2026 Modification to Elk River Watershed Total Maximum Daily Load Report

GENERAL INFORMATION

TMDL project name	Elk River Watershed TMDL Report
Date of original EPA TMDL Approval	June 14, 2012
TMDL Modification Public Notice Dates	January 5, 2026- February 4, 2026
TMDL Assessment Unit Identification (AUID) and pollutants that require modification	07010203-579 – Total Suspended Solids (TSS), Escherichia Coli (*E. coli)*
TMDL tables being modified	Table 6.5. Partitioned non-algal turbidity TMDL (Daily loads). Table 6.6. The TMDL expressed as daily loading capacity of *E. coli* in the Elk River. Table 6.7. The TMDL expressed as monthly loading capacity of *E. coli* in the Elk River.

EXPLANATION OF MODIFICATION

What is being changed from the final Total Maximum Daily Load (TMDL) to the modified TMDL?

The Minnesota Pollution Control Agency (MPCA) is making adjustments to Municipal Separate Storm Sewer Systems (MS4s) wasteload allocations (WLAs) to account for one new permittee, one terminated permittee, and multiple existing MS4 permittee jurisdictional boundary and regulated area changes within the TMDL project area. The adjustments will not change the approved overall total loading capacities of the TMDLs.

Given the modification described, are there any changes to Stormwater Pollution Prevention Programs (SWPPPs) to account for the modified WLAs? When will the SWPPPS be updated?

Permitted MS4s with assigned WLAs will be required to account for the TSS and *E. coli* impaired Elk River reach (Table 1) in their SWPPPs when the MS4 General Permit is re-issued.

- Becker Township MS4 will be required to submit a SWPPP when they apply for permit coverage (expected in 2027).
- Current MS4 permittees will be required to submit updated SWPPPs when they apply for permit coverage under the re-issued MS4 General Permit (expected in 2026).

Table 1. Water bodies and impairments requiring modifications.

AUID	Reach Name	Impairments	Baseline Year
07010203-579	Elk River	*E. coli,* TSS	2009

Table 2. Currently regulated, newly regulated, and terminated MS4s within the TMDL subwatershed. Additions underlined; removals struck through.

Regulated MS4	MS4 Permit #	-579
Becker Township MS4	TBD	X
Benton County MS4	MS400067	X
Big Lake City MS4	MS400249	X
Big Lake Township MS4	MS400234	X
~~Haven Township MS4~~	~~MS400136~~	Permit terminated
Minden Township MS4	MS400147	X
Minnesota Correctional-St Cloud MS4	MS400179	X
MNDOT Outstate District MS4	MS400180	X
Saint Cloud City MS4	MS400052	X
Sauk Rapids City MS4	MS400118	X
Sauk Rapids Township MS4	MS400153	X
Sherburne County MS4	MS400155	X
Watab Township MS4	MS400161	X

Explanation of modifications:

- There is one newly regulated MS4: Becker Township (unassigned permit number) (Table 2). When the TMDLs were approved on June 14, 2012, any stormwater contribution from Becker Township was considered unregulated stormwater and was covered under load allocation (LA), as it was not a designated MS4. Because it has been determined that Becker Township will now be a regulated MS4 under the next MS4 General Permit, a portion of the LA is being reallocated to the WLA.
- There is one terminated MS4 as of May 15, 2019: Haven Township (Permit #MS4400136) (Table 2). The area associated with Haven Township was assigned to the WLA. Now that Haven Township is not a regulated MS4, the WLA assigned to it is being transferred back to the LA.
- WLAs for MS4s named in the original TMDLs were adjusted according to current MS4 jurisdictional boundaries and regulated areas per the 2020 Decennial Census urban area with population over 50,000. Adjustments include both WLA to LA and LA to WLA.

