mgd)	3.23	3.23	3.23	3.23
Rec. water flow, 7Q10 (mgd)	32.97	32.97	32.97	32.97
Background concentration	0.95	2.40	6.90	0.00
Chronic standard (cs)	17.26	228.84	6.90	1.00
Stream hardness				
ppm	248.00	248.00	NA	NA
Maximum standard (ms)	41.71	252.63	2400.00	1.00
Stream hardness				
ppm	248.00	248.00	NA	NA
Final acute value (FAV)	135.89	783.21	4900.00	NA
Effluent hardness ppm				
ppm	416.00	416.00	NA	NA
Mass balance -cs	183.72	2540.02	6.90	11.21
Mass balance -ms	457.73	2806.61	26825.20	11.21
Coefficient of variation	0.60000	0.60000	1.31218	0.60000
Long term avg-cs	96.89608	1339.66705	4.09572	8.74438
Long term avg-ms	146.97592	901.19011	4258.59863	3.59836
Preliminary effl. limits:				
Daily max.	301.77	2806.61	25.80	11.21
Monthly avg. (2 x month)	174.19	1620.06	10.98	11.21
Max Measured Value	19.30	22.60	1.68	1.17
# data points	3	3	11	6
PEQ	57.89	67.79	4.28	2.51
Reasonable Potential				
PEQ > Daily max.	FALSE	FALSE	FALSE	FALSE
PEQ > Monthly avg.	FALSE	FALSE	FALSE	FALSE
PEQ > FAV	FALSE	FALSE	FALSE	FALSE
Final Reasonable Potential	No	No	No	No
Notes				
The Cannon River is a class 2Bg, 3, 4A, 4B, 5, 6 water				
The 7Q10 has been updated to 51 cfs				
The chronic WET monitoring value is now 11.2 Tuc because of the 7Q10 flow update				

Reasonable Potential Summary

No RP has been found for the class 2B copper WQS, the class 2B zinc WQS, the class 2B total mercury WQS, or for the chronic WET testing requirement.

Whole Effluent Toxicity
This facility performed six chronic WET tests during the last permit cycle. No RP was found to need a WQBEL for chronic WET testing. The former chronic WET monitoring value for this facility was 10 Toxic Unit chronic (TUc). Because of the increase in flow related to the 7Q10 flow, the updated chronic WET TUc is 11.2 TUc for this facility, and the 11.2 TUc chronic WET monitoring value must be met at end of pipe (outfall SD006). This is a chronic WET monitoring value and not a chronic WET limit.

Pollutants of concern

Mercury

This permit contains requirements for mercury monitoring. These requirements were added in response to the EPA approval of the Minnesota statewide Mercury Total Maximum Daily Load (TMDL) plan. More information on the TMDL can be found on the MPCA's website at https://www.pca.state.mn.us/business-with-us/statewide-mercury-tmdl.
Specific mercury monitoring requirements are found in the surface discharge stations section of this permit. The requirements include sampling for TSS via a grab sample taken at the same time as the total and dissolved mercury grab samples are taken.
The mercury monitoring at outfall SD 006 is consistent with the MPCA *Permitting Strategy for Addressing Mercury in Municipal and Industrial Wastewater Permits* (2013) located on the MPCA's website at https://www.pca.state.mn.us/sites/default/files/wq-wwprm1-16.pdf.

Nitrogen

Nitrogen is a pollutant that can negatively impact the quality of Minnesota's water resources, including water used for drinking. Studies have shown that nitrogen in lakes and streams has a toxic effect on aquatic life such as fish. Like phosphorus, nitrogen is a nutrient that promotes algae and aquatic plant growth, often resulting in decreased water clarity and oxygen levels. The Statewide Nutrient Reduction Strategy (https://www.pca.state.mn.us/air-water-land-climate/reducing-nutrients-in-waters) identifies goals and milestones for nitrogen reductions for both point and non-point nitrogen sources in Minnesota. To gain a better understanding of the current nitrogen concentrations and loadings received by and discharged from the facility, effluent nitrogen monitoring is required in accordance with Minn. Stat. § 115.03.
The permit includes influent monitoring for total nitrogen, total nitrite plus nitrate-nitrogen, and total Kjeldahl nitrogen at a frequency of once per month, from January through December. The permit includes effluent monitoring for nitrite plus nitrate-nitrogen, total Kjeldahl nitrogen, and total nitrogen at a frequency of once per month, January through December. Effluent monitoring for total dissolved solids is at a frequency of once per month during the months of March and September. Monitoring for the seasonal effluent limits for ammonia, nitrogen is at a frequency of three times per week.
This nitrogen monitoring continues to provide the data necessary to develop a better understanding of the total nitrogen concentrations and loadings that are discharged. The changes and/or increases in total nitrogen monitoring in wastewater permits as a result of the *Statewide Nutrient Reduction Strategy* are outlined in the *Minnesota NPDES Wastewater Permit Nitrogen Monitoring Implementation Plan* document located on the MPCA's website at https://www.pca.state.mn.us/sites/default/files/wq-wwprm1-22.pdf.

