LOWER ST. CROIX WATERSHED PARTNERSHIP

MEMORANDUM

To: Lower St. Croix River CWMP Review Authorities
From: Lower St. Croix Watershed Partnership
Date: May 30, 2025

RE: Proposed Minor Amendment to Lower St. Croix River Comprehensive Watershed Management Plan

The Lower St. Croix Watershed Partnership (LSCWP) Policy Committee met on April 28th and recommended that the LSCWP local governing boards approve the enclosed minor amendments to the Lower St. Croix River Comprehensive Watershed Management Plan (CWMP). Each of the fifteen local governing boards has approved distribution of the amendment for review as of May 28, 2025.

At this time, the LSCWP is releasing the proposed minor amendments to the Minnesota Board of Water & Soil Resources (BWSR), Minnesota Tribal Nations with reserved lands or rights within the Lower St. Croix River planning boundary, and other required plan review authorities for a 30-day review and comment period. The LSCWP is proceeding with minor plan amendment procedures established by BWSR on August 24, 2023 and as directed by the current Lower St .Croix River CWMP.

Any comments on these proposed minor plan amendments shall be submitted by email to both of the following contacts no later than 4:30pm on Thursday, July 3, 2025.

Michelle Jordan, BWSR Board Conservationist: michelle.jordan@state.mn.us
Kyle Axtell, South Washington Watershed District: kyle.axtell@swwdmn.gov

The LSCWP Policy Committee has scheduled a public hearing on the proposed amendments during its regular meeting to be held on July 28, 2025 at 4:00pm. This meeting will be held in-person with a Zoom call-in option. The location of the in-person meeting has not yet been determined. Please visit the LSCWP website for public hearing location updates: https://www.lsc1w1p.org/meetings-committees.

Comments received by July 7, 2025 will be presented to the LSCWP Policy Committee during the public hearing along with responses from the amendment proposers (South Washington Watershed District and Pine County Soil & Water Conservation District). After the public hearing is complete, the LSCWP Policy Committee may take action to approve the minor amendments during the regular agenda of its July 28, 2025 meeting.

Proposed Lower St. Croix River CWMP Minor Plan Amendments and Rationale

1) Adjust language to priority location descrptions found within Table 5-1 (Part C #43) of the Plan to expand the priority areas for forest management or woodland stewardship plans:

   - Areas located along bluffland or adjacent to publicly owned forest land such as state parks and trails **and parcels eligible for a DNR woodland stewardship plan that drain to regionally significant rivers and streams for pollutant reductions (Table 5-2) or regionally significant lakes for pollutant reductions or protection (Table 5-3)**.

By making this adjustment to further define priority areas for woodland stewardship plans, the Plan will better address protection of private forested acres in regions of the watershed that still have substantial forested areas. Intact and productive forest lands provide an expansive array of ecosystem services, including water storage, surface water infiltration, groundwater protection, and reduction of velocity of surface water flow. By working towards private forest land protection, the Plan will help protect water quality benefits. An eligible property for a DNR woodland stewardship plan is one that is 20 to 5,000 acres where at least 10 acres have or will have trees. The size of properties that are eligible is one of the reasons why an expansion of priority areas is recommended. The scale at which the watershed needs to look at properties of that size should be increased in order for the watershed to successfully accomplish related protection goals laid out in the Plan. Priority waterbodies that would benefit from this can be found on Table 5-2 and Table 5-3.

