2026 Modification to Chisago Lakes Chain of Lakes Watershed Total Maximum Daily Load Study

GENERAL INFORMATION

TMDL project name	Chisago Lakes Chain of Lakes Watershed TMDL Study
Date of original EPA TMDL Approval	February 20, 2013
TMDL Modification Public Notice Dates	January 5, 2026- February 4, 2026
TMDL Assessment Unit Identification (AUID) and pollutants that require modification	13-0046-00 – total phosphorus (TP) 13-0029-00 – total phosphorus (TP)
TMDL tables that are being modified	Table 34 – Lake Emily TP Allocations Table 70 – Wallmark Lake TP Allocations

EXPLANATION OF MODIFICATION

What is being changed from the final Chisago Lakes Chain of Lakes Watershed Total Maximum Daily Load (TMDL) Study 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 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?

The permitted MS4 with the assigned WLA will be required to account for the TP impaired Emily Lake and Wallmark Lake (Table 1) in its SWPPP when the MS4 General Permit is reissued.

- Chisago City MS4 (Table 2) will be required to submit a SWPPP when they apply for permit coverage (expected in 2027).

Table 1. Currently regulated and newly regulated MS4 within the TMDL subwatersheds.

AUID	Water body Name	Current MS4s included in TMDL to be maintained	New MS4s	Impairment	Baseline
13-0046-00	Emily Lake	None	Chisago City MS4	TP	2009
13-0029-00	Wallmark Lake	None	Chisago City MS4	TP	2010

Table 2. Regulated MS4s and Proposed MS4 Permit Numbers.

Regulated MS4	MS4 Permit #
Chisago City MS4	MS400339*

*proposed permit number

Explanation of modifications:

There is one newly regulated MS4 within the TMDL subwatersheds: Chisago City (proposed permit number MS400339) (Table 1; Table 2). When the TMDLs were approved on February 20, 2013, any stormwater contributions from Chisago City were considered unregulated stormwater and were covered under the load allocations (LAs) as it was not designated as an MS4. Because it has been determined that Chisago City will now be a regulated MS4 under the next MS4 General Permit, a portion of the LA is being reallocated to WLA for the Chisago City MS4.

Transfer Methodology

Emily Lake- the entire TMDL subwatershed is within Chisago City (Figure 1). Therefore, the entire watershed LA was transferred to Chisago City MS4 WLA.

Wallmark Lake – 0.12 TP lb/ac/yr multiplied by the jurisdictional area of Chisago City within the TMDL subwatershed (Figure 2). See Section 12.8 of the original TMDL.

The MPCA is proposing the following modifications:

Emily Lake, AUID 13-0046-00

The MPCA is shifting all 0.017 lb/day of TP from the Watershed LA to the MS4 permittee's WLA (Modified Table 34).

Wallmark Lake, AUID 13-0029-00

The MPCA is shifting 0.085 lb/day of TP from the Watershed LA to the MS4 permittee's WLA (Modified Table 70).

MAPS

Figure 1. Emily Lake (AUID 13-0046-00) TP TMDL Subwatershed and Regulated MS4 Area.

