

2026 Modification to Typo and Martin Lakes Total Maximum Daily Load Report

GENERAL INFORMATION

TMDL project name	Typo and Martin Lakes TMDL
Date of original EPA TMDL Approval	June 20, 2012
TMDL Modification Public Notice Dates	January 5, 2026- February 4, 2026
TMDL Assessment Unit Identification (AUID) and pollutant that requires modification	02-0034-00 – total phosphorus (TP) 30-0009-00 – total phosphorus (TP)
TMDL tables being modified	Table 23. Martin Lake Allocation Summary. Table 24. Martin Lake WLAs. Table 25. Martin Lake LAs. Table 26. Typo Lake Allocation Summary. Table 27. Typo Lake WLAs. Table 28. Typo Lake LAs.

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 and one additional existing permittee due to changes in its MS4 regulated area 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 (Table 2) with assigned WLAs will be required to account for the TP impaired Martin Lake and Typo Lake (Table 1) in their SWPPPs when the MS4 General Permit is reissued.

- Linwood Township MS4 will be required to submit a SWPPP when they apply for permit coverage (expected in 2027).
- East Bethel City MS4 will be required to submit an updated SWPPP when they apply for permit coverage under the reissued MS4 General Permit (expected in 2026).

Table 1. Water bodies and impairments requiring modification.

AUID	Waterbody Name	Impairment	Baseline year
02-0034-00	Martin Lake	TP	2007
30-0009-00	Typo Lake	TP	2007

Table 2. Regulated MS4s and permit numbers within the TMDL Subwatersheds. Additions underlined.

Regulated MS4	MS4 Permit #	TMDL subwatersheds	
		02-0034-00	30-0009-00
East Bethel City MS4	MS400087	X	<u>X</u>
<u>Linwood Township MS4</u>	<u>MS400342*</u>	<u>X</u>	<u>X</u>

*Proposed permit number

Explanation of modifications:

- There is one newly regulated MS4: Linwood Township (proposed permit number MS400342) (Table 2). When the TMDLs were approved on June 20, 2012, any stormwater contribution from Linwood Township was considered unregulated stormwater and was covered under load allocation (LA) as it was not designated as an MS4. Because it has been determined that Linwood Township will now be a regulated MS4 under the next MS4 General Permit, a portion of LA is being reallocated to WLA for the Linwood Township MS4.
- East Bethel City MS4 is being added to the TMDL for Typo Lake (30-0009-00), as it now has regulated conveyance within the direct drainage. The transfer is LA to WLA.
- The WLA for East Bethel City MS4 named in the original Martin Lake (02-0034-00) TMDL was adjusted based on current jurisdictional boundaries within the direct drainage area. Adjustments include both LA to WLA and WLA to LA.

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).
- The rates in Table 3 were calculated as the sum of the watershed LAs and any MS4 WLAs divided by the watershed area.

Table 3. Transfer rates for WLA modifications.

AUID	Reach/ Water body name	Pollutant	Rate	Units
02-0034-00	Martin Lake	TP	0.00094	lb/ac/day
30-0009-00	Typo Lake	TP	0.00027	lb/ac/day

The MPCA is proposing the following modifications:

Martin Lake, AUID 02-0034-00

In order to accommodate the transfers in this modification, WLAs were calculated only for the direct drainage of Martin Lake. Boundary conditions were set for the other impaired lakes with approved TMDLs within the larger Martin Lake Watershed.

The MPCA is shifting 0.019 lb/day of TP from the East Bethel City MS4 to the Island Lake Watershed nonregulated LA (Modified Table 23; Modified Table 24; Modified Table 25). The MPCA is shifting 4.8912

