

# Lower St. Croix Watershed Partners

## **DRAFT** 2022 Activities Report

January 1, 2022 - December 31, 2022

2021 WBIF-Funded Activities (as reported in eLINK (C21-4732))  
and  
Non-WBIF Activities

### Over all 2022 Outcomes\*

WBIF Funding Spent: \$506,691  
Non-WBIF Funds Spent: \$2,319,998

WBIF Total Phosphorus Reduction: 715.5 lb/yr  
Non-WBIF Funded Total Phosphorus Reduction: 945 lb/yr

TOTAL funding spent in 2022 to implement activities in priority areas in the LSC: \$2,826,689  
TOTAL amount of phosphorus reduced in priority waterbodies in the LSC through 2022 implementation: 1,660.5 lb/yr

*For reference, the 10-year total phosphorus reduction goal across all priority lakes and streams is 5,503 lb/yr.*

\*Non-WBIF funding and pollutant removal outcomes may not reflect all work completed in priority areas in 2022. The information presented here incorporates reports from individual LSC Partners. Not every LSC Partner reported information and/or information may not have been complete.

### Activity 1: Basin Ag Outreach Program

#### **WBIF Funded Activities:**

- Description of Work: Agronomy Outreach Specialist, Jennifer Hahn, was hired through University of MN Extension and began work in February 2022.
- Outputs Achieved:
  - Conducted outreach to 122 producers at field days, 14 at the workshop, completed mailings to 351, and emailing 154 producers promoting events, BMPs, and programs available, total of 617 large and small farms reached
  - Developed and held 3 field days, total of 98 attendees
  - Oversaw installation of 335.7 acres of non-structural ag BMPs – see Activity 4 for measurable project outcomes

WBIF Funds: \$93,815

**Non-WBIF Activities:** Staff with most LSC Partners spent time and effort on outreach efforts with agricultural producers including building and maintaining relationships, marketing BMPs and programs, performing site visits, etc. These activities are ingrained within the daily work of staff members across the basin. Local funding (non-WBIF funds) spent on these specific activities on these efforts is not reported.

Non-WBIF Funds: None reported

## Activity 2: Structural Ag BMP Implementation

### **WBIF Funded Activities:**

- 2022 Description of Work: Approved projects include:
  - McQuade Ravine Stabilization (SWWD), completed in 2021
  - Hinze Cattle Exclusion (Pine SWCD), completed in 2021
  - Hinze WASCOD (Pine SWCD), construction not completed in 2022 due to weather conditions; postponed until spring 2023
- 2022 Outputs Achieved:
- 2022 Outcomes Achieved: Implemented one project using WBIF funds: Hinze WASCOD (20 lb/yr phosphorus reduction)

WBIF Funds: \$106,462

Pollutant Removal: 20 lb/yr total phosphorus

### **Non-WBIF Activities:**

- 11 water and sediment control basins and diversions
- 4 stabilized waterways
- Cedar tree revetment along Lawrence Creek

Non-WBIF Funds: \$116,733

Pollutant Removal: 240.5 lb/yr total phosphorus

## Activity 3: Shared Services Educator

### **WBIF Funded Activities:**

- Description of work: Barbara Heitkamp, the shared services educator, has worked closely with Angie Hong (coordinator for the East Metro Water Resource Education Program), Jennifer Hahn (University of Minnesota Extension agronomy outreach specialist), and Lower St. Croix Watershed Partnership partners to provide educational services through community events, workshops, project tours, newsletters, social media, and public engagement.
- Abbreviated outputs achieved by BBH:
  - Started building relationships and trust with local-decision makers, including coordinating a workshop at a local winery that introduced water protection policies and practices (43 attendees)
  - Presented at 5 local lake association meetings and multiple community events to promote lakeshore buffers, utilized newspaper articles, blog posts, videos, and social media campaigns that resulted in upwards of 20 shoreline projects installed in priority areas (Chisago Lakes).
  - Helped the Chisago SWCD enter the Adopt a Drain program and led efforts to get 59 drains adopted over the past six months in Chisago County and helped promote drain adoption across Anoka and Washington county communities
  - Helped cover over 30 community events promoting native plantings, adopt a drain, water conservation, lakeshore buffers, Created a blog (Knickpoints.org) and has written 28 blog posts with over 2000 views and helped generate social media campaigns that with partner contributions has reached over 4.1 million people.
  - Provided outreach support via blog and social media to basinwide agronomist on promoting and executing three field days for production ag farmers (98 attendees) and one small acreage workshop (14 attendees).

