

2026 Modification to North Fork Crow River TMDL Bacteria, Nutrients, and Turbidity

GENERAL INFORMATION

TMDL project name	North Fork Crow River TMDL Bacteria, Nutrients, and Turbidity
Date of original EPA TMDL approval	April 8, 2015
TMDL Modification Public Notice Dates	January 5, 2026- February 4, 2026
TMDL Assessment Unit Identification (AUID) and pollutants that require modification	07010204-542 – Escherichia coli (<i>E. coli</i>) 86-0001-00 – total phosphorus (TP)
TMDL tables being modified	Table 2.5. Summary of permitted MS4s in the impaired reach watersheds. Table 2.8. Regal Creek <i>E. coli</i> impaired reach TMDL for each flow zone. Table 4.73. TMDL allocations for Foster Lake.

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, an additional two existing permittees due to changes in their MS4 regulated area, and multiple other existing MS4 permittee jurisdictional boundary changes within the TMDL project area. The adjustments will not change the approved overall total loading capacities of the TMDLs.

This memo does not reflect any wastewater modifications, expansions or corrections which may have affected the overall *E. coli* loading capacity. Wastewater permit limits are established at levels that do not contribute to impairments and wastewater treatment plant modification data are not readily available to incorporate into this modification.

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 (Table 2) will be required to account for the *E. coli* impaired Regal Creek reach and TP impaired Foster Lake (Table 1) in their SWPPPs when the MS4 General Permit is reissued.

- Wright County 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 reissued MS4 General Permit (expected in 2026).

Table 1. Water bodies and impairments requiring modifications.

AUID	Reach/ Water Body Name	Impairment	Baseline Year
07010204-542	Unnamed Creek (Regal Creek)	<i>E. coli</i>	2008
86-0001-00	Foster Lake	TP	2006

Table 2. Regulated MS4s and MS4 Permit Numbers within TMDL subwatersheds. Changes underlined.

Regulated MS4	MS4 Permit #	-542	86-0001-00
Albertville City MS4	MS400281	X	
Buffalo City MS4	MS400238	X	
Monticello City MS4	MS400242	X	
Otsego City MS4	MS400243	X	X
St Michael City MS4	MS400246	X	X
<u>MnDOT Metro District MS4</u>	<u>MS400170</u>		<u>X</u>
<u>MnDOT Outstate District MS4</u>	<u>MS400180</u>	<u>X</u>	
<u>Wright County MS4</u>	<u>MS400164*</u>	<u>X</u>	<u>X</u>

*proposed permit number

Explanation of modifications:

- There is one newly regulated MS4: Wright County (proposed permit number MS400164) (Table 2). When the TMDLs were approved on April 8, 2015, any stormwater contribution from Wright County was included in existing permittee's WLAs. Because it has been determined that Wright County will now be a regulated MS4 under the next MS4 General Permit, a portion of the MS4 WLA is being reallocated to WLA for the Wright County MS4.
- The regulated areas for the Minnesota Department of Transportation (MnDOT) Outstate District and Metro District MS4s have changed (per the 2020 Decennial Census urban area with population over 50,000) since the TMDLs were approved on April 8, 2015. MnDOT Outstate District MS4 is being added to the TMDL for the Regal Creek reach (AUID 07010204-542) and MnDOT Metro District MS4 is being added to the TMDL for the Foster Lake waterbody (86-0001-00). The MS4 WLAs are being re-distributed to account for these re-classified areas.
- WLAs for MS4s named in the original TMDLs were adjusted according to current MS4 jurisdictional boundaries. Adjustments are WLA 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 MS4 WLAs divided by the MS4 area.

Table 3. Transfer rates for WLA modifications.