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2) Modify Table 5-2 (Regionally Significant Rivers and Streams for Pollutant Reductions) as follows:

Table 5-2. Regionally Significant Rivers and Streams for Pollutant Reductions (See Figure 5-2)

Stream Name	Lake St. Croix TMDL Total Phosphorus Reduction Goal (lbs/yr)[1]	10-year TP Reduction Goal (lbs/yr)[2]
Sunrise River and Tributaries	18,306	2,256
Lawrence Creek[3]	1,177	118
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Valley Branch (includes Valley Creek and Kelle's Creek)	968	97
Trout Brook[3]	1,419	142
~~Small Streams Draining to St. Croix River (south of Lawrence Cr & north of Valley Br.)~~	~~6,450~~	~~645~~
Rock Creek	3,512	351
Rush Creek	2,451	245
Goose Creek	2,980	298
St. Croix River (including small stream and direct drainage areas and excluding local landlocked basin areas)	**9,839**	**984**
TOTAL	~~38,111~~ **41,500**	~~4,237~~ **4,576**

(1) Table B-7, 2012 Lake St. Croix Total Maximum Daily Load Study
(2) 10% per stream + 425 lbs for stream restoration projects in Sunrise River Watershed
(3) According to Lake St. Croix TMDL: Actual phosphorus load reduction goals in Lawrence Creek, Valley Branch, and Trout Brook may be smaller than shown (possibly even zero) due to substantial landlocked portions resulting in smaller drainage areas than those used to calculate load reductions.
(4) Browns Creek reduction goal based on Implementation Plan for Lake St. Croix Nutrient TMDL (2013), App B.

3) Modify Figure 5-2 (Regionally Significant Rivers and Streams) as attached to include subwatershed boundaries of the areas identified in the amended Table 5-2, consistent with the existing definition of "Direct drainage and direct catchments" on page 59 of the Plan:

Direct drainage and direct catchments: The stream, river, or land area that drains directly to the St. Croix River or Lake St. Croix and that is downstream of a pollutant-mitigating feature such lake, impoundment, pond, or large wetland. (Does not apply in Sunrise River due to the significant pollution contributions from the entire subwatershed and the complex nature of wetlands, impoundments, and connected drainage areas throughout the subwatershed.)

4) Adjust language to priority location descriptions found within Table 5-1 (Part A #2, Part B #14, and Part D #55) to reflect the changes made in items #2 and #3 above:

   - Direct drainage areas to St. Croix River **including** through Rock, Rush, Goose, Lawrence, and Browns Creeks and Trout Brook and other small streams shown in Figure 5-2**, excluding local landlocked basins**.

Making the minor changes in items #2 through #4 above will correct an ongoing situation whereby the Plan, as currently written, does not recognize its titular waterbody as a regionally significant waterbody worth protecting through implementation of pollutant reductions as otherwise prescribed within the Plan. The modified load reduction goals for direct drainage areas in Table 5-2 are pulled directly from the Lake St. Croix TMDL. The amendment further clarifies the specific exclusion of local land-locked basins consistent with the original intent of the Plan.

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Proposed replacement pages follow.