(Voluntary) Nitrogen Reduction Strategy Optimization Incentive

An optimization incentive is being offered to all NPDES/SDS permitted facilities to encourage facilities to start making nitrogen reductions now. In return, pending successful rulemaking, implementation of a potential may be deferred within their individual permits.
Rulemaking efforts will be undertaken to adopt a 10 mg/L nitrogen SDR for all major municipal facilities, high concentration minor municipal facilities, and high concentration industrial dischargers. Permittees will need to optimize their existing plant operations to achieve a 15 mg/L total nitrogen concentration or lower, as a 12-month moving average, for a 12-month period, during the Nitrogen Reduction Strategy's phase 1 efforts (now until adoption of an SDR). The success of optimization efforts will be determined post-SDR adoption during the effluent limit review process. The review will factor in the following:

- Beginning April 1, 2024, if the facility's effluent concentration is already at or below 15 mg/L, as a 12-month rolling average, that facility will need to operate below their existing levels consistently for a minimum of 12-months.
- Once facilities have started to optimize their wastewater treatment to reduce their nitrogen concentrations, they should continue optimization efforts until the SDR limit is applied in their permits.

The following should be noted:

- The SDR limit is proposed for all major municipal and high concentration industrial dischargers; if you are not currently a major facility but may be prior to SDR adoption, you may still have the opportunity to participate in this optimization incentive so long as the optimization period is at least 12-months long.
- The optimization incentive is included in the rulemaking effort for the SDR limit however, the deferral of the SDR limit for another permit cycle is dependent on successful rulemaking efforts. If this incentive is not successful during SDR rulemaking efforts, the SDR limit will not be able to be deferred an additional permit cycle.

Nitrogen Management Plan (NMP) or Enhanced Nitrogen Management Plan
The permittee is required to prepare and submit an enhanced NMP.

This permit requires the development of an enhanced Nitrogen Management Plan due to the facility causing, or having a RP to cause or contribute, to nitrate concentrations in downstream waterbodies causing biological stress to aquatic organisms. Specific nitrogen monitoring requirements are detailed in the limits and monitoring section of this permit. Information gained through the enhanced NMP process can be used to reduce influent and effluent nitrogen concentrations and loads. The Permittee shall consider selecting activities based on the potential of those activities to reduce influent and effluent nitrogen loadings as part of its nitrogen management strategy.
The Permittee should refer to the corresponding section of their permit for further direction and information in completing their NMP.

Phosphorus

Phosphorus is a common constituent in many wastewater discharges and a pollutant that has the potential to negatively impact the quality of Minnesota's lakes, wetlands, rivers, and streams. Phosphorus promotes algae and aquatic plant growth, often resulting in decreased water clarity and oxygen levels. In addition to creating general aesthetic problems, these conditions can also impact a water body's ability to support healthy fish and other aquatic species. Therefore, phosphorus discharges are being carefully evaluated throughout the state.
The Permittee is required to meet a phosphorus limit as specified in the limits and monitoring section of this permit. Although the Permittee is not required to prepare a Phosphorus Management Plan, elimination or reduction of phosphorus at the source will decrease the influent load to the facility and has the potential to improve treatment efficiency and reduce treatment costs. The MPCA strongly encourages the Permittee to identify and eliminate/reduce sources of phosphorus to, and optimize phosphorus management within, the facility.
All phosphorus samples must be analyzed by a certified laboratory and the data submitted to the MPCA. If the laboratory would like more information about becoming certified, please call the Environmental Laboratory Certification Unit at 612-676-5200. Samples must be collected in a clean bottle (preferably cleaned by a certified laboratory) that was not washed with phosphate detergent. Also, a sulfuric acid preservative must be added immediately after the sample is collected, and it must be stored at four degrees Celsius until analysis. If a contract laboratory is used, the bottle and preservative would typically be provided by the laboratory analyzing the sample.

Sulfate

Sulfate monitoring for protection of wild rice waters
In 1973 Minnesota adopted a sulfate water quality standard to protect wild rice. In a February 16, 2022, letter to the MPCA, the US Environmental Protection Agency (EPA) stated their expectations that MPCA issued NPDES/SDS permits are required to comply with the federally-approved sulfate water quality standard and Minnesota Rules.
In order to comply with the total sulfate water quality standard, MPCA is including total sulfate limits (if applicable) and monitoring requirements in permits that are upstream of a waters used for the production of wild rice. There are

currently approximately 2400 waters within the state of Minnesota have been identified as waters used for the production of wild rice (this includes the 35 waters identified on the 303(d) impaired waters list).

Total Suspended Solids (TSS)

Suspended solids may include both organic and inorganic matter. The inorganic compounds may include sand, silt, clay and precipitated metals. The organic fraction may include such materials as wood fibers and unsettled biomass from biological treatment systems.