AUID -impairment	Very high	High	Mid	Low	Dry	Units
542 - <i>E. coli</i>	0.013155	0.004575	0.001384	0.000505	0.000278	Billions org/ac/day
86-0001-00 -TP	0.000209					lbs/ac/day

The MPCA is proposing the following modifications:

Regal Creek, AUID 07010204-542

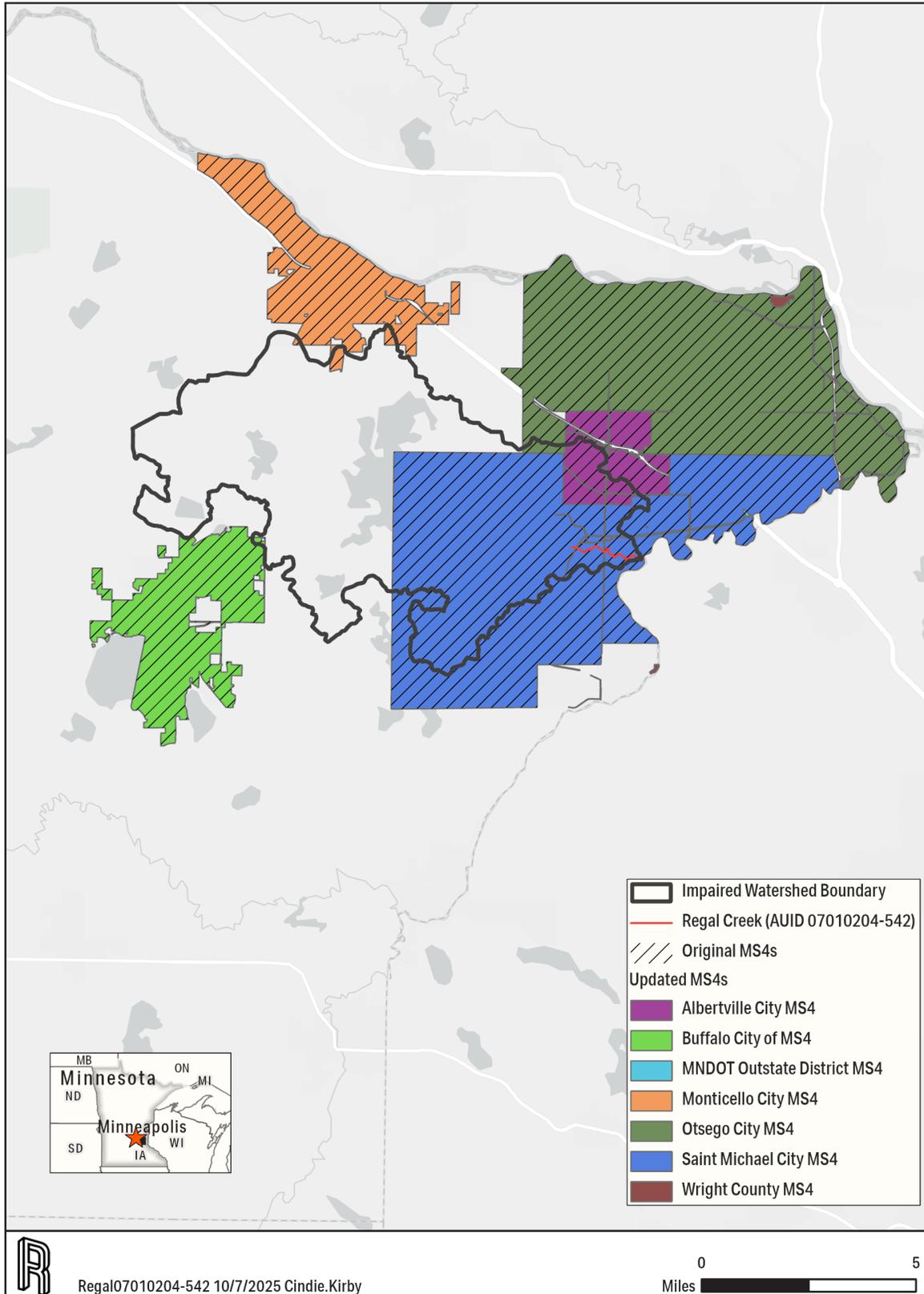
The MPCA is shifting between 0.005 and 5.035 billions of organisms/day of *E. coli* amongst all MS4s and flow zones from within the original MS4 permittees' WLAs (Modified Table 2.5; Modified Table 2.8).