- Created ag-centric video series on YouTube that has over 2K views.

WBIF Funds: \$91,036

**Non-WBIF Activities:**

- Progress on MIDS Implementation:
  - Started building relationships and trust with local-decision makers, including coordinating a workshop at a local winery that introduced water protection policies and practices (43 attendees)
  - Collaborated with Wild Rivers Conservancy, Minnesota and Wisconsin DNR, National Park Service, and Wisconsin counties to host a St. Croix River Workshop on the Water (100 attendees)
- Progress on chloride reduction:
  - Organizes a Smart Salting training, co-hosted by Dakota and Washington Counties (70 attendees)
  - Promoted Smart Salting training opportunities in monthly email updates to partners
  - Created a list of the 760+ public and private employees that are Smart Salt Certified in the EMWREP region
- City of East Bethel updated wetland protections in ordinances

Non-WBIF Funds: \$5,236 [Match funds in 2022 listed in Craig’s spreadsheet for Activity 2 = \$32,548]

Activity 4: Non-Structural Ag/Urban Implementation

**WBIF Funded Activities:**

- 2022 Description of Work: All completed projects were cover crops which were installed for the first year in 2022, and all will be installed annually for 3 years.
  - Pine County: Stevens Cover Crop
  - Chisago County: Cramaur Cover Crop and May Cover Crop
  - Washington County: Keene, G. Swanson, and T. Swanson cover crops
  - Isanti County: Three landowners interested in cover crops for 2023, but none spent in 2022.
  - Anoka County: No funds encumbered. May not be able to spend funds. May transfer funds to other partners (within Activity 4) if needed.
- 2022 Outputs Achieved: Non-structural BMP policy completed and approved in 2022. Installed 335.7 acres of non-structural ag BMPs.
- 2022 Outcomes Achieved:
  - Reduced TP by 682.71 lbs (reductions by priority area: Sensitive Groundwater TP Reduction: 389.09lbs, 133.4 ac; Regionally Significant Rivers and Streams: 682.71lbs TP Reduction, 335.7 ac; Regionally Significant Lakes: 140.63 TP Reduction, 66.7 ac)
  - Reduced TSS by 631.8 tons/yr (Regionally Significant Lakes: 130 tons/yr TSS; Regionally Significant Rivers and Streams: 631.8 tons/yr)
  - Reduced erosion by 865.1 tons/yr (Regionally Significant Lakes: 166.7 tons/yr; Regionally Significant Rivers and Streams: 865.1 tons/yr)

WBIF Funds: \$44,000

Pollutant Removal: 682.7 lb/yr total phosphorus

**Non-WBIF Activities:**

- 12 no-till acres
- 246.7 acres of cover crops
- 2.5 acres of prairie converted from row crops
- 396 new or replaced SSTS
- 23 wells sealed
- 12 shoreline restoration projects + 571 feet of bioengineered shoreline
- 19-acre acquisition near Cranberry Lake protecting 2-3 acres of mature forested upland, 16 acres of wetland and over 3,000 feet of undeveloped shoreline
- 100 acres of prairie plantings at parks and private residences
- 7,343 hours of watercraft inspections and decontaminations
- 124 locations of invasive phragmites treated
- 38 designs completed for shorelines, pollinator plantings, woodland management, and prairie restoration

Non-WBIF Funds: \$1,483,026

Pollutant Removal: 472 lb/yr total phosphorus

**Activity 5: Structural Urban BMP Implementation****WBIF Funded Activities:**

- 2022 Description of Work: Two projects approved for funding:
  - Big Marine Boat Launch Stormwater Retrofit (CMSCWD), going out to bid in 2023
  - Trout Brook Project (SWWD), originally indicated needed to begin construction work in fall 2022 due to wildlife requirements and was prioritized for 2021 funding as such, however SWWD now plans to complete all construction activities in 2023 after ski season has ended at Afton Alps resort. Project is out for bid. No construction occurred in 2022.
- 2022 Outputs Achieved: Completed 1 urban BMP
- 2022 Outcomes Achieved: 1.1 lb/yr phosphorus reduction achieved in 2022

