

# MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

455 HAYWARD AVENUE, OAKDALE, MINNESOTA 55082  
Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org



## Regular Meeting of the Middle St. Croix Watershed Management Organization *Washington Conservation District, 455 Hayward Ave N* Thursday, October 6<sup>th</sup>, 2022 6:00PM

1. Call to Order – 6:00PM
  - a. Approval of Agenda
2. Approval of Minutes
  - a. Draft minutes – August 11<sup>th</sup>, 2022 **pg. 1-6**
3. Treasurer’s Report
  - a. Report of savings account, assets for October 6<sup>th</sup>, 2022
  - b. Approve payment of bills for October 6<sup>th</sup>, 2022
4. Public Comment
5. Old Business
6. New Business
  - a. Future Meeting Format
  - b. 2023 Meeting Dates **pg. 7**
  - c. Riviera Treatment Train Pay Request **pg. 8-9**
  - d. Dan Kylo Acknowledgment
7. Grant and Cost Share Applications
  - a. Baldrice Shoreline **pg. 10-11**
  - b. Hieptas Shoreline **pg. 12-13**
  - c. Hanson Infiltration Basin **pg. 14-17**
8. Plan Reviews/Submittals
  - a. Plan Review and Submittal Summary **pg. 18-39**
    - i. Hassis Paintworks-**ACTION**
    - ii. 3 Point Road Garage-**ACTION**
    - iii. St. Croix Carwash-**ACTION**
    - iv. Stillwater Towing-**INFORM**
    - v. Villas of Inspiration-**INFORM**
    - vi. St. Croix Prep Trail-**TBD**
  - b. Erosion and Sediment Control Inspection Reports **pg. 40-67**
9. Staff Report **pg. 68-70**
10. 1W1P Updates
  - a. Workplan Approval **pg. 71-96**

# MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

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- b. CWMP Amendment Request **pg. 97-103**
- 11. Other
- 12. Adjourn

Regular Meeting of the Middle St. Croix Watershed Management Organization  
Washington Conservation District, 455 Hayward Ave N  
Thursday, August 8<sup>th</sup>, 2022  
6:00PM

Present: Beth Olfelt-Nelson, St. Mary's Point; Mike Runk, Oak Park Heights; Tom McCarthy, Lake St. Croix Beach; Dan Kylo, West Lakeland Township; Dawn Bullera, Lake St. Croix Beach Alternate; Susan St. Ores, Bayport Alternate; Administrator Matt Downing; Amanda Herbrand, WCD

**Call to Order**

Manager McCarthy called the meeting to order at 6:08PM.

**Approval of Agenda**

Manager Runk motioned to approve the agenda with this addition, Manager Olfelt-Nelson seconded the motion. The motion carried with all in favor.

**Approval of Minutes**

Manager Olfelt-Nelson motioned to approve the draft July 14<sup>th</sup>, 2022 board meeting minutes and Manager Runk seconded this motion. The motion carried with all in favor.

**Treasurer's Report**

Manager Kylo presented the Treasurer's Report. The remaining checking account balance on August 11<sup>th</sup> was \$142,693.70. First Bank CDs were valued at \$38,549.15. The ending balance in the RBC savings account was \$82,763.81.

There are three bills to approve this month for the Washington Conservation District totaling in \$13,690.34.

Manager Runk motioned to approve the Treasurer's Report and pay the bills. Manager McCarthy seconded the motion. The motion passed with all in favor.

Manager Olfelt-Nelson asked if Administrator Downing was still waiting on contributions from any communities. Administrator Downing says he is still waiting on Baytown and will send another reminder.

**Public Comment**

There was no public comment.

**Old Business**

There was no old business.

**New Business**

**Funding Formula Update**

At the July meeting, the board directed the administrator to investigate when the funding amounts had been last updated, and to update with more recent data if available. The current

funding values were last updated in 2007, based on data from 2005/2007. The new updated values show decreases in contributions from Lake St. Croix Beach, Lakeland, and Stillwater. Contributions for other communities will increase, with St. Mary's Point and Lakeland Shores contributions increasing dramatically. These new values have no effect on the current year and will be used for 2023 budget requests.

Manager Runk motioned to utilize the updated funding formula for the 2023 budget requests to member communities. Manger McCarthy seconded the motion and the motion passed with all in favor.

### **BMP/Permit Database Presentation**

Aaron DeRusha from the WCD presented about ESRI ArcGIS. This database was chosen and developed as a replacement for Mapfeeder, which MSCWMO had used previously to track new practices and erosion control inspections. The new database is map based and has a number of functions, including tracking BMP implementation, cost share, grant TMDL reductions, maintenance, education and outreach activities, storing BMP and erosion control photos, and generating inspection reports. There is also now an interface for project submittal for review by MSCWMO and WCD staff. Permittees can track the status of their submission and submit documents through the interface. The result is a more streamlined and organized database that increases efficiency for staff that is also ultimately more cost effective. The previous Mapfeeder database cost approximately \$900 per year, while the annual cost for the new database will be \$350. Development of the new database was approximately \$1,500.

Credit for much of the development of the database goes to Rebecca Nestigen, the District Engineer at the Washington Conservation District.

Manager Olfelt-Nelson asked if there was something on the MSCWMO website under Project Review that would indicate to permittees that their project should also be submitted to their community to prevent any confusion. Administrator Downing believes it is stated on one of the documents on the page, but will double check. The wording in the paragraph at the top of the page will also be updated to state that permittees need to follow the permit process for their community. Aaron DeRusha and Administrator Downing both mentioned that the term "permit" is avoided on the MSCWMO website, instead the term "project" is used to prevent confusion as well.

### **2023 Final Budget**

Administrator Downing states that he has received no comments after sending out the Draft 2023 Budget.

Manager McCarthy motioned to approve the 2023 Budget, Manager Olfelt-Nelson seconded the motion. The motion passed with all in favor.

### **Grant and Cost Share Applications**

#### **Baldrice Shoreline**

Colleen Baldrice is applying for the Landscaping for Habitat grant. She would like to enhance 34 linear feet of shoreline on Lake McKusick with native plugs as an addition to the 96 linear feet

enhancement area at 132 Meadowlark (Hietpas Buffer Enhancement). The estimated cost for materials is \$270.00.

Manager McCarthy motioned to approve encumbrance of \$250.00 cost share for the installation of the Baldrice Buffer Enhancement. Manager Runk seconded the motion, the motion passed with all in favor.

### **Moosai Infiltration Basin**

Sunny Moosai is applying for the Water Quality Improvement grant. She would like install a 1,500 ft<sup>2</sup> basin within city right-of-way between two existing practices installed as a part of the 2015 Quixote Avenue N Drainage Improvements plan. The basin will be installed in cooperation with the City of Lakeland to retain up to 1 lb TP and 173 lbs TSS annually, and designed to tie in functionally and aesthetically with practices installed in 2015. The estimated cost of the project is \$5,480.37.

Manager Olfelt-Nelson motioned to approve encumbrance of \$5,000 cost share for the installation of the Moosai Bioretention Basin. Manager McCarthy seconded the motion, the motion passed.

### **Plan Reviews/Submittals**

#### **Hassis Printworks – INFORM**

An application for project review was submitted on May 9th, 2022 for the Hassis Paintworks building addition project which includes a building addition and associated parking lot and site work at 1792 Greeley Street in the City of Stillwater. The project consists of 14,056 sf of new/reconstructed impervious surfaces. The submittal demonstrated compliance with MSCWMO rate control standards however the site is located in a high vulnerability DWSMA and will utilize a porous pavement filtration system for stormwater management therefor will need to demonstrate compliance with MIDS flexible treatment options. MSCWMO staff recommends the applicant revise and resubmit the project for further review.

#### **Ruphrect Hillside Lift – ACTION**

An application for project review was submitted on July 15th, 2022 for the proposed hillside elevator project located at 737 Quentin Ave S in the City of Lakeland. The project does not involve any grading or construction of impervious surfaces however it will involve construction within the bluffline.

Manager McCarthy motioned to approve the project with the condition that plan amendments documenting OHW, HWL, landing platform elevation, bluffline, erosion and sediment control inspection frequency, and pollution prevention requirements on the construction plans be provided. Manager Runk seconded the motion, and the motion passed with all in favor.

#### **Lahr Residence – ACTION**

An application for project review was submitted on June 8th, 2022 for proposed retaining wall reconstruction, small patio, stairs, and planting project at 681 Quixote Ave N in Lakeland. Additional submittal items were received on August 4th, 2022. The project consists of

construction within 40 of the bluffline however the applicant has revised the original plan from an impervious patio to a deck.

Manager McCarthy motioned to approve the project with the condition that no grading or additional impervious (including compaction) occurs with the installation of new decking. Manager Olfelt-Nelson seconded the motion. The motion passed with all in favor.

### **St. Croix Prep Trail – INFORM**

An application for project review was submitted on June 21st, 2022 for the construction of a proposed trail at St. Croix Prep in Baytown Township. The project disturbs 3.8 acres and creates 1.9 acres of new impervious surface. The project as submitted does not comply with volume control standards which is volume control for 7,429 cf however the applicant only demonstrated 3,649 cf. The applicant also did not submit any materials to demonstrate compliance with rate control standards. MSCWMO staff recommends the applicant revise and resubmit the project for further review.

### **Erosion and Sediment Control Inspection Reports**

Administrator Downing went through the erosion control inspection report for the Burton Retaining Wall project. The inspection was performed on July 22nd and gave the site at B, meaning the site was in compliance but some maintenance was required.

### **Staff Report**

Administrator Downing presented the August Staff Report. Administration items included preparation of August meeting materials, coordination of grant and permit program, updating the funding formula, TAC meeting attendance, and 2023 planning.

The Lily Basin Project is expected to closeout after this meeting. A completion ceremony is being planned with FLL and EMWREP. Minnesota Native Landscapes has been contracted and will start work along Riviera in the coming months. A preconstruction meeting occurred on August 3rd. Remaining Phase II funds for additional bluff toe stabilization (100 lf) north of the 2021 project area were encumbered and Lake St. Croix Beach is soliciting bids for work.

Other items on the staff report include Water Monitoring, Erosion and Sediment Control Inspections, and BMP Maintenance which are conducted by Washington Conservation District Staff. These activities continued as normal for the month of July. Administrator Downing did take a moment to discuss the Lily Lake Alum Treatment when discussing Water Monitoring activities. He mentioned that the secchi disk reading on the lake, which measures water clarity, would typically be around 7-8 ft at this time of year and is currently reading over 20 ft.

### **1W1P Updates**

#### **Workplan Amendment Approval**

At its July 13th meeting, the Steering Committee discussed two Watershed Based Implementation Funding project requests exceeding \$50,000. According to the process discussed at the April 25th Policy Committee meeting, all WBIF grant requests exceeding \$50,000 will come to the Policy Committee for recommended approval to the fiscal agent. Both projects result

in multiple benefits, including water quality improvements to priority watercourses identified in the Lower St. Croix Comprehensive Watershed Management Plan (CWMP).

The first project is the Sunrise River wetland Restoration in Comfort Lake-Forest Lake Watershed District (CLFLWD). The project will divert flow from an existing drainage ditch system out of Heims Lake at the Highway 61 culvert and then diffuse the flow into a multi-cell wetland complex located on the Tax Forfeit property owned by CLFLWD. The proposed project will result in annual phosphorus reductions of approximately 81 lb/yr to the Sunrise River, a LSC CWMP priority watercourse.

The second project is the Trout Brook Project in South Washington Watershed District (SWCD). SWCD proposes to work with the MN DNR, Great River Greening, and Afton Alps to complete a stream restoration project along Trout Brook in Afton. This project will restore cold-water aquatic habitat within the stream channel, in addition to reducing phosphorus loading by 177 lb/yr and TSS loading by 154 tons/yr to Trout Brook, a tributary of the St. Croix River, a LSC CWMP priority watercourse.

The three options for funding discussed at the July 13th Steering Committee Meeting are:

1. **Option 1:** Fund neither request. The Policy Committee may choose to simply recommend not funding either request. This is not recommended, as both projects would be considered high priority under the LSC CWMP.
2. **Option 2:** Partially fund both requests. If the Policy Committee wishes to only consider FY21 WBIF requests at this time, it may wish to somehow divide remaining FY21 WBIF balance between the two projects. Total requested dollars: \$650,449. Remaining unencumbered FY21 WBIF grant dollars: \$431,160 (note that \$100,000 of FY21 WBIF A4 funds has been allocated towards the nonstructural agricultural BMP projects which is part of the LSC nonstructural policy that was approved unanimously at the May 25th Steering Committee).
3. **Option 3 (Recommended):** Recommend fully funding both requests by utilizing both FY21 and FY23 WBIF grant dollars.
  - a. Allocate \$350,000 of FY21 WBIF to the Trout Brook Project
  - b. Allocate \$300,449 of total WBIF to the Sunrise River Project composed of:
    - i. A minimum of \$80,449 of FY21 WBIF to the Sunrise River Project
    - ii. A maximum of \$220,000 of FY23 to the Sunrise River Project

The Steering Committee recommends fully funding both requests. Given that the combined dollar amount of these two requests exceeds the remaining FY21 WBIF grant balance, the Steering Committee recommends funding the Sunrise River Project request partially using FY21 WBIF grant dollars and partially using FY23 WBIF grant dollars.