Foster Lake, AUID 86-0001-00

The MPCA is shifting between 0.001 and 0.04 pounds/day of TP amongst all MS4s from within the original MS4 permittees' WLAs (Modified Table 4.73).

MAPS

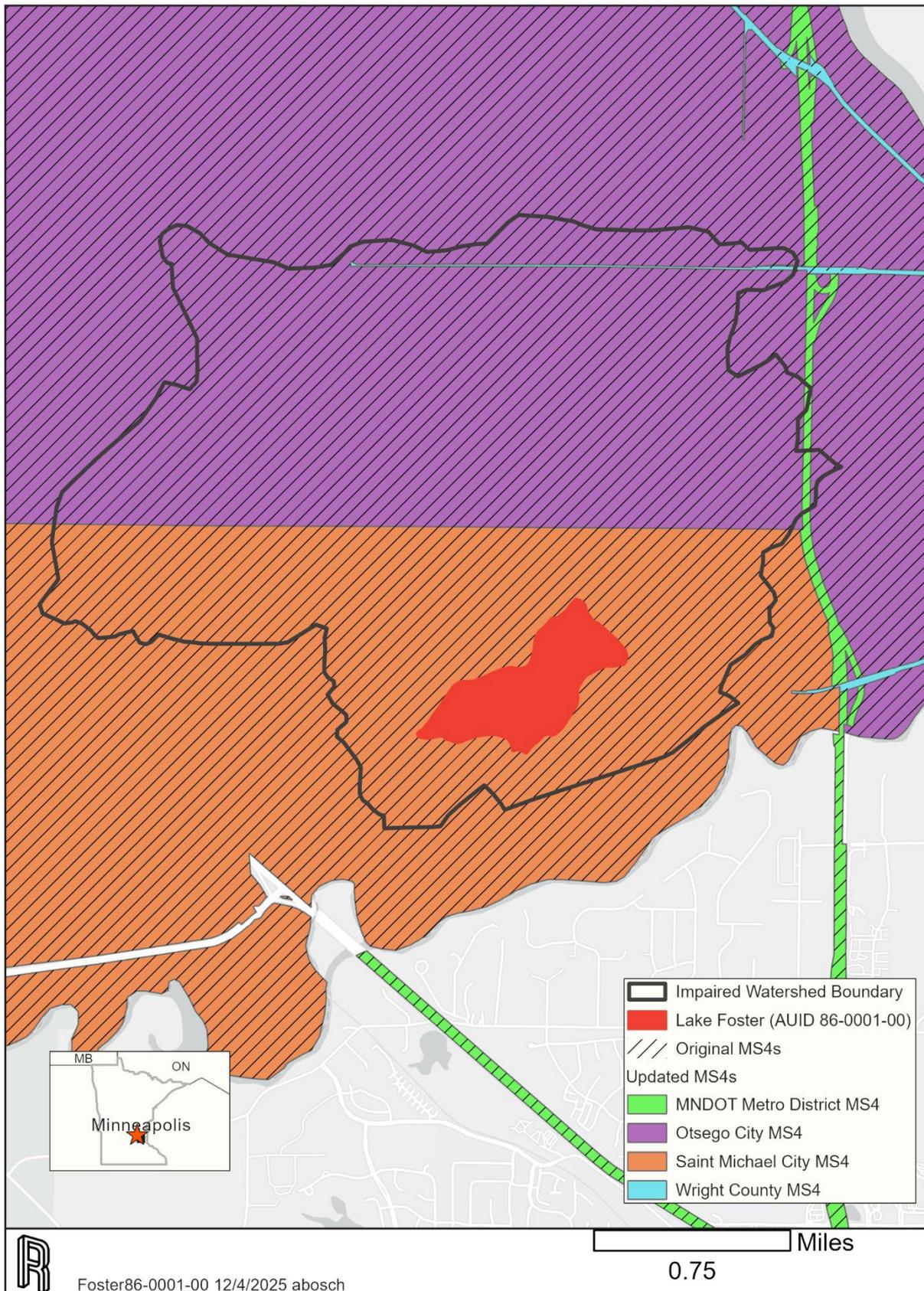
Figure 1. Regal Creek (AUID 07010204-542) *E. coli* TMDL Subwatershed and regulated MS4 areas.