WBIF Funds: \$0

Pollutant Removal: 1 lb/year total phosphorus

**Non-WBIF Activities:**

- 2 stormwater capture and reuse projects
- 2 stabilized waterways
- 1 raingarden
- 12 shoreline restoration projects + 571 feet of bioengineered shoreline
- Ravine stabilization project in the Valley Creek watershed

Non-WBIF Funds: \$183,301

Pollutant Removal: 193 lb/yr total phosphorus

## Activity 6: Wetland Restoration Implementation

### **WBIF Funded Activities:**

- 2022 Description of Work: Projects approved for funding:
  - Jones Wetland Restoration (Pine SWCD), completed in 2022
  - Jahnz Wetland Restoration (Pine SWCD), completed in 2022
  - Goose Lake Wetland Restoration (CMSCWD), completed wetland excavation in 2022 and will complete planting in 2023.
- 2022 Outputs Achieved: 3 wetland restorations completed (2 will result in nutrient reductions for priority waterbodies)
- 2022 Outcomes Achieved: 11.8 lb/yr phosphorus reduction for priority waterbodies

WBIF Funds: \$25,394

Pollutant Removal: 11.8 lb/yr total phosphorus

### **Non-WBIF Activities:**

- 39.6 acres restored wetlands
  - Goose Lake Wetland Restoration
  - 37 acres restored Chisago County per wetland banking
- 33 acres wetland bank created

Non-WBIF Funds: \$207,473

Pollutant Removal: 40 lb/yr total phosphorus

## Activity 7: Internal Analyses

### **WBIF Funded Activities:**

- 2022 Description of Work: After releasing a request for proposals and reviewing responses, the A7 subcommittee ultimately decided to approve funding for one internal analysis study – Forest Lake (CLFLWD).
- 2022 Outputs Achieved: CLFLWD completed the Forest Lake Internal Load Analysis in 2022, and the report is available on the LSC website.

WBIF Funds: \$16,500

**Non-WBIF Activities:** None

## Activity 8: Targeting Analyses

### **WBIF Funded Activities:**

- 2022 Description of Work and Outputs Achieved: Funding approved for the following initiatives:
  - Tree Canopy Assessment Protocols for Enhanced Street Sweeping, completed in 2022
  - Prioritization and Targeting Protocols, to be completed in early 2023; the sequential diagnostic monitoring protocols drafted by CLFLWD took longer than anticipated to complete and go through final internal review process. The SDM protocols were presented in early December

2022 and will be incorporated into the larger Prioritization and Targeting Protocols document in combination with portions completed by WCD.

- Rock Lake SWA (Pine County): Pine Co work is done, and Pine SWCD work is in progress (expected to be completed by spring 2023).
- Sunrise River Priority Drainage Areas (PDA): current status: 75-80% complete; goal to be done by end of February 2023
- Northeastern Washington County St. Croix and Spring Streams SWA (CMSCWD): started in the fall. On track to be done by mid-summer 2023.
- Tree Canopy Assessments and Enhanced Street Sweeping Studies:
  - Linwood Twp, Anoka SWCD: 98% completed in 2022
  - Afton, WCD: In progress
  - Lake Elmo, WCD: In progress
  - MSCWMO Cities, WCD: In progress
  - Wyoming, CLFLWD: In progress
  - Marine on St. Croix, CMSCWD/WCD: In progress (work is being done by WCD)
  - Scandia, CMSCWD/WCD: In progress (work is being done by WCD)
  - North Branch, Chisago SWCD: In progress
  - Rush City, Chisago SWCD: In progress

WBIF Funding: \$82,265

**Non-WBIF Activities:**

- 20 Groundwater monitoring wells monitored
- 19 Lakes monitored for water level
- 39 Lake sites sampled for water quality
- 21 new streams monitored for biological parameters
- St. Croix Spring Stream Subwatershed Analysis
- Seven Lake Subwatershed Analysis
- Flood hazard mapping

Non-WBIF Funds: \$149,679

Activity 9: Technical/Engineering

**WBIF Funded Activities:** Partners paid for all project technical/engineering locally, or worked with LSC Agronomy Outreach Specialist for technical assistance. As such, no grant funds were utilized under this activity. Funding was removed from this activity in the most recent grant amendment.