Note that a fiscal year is two years.

Manager Runk attended the July 13th meeting and further explained that the downside to committing to funding both projects is that fewer funds would be available for new projects, however projects of this size generally take 3-4 years to get to this point, and there are no known upcoming large projects to use the funds for. Administrator Downing added that if the funds aren't used, they are lost.

The recommendation is a Policy Committee roll call vote to allocate \$300,449 in WBIF funding to the Sunrise River Wetland Restoration Project and \$350,000 in WBIF to the Trout Brook Project, including the following:

- Recommend to partner entities that the FY21 work plan be amended to shift \$160,000 added to A5 and \$66,326 added to A6;
- Direct that the FY21 work plan amendment be submitted to the entities' governing bodies and to BWSR for approval at the earliest opportunity;
- Approve \$350,000 in WBIF funds for the Trout Brook Project and \$300,449 in WBIF funds for the Sunrise River Wetland Restoration Project;
- Direct that \$350,000 in FY21 funds be applied first to the Trout Brook Project, and a minimum of \$80,449 in FY21 funds to the Sunrise River Wetland Restoration Project;
- As to that part of approved Sunrise River Wetland Restoration Project funding not met by FY21 funds, provide in the proposed FY23 work plan for a maximum of \$220,000 in FY23 WBIF disbursement to be applied to the project;
- Find that the commitment of FY23 funds to the Sunrise River Wetland Restoration Project is prudent and justified to establish sufficient funding certainty for the project to commence in early 2023.

Manager Runk motioned to approve the modification to the workplan. Manager Olfelt-Nelson seconded the motion. The motion passed with all in favor.

Administrator Downing states he will communicate the decision to the Steering Committee.

### **Adjourn**

Manager McCarthy motioned to adjourn the meeting and Manager Kylo seconded. The meeting was adjourned at 7:07PM.



# MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

455 Hayward Avenue, Oakdale MINNESOTA 55128  
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## MSCWMO PROJECT REVIEW PROCESS –SINGLE RESIDENTIAL LOT SUBMITTAL TIMING

Applications for qualifying projects shall be submitted for full review to the MSCWMO administrator at least 21 days prior to the scheduled meeting date of the MSCWMO Board. Late submittals or submittals with incomplete exhibits will be scheduled to a subsequent meeting date. Comments will be returned to the member community within 30 days of receipt of a complete application.

Member communities may require a pre-application meeting. The following table contains the pre-application meeting deadline, submittal deadline, and board meeting dates for 2023.

### 2023 PROJECT REVIEW IMPORTANT DATES

<b>Pre-Application Meeting Deadline*</b>	<b>Submittal Deadline</b>	<b>MSCWMO Board Meeting</b>
December 15 <sup>th</sup> , 2022	December 22 <sup>nd</sup> , 2022	January 12 <sup>th</sup> , 2023
January 12 <sup>th</sup> , 2023	January 19 <sup>th</sup> , 2023	February 9 <sup>th</sup> , 2023
February 9 <sup>th</sup> , 2023	February 16 <sup>th</sup> , 2023	March 9 <sup>th</sup> , 2023
March 16 <sup>th</sup> , 2023	March 23 <sup>rd</sup> , 2023	April 13 <sup>th</sup> , 2023
April 13 <sup>th</sup> , 2023	April 20 <sup>th</sup> , 2023	May 11 <sup>th</sup> , 2023
May 11 <sup>th</sup> , 2023	May 18 <sup>th</sup> , 2023	June 8 <sup>th</sup> , 2023
June 15 <sup>th</sup> , 2023	June 22 <sup>nd</sup> , 2023	July 13 <sup>th</sup> , 2023
July 13 <sup>th</sup> , 2023	July 20 <sup>th</sup> , 2023	August 10 <sup>th</sup> , 2023
August 17 <sup>th</sup> , 2023	August 24 <sup>th</sup> , 2023	September 14 <sup>th</sup> , 2023
September 14 <sup>th</sup> , 2023	September 21 <sup>st</sup> , 2023	October 12 <sup>th</sup> , 2023
October 12 <sup>th</sup> , 2023	October 19 <sup>th</sup> , 2023	November 19 <sup>th</sup> , 2023
November 16 <sup>th</sup> , 2023	November 23 <sup>rd</sup> , 2023	December 14 <sup>th</sup> , 2023

\* *Not required*

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## MEMORANDUM

**TO:** MSCWMO Board of Managers  
**FROM:** Brett Stolpestad, Washington Conservation District  
**DATE:** 9/30/2022  
**RE:** **6c – LSC Direct Discharge South PII\_Riviera Avenue Treatment Train - Payment Request**  
(CWF Grant C21-1745)

In May 2022, the MSCWMO Board of Managers approved proceeding with contracting and construction of the LSC PII Riviera Avenue Treatment Train project. The construction bid was awarded to Minnesota Native Landscapes for up to \$29,410. The project is a public partnership between the MSCWMO and the City of Lake St. Croix Beach. The project utilizes a Clean Water Fund grant and MSCWMO Technical Assistance time, and provides a pollutant load reduction to Lake St. Croix of at least 6.5 lbs/TP year.

BMP installation was certified as substantially complete by the Washington Conservation District as of September 12<sup>th</sup>, 2022. Total project costs reflected in item 6c\_MNL Invoice include all project change orders for additional perennial plugs and rock inlet armoring during construction. WCD staff verified that all other items were constructed according to plan and that the basin is substantially and functionally complete. Minnesota Native Landscapes (the contractor), is requesting payment of \$30,744 for the completed project. No previous payments have been made to the contractor. WCD staff recommend payment of the full amount requested.

**PROJECT BID:**  
**\$29,410.00**

**PAYMENT REQUEST:**  
**\$30,744.00**

### EXAMPLE BOARD MOTION FOR MINUTES:

Motion by Board Member 1, seconded by Board Member 2, to approve the FINAL PAYMENT of \$30,744.00 to Minnesota Native Landscapes for substantial completion of the LSC Direct Discharge South PII – Riviera Avenue Treatment Train project.

DISTRICT TECHNICAL REPRESENTATIVE

Signed

Date: 9/30/2022



8740 77th St NE  
Otsego, MN 55362

# INVOICE

**HEAL THE EARTH!**

BILLING DATE	INVOICE #
9/19/2022	36113
TERMS	DUE DATE
Net 30	10/19/2022

CUSTOMER NAME
Washington Conservation District ATTNL: Rebecca Nestingen 455 Hayward Ave Oakdale, MN 55128

PROJECT NAME
Washington CD - Riviera Ave Bioretention

P.O. NO.

QTY	UNITS	ITEM	DESCRIPTION	UNIT PRICE	EXTENTION
1.0	LS	Mobilization	Mobilization (2021.501)	10,000.00	10,000.00
47.0	CY	Labor	Excavation - Common (2106.507)	100.00	4,700.00
5.0	Each	Materials	Coniferous Shrub 2' HT CONT (2571.502)	70.00	350.00
7.0	Each	Materials	Deciduous Shrub NO 2 CONT (2571.502)	40.00	280.00
3.0	Each	Materials	Deciduous Shrub NO 5 CONT (2571.502)	90.00	270.00
192.0	Each	Materials	Perennial Plugs (2571.527)	4.00	768.00
0.5	CY	Materials	Landscape Rock (2575.607)	400.00	200.00
70.0	SY	Materials	Rolled Erosion Prevention (2575.504)	3.00	210.00
4.0	SY	Materials	Geotextile Fabric Type 4 (2105.504)	10.00	40.00
0.08	Acre	Labor	Subsoiling (2574.505)	20,000.00	1,600.00
3.0	Each	Labor	Grubbing (2101.502)	100.00	300.00
422.0	SY	Materials	Sodding Type Salt Tolerant (2575.504)	8.00	3,376.00
3.0	CY	Materials	Mulch Material Type 6 (2575.507)	300.00	900.00
0.2	MGAL	Materials	Initial Watering (2575.523)	5,000.00	1,000.00
60.0	LF	Labor	Bituminous Curb (2535.503)	50.00	3,000.00
3.0	Each	Labor	Watering Trip	1,250.00	3,750.00
			MN/WashCtyTran	7.375%	0.00

Thank you for your business. Please place the invoice number on your check.	<b>Total</b>	\$30,744.00
Any amount unpaid beyond 30 days, will incur a 1.5% per month finance charge.	<b>Payments/Credits</b>	\$0.00
Phone: (763) 295-0010    •    www.MNLcorp.com    •    AP@MNLcorp.com	<b>Balance Due</b>	\$30,744.00

**10 Million Acres Impacted by 2030!**



**MEMORANDUM**

**TO:** Middle St. Croix WMO Board of Managers  
**FROM:** Brett Stolpestad, Landscape Restoration Technician, Washington Conservation District  
**DATE:** October 6<sup>th</sup>, 2022

**RE:** Hietpas/Baldrice Buffer Enhancement  
1322/1316 Meadowlark Dr.  
Stillwater, MN 55082

**Project Estimate:** \$250.00 (*Materials*)  
**Actual Expenditure:** \$256.20  
**Cost Share Encumbered:** \$250.00

On August 11<sup>th</sup> the MSCWMO Board of Managers approved cost share encumbrance of \$250 for the Baldrice Buffer Enhancement Project. The landowner has submitted receipts for work (installation of 260 native perennials) conducted in the summer of 2022, totaling \$256.20 in material costs.

Technical staff have confirmed the work and expenses and recommend reimbursing costs of \$250.00.

**Requested Board Action:**

Motion by Board Member 1, seconded by Board Member 2, to approve encumbrance of \$250.00 cost share for the installation of the Baldrice Buffer Enhancement.

**Location & Photos:**







**MEMORANDUM**

**TO:** Middle St. Croix WMO Board of Managers  
**FROM:** Brett Stolpestad, Landscape Restoration Technician, Washington Conservation District  
**DATE:** October 6<sup>th</sup>, 2022

**RE:** Hietpas Buffer Enhancement  
1322 Meadowlark Dr.  
Stillwater, MN 55082

**Project Estimate:** \$777.50 (*Materials*)  
**Actual Expenditure:** \$582.00  
**Cost Share Encumbered:** \$500.00

On July 17<sup>th</sup> the MSCWMO Board of Managers approved cost share encumbrance of \$500 for the Hietpas Buffer Enhancement Project. The landowner has submitted receipts for work (installation of 400 native perennials) conducted in the summer of 2022, totaling \$582.00 in material costs.

Technical staff have confirmed the work and expenses and recommend reimbursing costs of \$500.00.

**Requested Board Action:**

Motion by Board Member 1, seconded by Board Member 2, to approve encumbrance of \$500.00 cost share for the installation of the Hietpas Buffer Enhancement.

**Location & Photos:**







MEMORANDUM

**TO:** Middle St. Croix WMO Board of Managers  
**FROM:** Lori Tella, Landscape Restoration Specialist, Washington Conservation District  
**DATE:** Sept 27, 2022  
**RE:** 2011 St. Croix Trail N., Stillwater, MN 55082

Robin Hanson is applying for the Landscaping for Habitat grant. She would like to stabilize an eroding hillside by installing a 950 sq. ft. native planting for the back (east) side of her home. The property is located less than 0.5 miles from the St. Croix River, making it an ideal location for a water quality and habitat improvement project. This project will focus on Areas A and B of the attached Concept Plan.