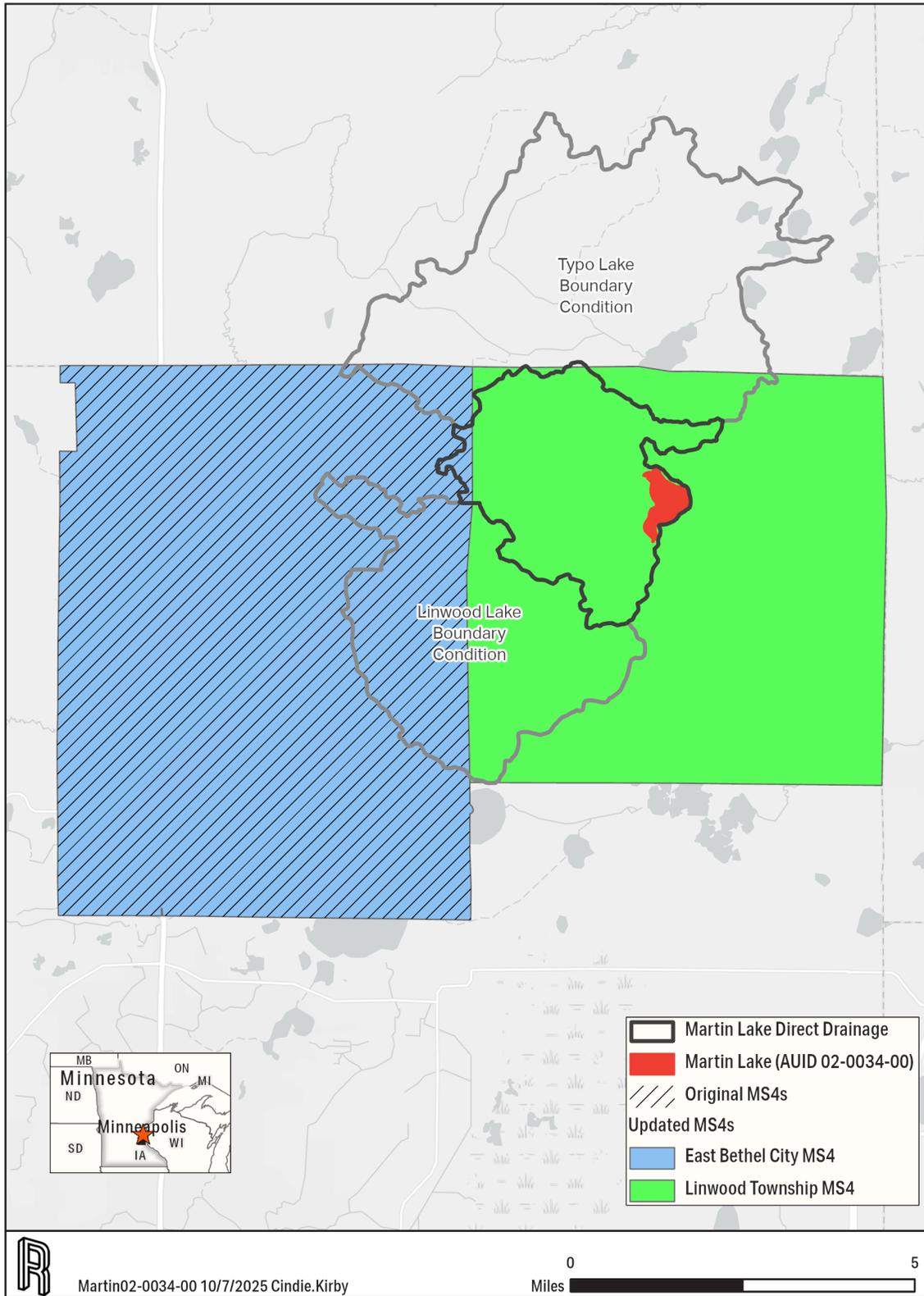
lb/day of TP from the Direct Watershed LA to the MS4 permittees' WLAs (Modified Table 23; Modified Table 24; Modified Table 25).

Typo Lake, AUID 30-0009-00

The MPCA is shifting 0.35 lb/day of TP from the Direct Watershed nonregulated LA to the MS4 permittees' WLAs (Modified Table 26; Modified Table 27; Modified Table 28).