B. 2021 – 2030 Implementation Table: Table 5-1

Table 5-1 Part A. Implementation Actions for Agricultural Lands

Table 5-1 Part A: Implementation for Agricultural Lands		Years 1 - 2	Years 3 - 4	Years 5 - 6	Years 7 - 8	Years 9 - 10	10-year Estimated Cost	10-year Estimated Local Funds	10-year Existing Stable External Funding	Add't External Funds Needed	Imp. Entity	Support Agency
	Implementation Actions	**Estimated Costs**										
	(A) Shared Services: Hire or contract with agricultural conservationist and agronomist for basin wide assistance with agronomy, outreach, and technical assistance to agricultural producers including conservation planning and nutrient management plans. [Approximately 80% of this position's time will be directly working with agricultural producers in the LSC Watershed to identify economical farming practices with water quality benefits to make them a routine part of farm operations. A target is to interact with operators of >3,000 acres. 20% of the position will be support of implementation of BMPs led by others.]	$250,000	$250,000	$250,000	$250,000	$250,000	$1,250,000	$0	$0	$1,250,000	LSC Partnership	BWSR MDA NRCS U of M Ext
	(A) Provide cost share for installing or implementing agricultural best management practices, both structural and non-structural (e.g. soil health BMPs, feedlot improvements, buffers, swales, etc.). Projects to be chosen through targeting and prioritization process described in Section VII.B.	$690,000	$940,000	$1,190,000	$1,190,000	$1,190,000	$5,200,000	A $20,000 C $200,000 I P $5,000 W $250,000 **$475,000**	A C $200,000 I $40,000 P W $150,000 **$390,000**	$4,335,000	SWCD WMO WD CLLID	BWSR NRCS MDA MDH
	(C) Provide conservation planning, technical assistance and education on agricultural best management practices through existing local staff and local initiatives	$547,800	$547,800	$547,800	$547,800	$547,800	$2,739,000	A C I P $15,000 W $1,700,000 **$1,715,000**	A C $500,000 I $24,000 P W $500,000 **$ 1,024,000**	$0	SWCD WMO WD	BWSR NRCS MDA U of M Ext
	Priority Location	**Measurable Output**	**Output by Biennium**									
1. GW Quality **(Table 3-1 GW1A, 2B)**	Basin Wide Priority - Agricultural lands where: 1) DWSMA vulnerability is moderate, high, or very high; or 2) Pollution sensitivity to wells is high or very high; or 3) Pollution sensitivity to near surface materials is karst or high; or 4) Well testing show ≥ 5 mg/L nitrate See **Figure 5-1**	Install BMPs on 2,200 acres that improve soil health and/or reduce nitrogen and pesticide pollution to groundwater	300 ac	400 ac	500 ac	500 ac	500 ac					
2. Rivers & Streams + St. Croix River WQ **(Table 3-1 R&S 1A; STC 1B, C)**	Regionally Significant Rivers and Streams: - All streams and tributaries in Sunrise River Watershed (whole watershed regardless of direct drainage) - Direct drainage areas to St. Croix River including through Rock, Rush, Goose, Lawrence, and Browns Creeks and Trout Brook and other small streams shown in **Figure 5-2**, excluding local landlocked basins See **Table 5-2** for streams and total phosphorus reduction goals; see **Figure 5-2**	Reduce total phosphorus by 3,300 lbs/year (install approximately 220 BMPs @ estimated 15 lbs/BMP) and reduce TSS, bacteria, and nitrogen as secondary benefit	450 lbs TP (approx. 30 BMPs)	600 lbs TP (approx. 40 BMPs)	750 lbs TP (approx. 50 BMPs)	750 lbs TP (approx. 50 BMPs)	750 lbs TP (approx. 50 BMPs)					

Table 5-1 Part B: Implementation for Developed and Developing Lands			Years 1 - 2	Years 3 - 4	Years 5 - 6	Years 7 - 8	Years 9 - 10	10-year Estimated Cost	10-yr Estimated Local Funds	10-year Existing Stable External Funding	Add't External Funds Needed	Imp. Entity	Support Agency
12. GW recharge & stream flow **(Table 3-1 GW 2B, R&S 3A)**	In critical groundwater recharge areas as identified in existing or future maps or studies	Retrofit 20 existing developments with infiltration, recharge and reuse projects	4 projects	4 projects	4 projects	4 projects	4 projects						
13. St. Croix River flows **(Table 3-1 STC 3A)**	Direct catchments to the St. Croix River and Lake St. Croix	Evaluate and update small storm volume control and large storm rate control ordinances in 4 communities			2 LGUs	2 LGUs							
14. St. Croix River + Rivers & streams WQ **(Table 3-1 STC 1B; R&S 1A)**	Regionally Significant Rivers and Streams: - All streams and tributaries in Sunrise River Watershed (whole watershed regardless of direct drainage) - Direct drainage areas to St. Croix River including through Rock, Rush, Goose, Lawrence, and Browns Creeks and Trout Brook and other small streams shown in **Figure 5-2**, excluding local landlocked basins See **Table 5-2** for streams and total phosphorus reduction goals; See **Figure 5-2**	Reduce TP by 100 lbs. (approximately 100 BMPs) and reduce TSS, bacteria, and nitrogen as secondary benefit [Assume 1 lb/BMP; typical reduction for raingarden or similar BMP]	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)						
15. Lake WQ **(Table 3-1 LK 1B)**	Regionally Significant Lakes for Urban BMPs See **Table 5-3** for lakes and total phosphorus reduction goals; See **Figure 5-3**	Reduce TP by 100 lbs. (approximately 100 BMPs) and reduce TSS, bacteria, and nitrogen as secondary benefit [Assume 1 lb/BMP; typical reduction for raingarden or similar BMP]	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)						
16. St. Croix River chlorides **(Table 3-1 STC 1D)**	Basin wide	75% of all cities have staff certified in MPCA's Level 1 and Level 2 Smart Salting Training	Total of 15% of cities	Total of 30% of cities	Total of 45% of cities	Total of 60% of cities	Total of 75% of cities						
	Implementation Action		**Estimated Costs**										
	(C) Contact highest urban/suburban groundwater consumers; provide cost share to install smart irrigation technologies		$0	$290,000	$290,000	$0	$0	$580,000	A C I P W $100,000 **$100,000**	A $10,000 C I P W **$10,000**	$470,000	COs SWCDs WDs WMOs	MDNR U of M Ext