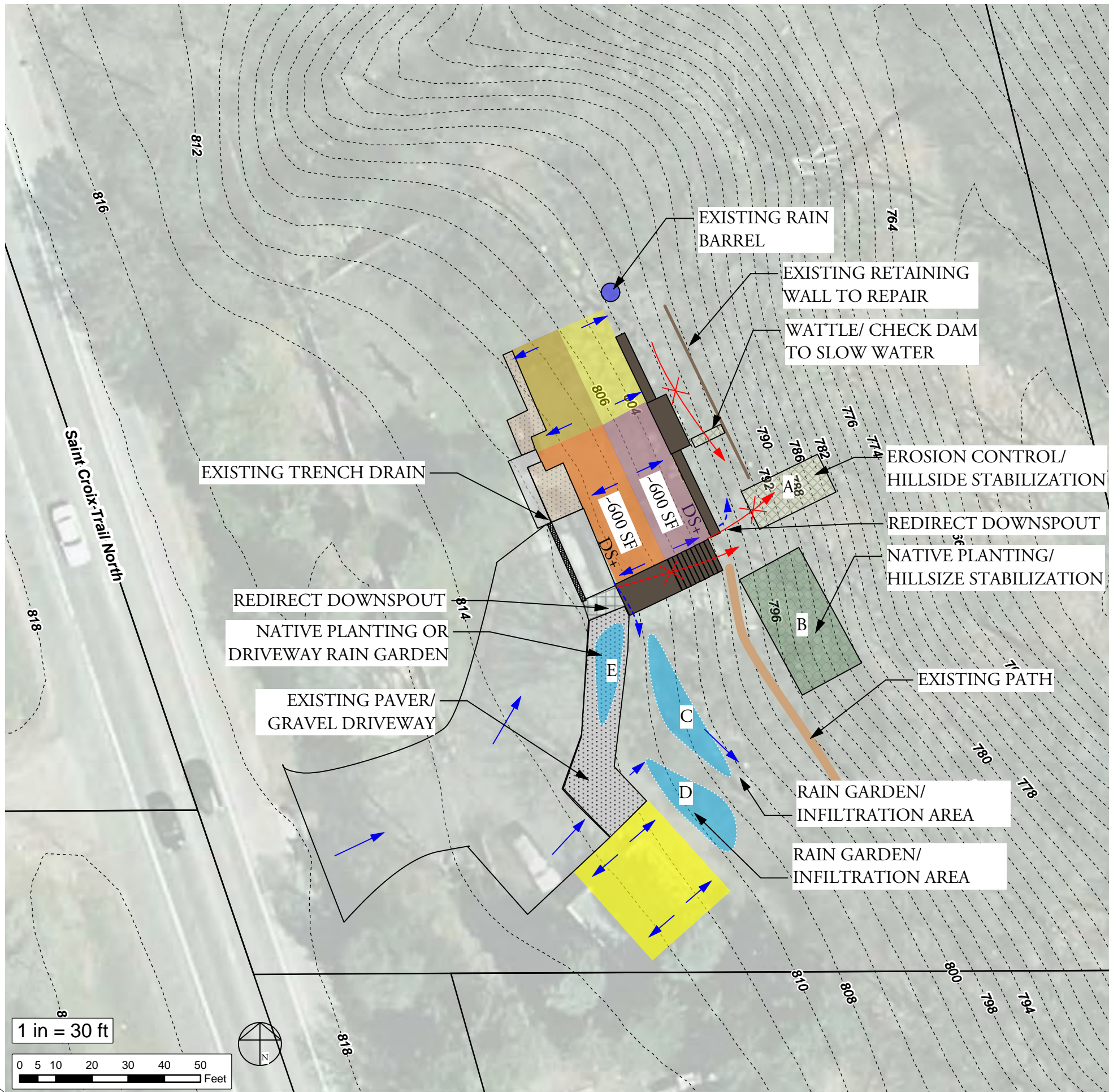
**Project Estimate:** \$789.00 (*Materials*)  
**Amount of Phosphorus Removed:** n/a  
**Cost Share Requested:** \$250.00

**Requested Board Action:**  
Motion by Board Member 1, seconded by Board Member 2, to approve encumbrance of \$250.00 cost share for the installation of the Hanson native planting.

**Location & Photos:**







PROPOSED BEST MANAGEMENT PRACTICES:

A. NATIVE PLANTING/HILLSIDE STABILIZATION

- 700 FT<sup>2</sup>
- Install native plant material along slope
- Install net-free erosion control fabric [e.g. Curlex NetFree Erosion Control Blanket]

B. NATIVE PLANTING/ HILLSIDE STABILIZATION

- 250 FT<sup>2</sup>
- Install erosion control fabric
- Install wattles and check dams to slow water [e.g. Ecowattle, Curlex NetFree ECB]
- Install native plant material along slope

C. PLANTED RAIN GARDEN / SWALE --

- 300 FT<sup>2</sup> / 6-INCHES DEEP MAX.
- Regrade to collect overland flow from Rain garden A.

D. UPLAND RAIN GARDEN AREA --

- 250 FT<sup>2</sup> / 6-INCHES DEEP
- Collect Sheet flow from shed and driveway

E. DRIVEWAY RAIN GARDEN/ NATIVE PLANTING --

- 250 FT<sup>2</sup> / 6-INCHES DEEP MAX.
- Planted or Rock Drainage Area
- Inspect and update existing trench drain
- Provide overflow connection to Rain Garden B.

NOTES:

1. THIS DRAWING IS CONCEPTUAL IN NATURE AND FOR PLANNING PURPOSES ONLY.
2. BASE INFORMATION INCLUDING EXISTING CONTOURS, LOCATION OF PROPERTY LINES, BUILDINGS, DRIVEWAYS AND WALLS HAVE BEEN REFERENCED FORM OTHERS. ALL GARDEN SIZES SHOWN ARE APPROXIMATE. PRIOR TO CONSTRUCTION, LOCATE ALL UNDERGROUND UTILITIES.
3. THE RAIN GARDENS MUST INFILTRATE AT A RATE OF 1-2" /HR. PROVIDE OVERFLOW AWAY FROM STRUCTURES.



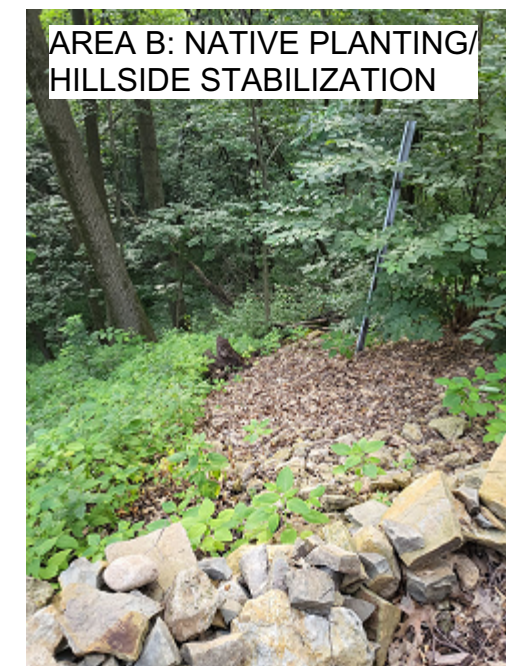
1 **Planting Area**  
Scale: 1" = 30'-0"



**AREA A: EROSION CONTROL/ HILLSIDE STABILIZATION**

**AREA A: HILLSIDE STABILIZATION - 250 FT2**

- Native Planting [~5 shrubs, 30 plugs]
- \*see recommended plants SH-2
- Install erosion control fabric
- Install wattles and check dams to slow water [e.g. Ecowattle, Curlex NetFree ECB]



**AREA B: NATIVE PLANTING/ HILLSIDE STABILIZATION**

**AREA B: HILLSIDE STABILIZATION - 700 FT**

- Install erosion control fabric and materials such as wattles and check dams to slow water [e.g. Ecowattle, Curlex NetFree ECB]
- Native Planting: ~10 shrubs, 60 plugs. [Interplant with existing native vegetation]
- \*see recommended plants SH-2



**Washington Conservation District**  
455 Hayward Ave N  
Oakdale, MN 55128  
(651) 330-8220  
www.mnwcd.org



plan created by:

Project Address	2011 St Croix Trail N, Stillwater, MN 55082	Drawn	Reviewed	Revision
Project Manager	Lori Tella	Washington Conservation District		

**MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION**

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Project Title	<b>HANSON RESIDENCE HILLSIDE STABILIZATION</b>
Sheet Title	<b>Native Planting Area</b>
CAD File Name	Hanson_Concept Plan 9.26.22.rvt

Date  
7/15/2022

**Sht-2**

of  
3

**Sub-canopy Shrubs**



**Red-Berried Elderberry**  
*Sambucus racemosa*

Sun Exposure: *Full, Partial shade, Shade*  
Soil Moisture: *Medium-Wet, Medium, Medium-Dry*  
Height: *up to 15 feet*  
Plant Spacing: *3-5'*  
Bloom Time: *June, July*  
Bloom Color: *White*



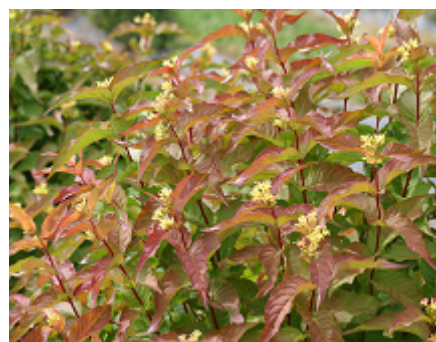
**Snowberry**  
*Symphoricarpos albus*

Sun Exposure: *Full, Partial shade*  
Soil Moisture: *Medium, Medium-Dry*  
Height: *up to 6 feet*  
Plant Spacing: *3-5'*  
Bloom Time: *May, June, July*  
Bloom Color: *White*



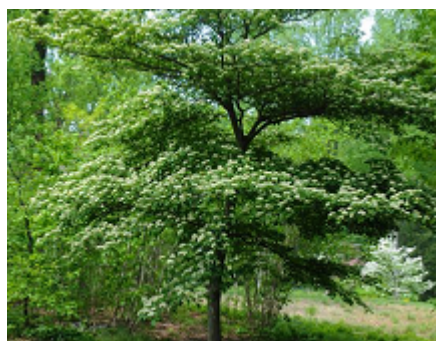
**Winterberry Holly**  
*Ilex verticillata*

Sun Exposure: *Full, Partial shade, Shade*  
Soil Moisture: *Wet, Medium-Wet, Medium*  
Height: *up to 6-10 feet*  
Plant Spacing: *3-5'*  
Bloom Time: *June, July*  
Bloom Color: *White*



**Dwarf Bush Honeysuckle**  
*Diervilla lonicera*

Sun Exposure: *Full, Partial shade, Shade*  
Soil Moisture: *Medium-Dry, Dry*  
Height: *3 feet*  
Plant Spacing: *2-3'*  
Bloom Time: *June, July, August*  
Bloom Color: *Yellow*



**Pagoda Dogwood**  
*Cornus alternifolia*

Sun Exposure: *Partial shade, Shade*  
Soil Moisture: *Medium-Wet, Medium, Medium-Dry*  
Height: *up to 25 feet*  
Canopy Spread: *6-12'*  
Bloom Time: *May, June, July*  
Bloom Color: *White*

**Woodland Ground Cover Plants**



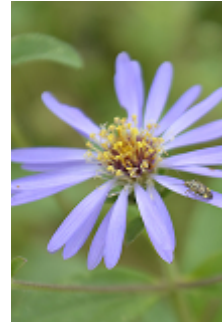
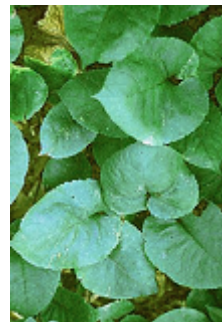
**Virginia Waterleaf**

*Hydrophyllum virginianum*  
plant 3" deep plug  
space @ 2' -3'  
they will spread quickly



**Wild Ginger**

*Asarum canadense*  
plant 4" pot  
space @ 2' or more;  
they will spread quickly



**Big-Leaved Aster**

*Eurybia macrophylla*  
plant 4" pot  
space @ 2' or more;  
they will spread quickly



**Pennsylvania Sedge**

*Carex pensylvanica*



**Sprengel's Sedge**

*Carex sprengelii*



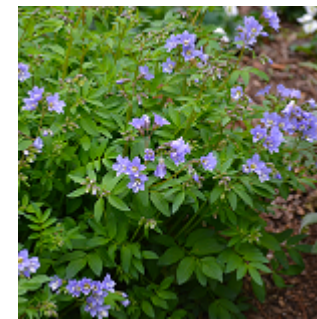
**Jack in the Pulpit**  
*Arisaema triphyllum*

plant 4" pot / seeds  
Red berries form after plant blooms.  
Once berries begin to dry, scatter seeds



**Columbine**  
*Aquilegia canadensis*

plant 4" pot and seeds  
Bees and Hummingbirds love this plant. Scatter seeds after plant has finished blooming



**Jacob's Ladder**  
*Polemonium reptans*

plant 4" pot / seeds  
Scatter seeds after plant has finished blooming



**Bottlebrush Grass**  
*Elymus hystrix*



**Wood Sedge**  
*Carex blanda*

plant 3" plug

Washington Conservation District  
455 Hayward Ave N  
Oakdale, MN 55128  
(651) 330-8220  
www.mnwcd.org

Project Address: 2011 St Croix Trail N, Stillwater, MN 55082

Project Manager	Drawn
Lori Tella	Reviewed
Washington Conservation District	Revision

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

455 Hayward Ave N  
Oakdale, MN 55128  
(651) 330-8220 x2.22  
www.mscwmo.org

Project Title: HANSON RESIDENCE HILLSIDE STABILIZATION

Sheet Title: Plant Recommendations

CAD File Name: Hanson\_Concept Plan 9.26.22.rvt

Date: 7/15/2022

Sht-3



MEMORANDUM

**TO:** Matt Downing, Administrator  
**FROM:** Rebecca Nestingen, PE  
**DATE:** September 30, 2022

**RE: 8a) Plan Reviews/Submittals**

The following is a summary of recent activity on projects submittals which qualify for plan review under the MSCWMO 2015 Watershed Management Plan (WMP):