Transfer Methodology and rates

- For city and township MS4s: WLAs were calculated by multiplying the jurisdictional area within the TMDL subwatershed by the transfer rate (Table 3).
- For county and MnDOT MS4s: WLAs were calculated by multiplying regulated area per 2020 Decennial Census Urban Area with population over 50,000 within the TMDL subwatershed by the transfer rate (Table 3).
- The rates in Table 3 were calculated as the sum of the watershed LAs and MS4 WLAs divided by the watershed area.

Table 3. Transfer rates for WLA modifications.

AUID -impairment	High Flow	Wet Flow	Mid Flow	Dry Flow	Low Flow	Units
579 - TSS	3.2E-05	1.1E-05	5.6E-06	3.4E-06	1.5E-06	Tons/ac/day
579 - *E. coli*	0.01097	0.00415	0.00207	0.00124	0.00061	Billions org/ac/day

The MPCA is proposing the following modifications:

Elk River, AUID 07010203-579

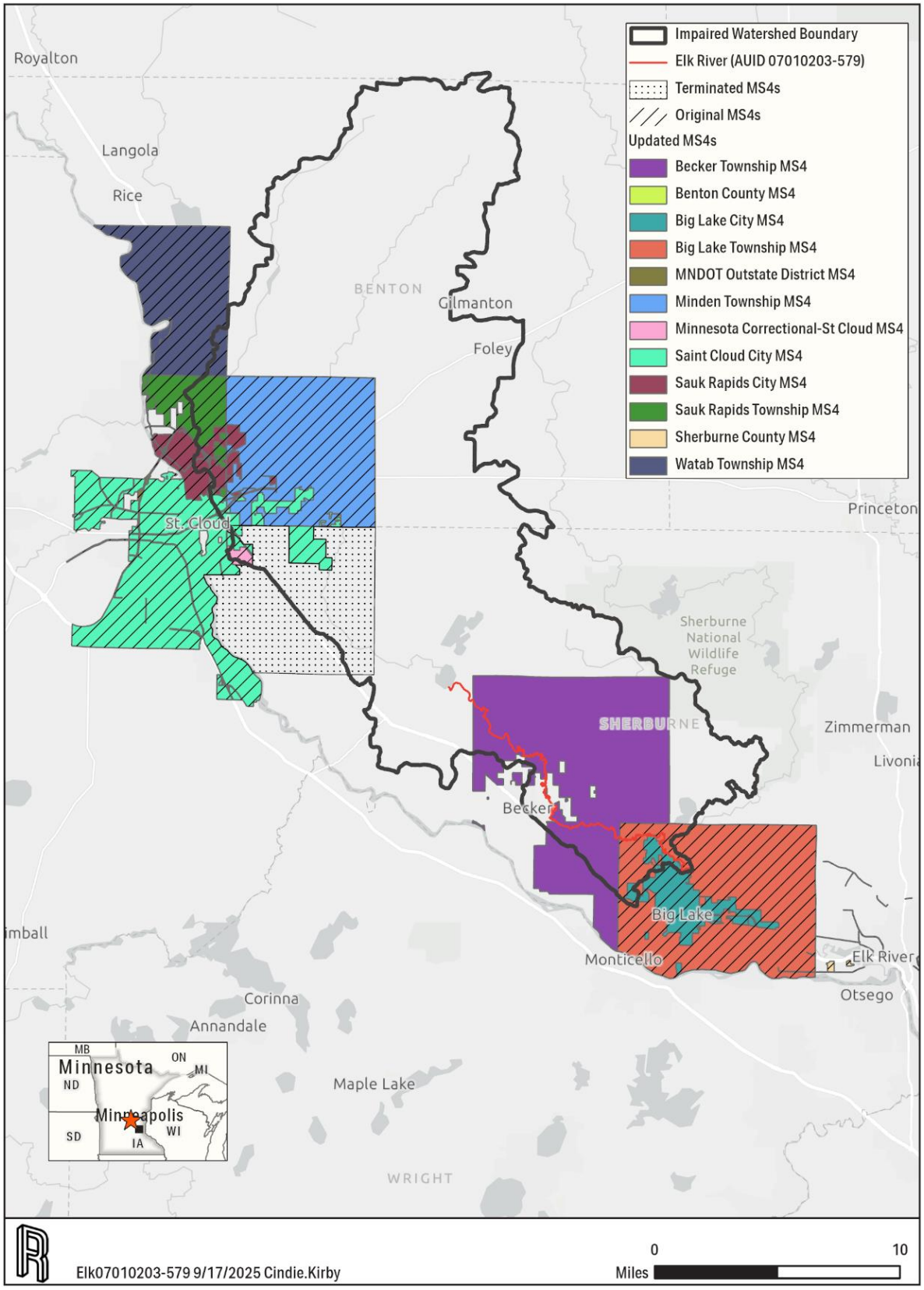
The MPCA is shifting between 0.08 and 1.88 tons/day of total suspended solids (TSS) depending on the flow zone from the LAs to the MS4 WLAs (Modified Table 6.5).