WBIF Funds: \$0

**Non-WBIF Activities:**

- Reviewed dozens of WCA applications for potential impacts to wetlands
- Worked to resolved multiple wetland violations
- Comprehensive Landlocked Basin Study

- Collected water quality data (including PFAS, standard water quality parameters, and sediment coring data) to evaluate water quality and quantity impacts of possible outlets from nine landlocked basins
- Evaluated impact of climate change
- Reviewed the 2016 Channel & Weir Operation & Maintenance Plan
- Continued implementation Channel & Weir Operation & Maintenance plan
- Completed 2 Habitat Management Plans
- Completed 1 Forest Management Plan
- Conducted 40 invasive species focused site visits

Non-WBIF Funds: \$174,550

### Activity 10: Administration/Coordination

#### **WBIF Funded Activities:**

- 2022 Description of Work and Outputs Achieved:
  - Chisago SWCD: Performed fiscal agent duties including execution of partner sub-agreements, payment of invoices, and eLINK financial reporting. Worked with CLFLWD to establish reporting forms and invoicing templates that align with reporting requirements to ensure all activities receiving WBIF grant funds are in alignment with work plan and reporting criteria. Worked with CLFLWD and BWSR staff to complete FY21 WBIF grant amendment and associated work plan revisions.
  - WCD: Performed hiring and payroll administration for Agronomy Outreach Specialist and Shared Services Educator.
  - WCD/EMWREP: Kept the LSC website up to date with meeting information and other updates. Coordinated/facilitated/took minutes for meetings of the Policy Committee, Steering Committee, Advisory Committee, and Planning Team.
  - CLFLWD: Coordinated revisions and refinement of Project Request Packet including cover memo, attachments associated with each work plan activity, and informational attachments such as maps and the project request process flow chart. Worked with Chisago SWCD to update reporting forms and invoicing templates as needed. Worked with Chisago SWCD and BWSR staff to complete FY21 WBIF grant amendment and associated work plan revisions.

WBIF Funds: \$47,219

**Non-WBIF Activities:** None Reported

Nothing Beyond this point was updated with non-WBIF funded activities

## Implementation Category Budget Breakdown

The following text appears on [page 16](#) of the Lower St. Croix Comprehensive Watershed Management Plan:

In general, WBIFs are expected to be allocated across program areas with a distribution similar to:

- 70% Implementation (approximately 25% shared services + 45% BMPs & restoration/protection activities)
- 25% Prioritization and Analysis
- 5% Administration

The following tables summarize how the WBIF work plan compares to the estimated percentages in the CWMP and how actual spending compares to both.

Activity #	Grant Activity	eLINK Activity Category	Grant Budget (as revised)	Match Budget	Grant Spend	Match Spend	Total Spend
1	Basin Ag Outreach Program	Project Development	\$200,000	\$0	\$81,032	\$0	\$81,032
2	Structural Ag BMP Implementation	Agricultural Practices	\$107,174	\$75,000	\$97,985	\$80,685	\$178,671
3	Shared Services Educator	Education/Information	\$125,000	\$4,800	\$103,912	\$52,587	\$156,499
4	Non-Structural Ag/Urban Implementation	Non-Structural Management Practices	\$100,000	\$0	\$44,000	\$0	\$44,000
5	Structural Urban BMP Implementation	Urban Stormwater Practices	\$360,000	\$50,000	\$0	\$0	\$0
6	Wetland Restoration Implementation	Wetland Restoration/Creation	\$105,857	\$0	\$25,394	\$0	\$25,394
7	Internal Analyses	Planning and Assessment	\$16,500	\$0	\$16,500	\$8,073	\$24,573
8	Targeting Analyses	Planning and Assessment	\$150,000	\$0	\$69,400	\$672	\$70,071
9	Technical/Engineering	Technical/Engineering Assistance	\$0	\$0	\$0	\$0	\$0
10	Administration/Coordination	Administration/Coordination	\$100,000	\$0	\$72,268	\$712	\$72,980
<b>TOTAL</b>			<b>\$1,264,531</b>	<b>\$129,800</b>	<b>\$510,491</b>	<b>\$142,730</b>	<b>\$653,221</b>