- **Hassis Paintworks Building Addition.** An application for project review was submitted on May 9<sup>th</sup>, 2022 for the Hassis Paintworks building addition project which includes a building addition and associated parking lot and site work at 1792 Greeley Street in the City of Stillwater. The project consists of 14,056 sf of new/reconstructed impervious surfaces. The submittal demonstrated compliance with MSCWMO rate control standards however the site is located in a high vulnerability DWSMA and will utilize a porous pavement infiltration system for stormwater management therefor was requested to provide a higher level of engineering review for infiltration facilities. Revised materials were received on August 24<sup>th</sup> including the higher level of engineering review. *MSCWMO staff has recommended approval with two conditions.*
- **3 Point Road Detached Garage.** An application for project review was submitted on September 20<sup>th</sup>, 2022 for a detached garage and driveway reconstruction project at 3 Point Road in the City of Bayport. The project consists of 2,686 sf of new/reconstructed impervious surfaces. The MSCWMO volume control performance standards are satisfied with a proposed rain garden and plans included all required items for erosion and sediment control performance standards. *MSCWMO staff recommends approval without any conditions.*
- **St. Croix Car Wash.** An application for project review was submitted on August 18<sup>th</sup>, 2022 for the St. Croix Carwash project which includes reconstructing of an existing parking lot to build a car wash adjacent to Tire Pros at 14447 60<sup>th</sup> Street North in the City of Oak Park Heights. The project consists of 17,242 sf of new/reconstructed impervious surfaces. The submittal demonstrated compliance with MSCWMO rate control standards however the site is located in a high vulnerability DWSMA and Oak Park Heights where infiltration facilities are prohibited. The applicant demonstrated compliance with MIDS flexible treatment options by removing at least 60% of the annual total phosphorus load with an iron enhanced sand filtration system. *MSCWMO staff has recommended approval with three conditions.*
- **Stillwater Towing.** This project was previously recommended for approval however the approved stormwater design was modified to account for the addition of a future easement along the east right-of-way of Greeley Street. The revised stormwater design was determined to still meet MSCWMO performance standards.
- **Villas of Inspiration.** The MSCWMO reviewed Villas of Inspiration as-built materials and found the infiltration basin had not been constructed to plan and fell short of the required MSCWMO volume control performance standard. A revised grading plan was provided which would expand the infiltration volume and satisfy the required volume control.

- **St. Croix Prep Trail.** An application for project review was submitted on June 21<sup>st</sup>, 2022 for the construction of a proposed trail at St. Croix Prep in Baytown Township. The project disturbs 3.8 acres and creates 1.9 acres of new impervious surface. The project as submitted does not comply with volume control standards which is volume control for 7,429 cf however the applicant only demonstrated 3,649 cf. The applicant also did not submit any materials to demonstrate compliance with rate control standards. Revised submittal materials were received September 22<sup>nd</sup>, 2022. *MSCWMO staff recommendation is TBD.*

# MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

455 HAYWARD AVENUE OAKDALE, MINNESOTA 55128  
Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org



September 12, 2022

Mr. Shawn Sanders  
City of Stillwater  
406 Fourth Street North  
Stillwater, MN 55082

RE: Hassis Paintworks Building Addition

Dear Mr. Sanders:

The Middle St. Croix Watershed Management Organization (MSCWMO) received submittal items on May 5, 2022 for impervious surface improvements and a building addition for Hassis Paintworks at 1792 Greeley Street located within MSCWMO boundaries and in the City of Stillwater. Revised review materials were received on August 24<sup>th</sup>, 2022 including a memo documenting a higher level of engineering review for the infiltration facilities since the project is located within a high vulnerability DWSMA but outside of an ERA. The proposed project qualifies for full review under the MSCWMO 2015 Watershed Management Plan (WMP).

Stormwater is proposed to be managed porous pavement. The project meets the applicable Policies and Performance Standards contained within Section 7.0 of the 2015 MSCWMO WMP. **The MSCWMO recommends approval with the following two conditions:**

1. Flowage easements up to the 100-yr flood level have been secured for stormwater management facilities (such as ditches and storm sewers).
2. Identify as build survey and method to demonstrate porous pavement is functioning. Prior to the release of any remaining fee or security, the permit holder must provide documentation that constructed volume control facilities perform as designed.

This recommended approval is based on the technical review of MSCWMO performance standards and does not constitute approval by the City of Stillwater. MSCWMO review process information can be downloaded from [www.mscwmo.org](http://www.mscwmo.org). Please contact me at 651-275-1136 x22 or [m Downing@mnwcd.org](mailto:m Downing@mnwcd.org) if you have any questions regarding these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Downing".

Matt Downing  
Administrator  
Middle St. Croix Watershed Management Organization



# PROJECT REVIEW

**MSCWMO Review ID:** 22-009

**Project Name:** Hassis Paintworks

**Applicant:** Matt Woodruff

**Purpose:** Building Addition

**Location:** 1792 Greeley Street, Stillwater

**Review Date:** 9/12/2022

**Recommendation:** Approval with two conditions:

1. Flowage easements up to the 100-yr flood level have been secured for stormwater management facilities (such as ditches and storm sewers).
2. Identify as build survey and method to demonstrate porous pavement is functioning. Prior to the release of any remaining fee or security, the permit holder must provide documentation that constructed volume control facilities perform as designed.

## Applicability:

- Any project undertaking grading, filling, or other land alteration activities which involve movement of 100 cubic yards of earth or removal of vegetation on greater than 10,000 square feet of land.
- Any project that creates or fully reconstruct 6,000 square feet or more of impervious surface.
- All major subdivisions or minor subdivisions that are part of a common plan of development. Major subdivisions are defined as subdivisions with 4 or more lots.
- Any project with wetland impacts, grading within public waters, grading within buffers or within 40-feet of the bluff line.
- Development projects that impact 2 or more of the member communities.
- New or redevelopment projects within the St. Croix Riverway that require a building permit that add 500 square feet of additional impervious surface.
- Any project requiring a variance from the current local impervious surface zoning requirements for the property.
- Any land development activity, regardless of size, that the City determines is likely to cause an adverse impact to an environmentally sensitive area or other property, or may violate any other erosion and sediment control standard set by the member community.

## Submittal Items:

- A completed and signed project review application form and review fee.
- Grading Plan/Mapping Exhibits:

Property lines and delineation of lands under ownership of the applicant.

Delineation of existing on-site wetlands, shoreland and/or floodplain areas (including any buffers).

NA Ordinary High Water (OHW) elevations and datum, as determined by the MDNR (if applicable).

Existing and proposed site contour elevations related to NAVD 1988 datum (preferred) or NGVD, 1929. Datum must be noted on exhibits.

Drainage easements covering land adjacent to ponding areas, wetlands, and waterways up to their 100-year flood levels and covering all ditches and storm sewers. Access easements to these drainage easements and to other stormwater management facilities shall also be shown. (Not required for sites within public right-of-way)

NA Minimum building elevation for each lot.

Identification of downstream water body.

Delineation of the subwatersheds contributing runoff from off-site, proposed and existing on-site subwatersheds, and flow directions/patterns.

Location, alignment, and elevation of proposed and existing stormwater facilities.

NA Existing and proposed normal water elevations and the critical (the highest) water level produced from the 100-year 24-hour storms.

Location of the 100-year flood elevation, natural overflow elevation, and lowest floor elevations.

A Stormwater Pollution Prevention Plan in compliance with the requirements of the NPDES SDS Construction Stormwater Permit.

Permanent Stormwater Management System in compliance with the requirements of the NPDES SDS Construction Stormwater Permit and MSCWMO Performance Standards.

Impervious areas (Pre- and Post-Construction).

Construction plans and specifications for all proposed stormwater management facilities.

NA Location(s) of past, current or future onsite well and septic systems (if applicable).

Other exhibits required to show conformance to these Performance Standards.

Hydrologic/Hydraulic Design Exhibits:

All hydrologic and hydraulic computations completed to design the proposed stormwater management facilities shall be submitted. Model summaries must be submitted. The summaries shall include a map that corresponds to the drainage areas in the model and all other information used to develop the model.

A table (or tables) must be submitted showing the following:

A listing of all points where runoff leaves the site and the existing and proposed stormwater runoff rates and volumes.

A listing of the normal water levels under existing and proposed conditions and the water levels produced from the storm and runoff events listed above for all on-site wetlands, ponds, depressions, lakes, streams, and creeks.



- A proposed maintenance agreement, which may be in the format of Appendix K, or other form approved by the city.

**Special or Impaired Water:**

- This site drains to, and is within one mile of special or impaired water and complies with the following enhanced protections:

NA Stabilization initiated immediately and all soils protected in seven days/provide temp basin for five acres draining to common location.

- Treat water quality volume of one inch of runoff by retaining on site unless not feasible due to site conditions
- Maintain buffer zone of 100 linear feet from Special Water.

**STORMWATER MANAGEMENT PERFORMANCE STANDARDS**

- Water quality treatment is provided prior to direct discharge of stormwater to wetlands and all other water bodies.

**Rate and Flood Control Standards**

- The peak rate of stormwater runoff from a newly developed or redeveloped site shall not exceed the 2-, 10-, and 100-year 24-hour storms with respective 2.8, 4.2, and 7.3-inch rainfall depths with MSCWMO approved time distribution based on Atlas 14 for existing and proposed conditions. The runoff curve number for existing agriculture areas shall be less than or equal to the developed condition curve number. The newly developed or redeveloped peak rate shall not exceed the existing peak rate of runoff for all critical duration events, up to and including the 100-year return frequency storm event for all points where discharges leave a site during all phases of development.
- Predevelopment conditions assume “good hydrologic conditions” for appropriate land covers as identified in TR-55 or an equivalent methodology. Runoff curve numbers have been increased where predevelopment land cover is cropland:

Hydrologic Soil Group A	Runoff Curve Number 56
Hydrologic Soil Group B	Runoff Curve Number 70
Hydrologic Soil Group C	Runoff Curve Number 79
Hydrologic Soil Group D	Runoff Curve Number 83

- Computer modeling analyses includes secondary overflows for events exceeding the storm sewer systems level-of-service up through the critical 100-year event.

NA In sub-areas of a landlocked watershed, the proposed project does not increase the predevelopment volume or rate of discharge from the sub-area for the 10-year return period event.

- Flowage easements up to the 100-yr flood level have been secured for stormwater management facilities (such as ditches and storm sewers).
- Lowest floor elevations of structures built adjacent to stormwater management features and other water bodies are a minimum of two feet above the 100-year flood elevation and a minimum of two feet above the natural overflow of landlocked basins.

**Volume Control Standards**

- Calculations/computer model results indicate stormwater volume is controlled for new development and redevelopment requirements per the MSCWMO Design Standards.

Volume Retention Required (cu. ft.)	Volume Retention Provided (cu. ft.)						
$14,065 \text{ sq. ft.} \times \frac{1.1 \text{ in}}{12 \text{ in/ft}} = 1,288 \text{ cu. ft.}$ <i>Type equation here.</i>	<table border="1"> <thead> <tr> <th>BMP</th> <th>Volume</th> </tr> </thead> <tbody> <tr> <td>BMP #1</td> <td>4082 cu. ft.</td> </tr> <tr> <td>BMP #2</td> <td>X,XXX cu. ft.</td> </tr> </tbody> </table>	BMP	Volume	BMP #1	4082 cu. ft.	BMP #2	X,XXX cu. ft.
BMP	Volume						
BMP #1	4082 cu. ft.						
BMP #2	X,XXX cu. ft.						
<b>Total Required Volume Retention = 1,288 cu. ft.</b>	<b>Total Provided Volume Retention = 4082 cu. ft.</b>						

**Flexible Treatment Options (when applicable)**

- NA Applicant demonstrated qualifying restrictions as defined in Section 7.2.2 (4) of the 2015 MSCWMO Watershed Management Plan that prohibits the infiltration of the entire required volume.
- NA FTO #1: MIDS calculator submission removes 75% of the annual total phosphorous.
- NA FTO #2: MIDS calculator submission removes 60% of the annual total phosphorous.
- NA FTO #3: Offsite mitigation equivalent to the volume reduction standard is provided.

**Infiltration/Filtration Design Standards**

- Proposed stormwater management features meet or exceed NPDES General Construction Permit requirements are designed in conformance with the most recent edition of the State of Minnesota Stormwater Manual.
- None of the following conditions exist that prohibit infiltration of stormwater on the site **High vulnerability DWSMA, higher level of engineering review completed**
  - a. Areas where vehicle fueling and maintenance occur.
  - b. Areas with less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.
  - c. Areas where industrial facilities are not authorized to infiltrate industrial stormwater under an National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Industrial Stormwater Permit issued by the MPCA.
  - d. Areas where contaminants in soil or groundwater will be mobilized by infiltrating stormwater.
  - e. Areas of Hydrologic Soil Group D (clay) soils
  - f. Areas within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features unless allowed by a local unit of government with a current MS4 permit.