Elk River, AUID 07010203-579

The MPCA is shifting between 7.82 and 140.79 billions of organisms/day of Escherichia Coli (*E. coli*), depending on the flow zone from the LAs to the MS4 WLAs (Modified Table 6.6). This equates to between 237.81 and 4,282.67 billions of organisms/month of *E. coli,* depending on the flow zone that the MPCA is shifting from the LAs to the MS4 WLAs (Modified Table 6.7).

MAPS

Figure 1. Elk River (AUID 07010203-579) TSS and *E. coli* TMDL Subwatershed and Regulated MS4 Areas.



TABLES

Original Table 6.5. Partitioned non-algal turbidity TMDL (Daily loads) (Page 6-4 of TMDL report).

Daily (Tons per day)									
246876	**Critical Condition**	**Total Wasteload Allocation (Tons)**	**WWTF Allocation (tons)**	**MS4 Allocation (Tons)**	**Industrial Stormwater Allocation (Tons)**	**Construction Stormwater Allocation (Tons)**	**Load Allocation (tons)**	**Margin of Safety (tons)**	**TMDL (tons)**
Elk River 579	High Flow	0.56	0.27	0.13	0.08	0.08	6.84	0.82	8.23
	Wet	0.37	0.27	0.05	0.03	0.03	2.31	0.30	2.98
	Mid-Range	0.33	0.27	0.03	0.02	0.02	1.17	0.17	1.66
	Dry	0.31	0.27	0.02	0.01	0.01	0.71	0.11	1.13
	Low Flow	0.29	0.27	0.01	0.01	0.01	0.31	0.07	0.67

All calculations are based on a TSS-VSS average of 5.65 mg/L (Results of 2009 monitoring data)

Modified Table 6.5. Partitioned non-algal turbidity TMDL (Daily loads) (modifications highlighted in yellow).

Daily (Tons per day)									
246876	**Critical Condition**	**Total Wasteload Allocation (tons)**	**WWTF Allocation (tons)**	**MS4 Allocation (tons)**	**Industrial Stormwater Allocation (tons)**	**Construction Stormwater Allocation (tons)**	**Load Allocation (tons)**	**Margin of Safety (tons)**	**TMDL (tons)**
Elk River 579	High Flow	2.44	0.27	2.01	0.08	0.08	4.97	0.82	8.23
	Wet	1.01	0.27	0.68	0.03	0.03	1.67	0.30	2.98
	Mid-Range	0.66	0.27	0.35	0.02	0.02	0.83	0.17	1.66
	Dry	0.50	0.27	0.21	0.01	0.01	0.52	0.11	1.13
	Low Flow	0.38	0.27	0.09	0.01	0.01	0.22	0.07	0.67

All calculations are based on a TSS-VSS average of 5.65 mg/L (Results of 2009 monitoring data)

Original Table 6.6. The TMDL expressed as daily loading capacity of *E. coli* in the Elk River Reach # 579 (Page 6-7 of TMDL report).