Implementation Category	LSC CWMP (Page 16)	Work Plan (Grant Funds)	Actual Grant Spend	Actual Grant Spend % of Total
Implementation - BMPs/Restoration Activities*	45%	47%	\$167,379	33%
Implementation - Shared Services	25%	29%	\$184,944	36%
Prioritization & Analysis	25%	16%	\$85,900	17%
Administration	5%	8%	\$72,268	14%
	100%	100%	\$510,491	100%

\*Expenses billed to implementation (blue) line items are for implementation only and do not include staff time. Staff time for project coordination/design/oversight etc. is covered by the remaining three categories (green, orange, yellow).

## Measurable Outcomes/Outputs and Milestones

Acti vity #	Grant Activity	Overall Measurable Outcome/Output	Year 1 (2021) Milestones	Year 1 (2021) Actual Milestones	Year 2 (2022) Milestones	Year 2 (2022) Actual Milestones	Year 3 (2023) Actual Milestones
1	Basin Ag Outreach Program	Output: Engage agricultural landowners (of both large and small operations) with a cumulative total of at least 3,000 acres of land to implement structural and nonstructural BMPs as outlined in other Activities  See Attachment A – Agronomy Outreach Specialist Details & Milestones	Agronomy outreach specialist hired	Agronomy outreach specialist finalist selected		Agronomy outreach specialist hired.	
2	Structural Ag BMP Impl.	Outcome: reduce phosphorus loading to target waterbodies by 300 lb/yr		Implemented 2 BMPs to achieve 223 lb/yr phosphorus reduction and 252 tons/yr TSS	Implement 20 best management practices, or enough to achieve a 300 lb/yr phosphorus reduction	No new projects implemented in 2022. One project slated for spring 2023 construction.	

Activity #	Grant Activity	Overall Measurable Outcome/Output	Year 1 (2021) Milestones	Year 1 (2021) Actual Milestones	Year 2 (2022) Milestones	Year 2 (2022) Actual Milestones	Year 3 (2023) Actual Milestones
3	Shared Services Educator	Output: 0.5 FTE  See Attachment B – Education Details & Milestones	New education staff hired, develop basin-wide outreach plan for 2021-22	New education staff hired, developed basin-wide outreach plan for 2021-22	Implement basin-wide outreach plan	Implemented basin-wide outreach plan.	
4	Non-Structural Ag/Urban Impl.	Outcomes: reduce phosphorus loading to target waterbodies by 400 lb/yr		None implemented with WBIF yet	Implement 2,000 acres of non-structural best management practices, or enough to achieve a 400 lb/yr phosphorus reduction	Implemented 355.7 acres of non-structural BMPs (all cover crops), which achieved 682.7 lbs/yr phosphorus reduction for priority waterbodies.	
5	Structural Urban BMP Impl.	Outcomes: reduce phosphorus loading to target waterbodies by 200 lb/yr		None implemented with WBIF yet	Implement 20 best management practices, or enough to achieve a 200 lb/yr phosphorus reduction	Implemented 1 BMP, enough to achieve 1.1 lb/yr P	

Activity #	Grant Activity	Overall Measurable Outcome/Output	Year 1 (2021) Milestones	Year 1 (2021) Actual Milestones	Year 2 (2022) Milestones	Year 2 (2022) Actual Milestones	Year 3 (2023) Actual Milestones
6	Wetland Restoration Impl.	Outcomes: reduce phosphorus loading to target waterbodies by 15 lb/yr		None implemented with WBIF yet	Wetland restoration(s) construction	Three wetland restoration projects constructed in 2022, and one slated for early 2023 construction. 11.8 lb/yr P reduction for priority waterbodies in 2022.	
7	Internal Analyses	Outputs: Complete 2 internal loading analyses		Completed majority of process to rank and select internal analyses to be completed in 2022	Complete 2 internal loading analyses	Completed one internal loading analysis.	
8	Targeting Analyses	Outputs: Complete the following analyses (See Activity 8 Description for further detail) <ul style="list-style-type: none"> <li>Linwood Lake Anoka County</li> <li>St. Croix Direct Washington County</li> </ul>		Began Enhanced Street Sweeping Study Protocols, Prioritization and Targeting Protocols, and Subcatchment Prioritization		Completed tree canopy assessment protocols and approved several partners to perform	