- Minimum setbacks from the Minnesota Department of Health for infiltration practices are met

Setback	Minimum Distance (ft.)
Property line	10
Building foundation*	10
Private well	35
Public water supply well	50
Septic system tank/leach field	35

\*Minimum with slopes directed away from the building

- NA Pretreatment devices(s) remove at least 50% of sediment loads. If downstream from a potential hot spot, a skimmer is in place to facilitate cleanup.
- Water quality volume will be discharged through infiltration or filtration media in 48 hours or less.

- NA For bioretention (biofiltration and bioinfiltration) volume control management facilities above ground with vegetation the period of inundation shall be calculated using the maximum water depth below the surface discharge elevation and the soil infiltration rate.
- For infiltration basin volume control management facilities the period of inundation shall be calculated using the maximum water depth below the surface discharge elevation and the soil infiltration rate.
- NA Appropriate soil borings have been conducted that meet the minimum standards.
- A minimum of one boring was conducted at the location of the infiltration facility for facilities up to 1,000 ft<sup>2</sup>; between 1,000 and 5,000 ft<sup>2</sup>, two borings; between 5,000 and 10,000 ft<sup>2</sup>, three borings; and greater than 10,000 ft<sup>2</sup>, 4 borings plus an additional boring for every 2,500 ft<sup>2</sup> beyond 12,500 ft<sup>2</sup>.
  - Soil borings extend a minimum of five feet below the bottom of the infiltration practice. If fractured bedrock is suspected, the soil boring goes to a depth of at least ten feet below the proposed bottom of the volume control facility.
  - A minimum of three feet of separation to the seasonal water table and/or bedrock.
  - Identify unified soil classification.
- The least permeable soils horizon identified in the soil boring dictated the infiltration rate.
- Additional flows are bypassed and are routed through stabilized discharge points.
- Filtration basin demonstrates a basin draw down between 24 hours and 48 hours.
- NA Filtration system Iron Enhanced Sand Filter is sized to bind soluble phosphorous removal for 30 year functional life of the system using the published value of 17lbs.phosphorous removal per 20 yards of 5% by weight iron filings to 95% sand.
- Identify as build survey and method to demonstrate infiltration or filtration basin is functioning.
- NA Construction plans provide adequate construction guidance to prevent clogging or compaction and demonstrate performance.
- Excavation within 2.0 feet of final grade for infiltration/filtration systems is prohibited until contributing drainage areas are constructed and fully stabilized.
  - Rigorous sediment and erosion controls planned to divert runoff away from the system.
  - Installation of volume control facilities must occur in dry soil conditions. Excavation, soil placement and rapid stabilization of perimeter slopes must be accomplished prior to the next precipitation event.
  - Excavation shall be performed by an excavator with a toothed bucket. Use excavator bucket to place materials. Construction equipment shall not be allowed into the basin.
  - Prior to the release of any remaining fee or security, the permit holder must provide documentation that constructed volume control facilities perform as designed.
- There is a way to visually verify the system is operating as designed.
- NA A minimum 8.0' maintenance access is provided to all stormwater facilities.

## EROSION AND SEDIMENT CONTROL PERFORMANCE STANDARDS

- A Stormwater Pollution Prevention Plan (SWPPP) that meets the National Pollutant Discharge Elimination System (NPDES) requirements.

### **Narrative**

- Identify the person knowledgeable and experienced who will oversee the implementation of the SWPPP; the installation, inspection, and maintenance of the BMPs.
  - a. Identifies the person who will oversee the BMP inspection and maintenance.
  - b. Identify the training requirements are satisfied.
  - c. Inspections performed once every 7 days.
  - d. Inspections performed within 24 hours of a rain event greater than 0.5 in/24 hours.
  - e. Inspection and Maintenance records include:
    - i. Date and time of inspection.
    - ii. Name of person(s) conducting inspections.
    - iii. Finding of inspections, including the specific location where corrective actions are needed.
    - iv. Corrective actions taken (including dates, times, and party completing maintenance activities).
    - v. Date and amount of rainfall events greater than 0.5 in/24 hours.
    - vi. Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, or by a weather station that is within one mile or by a weather reporting system.
    - vii. Requirements to observe, describe, and photograph any discharge that may be occurring during the inspection.
    - viii. All discovered nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs within 24 hours after discovery, or as soon as field conditions allow.
- Describes procedures to amend the SWPPP and establish additional temporary ESC BMPs as necessary for site conditions.
- Describes the installation timing for all Erosion Sediment Control (ESC) Best Management Practices (BMPs).
- Describes final stabilization methods for all exposed areas.
- Methods used to minimize soil compaction and preserve topsoil must be described.
- NA Describes dewatering technique to prevent nuisance conditions, erosion, or inundation of wetlands.
- NA Identifies any specific chemicals and the chemical treatment systems that may be used for enhancing the sedimentation process on the site, and how compliance will be achieved with the permit requirements.
- Describes the following pollution prevention management measures:
  - a. Storage, handling, and disposal of construction products, materials, and wastes.
  - b. Fueling and maintenance of equipment or vehicles; spill prevention and response.
  - c. Vehicle and equipment washing.
  - d. No engine degreasing allowed on site.
  - e. Containment of Concrete and other washout waste.
  - f. Portable toilets are positioned so that they are secure.

### **Plan Sheets**

- NA Temporary Sediment Basins required (10 acres draining to common location or 5 acres App. A) and design meets the following criteria:
  - a. Adequately sized – 2-year, 24-hour storm, minimum 1,800 feet/acre; or no calculative minimum 3,600ft<sup>3</sup>/acre.
  - b. Designed to prevent short circuiting.
  - c. Outlets designed to remove floating debris.
  - d. Outlets designed to allow complete drawdown.
  - e. Outlets designed to withdraw water from the surface

- f. Outlets have energy dissipation.
  - g. Have a stabilized emergency spillway.
  - h. Situated outside of surface waters and any natural buffers.
- Locations and types of all temporary and permanent Erosion Control BMPs.
    - a. Exposed soils have erosion protection/cover initiated immediately and finished within 7 days.
    - b. Wetted perimeters of ditches stabilized within 200 feet of surface water within 24 hours.
    - c. Pipe outlets have energy dissipation within 24 hours of connecting.
  - Locations and types of all temporary and permanent Sediment Control BMPs.
    - a. Sediment control practices established on down gradient perimeters and upgradient of any buffer zones.
    - b. All inlets are protected.
    - c. Stockpiles have sediment control and placed in areas away from surface waters or natural buffers.
    - d. Construction site entrances minimize street tracking.
    - e. Plans minimize soil compaction and, unless infeasible to preserve topsoil.
    - f. Fifty foot natural buffers preserved or (if not feasible) provide redundant sediment controls when a surface water is located within 50 feet of the project's earth disturbances and drains to the surface water.
  - Tabulated quantities of all erosion prevention and sediment control BMPs.
  - Stormwater flow directions and surface water divides for all pre- and post-construction drainage areas.
  - Locations of areas not to be disturbed (buffer zones).
- NA Location of areas where construction will be phased to minimize duration of exposed soil areas.
- NA Blufflines are protected from construction activities in urban (40 foot buffer) areas and rural areas (100-foot buffer).

## WETLAND PERFORMANCE STANDARDS

- Direct discharge of stormwater to wetlands and all other water bodies without water quality treatment is prohibited.
- NA Any potential changes to the hydrology of the wetland (i.e. changes to the outlet elevation or contributing drainage area) must be reviewed to evaluate the impact of both the existing and proposed wetland conditions and approved by the MSCWMO.
- NA Land-altering activities shall not increase the bounce in water level or duration of inundation from a 2.0-inch 24-hour storm for any downstream wetland beyond the limit specified in Table 7.2 for the individual wetland susceptibility class.

## LAKE, STREAM AND WETLAND BUFFER PERFORMANCE STANDARDS

- NA A buffer zone of unmowed natural vegetation is maintained or created upslope of all water bodies (wetlands, streams, lakes).
- A 50 foot natural buffer or (if a buffer is infeasible) provide redundant sediment controls when a surface water is located within 50 feet of the project's earth disturbances and stormwater flows to the surface water.
  - If adjacent to a Special or Impaired Water an undisturbed buffer zone of not less than 100 linear feet from the special water is maintained both during construction and as a permanent feature post construction.

# MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

455 HAYWARD AVENUE OAKDALE, MINNESOTA 55128  
Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org



September 28, 2022

Adam Bell, Administrator  
City of Bayport  
294 3rd Street North  
Bayport, MN 55003

RE: 3 Point Road Garage Addition

Dear Mr. Bell,

The Middle St. Croix Watershed Management Organization (MSCWMO) received required submittal items on September 25, 2022 for the proposed construction of a garage located at 3 Point Road, within MSCWMO boundaries and in the City of Bayport. The proposed project qualifies for full review under the MSCWMO 2015-2025 Watershed Management Plan (WMP).

The MSCWMO staff recommends project approval. This approval does not constitute approval by the City of Bayport. The enclosed checklist contains detailed information on project review and the policies and performance standards of the WMP. Please contact me at 651-330-8220 x22 or [mdowning@mnwcd.org](mailto:mdowning@mnwcd.org) if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Matt Downing', written over a light blue horizontal line.

Matt Downing  
Administrator  
Middle St. Croix Watershed Management Organization



# PROJECT REVIEW FOR SINGLE LOT RESIDENTIAL

**MSCWMO Review ID:** 22-013

**Project Name:** 3 Point Road

**Applicant:** Brandon Lamb

**Purpose:** Reconstruction of driveway/detached garage

**Location:** 3 Point Rd, Bayport, MN

**Review Date:** 9/23/2022

**Recommendation:** Approval with no conditions.

## Submittal Items:

- A completed and signed project review application form and \$350 review fee.
- Grading plan showing grading limits, existing and proposed site contour elevations related to NAVD 1988 datum (preferred) or NGVD, 1929.
- Location of proposed and existing permanent structures.
- NA Ordinary High Water (OHW) elevations and location of all existing water bodies.
- NA Location of all bluff lines.
- Lowest floor elevations of structures built adjacent to stormwater management features and other water bodies must be a minimum of two feet above the regulator flood protection elevation. *New garage elevation only 1' above infiltration basin overflow elevation, okay for accessory structure outside regulated floodplain and small infiltration basin*
- NA Delineation of existing wetlands, shoreland, ordinary high water levels, drain tiling, and floodplain areas.
- NA Details of proposed buffer upslope of water resources including site and vegetation characteristics (when applicable).
- NA Location of the 100-year flood elevation, natural overflow elevation, and lowest floor elevations.
- Erosion and sediment control plan demonstrating locations, specifications, and details of the following items:
  - A. Erosion Prevention
    - i. Stabilize all exposed soil areas (including stockpiles) with temporary erosion control (seed and mulch or blanket) within 7 days after construction activities in the area have temporarily or permanently ceased.
    - ii. Identify location, type and quantity of temporary erosion prevention practices.
    - iii. Identify permanent vegetation.
  - B. Sediment Control
    - i. Sediment control practices will be placed down-gradient before up-gradient land disturbing activities begin.

- ii. Identify the location, type and quantity of sediment control practices.
- iii. Vehicle tracking practices must be in place to minimize track out of sediment from the construction site. Streets must be cleaned if tracking practices are not adequate to prevent sediment from being tracked onto the street.

C. Inspections and Maintenance

- i. Applicant must inspect all erosion prevention and sediment control practices once every 7 days or after a ½” rain event to ensure integrity and effectiveness. All nonfunctional practices must be repaired, replaced or enhanced the next business day after discovery.
- ii. Plans shall include contact information including email and a phone number of the person responsible for inspection and compliance with erosion and sediment control.

D. Pollution Prevention

- i. Solid waste must be stored, collected and disposed of in accordance with state law.
- ii. Provide effective containment for all liquid and solid wastes generated by washout operations (concrete, stucco, paint, form release oils, curing compounds).
- iii. Hazardous materials that have potential to leach pollutants must be under cover to minimize contact with stormwater.

E. Final Stabilization

- i. For residential construction only, individual lots are considered final stabilized if the structures are finished and temporary erosion protection and down gradient sediment control has been completed.
- ii. Grading and landscape plans shall include soil tillage and soil bed preparation methods that are employed prior to landscape installation to a minimum depth of 8” and incorporate amendments to meet Minnesota State Stormwater Manual predevelopment soil type bulk densities.
  - 1. Observe minimum setbacks for areas within the dripline of existing trees, over utilities within 30 in of the surface, where compaction is required by design and inaccessible slopes.