MAPS

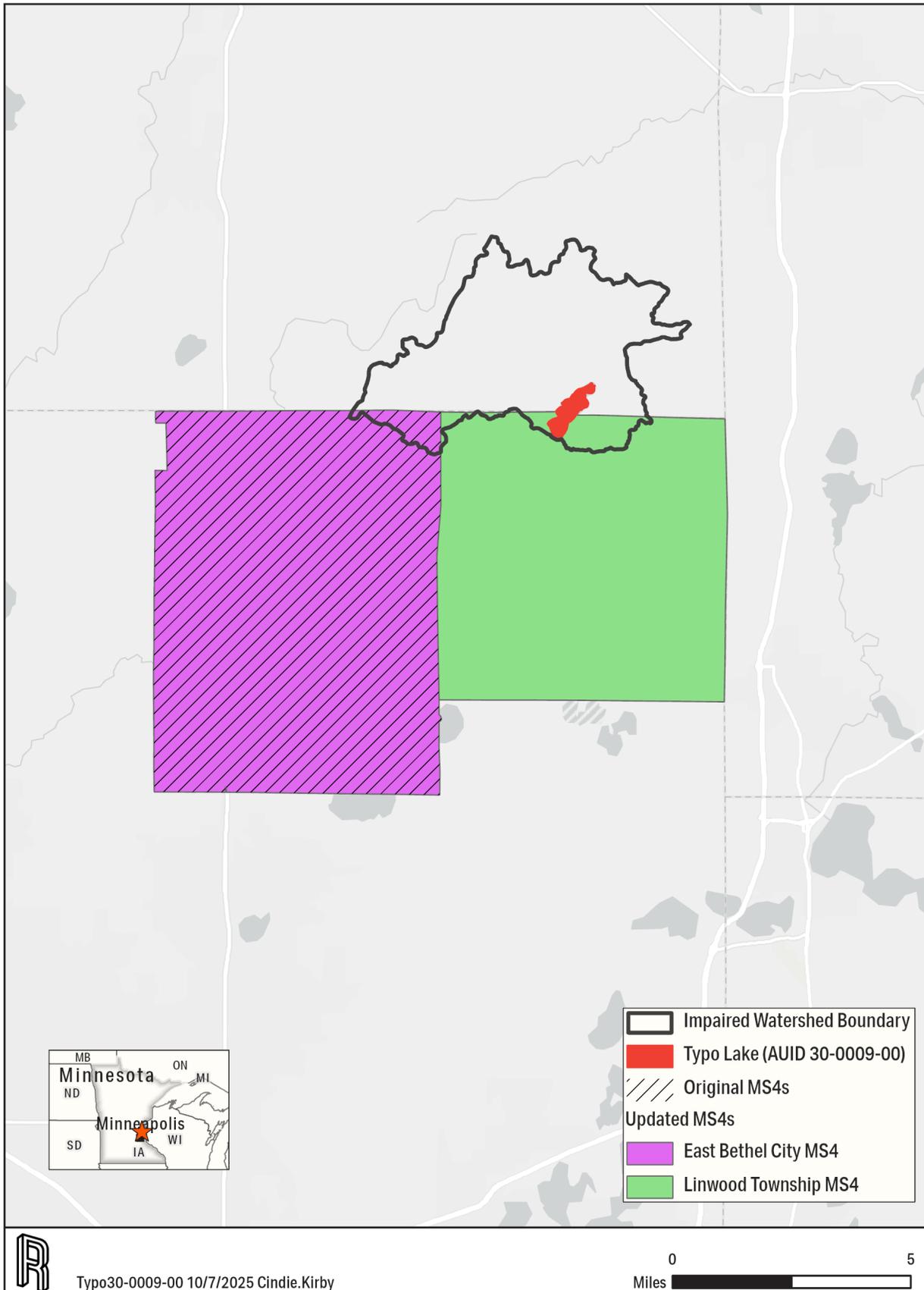
Figure 1. Martin Lake (AUID 02-0034-00) TP TMDL Subwatershed and regulated MS4 areas.



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Miles

Figure 2. Typo Lake (AUID 30-0009-00) TP TMDL Subwatershed and regulated MS4 areas.



TABLES

Original Table 23. Martin Lake Allocation Summary (pg. 57 of TMDL report).

Allocation	lb/yr	lb/day
WLA ¹	94	0.26
LA ²	3,722	10
MOS	424	1.2
TMDL	4,240	12

* MOS+WLA+LA do not equal TMDL due to rounding.
 1 Breakdown of the WLA can be found in Table 24.
 2 Breakdown of the LA can be found in Table 25.

Modified Table 23. Martin Lake Allocation Summary (modifications highlighted in yellow).

Allocation	lb/yr	lb/day
WLA ¹	1874	5.1
LA ²	1,942	5.3
MOS	424	1.2
TMDL	4,240	12

* MOS+WLA+LA do not equal TMDL due to rounding.
 1 Breakdown of the WLA can be found in Table 24.
 2 Breakdown of the LA can be found in Table 25.

Original Table 24. Martin Lake WLAs (Page 57 of TMDL report).

Source	Permit #	WLA	
		lb/yr	lb/day
Construction Stormwater	MNR100001	20	0.055
Industrial Stormwater	MNR50000	20	0.055
MS4 Stormwater, East Bethel (MS4 ID MS400087)	MNR04000	7.0	0.019
Wastewater Discharger, John Iacarella - Linwood Terrace Mobile Home Park WWTF	MN0054372	47	0.13

Modified Table 24. Martin Lake WLAs (modifications highlighted in yellow).