Activity #	Grant Activity	Overall Measurable Outcome/Output	Year 1 (2021) Milestones	Year 1 (2021) Actual Milestones	Year 2 (2022) Milestones	Year 2 (2022) Actual Milestones	Year 3 (2023) Actual Milestones
		<ul style="list-style-type: none"> <li>• Desktop Analysis and Prioritized Catchments of the Sunrise River Watershed Chisago</li> <li>• Rock Lake Pine and St. Croix Direct Pine County</li> <li>• SWA protocol refinements</li> <li>• Enhanced street sweeping analyses for Rush City, Taylors Falls, Harris, North Branch, Marine on St. Croix, Stillwater, Bayport, Lakeland, Lake St. Croix Beach, and Afton</li> </ul>				street sweeping studies with WBIF. Several other targeting analyses slated for completion in 2023.	
9	Technical/Engineering			No WBIFs used on this activity yet		No WBIFs used. Grant funds shifted to other activities.	
10	Admin/Coord	Complete eLINK annual reporting as required	Complete annual report	Completed annual report, established several processes for WBIF usage	Complete annual report	Completed annual report. Continued to refine processes for WBIF usage	

Activity #	Grant Activity	Overall Measurable Outcome/Output	Year 1 (2021) Milestones	Year 1 (2021) Actual Milestones	Year 2 (2022) Milestones	Year 2 (2022) Actual Milestones	Year 3 (2023) Actual Milestones
<b>Sum of outcomes:</b>		<b>915 lb/yr TP reduction at target waterbodies</b>		254.5 lb/yr TP reduction and 252 tons/yr TSS at target waterbodies		695.6 lb/yr TP reduction at target waterbodies	

## Pollutant Reduction Goals and Progress

### Total Suspended Solids

Total Suspended Solids Reductions Proposed in this Work Plan	2-Year Proposed Reduction (tons/yr)	Reduction Achieved as of 12/31/22 (tons/yr)
Activity 2: Structural Ag BMP Implementation	N/A	252
Activity 4: Non-Structural Ag/Urban BMP Implementation		632
Activity 5: Structural Urban BMP Implementation		TBD
Activity 6: Wetland Restoration Implementation		TBD
<b>TOTAL</b>		<b>252</b>

Total suspended solids reduction goals were not established for each activity but will be reported on.

### Phosphorus

Phosphorus Reduction Summary Table – Reductions by Work Plan Activity

Phosphorus Reductions Proposed in this Work Plan	2-Year Proposed Reduction (lb/yr)	Reduction Achieved as of 12/31/22 (lb/yr)
Activity 2: Structural Ag BMP Implementation	300	254.5
Activity 4: Non-Structural Ag/Urban BMP Implementation	400	682.7
Activity 5: Structural Urban BMP Implementation	200	1.1
Activity 6: Wetland Restoration Implementation	15	11.8
<b>TOTAL</b>	<b>915</b>	<b>950.1</b>

Reductions reported are those estimated at target waterbodies. See Phosphorus Reduction Goals and Progress section in the Detail Work Plan Text for more information.

Phosphorus Reduction Detail Tables – Reductions by Target Waterbody

(per Tables 5-2 and 5-3)

[fill out in Excel spreadsheets and copy results into the following tables]