Details of proposed structural stormwater practices (Meets Minnesota Stormwater Manual guidelines)

- A. Stormwater flows are diverted away from bluffs whenever feasible.
- B. Volume control facilities must drain down within 48 hours, as required by the MPCA NPDES Construction Stormwater Permit.
  - i. The period of inundation shall be calculated using the maximum water depth below the surface discharge elevation and the soil infiltration rate.
- C. The maximum water depth for volume control facilities is 1.5 feet.
- D. Planting plan identified vegetation suitable for the hydrology of the basin.
- E. Separation from seasonally saturated soils or bedrock is 3 feet or more for bioretention and infiltration practices.
- F. Volume control facilities meet the following setback requirements:

Setback	Minimum Distance (ft.)
Property line	10
Building foundation*	10
Private well	35
Public water supply well	50
Septic system tank/leach field	35

G. Volume control is provided for the first 1.1” inch of runoff for all impervious:

Volume Retention Required (cu. ft.)	Volume Retention Provided (cu. ft.)
-------------------------------------	-------------------------------------



$2,686 \text{ sq. ft.} \times \frac{1.1 \text{ in}}{12 \text{ in/ft}} = 246 \text{ cu. ft.}$	<table border="0"> <tr> <td><b>BMP</b></td> <td><b>Volume</b></td> </tr> <tr> <td>BMP #1</td> <td>360 cu. ft.</td> </tr> </table>	<b>BMP</b>	<b>Volume</b>	BMP #1	360 cu. ft.
<b>BMP</b>	<b>Volume</b>				
BMP #1	360 cu. ft.				
<b>Total Required Volume Retention = 246 cu. ft.</b>	<b>Total Provided Volume Retention = 360 cu. ft.</b>				

H. Construction Standards

- i. To prevent soil compaction, the proposed volume control facility must be staked off and marked during construction to prevent heavy equipment and traffic from traveling over it.
- ii. Facilities may not be excavated within 2.0 feet of final grade until the contributing drainage area has been constructed and fully stabilized.
- iii. Facilities are in-place during construction activities, all sediment and runoff must be diverted away the facility, using practices such as pipe capping or diversions.
- iv. Facilities installation must occur in dry soil conditions. Excavation, soil placement and rapid stabilization of perimeter slopes must be accomplished prior to the next precipitation event.
- v. Excavation shall be performed by an excavator with a toothed bucket. Use excavator bucket to place materials. Construction equipment shall not be allowed into the basin.
- vi. Prior to the release of any remaining fee or security, the owner must provide documentation that constructed volume control facilities perform as designed.

I. Details

- i. Include a standard cross section of the infiltration device similar to those identified in the Minnesota Stormwater Manual ([https://stormwater.pca.state.mn.us/index.php/Bioretention\\_plan\\_and\\_section\\_drawings](https://stormwater.pca.state.mn.us/index.php/Bioretention_plan_and_section_drawings))
- ii. The cross section must detail the infiltration media used in the device. Typically, devices use Mix B as described in the Minnesota Stormwater Manual: A well-blended, homogenous mixture of 70 to 85 percent washed construction sand; and 15 to 30 percent MnDOT Grade 2 compost.

# MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

455 HAYWARD AVE. N., OAKDALE, MINNESOTA 55128  
Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org



September 30, 2022

Eric Johnson, Administrator  
City of Oak Park Heights  
14168 Oak Park Blvd. N.  
Oak Park Heights, MN 55082

RE: St. Croix Carwash, Oak Park Heights

Dear Mr. Johnson,

The Middle St. Croix Watershed Management Organization (MSCWMO) received an application for project review on September 8<sup>th</sup>, 2022 for the reconstruction of an existing parking lot to build a car wash adjacent to Tire Pros at 14447 60th St N, located within MSCWMO boundaries and in the City of Oak Park Heights. The proposed project qualifies for full review under the MSCWMO 2015 MSCWMO Watershed Management Plan (WMP). The City of Oak Park Heights has more restrictive standards prohibiting infiltration in the high vulnerability DWSMA so the iron enhanced sand filtration systems utilized meet flexible treatment options to comply with the performance standards identified in Section 7.0 of the MSCWMO Watershed Management Plan. The MSCWMO recommends approval with the following three conditions:

1. Drainage easements covering land adjacent stormwater management facilities shall be shown.
2. Identify as build survey and method to demonstrate filtration basin is functioning and prior to the release of any remaining fee or security, the permit holder must provide documentation that constructed filtration basins perform as designed.
3. Identify the training requirements are satisfied for design and implementation of the SWPPP.

The enclosed checklist contains detailed information on project review and the policies and performance standards of the WMP. Feel free to contact me at 651-330-8220 x22 or [mdowning@mnwcd.org](mailto:mdowning@mnwcd.org) if you have any questions regarding these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Downing".

Matt Downing  
MSCWMO, Administrator

Enclosure



# PROJECT REVIEW

**MSCWMO Review ID:** 22-014

**Project Name:** St. Croix Carwash

**Applicant:** Cristina Holzer - Stevens Engineers

**Purpose:** Reconstruction of an existing parking lot to build a car wash adjacent to Tire Pros

**Location:** 14447 60th St N, Oak Park Heights

**Review Date:** 9/8/2022

**Recommendation:** Approval with three conditions:

1. Drainage easements covering land adjacent stormwater management facilities shall also be shown.
2. Identify as build survey and method to demonstrate filtration basin is functioning and prior to the release of any remaining fee or security, the permit holder must provide documentation that constructed filtration basins perform as designed.
3. Identify the training requirements are satisfied for design and implementation of the SWPPP.

## Applicability:

- Any project undertaking grading, filling, or other land alteration activities which involve movement of 100 cubic yards of earth or removal of vegetation on greater than 10,000 square feet of land.
- Any project that creates or fully reconstruct 6,000 square feet or more of impervious surface.
- All major subdivisions or minor subdivisions that are part of a common plan of development. Major subdivisions are defined as subdivisions with 4 or more lots.
- Any project with wetland impacts, grading within public waters, grading within buffers or within 40-feet of the bluff line.
- Development projects that impact 2 or more of the member communities.
- New or redevelopment projects within the St. Croix Riverway that require a building permit that add 500 square feet of additional impervious surface.
- Any project requiring a variance from the current local impervious surface zoning requirements for the property.
- Any land development activity, regardless of size, that the City determines is likely to cause an adverse impact to an environmentally sensitive area or other property, or may violate any other erosion and sediment control standard set by the member community.

## Submittal Items:

- A completed and signed project review application form and review fee.
- Grading Plan/Mapping Exhibits:

Property lines and delineation of lands under ownership of the applicant.

NA Delineation of existing on-site wetlands, shoreland and/or floodplain areas (including any buffers).

NA Ordinary High Water (OHW) elevations and datum, as determined by the MDNR (if applicable).

Existing and proposed site contour elevations related to NAVD 1988 datum (preferred) or NGVD, 1929. Datum must be noted on exhibits.

Drainage easements covering land adjacent to ponding areas, wetlands, and waterways up to their 100-year flood levels and covering all ditches and storm sewers. Access easements to these drainage easements and to other stormwater management facilities shall also be shown. (Not required for sites within public right-of-way)

NA Minimum building elevation for each lot.

Identification of downstream water body.

Delineation of the subwatersheds contributing runoff from off-site, proposed and existing on-site subwatersheds, and flow directions/patterns.

Location, alignment, and elevation of proposed and existing stormwater facilities.

Existing and proposed normal water elevations and the critical (the highest) water level produced from the 100-year 24-hour storms.

Location of the 100-year flood elevation, natural overflow elevation, and lowest floor elevations.

A Stormwater Pollution Prevention Plan in compliance with the requirements of the NPDES SDS Construction Stormwater Permit.

Permanent Stormwater Management System in compliance with the requirements of the NPDES SDS Construction Stormwater Permit and MSCWMO Performance Standards.

Impervious areas (Pre- and Post-Construction).

Construction plans and specifications for all proposed stormwater management facilities.

NA Location(s) of past, current or future onsite well and septic systems (if applicable).

Other exhibits required to show conformance to these Performance Standards.

Hydrologic/Hydraulic Design Exhibits:

All hydrologic and hydraulic computations completed to design the proposed stormwater management facilities shall be submitted. Model summaries must be submitted. The summaries shall include a map that corresponds to the drainage areas in the model and all other information used to develop the model.

A table (or tables) must be submitted showing the following:

A listing of all points where runoff leaves the site and the existing and proposed stormwater runoff rates and volumes.

NA A listing of the normal water levels under existing and proposed conditions and the water levels produced from the storm and runoff events listed above for all on-site wetlands, ponds, depressions, lakes, streams, and creeks.

- A proposed maintenance agreement, which may be in the format of Appendix K, or other form approved by the city.

**Special or Impaired Water:**

- This site drains to, and is within one mile of special or impaired water and complies with the following enhanced protections:

NA Stabilization initiated immediately and all soils protected in seven days/provide temp basin for five acres draining to common location.

- Treat water quality volume of one inch of runoff by retaining on site unless not feasible due to site conditions
- Maintain buffer zone of 100 linear feet from Special Water.

**STORMWATER MANAGEMENT PERFORMANCE STANDARDS**

- Water quality treatment is provided prior to direct discharge of stormwater to wetlands and all other water bodies.

**Rate and Flood Control Standards**

- The peak rate of stormwater runoff from a newly developed or redeveloped site shall not exceed the 2-, 10-, and 100-year 24-hour storms with respective 2.8, 4.2, and 7.3-inch rainfall depths with MSCWMO approved time distribution based on Atlas 14 for existing and proposed conditions. The runoff curve number for existing agriculture areas shall be less than or equal to the developed condition curve number. The newly developed or redeveloped peak rate shall not exceed the existing peak rate of runoff for all critical duration events, up to and including the 100-year return frequency storm event for all points where discharges leave a site during all phases of development.
- Predevelopment conditions assume “good hydrologic conditions” for appropriate land covers as identified in TR-55 or an equivalent methodology. Runoff curve numbers have been increased where predevelopment land cover is cropland:

Hydrologic Soil Group A	Runoff Curve Number 56
Hydrologic Soil Group B	Runoff Curve Number 70
Hydrologic Soil Group C	Runoff Curve Number 79
Hydrologic Soil Group D	Runoff Curve Number 83

- Computer modeling analyses includes secondary overflows for events exceeding the storm sewer systems level-of-service up through the critical 100-year event.

NA In sub-areas of a landlocked watershed, the proposed project does not increase the predevelopment volume or rate of discharge from the sub-area for the 10-year return period event.

- Flowage easements up to the 100-yr flood level have been secured for stormwater management facilities (such as ditches and storm sewers).

NA Lowest floor elevations of structures built adjacent to stormwater management features and other water bodies are a minimum of two feet above the 100-year flood elevation and a minimum of two feet above the natural overflow of landlocked basins.

**Volume Control Standards**

- Calculations/computer model results indicate stormwater volume is controlled for new development and redevelopment requirements per the MSCWMO Design Standards.

Volume Retention Required (cu. ft.)	Volume Retention Provided (cu. ft.)
$17,242 \text{ sq. ft.} \times \frac{1.1 \text{ in}}{12 \text{ in/ft}} = 2,581 \text{ cu. ft.}$ $XX,XXX \text{ sq. ft.} \times \frac{0.55 \text{ in}}{12 \text{ in/ft}} = X,XXX \text{ cu. ft.}$	<b>BMP Volume</b> BMP #1 X,XXX cu. ft. BMP #2 X,XXX cu. ft.
<b>Total Required Volume Retention = 2,581 cu. ft.</b>	<b>Total Provided Volume Retention = X,XXX cu. ft.</b>

**Flexible Treatment Options (when applicable)**

- Applicant demonstrated qualifying restrictions as defined in Section 7.2.2 (4) of the 2015 MSCWMO Watershed Management Plan that prohibits the infiltration of the entire required volume.

NA FTO #1: MIDS calculator submission removes 75% of the annual total phosphorous.

- FTO #2: MIDS calculator submission removes 60% of the annual total phosphorous. P8 model

NA FTO #3: Offsite mitigation equivalent to the volume reduction standard is provided.

**Infiltration/Filtration Design Standards**

- Proposed stormwater management features meet or exceed NPDES General Construction Permit requirements are designed in conformance with the most recent edition of the State of Minnesota Stormwater Manual.

NA None of the following conditions exist that prohibit infiltration of stormwater on the site

- Areas where vehicle fueling and maintenance occur.
- Areas with less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.
- Areas where industrial facilities are not authorized to infiltrate industrial stormwater under an National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Industrial Stormwater Permit issued by the MPCA.
- Areas where contaminants in soil or groundwater will be mobilized by infiltrating stormwater.
- Areas of Hydrologic Soil Group D (clay) soils
- Areas within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features unless allowed by a local unit of government with a current MS4 permit.

NA Minimum setbacks from the Minnesota Department of Health for infiltration practices are met

Setback	Minimum Distance (ft.)
Property line	10
Building foundation*	10
Private well	35
Public water supply well	50
Septic system tank/leach field	35

\*Minimum with slopes directed away from the building

NA Pretreatment devices(s) remove at least 50% of sediment loads. If downstream from a potential hot spot, a skimmer is in place to facilitate cleanup.

- Water quality volume will be discharged through infiltration or filtration media in 48 hours or less.