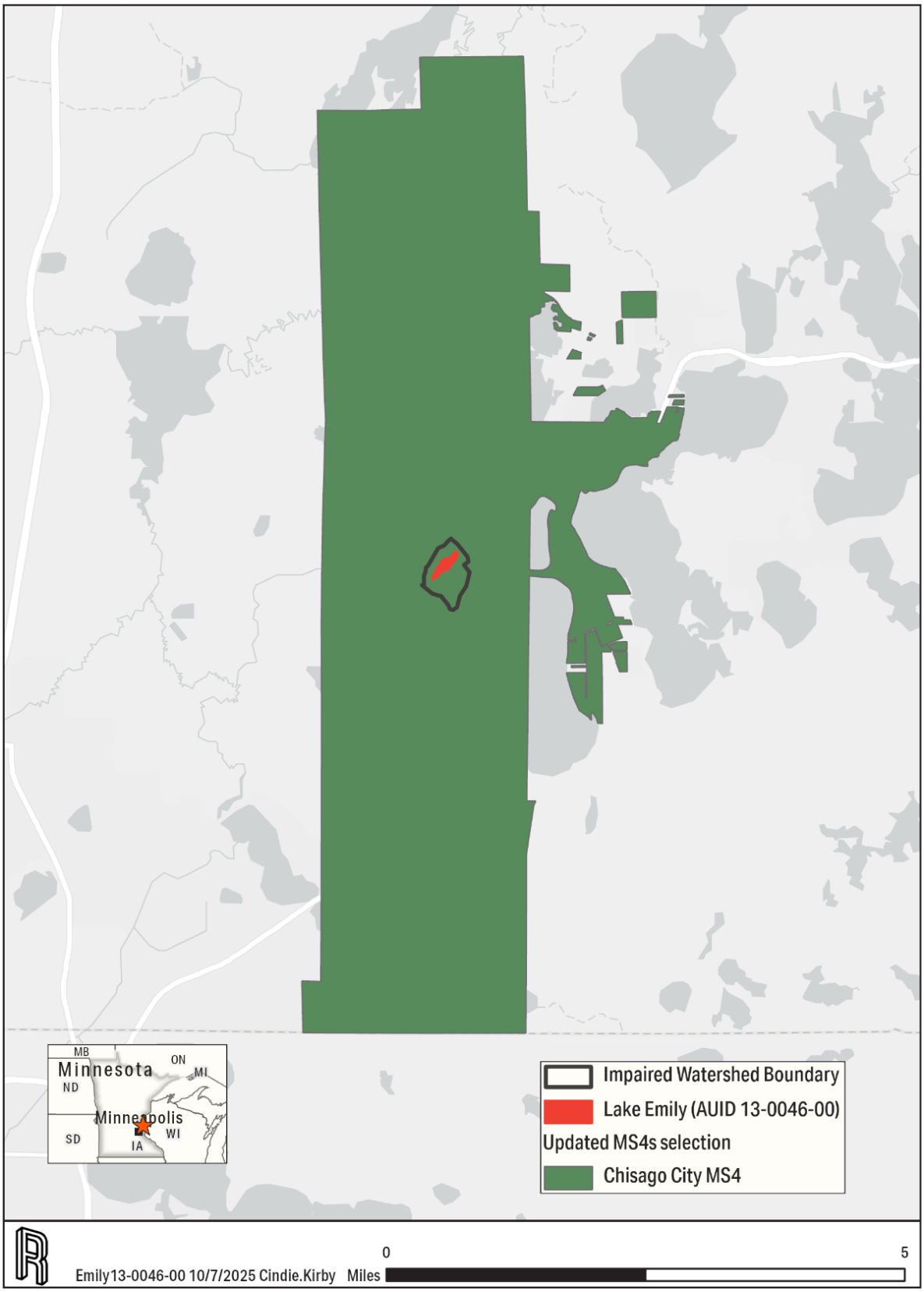
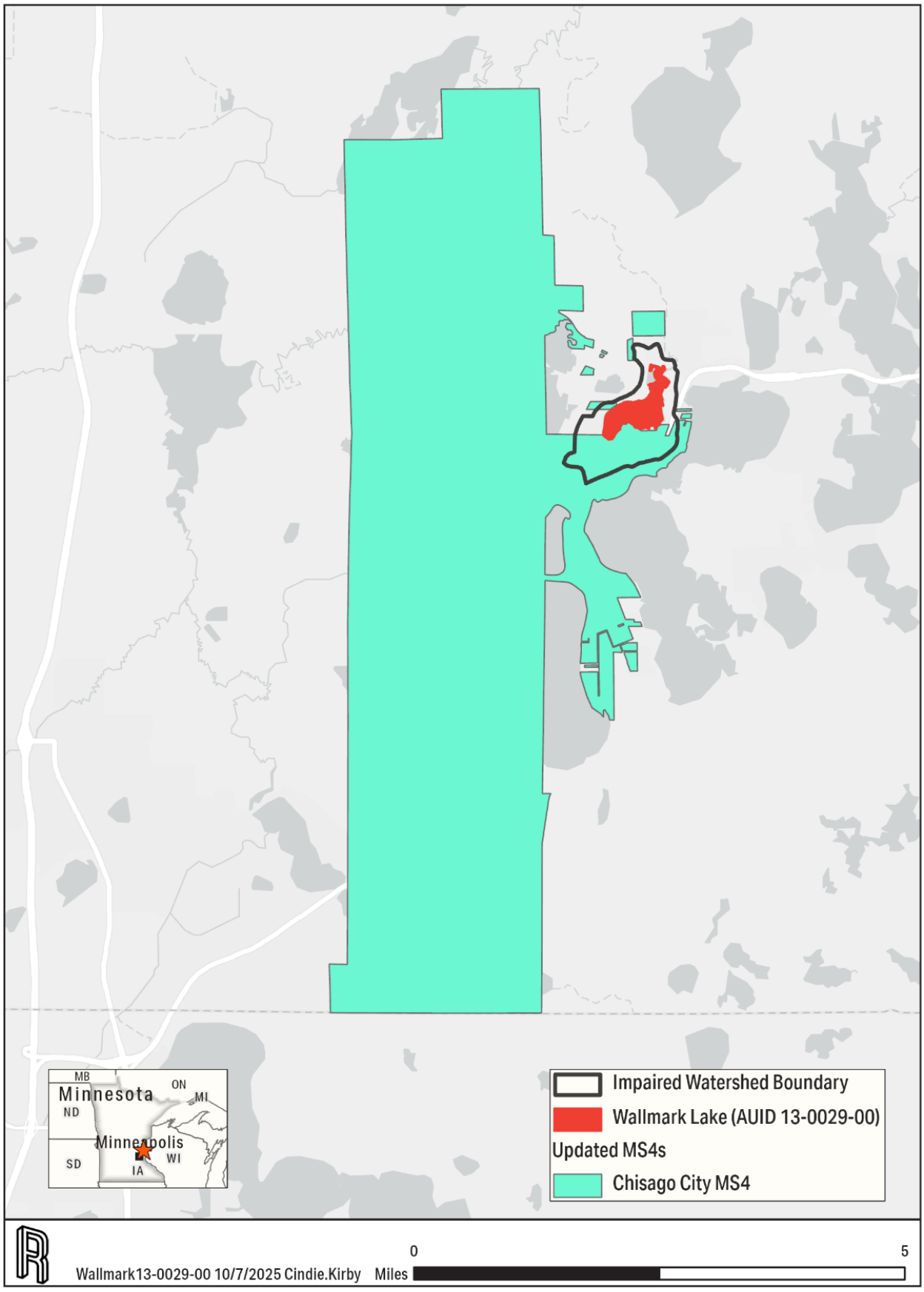