Regal07010204-542 10/7/2025 Cindie.Kirby

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Miles

Figure 2. Foster Lake (AUID 86-0001-00) TP TMDL Subwatershed and regulated MS4 areas.



TABLES

Original Table 2.5. Summary of permitted MS4s in the impaired reach watersheds (pg. 2-17 of TMDL report).

Impaired Reach	MS4	Permit #	Area (acres)	<i>E. coli</i> Allocation (billions organisms/day)				
				Very High	High	Mid	Low	Dry
Regal Creek 07010204-542	Albertville City MS4	None	1,486	19.2	6.7	2.0	0.7	0.4
Regal Creek 07010204-542	Buffalo City MS4	MS 400238	32	0.4	0.1	<0.1	<0.1	<0.1
Regal Creek 07010204-542	Monticello City MS4	MS 400242	77	1.0	0.3	0.1	<0.1	<0.1
Regal Creek 07010204-542	Otsego City MS4	MS 400243	149	1.9	0.7	0.2	0.1	<0.1
Regal Creek 07010204-542	St Michael City MS4	MS 400246	11,704	150.9	52.5	15.9	5.8	3.2

Modified Table 2.5. Summary of permitted MS4s in the impaired reach watersheds (modifications highlighted in yellow).

Impaired Reach	MS4	Permit #	Area (acres)	<i>E. coli</i> Allocation (billions organisms/day)				
				Very High	High	Mid	Low	Dry
Regal Creek 07010204-542	Albertville City MS4	MS400281	1,077	14.2	4.9	1.5	0.5	0.3
Regal Creek 07010204-542	Buffalo City MS4	MS400238	33	0.4	0.2	<0.1	<0.1	<0.1
Regal Creek 07010204-542	Monticello City MS4	MS400242	175	2.3	0.8	0.2	0.1	<0.1
Regal Creek 07010204-542	Otsego City MS4	MS400243	148	2.0	0.7	0.2	0.1	<0.1
Regal Creek 07010204-542	St Michael City MS4	MS400246	11,640	153.1	53.2	16.2	5.9	3.2
Regal Creek 07010204-542	MNDOT Outstate District MS4	MS400180	17	0.2	0.1	<0.1	<0.1	<0.1
Regal Creek 07010204-542	Wright County MS4	TBD	91	1.2	0.4	0.1	<0.1	<0.1

Original Table 2.8. Regal Creek *E. coli* impaired reach TMDL for each flow zone (Page 2-18 of TMDL report).

Regal Creek 07010204-542		Flow Zones				
		Very High	High	Mid-Range	Low	Dry
		<i>E. coli</i> Load (billions of organisms/day)				
Total Daily Loading Capacity		452.7	157.4	47.6	17.2	9.7
Margin of Safety (MOS)		45.3	15.7	4.8	1.7	1.0
Wasteload Allocations	Permitted Point Source Dischargers	--	--	--	--	--
	Albertville City MS4	19.2	6.7	2.0	0.7	0.4
	Buffalo City MS4	0.4	0.1	<0.1	<0.1	<0.1
	Monticello City MS4	1.0	0.3	0.1	<0.1	<0.1
	Otsego City MS4	1.9	0.7	0.2	0.1	<0.1
	St. Michael City MS4	150.9	52.5	15.9	5.8	3.2
Load Allocation	Nonpoint source	234.0	81.4	24.6	8.9	5.0

Modified Table 2.8. Regal Creek *E. coli* impaired reach TMDL for each flow zone (modifications highlighted in yellow).