- NA For bioretention (biofiltration and bioinfiltration) volume control management facilities above ground with vegetation the period of inundation shall be calculated using the maximum water depth below the surface discharge elevation and the soil infiltration rate.
- NA For infiltration basin volume control management facilities the period of inundation shall be calculated using the maximum water depth below the surface discharge elevation and the soil infiltration rate.
- NA Appropriate soil borings have been conducted that meet the minimum standards.
- A minimum of one boring was conducted at the location of the infiltration facility for facilities up to 1,000 ft<sup>2</sup>; between 1,000 and 5,000 ft<sup>2</sup>, two borings; between 5,000 and 10,000 ft<sup>2</sup>, three borings; and greater than 10,000 ft<sup>2</sup>, 4 borings plus an additional boring for every 2,500 ft<sup>2</sup> beyond 12,500 ft<sup>2</sup>.
  - Soil borings extend a minimum of five feet below the bottom of the infiltration practice. If fractured bedrock is suspected, the soil boring goes to a depth of at least ten feet below the proposed bottom of the volume control facility.
  - A minimum of three feet of separation to the seasonal water table and/or bedrock.
  - Identify unified soil classification.
- NA The least permeable soils horizon identified in the soil boring dictated the infiltration rate.
- Additional flows are bypassed and are routed through stabilized discharge points.
  - Filtration basin demonstrates a basin draw down between 24 hours and 48 hours.
  - Filtration system Iron Enhanced Sand Filter is sized to bind soluble phosphorous removal for 30 year functional life of the system using the published value of 17lbs.phosphorous removal per 20 yards of 5% by weight iron filings to 95% sand.
  - Identify as build survey and method to demonstrate infiltration or filtration basin is functioning.
  - Construction plans provide adequate construction guidance to prevent clogging or compaction and demonstrate performance.
    - Excavation within 2.0 feet of final grade for infiltration/filtration systems is prohibited until contributing drainage areas are constructed and fully stabilized.
    - Rigorous sediment and erosion controls planned to divert runoff away from the system.
    - Installation of volume control facilities must occur in dry soil conditions. Excavation, soil placement and rapid stabilization of perimeter slopes must be accomplished prior to the next precipitation event.
    - Excavation shall be performed by an excavator with a toothed bucket. Use excavator bucket to place materials. Construction equipment shall not be allowed into the basin.
    - Prior to the release of any remaining fee or security, the permit holder must provide documentation that constructed volume control facilities perform as designed.
  - There is a way to visually verify the system is operating as designed.
  - A minimum 8.0' maintenance access is provided to all stormwater facilities.

## EROSION AND SEDIMENT CONTROL PERFORMANCE STANDARDS

- A Stormwater Pollution Prevention Plan (SWPPP) that meets the National Pollutant Discharge Elimination System (NPDES) requirements.

### Narrative

- Identify the person knowledgeable and experienced who will oversee the implementation of the SWPPP; the installation, inspection, and maintenance of the BMPs.
  - a. Identifies the person who will oversee the BMP inspection and maintenance.
  - b. Identify the training requirements are satisfied.**
  - c. Inspections performed once every 7 days.
  - d. Inspections performed within 24 hours of a rain event greater than 0.5 in/24 hours.
  - e. Inspection and Maintenance records include:
    - i. Date and time of inspection.
    - ii. Name of person(s) conducting inspections.
    - iii. Finding of inspections, including the specific location where corrective actions are needed.
    - iv. Corrective actions taken (including dates, times, and party completing maintenance activities).
    - v. Date and amount of rainfall events greater than 0.5 in/24 hours.
    - vi. Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, or by a weather station that is within one mile or by a weather reporting system.
    - vii. Requirements to observe, describe, and photograph any discharge that may be occurring during the inspection.
    - viii. All discovered nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs within 24 hours after discovery, or as soon as field conditions allow.
- Describes procedures to amend the SWPPP and establish additional temporary ESC BMPs as necessary for site conditions.
- Describes the installation timing for all Erosion Sediment Control (ESC) Best Management Practices (BMPs).
- Describes final stabilization methods for all exposed areas.
- Methods used to minimize soil compaction and preserve topsoil must be described.
- NA Describes dewatering technique to prevent nuisance conditions, erosion, or inundation of wetlands.
- NA Identifies any specific chemicals and the chemical treatment systems that may be used for enhancing the sedimentation process on the site, and how compliance will be achieved with the permit requirements.
- Describes the following pollution prevention management measures:
  - a. Storage, handling, and disposal of construction products, materials, and wastes.
  - b. Fueling and maintenance of equipment or vehicles; spill prevention and response.
  - c. Vehicle and equipment washing.
  - d. No engine degreasing allowed on site.
  - e. Containment of Concrete and other washout waste.
  - f. Portable toilets are positioned so that they are secure.

### **Plan Sheets**

- NA Temporary Sediment Basins required (10 acres draining to common location or 5 acres App. A) and design meets the following criteria:
  - a. Adequately sized – 2-year, 24-hour storm, minimum 1,800 feet/acre; or no calculative minimum 3,600ft<sup>3</sup>/acre.
  - b. Designed to prevent short circuiting.
  - c. Outlets designed to remove floating debris.
  - d. Outlets designed to allow complete drawdown.
  - e. Outlets designed to withdraw water from the surface



- f. Outlets have energy dissipation.
  - g. Have a stabilized emergency spillway.
  - h. Situated outside of surface waters and any natural buffers.
- Locations and types of all temporary and permanent Erosion Control BMPs.
    - a. Exposed soils have erosion protection/cover initiated immediately and finished within 7 days.
    - b. Wetted perimeters of ditches stabilized within 200 feet of surface water within 24 hours.
    - c. Pipe outlets have energy dissipation within 24 hours of connecting.
  - Locations and types of all temporary and permanent Sediment Control BMPs.
    - a. Sediment control practices established on down gradient perimeters and upgradient of any buffer zones.
    - b. All inlets are protected.
    - c. Stockpiles have sediment control and placed in areas away from surface waters or natural buffers.
    - d. Construction site entrances minimize street tracking?
    - e. Plans minimize soil compaction and, unless infeasible to preserve topsoil.
    - f. Fifty foot natural buffers preserved or (if not feasible) provide redundant sediment controls when a surface water is located within 50 feet of the project's earth disturbances and drains to the surface water.
  - Tabulated quantities of all erosion prevention and sediment control BMPs.
  - Stormwater flow directions and surface water divides for all pre- and post-construction drainage areas.
- NA Locations of areas not to be disturbed (buffer zones).
- NA Location of areas where construction will be phased to minimize duration of exposed soil areas.
- NA Blufflines are protected from construction activities in urban (40 foot buffer) areas and rural areas (100-foot buffer).

## WETLAND PERFORMANCE STANDARDS

- NA Direct discharge of stormwater to wetlands and all other water bodies without water quality treatment is prohibited.
- NA Any potential changes to the hydrology of the wetland (i.e. changes to the outlet elevation or contributing drainage area) must be reviewed to evaluate the impact of both the existing and proposed wetland conditions and approved by the MSCWMO.
- NA Land-altering activities shall not increase the bounce in water level or duration of inundation from a 2.0-inch 24-hour storm for any downstream wetland beyond the limit specified in Table 7.2 for the individual wetland susceptibility class.

## LAKE, STREAM AND WETLAND BUFFER PERFORMANCE STANDARDS

- NA A buffer zone of unmowed natural vegetation is maintained or created upslope of all water bodies (wetlands, streams, lakes).
- NA A 50 foot natural buffer or (if a buffer is infeasible) provide redundant sediment controls when a surface water is located within 50 feet of the project's earth disturbances and stormwater flows to the surface water.
- NA If adjacent to a Special or Impaired Water an undisturbed buffer zone of not less than 100 linear feet from the special water is maintained both during construction and as a permanent feature post construction.

# MIDDLE ST. CROIX WATERSHED MANAGEMENT

455 Hayward Avenue, Oakdale, MN 55128  
Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org



## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

**Inspector Name:** Aaron DeRusha **Inspection Date:** 09/20/2022

**Project Name:** Burton Retaining Wall **Project Address:** 313 Quixote Ave N

**Site is within one mile of and discharges to an impaired or special water?**

Yes  No

**Inspection Type:**  Pre-construction  Routine  Rainfall  Post-construction

**Overall Site Grade:**

<input checked="" type="checkbox"/> A	The site is <b>in full compliance</b> . All practices are in place and the site is well maintained.
<input type="checkbox"/> B	The site is <b>in compliance</b> , but normal maintenance activities are required.
<input type="checkbox"/> C	The site is <b>not in compliance</b> . Maintenance or supplemental practices are required.
<input type="checkbox"/> D	The site is <b>not in compliance</b> . Erosion and sediment control practices are in poor condition and controllable water resources or off-site impacts are likely.
<input type="checkbox"/> F	The site is in <b>severe non-compliance</b> . Controllable water quality or off-site impacts have occurred. Enforcement proceedings will be initiated unless immediate corrective actions are taken.

**Corrective Action(s) Required:**

**General Comments or Potential Areas of Future Concern:**

Sod and landscaping installed around retaining walls. Final veg not fully grown in blanketed area, but all else stable. Downspouts have energy dissipation where daylighted.

**Were any discharges observed during this inspection?**  No  Yes

## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
<b>Erosion Prevention Requirements:</b>				
Soils are stabilized where no construction activity has occurred for 14 days (including stockpiles)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disturbance of steep slopes has been minimized or stabilization practices designed for steep slopes are used	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ditches/swales are stabilized 200' back from point of discharge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pipe outlets have energy dissipation (within 24 hours of connection)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction phasing in accordance with the approved plan is being followed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Areas not to be disturbed are marked off (flags, signs, ect.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sediment Control Requirements:</b>				
Perimeter sediment controls are installed properly on all down gradient perimeters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate BMPs are installed protecting inlets, catch basins, and culvert inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Erodible stockpiles have perimeter control in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Temporary sediment basin is built as shown on approved construction plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soil compaction is minimized where applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Maintenance and Inspection Requirements:</b>				
Previously stabilized areas are maintaining ground cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter controls are maintained and functioning properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Inlet protection devices are maintained and adequately protecting inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Temporary sediment basins are being maintained and properly functioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vehicle tracking BMPs are in place at site exits and are maintained/functioning properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tracked sediment is being removed within 24 hours	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters, ditches, conveyances, and discharge points have been inspected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Other Requirements:</b>				
Pollution prevention management measures for solid waste, hazardous materials, concrete and truck washing are in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If dewatering is occurring, BMPs are being used to ensure clean water is leaving the site and discharge is not causing erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If being utilized, infiltration/filtration systems are marked and protected from compaction and sediment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If required buffers are preserved around all streams, rivers, lakes, and wetlands during construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If required, buffer monumentation has been installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

# Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Images of non-compliant items, concerns, or general conditions:



# Erosion & Sediment Control Compliance Summary & Corrective Action Notice



# MIDDLE ST. CROIX WATERSHED MANAGEMENT

455 Hayward Avenue, Oakdale, MN 55128  
Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org



## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

**Inspector Name:** Aaron DeRusha **Inspection Date:** 09/20/2022

**Project Name:** Dewall Subdivision **Project Address:** 16028 5th Street S

**Site is within one mile of and discharges to an impaired or special water?**

Yes  No

**Inspection Type:**  Pre-construction  Routine  Rainfall  Post-construction

**Overall Site Grade:**

<input type="checkbox"/> A	The site is <b>in full compliance</b> . All practices are in place and the site is well maintained.
<input checked="" type="checkbox"/> B	The site is <b>in compliance</b> , but normal maintenance activities are required.
<input type="checkbox"/> C	The site is <b>not in compliance</b> . Maintenance or supplemental practices are required.
<input type="checkbox"/> D	The site is <b>not in compliance</b> . Erosion and sediment control practices are in poor condition and controllable water resources or off-site impacts are likely.
<input type="checkbox"/> F	The site is in <b>severe non-compliance</b> . Controllable water quality or off-site impacts have occurred. Enforcement proceedings will be initiated unless immediate corrective actions are taken.

**Corrective Action(s) Required:**

1. Install perimeter controls at edge of disturbed soils
2. Repair and/or replace damaged perimeter control

**General Comments or Potential Areas of Future Concern:**

Bottom flap of silt fence should be trenched in better in several spots along north and east perimeter. Biologs or silt fence should be extended south along east perimeter to contain exposed soils in septic area.