Source	Permit #	WLA	
		lb/yr	lb/day
Construction Stormwater	MNR100001	20	0.055
Industrial Stormwater	MNR50000	20	0.055
MS4 Stormwater, East Bethel (MS4 ID MS400087)	MNR04000	58	0.16
MS4 Stormwater, Linwood	TBD	1,729	4.7
Wastewater Discharger, John Iacarella - Linwood Terrace Mobile Home Park WWTF	MN0054372	47	0.13

Original Table 25. Martin Lake LAs (Page 58 of TMDL report).

Source	LA	
	lb/yr	lb/day
Direct Watershed	1,790	4.9
Island Lake Watershed Non-Regulated Load*	361	0.99
Typo Lake Watershed	1,507	4.13
SSTS	0	0
Atmospheric	64	0.18
Total	3,722	10

* Does not include the 47 lb/yr (0.13 lb/day) for the regulated load in Table 24.

Modified Table 25. Martin Lake LAs (modifications highlighted in yellow).

Source	LA	
	lb/yr	lb/day
Direct Watershed	3.2	0.0088
Island Lake Watershed Non-Regulated Load* (Linwood lake boundary condition)	368	1.0
Typo Lake Watershed (boundary condition)	1,507	4.13
SSTS	0	0
Atmospheric	64	0.18
Total	1,942	5.3

* Does not include the 47 lb/yr (0.13 lb/day) for the regulated load in Table 24.

Original Table 26. Typo Lake Allocation Summary (Page 59 of TMDL report).

Allocation	lb/yr	lb/day
WLA ¹	4.6	0.013
LA ²	1,459	4.0
MOS	163	0.45
TMDL	1,627	4.5

* MOS+WLA+LA do not equal TMDL due to rounding.

¹ Breakdown of the WLA can be found in Table 27.

² Breakdown of the LA can be found in Table 28.

Modified Table 26. Typo Lake Allocation Summary (modifications highlighted in yellow).

Allocation	lb/yr	lb/day
WLA ¹	150	0.41
LA ²	1,314	3.6
MOS	163	0.45
TMDL	1,627	4.5

* MOS+WLA+LA do not equal TMDL due to rounding.

¹ Breakdown of the WLA can be found in Table 27.

² Breakdown of the LA can be found in Table 28.

Original Table 27. Typo Lake WLAs (Page 59 of TMDL report).

Source	Permit #	WLA	
		lb/yr	lb/day
Construction Stormwater	MNR100001	2.3	0.0064
Industrial Stormwater	MNR50000 (No current regulated sources)	2.3	0.0064

Modified Table 27. Typo Lake WLAs (modifications highlighted in yellow).

Source	Permit #	WLA	
		lb/yr	lb/day
Construction Stormwater	MNR100001	2.3	0.0064
Industrial Stormwater	MNR50000(No current regulated sources)	2.3	0.0064
MS4 Stormwater, East Bethel (MS4 ID MS400087)	MNR04000	55	0.15
MS4 Stormwater, Linwood	TBD	90	0.25

Original Table 28 Typo Lake LAs (Page 59 of TMDL report).

Source	LA	
	lb/yr	lb/day
Direct Watershed Non-Regulated Load	1,078	2.95
SSTS	0	0
Internal	303	0.83
Atmospheric	78	0.21
Total	1,459	4.0

Modified Table 28 Typo Lake LAs (modifications highlighted in yellow).

Source	LA	
	lb/yr	lb/day
Direct Watershed Non-Regulated Load	933	2.6
SSTS	0	0
Internal	303	0.83
Atmospheric	78	0.21
Total	1,314	3.6

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 [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 Lower St Croix River Watershed. Per the spending for water quality implementation projects website (data compiled by MPCA: [Spending for water quality implementation projects](#)), 75 million dollars in state and federal grants, loans, local government and landowner cost share match have been spent on nonpoint source projects since 2004. Efforts to reduce nonpoint source pollution loading will continue.

Implementation

This TMDL modification assigns new applicable TP WLAs to Linwood Township MS4 and East Bethel City MS4. It also adjusts an existing WLA for East Bethel City MS4. This will result in permit requirements for both of the listed MS4 permittees.

When evaluating TP WLA attainment during permit application, permittees should evaluate the areas draining to stormwater conveyance within the impairment subwatershed within their jurisdictional boundary (Figure 1 and Figure 2). Any wasteload reducing BMPs implemented since the baseline year (Table 1) in those areas can be counted toward WLA attainment. The permittees can measure their progress against a loading rate of 0.19 lb/ac/yr TP for all the TMDLs in this modification. See [Making WLA determinations | 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 of the impaired waterbody 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 years noted in 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.