Figure 2. Wallmark Lake (AUID 13-0029-00) TP TMDL Subwatershed and Regulated MS4 Area.



TABLES

Original Table 34 – Lake Emily TP Allocations (Page 90 of TMDL report).

Load Component	TP Existing	TP TMDL Allocation		TP Reduction	
	lb/yr	lb/yr	lb/day	lb/yr	%
WLA					
Construction stormwater (permit #MNR100001)	0.0099	0.0099	0.000027	0	0%
Industrial stormwater (permit # MNR50000)	0.0099	0.0099	0.000027	0	0%
Total WLA	**0.020**	**0.020**	**0.000054**	**0**	**0%**
LA*					
Watershed	106	6.2	0.017	100	94%
Atmospheric	4.6	4.6	0.013	0	0%
Internal	278	16	0.044	262	94%
Total LA	**389**	**27**	**0.074**	**362**	**93%**
MOS	**--**	**3**	**0.0082**		
Total	***389***	***30***	***0.082***		

*LA components are broken down for guidance in implementation planning; loading goals for these components may change through the adaptive implementation process, but the total LA for each lake will not be modified from the total listed in the table above.

Modified Table 34 – Lake Emily TP Allocations (modifications highlighted in yellow).

Load Component	TP TMDL Allocation	
	lb/yr	lb/day
WLA		
Construction stormwater (permit #MNR100001)	0.0099	0.000027
Industrial stormwater (permit # MNR50000)	0.0099	0.000027
Chisago City MS4	6.2	0.017
Total WLA	**6.2**	**0.017**
LA*		
Watershed	0.0	0.0
Atmospheric	4.6	0.013
Internal	16	0.044
Total LA	**21**	**0.057**
MOS	**3**	**0.0082**
Total	***30***	***0.082***

*LA components are broken down for guidance in implementation planning; loading goals for these components may change through the adaptive implementation process, but the total LA for each lake will not be modified from the total listed in the table above.

Original Table 70 – Wallmark Lake TP Allocations (Page 134 of TMDL report).

Load Component	TP Existing	TP TMDL Allocation		TP Reduction	
	lb/yr	lb/yr	lb/day	lb/yr	%
WLA					
Construction stormwater (permit #MNR100001)	0.074	0.074	0.00020	0	0%
Industrial stormwater (permit # MNR50000)	0.074	0.074	0.00020	0	0%
Total WLA	**0.15**	**0.15**	**0.00040**	**0**	**0%**
LA*					
Watershed	1,098	46	0.13	1,052	96%
Atmospheric	40	40	0.11	0	0%
Internal	3,075	130	0.36	2,945	96%
Total LA	**4,213**	**216**	**0.60**	**3,997**	**95%**
MOS	**--**	**24**	**0.066**		
Total	***4,213***	***240***	***0.67***		

*LA components are broken down for guidance in implementation planning; loading goals for these components may change through the adaptive implementation process, but the total LA for each lake will not be modified from the total listed in the table above

Modified Table 70 – Wallmark Lake TP Allocations (modifications highlighted in yellow).

Load Component	TP TMDL Allocation	
	lb/yr	lb/day
WLA		
Construction stormwater (permit #MNR100001)	0.074	0.00020
Industrial stormwater (permit # MNR50000)	0.074	0.00020
Chisago City MS4	31	0.085
Total WLA	**31**	**0.085**
LA*		
Watershed	15	0.045
Atmospheric	40	0.11
Internal	130	0.36
Total LA	**185**	**0.52**
MOS	**24**	**0.066**
Total	***240***	***0.67***

*LA components are broken down for guidance in implementation planning; loading goals for these components may change through the adaptive implementation process, but the total LA for each lake will not be modified from the total listed in the table above.

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. This TMDL modification assign WLAs to a permitted MS4 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 Chisago City MS4. This will result in permit requirements for Chisago City MS4.

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 permittee can measure their progress against a loading rate of 0.19 lb/ac/yr TP for all 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 water body 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 **Error! Reference source not found.** 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.