Table 5-1 Part C: Implementation for Ecosystem Services			Years 1 - 2	Years 3 - 4	Years 5 - 6	Years 7 - 8	Years 9 - 10	10-year Estimated Cost	10-yr Estimated Local Funds	10-year Existing Stable External Funding	Add't External Funds Needed	Imp. Entity	Support Agency
41. Land protection **(Table 3-1 UP 1C, LK 1B)**	First priority: Areas where upland habitat is fractured and shoreline areas where there is high to moderate development or land under future development pressure Second priority: Basin wide	Create 20 new Landscape Stewardship Plans	4 new plans	4 new plans	4 new plans	4 new plans	4 new plans						
42. Habitat improve **(Table 3-1 UP 2C)**	Basin wide based on prioritized mapping including MLCCS maps and other critical habitat mapping	1,000 new acres managed for better habitat, or as recommended in Landscape Stewardship Plans	200 new acres managed	200 new acres managed	200 new acres managed	200 new acres managed	200 new acres managed						
43. Protected lands **(Table 3-1 UP 2B)**	Areas located along bluffland or adjacent to publicly owned forest land such as state parks and trails and parcels eligible for a DNR woodland stewardship plan that drain to regionally significant rivers and streams for pollutant reductions **(Table 5-2)** or regionally significant lakes for pollutant reductions or protections **(Table 5-3)**	Increase acres under private Forest Management Plans or Woodland Stewardship Plans by 20% [23 plans over 10 years]	4 new plans developed	4 new plans developed	4 new plans developed	4 new plans developed	7 new plans developed						
							TOTAL "A" High Priorities for WBIF	**$4,330,000**	**$1,431,500**	**$155,000**	**$2,743,500***		
							TOTAL "B" Secondary Priorities for WBIF	**$2,650,000**	**$140,000**	**$90,000**	**$2,420,000***		
							TOTAL "C" Local Priorities	**$5,035,000**	**$2,061,900**	**$1,582,000**	**$1,391,100**		
							TABLE 5-1, Part C: GRAND TOTAL	**$12,015,000**	**$3,633,400**	**$1,827,000**	**$6,554,600**		

*This total may not reflect the true additional external funding need given significant variation in existing local and stable external funds between counties and LSC Partners.