These solids may settle out rapidly and bottom deposits are often a mixture of both organic and inorganic solids. Solids may be suspended in water for a time and then settle to the bed of the stream or lake. They may be inert, slowly biodegradable materials, or rapidly decomposable substances. While in suspension they increase the turbidity of the water, reduce light penetration, and impair the photosynthetic activity of aquatic plants. Suspended solids may kill fish and shellfish by causing abrasive injuries, by clogging gills and respiratory passages, by screening out light and by promoting and maintaining the development of noxious conditions through oxygen depletion. Suspended solids also reduce the recreational value of water.

The Cannon River Watershed TMDL contains a WLA of 0.651 tons per day (equivalent to 590.74 kg/day); which is less stringent than the current permitted effluent TSS mass limit of 386 kg/day. The South Metro Mississippi River Total Suspended Solids TMDL contains a WLA for the facility of 140,890 kg/day and 386.00 kg/day; this WLA is equivalent to the current permitted effluent TSS mass limit of 386 kg/day.

Chemical additives

Chemical additives are addressed by the additive limits and associated monitoring in the permit.

Table 11: Chemical additives currently approved for use at this facility consist of the following:

Name	Dosage frequency	Location and maximum rate of use	Purpose
Ferric Chloride	Continuous, flow proportional	Before clarifier, 120 gpd	Coagulant
Ferric Chloride	Continuous, constant	To sludge tank, 20 gpd	Odor control
Polymer	Continuous, flow proportional	Before clarifier, 10.8 lbs/day	Flocculant
Polymer	Sludge dosing, approx. 20 hrs per week	Before dewatering, 15 gal/hr	Dewatering

Biosolids and septage

Biosolids land application

This permit section requires biosolids to be treated to meet specific standards, and specifies monitoring, recordkeeping, reporting, and general requirements for biosolids that are applied to the land. Unless they are exceptional quality biosolids, sites to which biosolids are applied are approved by the MPCA by the procedures found in Minn. R. 7041.0800.

Industrial stormwater management

On June 1, 2025, the Industrial Stormwater (ISW) General Permit (MNR050000) was reissued. The general permit addresses stormwater discharges associated with industrial activity for facilities that discharge stormwater to waters of the state, including Municipal Separate Storm Sewer Systems. The general permit also addresses stormwater discharges associated with industrial activities at facilities that provide onsite infiltration of industrial stormwater discharges associated with the facility.

This facility has applied for and obtained a Certification of No Exposure with the Industrial Stormwater Program in accordance with ISW General Permit.

The provisions for runoff control are based on Minn. Stat. ch. 115 and state WQS, according to Minn. R. 7001.1080, 7050.0210 and 7050.0220, and 40 C.F.R. § 122.26. The best management practices requirements are based on Minn. R. 7001.1080.

Total facility requirements

Certified laboratory

Effective January 1, 2013, all Minnesota municipal, county, or industrial laboratories that analyze wastewater per Clean Water Act requirements must be certified by the MPCA or the Minnesota Department of Health. Information regarding MPCA laboratory certification is located on the MPCA's website at https://www.pca.state.mn.us/business-with-us/mpca-laboratory-certification. If there are any questions concerning MPCA laboratory certification, please contact the MPCA at 800-657-3864 or by email at qa.questions.mpca@state.mn.us. Commercial laboratories doing these analyses must maintain Minnesota Department of Health certification.

Electronic Discharge Monitoring Reports (eDMRs)

The eDMRs, Sample Values/Operational Spreadsheets, and related attachments shall be electronically submitted via the MPCA e-Services (https://rsp.pca.state.mn.us/TEMPO_RSP/Orchestrate.do?initiate=true). Paper copies of DMRs will no longer be accepted. The eDMR and Sample Value/Operational Spreadsheets are generated directly from the limits and monitoring requirements in permit for the facility. They are generated by the Pollution Control Data Specialist assigned to manage the data for the facility and will be available online within 30 days of the permit action, please make sure to download the most recent version of the eDMR and Sample Value/Operational Spreadsheet prior to submitting the next monthly eDMRs.

Antidegradation and anti-backsliding

Antidegradation: Changes to the facility may result in an increase in pollutant loading to surface waters or other causes of degradation to surface waters. If a change to the facility will result in a net increase in pollutant loading or other causes of degradation that exceed the maximum loading authorized through conditions specified in the existing permit, the changes to the facility are subject to antidegradation requirements found in Minn. R. 7050.0250 to 7050.0335. The permit does not propose to allow a new or increased discharge and does not trigger antidegradation.

Anti-backsliding: Any point source discharger of sewage, industrial, or other wastes for which a NPDES Permit has been issued by the MPCA that contains effluent limits more protective than those that would be established by Minn. R. 7053.0215 to 7053.0265 shall continue to meet the effluent limits established by the permit, unless the permittee establishes that less protective effluent limits are allowable pursuant to federal law, under section 402(o) of the Clean Water Act, United States Code, title 33, section 1342. The permit complies with Minn. R. 7053.0275 regarding anti-backsliding.

Term of permit

The MPCA has made a preliminary determination to reissue this NPDES/SDS permit for a term of approximately five years.

The effective date of the permit and the permit expiration date will be determined at the time of issuance.