**LSC CWMP Table 5-2: Regionally Significant Rivers and Streams for Pollutant Reductions**

Stream Name	Lake St. Croix TMDL TP Reduction Goal (lbs/yr) <sup>1</sup>	10-year TP Reduction Goal (lbs/yr) <sup>2</sup>	Actual Reduction Achieved by 12/31/22 with WBIF (lbs/yr)	Comment
<b>St. Croix Direct</b>			251	McQuade Ravine Stabilization
<b>Sunrise River and Tributaries</b>	18,306	2,256		
<b>Lawrence Creek<sup>3</sup></b>	1,177	118		
<b>Browns Creek<sup>4</sup></b>	848	85		
<b>Trout Brook<sup>3</sup></b>	1,419	142	492	G. Swanson and T. Swanson Cover Crops
<b>Small Streams Draining to St. Croix River (south of Lawrence Cr &amp; north of Valley Br.)</b>	6,450	645	141	Keene Cover Crop
<b>Rock Creek</b>	3,512	351		
<b>Rush Creek</b>	2,451	245	13	Cramaur and May Cover Crops
<b>Goose Creek</b>	2,980	298		
<b>TOTAL</b>	<b>37,143</b>	<b>4,140</b>	<b>897</b>	
<p><i>(1) Table B-7, 2012 Lake St. Croix Total Maximum Daily Load Study</i>  <i>(2) 10% per stream + 425 lbs for stream restoration projects in Sunrise River Watershed</i>  <i>(3) According to Lake St. Croix TMDL: Actual phosphorus load reduction goals in Lawrence Creek, 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.</i>  <i>(4) Browns Creek reduction goal based on Implementation Plan for Lake St. Croix Nutrient TMDL (2013), App B.</i></p>				



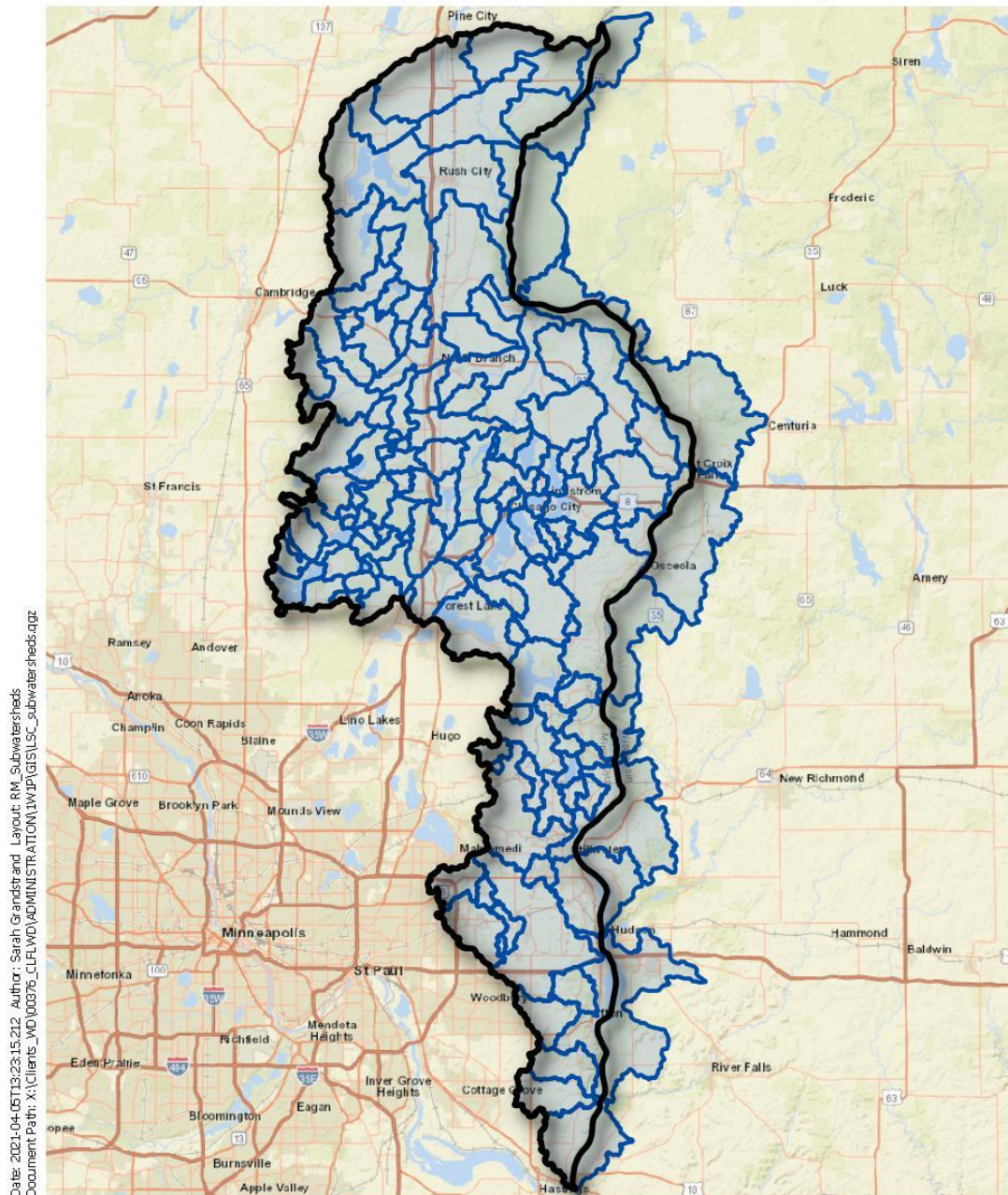
**LSC CWMP Table 5-3: Regionally Significant Lakes for Pollutant Reductions and Protections**