Table 5-1 Part D. Implementation for Prioritization and Analysis

	Goals & Issues Table 3-1	Priority Locations	Measurable Outputs	Implementation Actions	Years 1 - 2	Years 3 - 4	Years 5 - 6	Years 7 - 8	Years 9 - 10	10-year Estimated Cost	10-yr Estimated Local Funds	10-year Existing Stable External Funding	Add't External Funds Needed	Imp. Entity	Support Agency
55	**R&S 1A, STC 4B**	Regionally Significant Rivers and Streams: - Streams and tributaries in Sunrise R. Watershed - Direct drainage areas to St. Croix River including through Rock, Rush, Goose, and Browns Creeks and Trout Brook and other small streams as shown in **Table 5-2** and **Figure 5-2**, excluding local landlocked basins	20 subwatershed project targeting analyses are completed (estimated $10,000 - $50,000/SWA or $30,000 ave)	mapping, modeling, cost benefit analyses, or other data-driven targeting activities. See Section VII.B. for further description.	$150,000 (5 SWAs)	$150,000 (5 SWAs)	$120,000 (4 SWAs)	$90,000 (3 SWAs)	$90,000 (3 SWAs)						
56	**STC 4A, 4C**	Tributaries to the St. Croix	Coordinated hydrologic, chemical, and biological monitoring of the St. Croix River and its tributaries; nutrient loading data of major tributaries to the St. Croix River is evaluated.	Operate up to 10 new monitoring stations that lack data (quality and quantity) to evaluate progress toward achieving the TMDL and to identify priority subwatersheds. @ $10,000/year/station	$100,000	$200,000	$200,000	$200,000	$200,000	$900,000	A C I P W $100,000 **$100,000**	A C I P W **$0**	$800,000	Counties SWCDs WDs WMOS CLLID	MPCA SCRA Met Council USGS St. Cr Res Station Basin Team
57	**STC 3A**	Land use authorities in the St. Croix Riverway.	Evaluate the floodplain and zoning ordinances for consistency and effectiveness in protecting the floodplain function and preventing flood damages. Include impacts of variances in the evaluation.	Work with land use authorities along St. Croix River and MnDNR Area Hydrologists to evaluate floodplain and zoning ordinances and update where appropriate.	$50,000	$50,000	$50,000	$50,000	$50,000	$250,000	A C $50,000 I P W **$50,000**	A C $50,000 I P W **$50,000**	$150,000	Counties SWCDs WDs WMOS	MDNR SCRA
58	**STC 4B & UP 2A**	Intermittent and perennial tributaries and watercourses flowing directly to St. Croix River	Inventory and prioritize active erosion sites.	Identify, evaluate, and rank active gullies directly discharging into the St. Croix or its tributaries [LIDAR to identify gully locations; RUSLE & BWSR pollution reduction calculator to determine pollution reduction numbers]	$50,000	$50,000	$50,000	$50,000	$50,000	$250,000	A C I P W **$0**	A C $25,000 I P W **$25,000**	$225,000	Counties SWCDs WDs WMOS	MDNR BWSR
59	**STC 2B, 4C UP 1A**	Basin wide	Map priority restoration and protection areas for acquisition, easements, and voluntary stewardship	Complete level 4/5 MLCCS basin wide. Expand the Washington County Natural Resource Framework and use their methodology in Anoka, Chisago, Isanti, and Pine Counties. (MLCCS = $1,000/sq mi * 640 sq miles)	$240,000	$200,000	$200,0000	$0	$0	$640,000	$0	$0	$640,000	Counties SWCDs	MDNR BWSR MPCA

Table 5-2. Regionally Significant Rivers and Streams for Pollutant Reductions (See Figure 5-2)

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(4) Browns Creek reduction goal based on Implementation Plan for Lake St. Croix Nutrient TMDL (2013), App B.

Pine County
Isanti County
Chisago County
Anoka County
Ramsey County
Washington County
Rock Creek
Rush Creek
Goose Creek
Sunrise River - North Branch
Sunrise River - West Branch
Sunrise River - South Branch
Sunrise River
Lawrence Creek
Brown's Creek
Valley Creek
Kelle's Creek
Trout Brook

Lower St. Croix Watershed
Rock Creek
Rush Creek
Goose Creek
Sunrise River
Lawrence Creek
Brown's Creek
Valley Branch & Kelle's Creek
Trout Brook
St. Croix River (Direct Drainage Areas Only)
Regionally Significant Rivers and Streams
PWI Watercourse
Lake, Pond or Reservoir
County Boundary

N

0 5
Miles

AMENDMENT: APRIL 28, 2025

REGIONALLY SIGNIFICANT RIVERS AND STREAMS

FIGURE 5-2