Daily						
Reach	Critical Condition	WWTF Wasteload Allocation (10^9 org)	MS4 Wasteload Allocation (10^9 org)	Load Allocation (10^9 org)	Margin of Safety (10^9 org)	TMDL (10^9 org)
Elk River 579	High Flow	10.30	539.43	1816.17	450.65	2816.55
	Wet	10.30	203.99	686.78	171.63	1072.70
	Mid-Range	10.30	101.84	342.87	86.67	541.67
	Dry	10.30	61.01	205.41	52.71	329.43
	Low Flow	10.30	29.95	100.85	26.88	167.98

Modified Table 6.6. The TMDL expressed as daily loading capacity of *E. coli* in the Elk River Reach # 579 (modifications highlighted in yellow).

Daily						
Reach	Critical Condition	WWTF Wasteload Allocation (10^9 org) (Becker WWTF)	MS4 Wasteload Allocation (10^9 org)	Load Allocation (10^9 org)	Margin of Safety (10^9 org)	TMDL (10^9 org)
Elk River 579	High Flow	10.30	680.22	1675.38	450.65	2816.55
	Wet	10.30	257.22	633.55	171.63	1072.70
	Mid-Range	10.30	128.42	316.28	86.67	541.67
	Dry	10.30	76.93	189.49	52.71	329.43
	Low Flow	10.30	37.77	93.03	26.88	167.98

Original Table 6.7. The TMDL expressed as monthly loading capacity of *E. coli* in the Elk River Reach # 579 (pg. 6-7 of TMDL report).

Daily						
Reach	**Critical Condition**	**WWTF Wasteload Allocation (10^9 org)**	**MS4 Wasteload Allocation (10^9 org)**	**Load Allocation (10^9 org)**	**Margin of Safety (10^9 org)**	**TMDL (10^9 org)**
Elk River 579	High Flow	313.33	16409.56	55247.89	13708.72	85679.49
	Wet	313.33	6205.28	20892.00	5221.07	32631.67
	Mid-Range	313.33	3097.89	10430.03	2636.43	16477.67
	Dry	313.33	1855.93	6248.57	1603.39	10021.22
	Low Flow	313.33	911.20	3067.84	817.59	5109.96

Modified Table 6.7. The TMDL expressed as monthly loading capacity of *E. coli* in the Elk River Reach # 579 (modifications highlighted in yellow).

Daily						
Reach	**Critical Condition**	**WWTF Wasteload Allocation (10^9 org)**	**MS4 Wasteload Allocation (10^9 org)**	**Load Allocation (10^9 org)**	**Margin of Safety (10^9 org)**	**TMDL (10^9 org)**
Elk River 579	High Flow	313.33	20692.23	50965.21	13708.72	85679.49
	Wet	313.33	7824.77	19272.50	5221.07	32631.67
	Mid-Range	313.33	3906.40	9621.51	2636.43	16477.67
	Dry	313.33	2340.30	5764.20	1603.39	10021.22
	Low Flow	313.33	1149.01	2830.03	817.59	5109.96

Reasonable Assurance

The MPCA is responsible for applying federal and state regulations to protect and enhance water quality in Minnesota. The MPCA oversees stormwater management accounting activities for all permitted MS4 entities listed in this TMDL modification. The MS4 General Permit requires regulated municipalities to implement best management practices (BMPs) that reduce pollutants in stormwater to the maximum extent practicable. A critical component of permit compliance is the requirement for the owners or operators of a permitted MS4 conveyance to develop a SWPPP. The SWPPP addresses all permit requirements, including the following six measures:

- Public education and outreach
- Public participation
- Illicit discharge detection and elimination program
- Construction site runoff controls
- Post-construction runoff controls
- Pollution prevention and municipal good housekeeping measures