Regal Creek 07010204-542		Flow Zones				
		Very High	High	Mid-Range	Low	Dry
		<i>E. coli</i> Load (billions of organisms/day)				
Total Daily Loading Capacity		452.7	157.4	47.6	17.2	9.7
Margin of Safety (MOS)		45.3	15.7	4.8	1.7	1.0
Wasteload Allocations	Permitted Point Source Dischargers	--	--	--	--	--
	Albertville City MS4	14.2	4.9	1.5	0.5	0.3
	Buffalo City MS4	0.4	0.2	<0.1	<0.1	<0.1
	Monticello City MS4	2.3	0.8	0.2	0.1	<0.1
	Otsego City MS4	2.0	0.7	0.2	0.1	<0.1
	St. Michael City MS4	153.1	53.2	16.2	5.9	3.2
	MNDOT Outstate District MS4	0.2	0.1	<0.1	<0.1	<0.1
	Wright County MS4	1.2	0.4	0.1	<0.1	<0.1
Load Allocation	Nonpoint source	234.0	81.4	24.6	8.9	5.0

Original Table 4.73. TMDL allocations for Foster Lake (Page. 4-74 of TMDL report).

Allocation	Source	Existing TP Load		TP Allocations (WLA & LA)		Load Reduction	
		(lbs/year)	(lbs/day)	(lbs/year)	(lbs/year)	(lbs/day)	(lbs/year)
Wasteload	Construction & Industrial Stormwater	8.5	0.02	8.5	0.02	0	0%
	City of Otsego	547	1.5	143	0.4	404	74%
	City of St. Michael	294	0.8	77	0.2	217	74%
Load	SSTS	1	0.0	0	0.0	1	100%
	Atmosphere	27	0.1	27	0.1	0	0%
	Internal Load	2,312	6.3	135	0.4	2,177	94%
	MOS	--	--	20	0.1	--	--
	TOTAL	3,189.5	8.72	410.5	1.22	2,799	88%

Modified Table 4.73. TMDL allocations for Foster Lake (modifications highlighted in yellow).

Allocation	Source	TP Allocations (WLA & LA)	
		(lbs/year)	(lbs/day)
Wasteload	Construction & Industrial Stormwater	8.5	0.02
	City of Otsego	129	0.36
	City of St. Michael	89	0.24
	MNDOT Metro District	1	<.01
	Wright County	1	<.01
Load	SSTS	0	0.0
	Atmosphere	27	0.1
	Internal Load	135	0.4
	MOS	20	0.1
	TOTAL	410.5	1.22

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 Stormwater Pollution Prevention Program (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, TP, or total suspended solids [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 National Pollutant Discharge Elimination System (NPDES)/State Disposal System (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 North Fork Crow Watershed. Per the spending for water quality implementation projects website (data compiled by MPCA: [Spending for water quality implementation projects](#)), over 148 million dollars in state and federal grants, loans, local government and landowner cost share match have been spent on nonpoint source projects in the watershed since 2004. Efforts to reduce nonpoint source pollution loading will continue.

Implementation

This TMDL modification assigns an applicable TP WLA to Wright County MS4 and MnDOT Metro MS4. This will result in permit requirements for them. Small adjustments were made to WLAs for the other MS4 permittees listed in Table 2, which should not significantly impact WLA determinations in their future MS4 General Permit applications. Wright County MS4 and MnDOT Metro MS4 can meet their TMDL obligations by reviewing the WLA area for any opportunities for BMP implementation and exploring possible BMP collaborations with the cities of St Michael or Otsego. These efforts must be documented in subsequent MS4 Permit applications and annual reporting. Permittees can reference the Stormwater Manual for more information: [Making WLA determinations | Minnesota Stormwater Manual](#).

This TMDL modification assigns an applicable *E. coli* WLA to Wright County MS4 and MnDOT Outstate MS4. 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 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. Wright County MS4 does 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 \(state.mn.us\)](https://www.state.mn.us/mPCA/stormwater/guidance-for-meeting-bacteria-tmdl-ms4-permit-requirements).

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.