Lake ID	Name	County	Overall TP Reduction Goal lbs/yr**	10-year TP Reduction Goal lbs/yr (5%/lake)	Actual Reduction Achieved by 12/31/22 with WBIF (lbs/yr)	Comment
2002600	Linwood	Anoka	341	17.05		
2003400	Martin	Anoka	2,973	148.65		
13004200	Birch	Chisago	N/A	N/A		
13000100	Blooms*	Chisago	N/A	N/A		
1300120	Chisago	Chisago	143	7.15		
13006800	Fish*	Chisago	8	0.40		
13008301/ 13008302	Goose (North & South)	Chisago	4,935	246.75		
13004102 / 13004101	Green/ Little Green	Chisago	33	1.65		
13003300	Little	Chisago	2,657	132.85		
13003201	North Center Lk	Chisago	1,108	55.40		
13003500	North Lindstrom	Chisago	59	2.95		
13006901/ 13006902	Rush (East* & West)	Chisago	6,663	333.15		
13002700	South Center	Chisago	1,260	63.00		
13002800	South Lindstrom	Chisago	107	5.35		
30000800	Hoffman*	Isanti	Protection Strategies Only			
30001200	Horseleg*	Isanti	1	0.05		
30000300	Horseshoe*	Isanti	Protection Strategies Only			
30000700	Lower Birch*	Isanti	Protection Strategies Only			

58011700	Rock	Pine	6,641	332.05	51.88	Hinze Cattle Exclusion, Stevens Cover Crop, Jones Wetland Resto, Jahnz Wetland Resto
82004900	Big Carnelian	Washington	53	2.65		
82005204	Big Marine*	Washington	35	1.75	1.10	Big Marine Boat Launch
82004500	Clear*	Washington	Protection Strategies Only			
82003400	East Boot*	Washington	Protection Strategies Only			
82000400	Edith	Washington	6	0.30		
82010600	Elmo	Washington	56	2.80		
82015900	Forest	Washington	72	4.00		
82010400	Jane	Washington	Protection Strategies Only			
82001400	Little Carnelian*	Washington	29	1.45		
82002500	Louise	Washington	58	2.90		
82003300	Mays*	Washington	Protection Strategies Only			
82002000	McKusick	Washington	5	0.25		
82004600	Square	Washington	9	0.45		
82003100	Terrapin*	Washington	Protection Strategies Only			
			<b>27,252</b>	<b>1,363</b>	<b>53</b>	<b>0</b>

## Reporting by Subwatershed

Implementation subcommittees will prioritize projects by subwatershed. The following map shows DNR Level 08 subwatersheds within the LSC Basin. The LSC CWMP also contains several figures and tables describing priority implementation areas.



Date: 2021-04-05T13:23:15.212 Author: Sarah Grandstrand Layout: RM\_Subwatersheds Document Path: X:\Clients\_WD\00976\_ADMINISTRATION\1W\FIGS\LSC\_subwatersheds.qgz



-  Lower St.Croix Watershed
-  Subwatersheds



Lower St.Croix Subwatersheds