A SWPPP is a management plan that describes the MS4 permittee's activities for managing stormwater within their regulated area. The TMDL report and this modification assign WLAs to permitted MS4s in the study area. The MS4 permit requires applicants to submit information at the time of application on applicable WLAs. They must document how they will make progress on performance-based WLAs (bacteria, chloride, temperature), demonstrate they are currently meeting their numerical WLAs (oxygen demand, nitrate, total phosphorus or TSS), or develop a compliance schedule for those numerical WLAs that are not being met. A compliance schedule includes BMPs that will be implemented over the permit term, a timeline for their implementation, and a long-term strategy for continuing progress towards assigned WLAs. The MPCA requires MS4 owners or operators to submit their application and corresponding SWPPP document to the MPCA for review. Once the application and SWPPP are deemed complete by the MPCA, all application materials are placed on 30-day public notice, allowing the public an opportunity to review and comment on the prospective program.

Progress on BMP implementation must be reported annually. For WLAs being met at the time of permit application, the same level of treatment must be maintained in the future. Regardless of WLA attainment, all permitted MS4s are still required to reduce pollutant loadings to the maximum extent practicable.

The MPCA's stormwater program and its NPDES/SDS permit program are regulatory activities providing reasonable assurance that implementation activities are initiated, maintained, and consistent with WLAs assigned in this study.

Several nonpermitted reduction programs exist to support implementation of nonpoint source reduction BMPs in the Mississippi River -St. Cloud Watershed. Per the spending for water quality implementation projects website (data compiled by MPCA: Spending for water quality implementation projects), approximately 46 million dollars in state and federal grants, loans, local government and

landowner cost share match have been spent on nonpoint source projects since 2004 in the Elk River subwatershed. Efforts to reduce nonpoint source pollution loading will continue.

Implementation

This TMDL modification assigns a TSS WLA and an applicable *E. coli* WLA to Becker Township MS4. This will result in permit requirements for Becker Township MS4.

The TSS TMDL assigns no reductions to sources downstream of Big Elk Lake (see Section 6.1.2 of the TMDL report). Becker Township MS4 is located downstream of Big Elk Lake, so while they are assigned a TSS WLA, they will not have to make a TSS WLA determination in the next MS4 General Permit application for Elk River (07010203-579).

The MS4 General Permit has instituted performance-based requirements for MS4s with *E. coli* or fecal coliform WLAs requiring reductions. If future permit requirements remain the same, MS4s are expected to inventory potential *E. coli* or fecal coliform sources and prioritize reduction activities that address the identified sources. All of the permitted MS4s named in Table 2 have *E. coli* WLAs requiring reductions in this TMDL. All of the current MS4s had previous *E. coli* WLAs, so this modification will not result in additional permit requirements for them. As a new permittee, Becker Township MS4 did not have prior *E. coli* or fecal coliform WLAs, so this modification will result in additional permit requirements. Further information and up to date guidance can be found at Guidance for meeting bacteria TMDL MS4 permit requirements | Minnesota Stormwater Manual.

Prior to implementation, permitted MS4s are encouraged to compare their sewersheds (e.g., catchments, pipesheds, etc.) with the drainage areas for each impaired water body to ensure appropriate BMP crediting. If a permitted MS4 sewershed is different from what is defined as the drainage area in this report, the sewershed should be considered part of the MS4 contribution to the impaired water if sufficient evidence of the appropriate sewershed area is provided to the MPCA. With Agency approval, any wasteload-reducing BMP implemented since the TMDL baseline year within the sewershed will be creditable towards an MS4's load reduction for purposes of annual reporting and demonstrating progress towards meeting the WLA(s).

Projects undertaken recently may take a few years to influence water quality. Any wasteload-reducing BMP implemented after the baseline year (Table 1) will be creditable toward the MS4's load reductions. If a BMP was implemented during or just prior to the baseline year, the MPCA is open to presentation of evidence by the MS4 permit holder to demonstrate that it should be considered as a credit.