**Were any discharges observed during this inspection?**  No  Yes

# Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
<b>Erosion Prevention Requirements:</b>				
Soils are stabilized where no construction activity has occurred for 14 days (including stockpiles)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disturbance of steep slopes has been minimized or stabilization practices designed for steep slopes are used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ditches/swales are stabilized 200' back from point of discharge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pipe outlets have energy dissipation (within 24 hours of connection)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Construction phasing in accordance with the approved plan is being followed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Areas not to be disturbed are marked off (flags, signs, ect.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sediment Control Requirements:</b>				
Perimeter sediment controls are installed properly on all down gradient perimeters	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate BMPs are installed protecting inlets, catch basins, and culvert inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Erodible stockpiles have perimeter control in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Temporary sediment basin is built as shown on approved construction plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soil compaction is minimized where applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Maintenance and Inspection Requirements:</b>				
Previously stabilized areas are maintaining ground cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter controls are maintained and functioning properly	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inlet protection devices are maintained and adequately protecting inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Temporary sediment basins are being maintained and properly functioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vehicle tracking BMPs are in place at site exits and are maintained/functioning properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tracked sediment is being removed within 24 hours	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters, ditches, conveyances, and discharge points have been inspected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Other Requirements:</b>				
Pollution prevention management measures for solid waste, hazardous materials, concrete and truck washing are in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If dewatering is occurring, BMPs are being used to ensure clean water is leaving the site and discharge is not causing erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If being utilized, infiltration/filtration systems are marked and protected from compaction and sediment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If required buffers are preserved around all streams, rivers, lakes, and wetlands during construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If required, buffer monumentation has been installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

# Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Images of non-compliant items, concerns, or general conditions:





# MIDDLE ST. CROIX WATERSHED MANAGEMENT

455 Hayward Avenue, Oakdale, MN 55128  
Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org



## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

**Inspector Name:** Aaron DeRusha **Inspection Date:** 08/31/2022

**Project Name:** Hillside Lift **Project Address:** 737 Quentin Ave S

**Site is within one mile of and discharges to an impaired or special water?**

Yes  No

**Inspection Type:**  Pre-construction  Routine  Rainfall  Post-construction

**Overall Site Grade:**

<input checked="" type="checkbox"/> A	The site is <b>in full compliance</b> . All practices are in place and the site is well maintained.
<input type="checkbox"/> B	The site is <b>in compliance</b> , but normal maintenance activities are required.
<input type="checkbox"/> C	The site is <b>not in compliance</b> . Maintenance or supplemental practices are required.
<input type="checkbox"/> D	The site is <b>not in compliance</b> . Erosion and sediment control practices are in poor condition and controllable water resources or off-site impacts are likely.
<input type="checkbox"/> F	The site is in <b>severe non-compliance</b> . Controllable water quality or off-site impacts have occurred. Enforcement proceedings will be initiated unless immediate corrective actions are taken.

**Corrective Action(s) Required:**

**General Comments or Potential Areas of Future Concern:**

No additional work occurring. Posts for lift placed on hillside.

**Were any discharges observed during this inspection?**  No  Yes

## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
<b>Erosion Prevention Requirements:</b>				
Soils are stabilized where no construction activity has occurred for 14 days (including stockpiles)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Disturbance of steep slopes has been minimized or stabilization practices designed for steep slopes are used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ditches/swales are stabilized 200' back from point of discharge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pipe outlets have energy dissipation (within 24 hours of connection)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Construction phasing in accordance with the approved plan is being followed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Areas not to be disturbed are marked off (flags, signs, ect.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sediment Control Requirements:</b>				
Perimeter sediment controls are installed properly on all down gradient perimeters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Appropriate BMPs are installed protecting inlets, catch basins, and culvert inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Erodible stockpiles have perimeter control in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Temporary sediment basin is built as shown on approved construction plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soil compaction is minimized where applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Maintenance and Inspection Requirements:</b>				
Previously stabilized areas are maintaining ground cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter controls are maintained and functioning properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Inlet protection devices are maintained and adequately protecting inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Temporary sediment basins are being maintained and properly functioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vehicle tracking BMPs are in place at site exits and are maintained/functioning properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tracked sediment is being removed within 24 hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Surface waters, ditches, conveyances, and discharge points have been inspected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Other Requirements:</b>				
Pollution prevention management measures for solid waste, hazardous materials, concrete and truck washing are in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If dewatering is occurring, BMPs are being used to ensure clean water is leaving the site and discharge is not causing erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If being utilized, infiltration/filtration systems are marked and protected from compaction and sediment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If required buffers are preserved around all streams, rivers, lakes, and wetlands during construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If required, buffer monumentation has been installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

# Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Images of non-compliant items, concerns, or general conditions:



# MIDDLE ST. CROIX WATERSHED MANAGEMENT

455 Hayward Avenue, Oakdale, MN 55128  
Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org



## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

**Inspector Name:** Aaron DeRusha **Inspection Date:** 08/31/2022

**Project Name:** Jerry Colburn 6 car garage **Project Address:** 145 Lakeland Shores Rd

**Site is within one mile of and discharges to an impaired or special water?**

Yes  No

**Inspection Type:**  Pre-construction  Routine  Rainfall  Post-construction

**Overall Site Grade:**

<input checked="" type="checkbox"/> A	The site is <b>in full compliance</b> . All practices are in place and the site is well maintained.
<input type="checkbox"/> B	The site is <b>in compliance</b> , but normal maintenance activities are required.
<input type="checkbox"/> C	The site is <b>not in compliance</b> . Maintenance or supplemental practices are required.
<input type="checkbox"/> D	The site is <b>not in compliance</b> . Erosion and sediment control practices are in poor condition and controllable water resources or off-site impacts are likely.
<input type="checkbox"/> F	The site is in <b>severe non-compliance</b> . Controllable water quality or off-site impacts have occurred. Enforcement proceedings will be initiated unless immediate corrective actions are taken.

**Corrective Action(s) Required:**

**General Comments or Potential Areas of Future Concern:**

Spoke with Jerry on site. Confirmed hydroseed will be applied on disturbed soils on bluff side of house in next week or so following topsoil application. Infiltration area is installed and protected, measured storage at approx 396 cf (23'x23'x9"). Redirection of runoff water is well done.

**Were any discharges observed during this inspection?**  No  Yes

## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
<b>Erosion Prevention Requirements:</b>				
Soils are stabilized where no construction activity has occurred for 14 days (including stockpiles)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Disturbance of steep slopes has been minimized or stabilization practices designed for steep slopes are used	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Ditches/swales are stabilized 200' back from point of discharge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pipe outlets have energy dissipation (within 24 hours of connection)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Construction phasing in accordance with the approved plan is being followed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Areas not to be disturbed are marked off (flags, signs, ect.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
<b>Sediment Control Requirements:</b>				
Perimeter sediment controls are installed properly on all down gradient perimeters	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Appropriate BMPs are installed protecting inlets, catch basins, and culvert inlets	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Erodible stockpiles have perimeter control in place	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Temporary sediment basin is built as shown on approved construction plans	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Soil compaction is minimized where applicable	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
<b>Maintenance and Inspection Requirements:</b>				
Previously stabilized areas are maintaining ground cover	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Perimeter controls are maintained and functioning properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Inlet protection devices are maintained and adequately protecting inlets	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Temporary sediment basins are being maintained and properly functioning	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Vehicle tracking BMPs are in place at site exits and are maintained/functioning properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Tracked sediment is being removed within 24 hours	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters, ditches, conveyances, and discharge points have been inspected	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
<b>Other Requirements:</b>				
Pollution prevention management measures for solid waste, hazardous materials, concrete and truck washing are in place	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
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If being utilized, infiltration/filtration systems are marked and protected from compaction and sediment	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
If required buffers are preserved around all streams, rivers, lakes, and wetlands during construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
If required, buffer monumentation has been installed	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

# Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Images of non-compliant items, concerns, or general conditions:



# MIDDLE ST. CROIX WATERSHED MANAGEMENT

455 Hayward Avenue, Oakdale, MN 55128  
Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org



## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

**Inspector Name:** Aaron DeRusha **Inspection Date:** 09/20/2022

**Project Name:** John See Estates **Project Address:** 1937 Stagecoach Trail N

**Site is within one mile of and discharges to an impaired or special water?**

Yes  No

**Inspection Type:**  Pre-construction  Routine  Rainfall  Post-construction

**Overall Site Grade:**

<input checked="" type="checkbox"/> A	The site is <b>in full compliance</b> . All practices are in place and the site is well maintained.
<input type="checkbox"/> B	The site is <b>in compliance</b> , but normal maintenance activities are required.
<input type="checkbox"/> C	The site is <b>not in compliance</b> . Maintenance or supplemental practices are required.
<input type="checkbox"/> D	The site is <b>not in compliance</b> . Erosion and sediment control practices are in poor condition and controllable water resources or off-site impacts are likely.
<input type="checkbox"/> F	The site is in <b>severe non-compliance</b> . Controllable water quality or off-site impacts have occurred. Enforcement proceedings will be initiated unless immediate corrective actions are taken.

**Corrective Action(s) Required:**

**General Comments or Potential Areas of Future Concern:**

Yard appears to have topsoil and final grade established, should receive mulch or other stabilization. Mulching is well done in the infiltration areas. Recommend using biologs on west side of infiltration area while lots are open to protect from fine sediments.

**Were any discharges observed during this inspection?**  No  Yes

## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
<b>Erosion Prevention Requirements:</b>				
Soils are stabilized where no construction activity has occurred for 14 days (including stockpiles)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Pipe outlets have energy dissipation (within 24 hours of connection)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Construction phasing in accordance with the approved plan is being followed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Areas not to be disturbed are marked off (flags, signs, ect.)	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
<b>Sediment Control Requirements:</b>				
Perimeter sediment controls are installed properly on all down gradient perimeters	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Appropriate BMPs are installed protecting inlets, catch basins, and culvert inlets	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Erodible stockpiles have perimeter control in place	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Temporary sediment basin is built as shown on approved construction plans	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Soil compaction is minimized where applicable	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
<b>Maintenance and Inspection Requirements:</b>				
Previously stabilized areas are maintaining ground cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Perimeter controls are maintained and functioning properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Inlet protection devices are maintained and adequately protecting inlets	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Temporary sediment basins are being maintained and properly functioning	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Vehicle tracking BMPs are in place at site exits and are maintained/functioning properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Tracked sediment is being removed within 24 hours	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters, ditches, conveyances, and discharge points have been inspected	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
<b>Other Requirements:</b>				
Pollution prevention management measures for solid waste, hazardous materials, concrete and truck washing are in place	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
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If required, buffer monumentation has been installed	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>



# Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Images of non-compliant items, concerns, or general conditions:



# MIDDLE ST. CROIX WATERSHED MANAGEMENT

455 Hayward Avenue, Oakdale, MN 55128  
Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org



## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

**Inspector Name:** Aaron DeRusha **Inspection Date:** 08/31/2022

**Project Name:** Morris Residence **Project Address:** 2711 Itasca Ave S

**Site is within one mile of and discharges to an impaired or special water?**

Yes  No

**Inspection Type:**  Pre-construction  Routine  Rainfall  Post-construction

**Overall Site Grade:**

<input type="checkbox"/> A	The site is <b>in full compliance</b> . All practices are in place and the site is well maintained.
<input checked="" type="checkbox"/> B	The site is <b>in compliance</b> , but normal maintenance activities are required.
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<input type="checkbox"/> D	The site is <b>not in compliance</b> . Erosion and sediment control practices are in poor condition and controllable water resources or off-site impacts are likely.
<input type="checkbox"/> F	The site is in <b>severe non-compliance</b> . Controllable water quality or off-site impacts have occurred. Enforcement proceedings will be initiated unless immediate corrective actions are taken.

**Corrective Action(s) Required:**

1. Repair and/or replace damaged perimeter control
2. Establish and/or maintain a properly contained concrete washout facility

**General Comments or Potential Areas of Future Concern:**

Walk site with Tom Ringwold. Recommended additional seeding on slope SE side of house for stabilization before winter. Recommended depressional area for sediment containment at channelization spot, SE of house. Poly sheeting or other soil protection needed to contain concrete washout. Minor silt fence repairs needed on north side of house.

**Were any discharges observed during this inspection?**  No  Yes

## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
<b>Erosion Prevention Requirements:</b>				
Soils are stabilized where no construction activity has occurred for 14 days (including stockpiles)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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<b>Sediment Control Requirements:</b>				
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Appropriate BMPs are installed protecting inlets, catch basins, and culvert inlets	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
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Temporary sediment basin is built as shown on approved construction plans	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Soil compaction is minimized where applicable	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
<b>Maintenance and Inspection Requirements:</b>				
Previously stabilized areas are maintaining ground cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Perimeter controls are maintained and functioning properly	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Inlet protection devices are maintained and adequately protecting inlets	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
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Vehicle tracking BMPs are in place at site exits and are maintained/functioning properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Tracked sediment is being removed within 24 hours	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters, ditches, conveyances, and discharge points have been inspected	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
<b>Other Requirements:</b>				
Pollution prevention management measures for solid waste, hazardous materials, concrete and truck washing are in place	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
If dewatering is occurring, BMPs are being used to ensure clean water is leaving the site and discharge is not causing erosion	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
If being utilized, infiltration/filtration systems are marked and protected from compaction and sediment	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
If required buffers are preserved around all streams, rivers, lakes, and wetlands during construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
If required, buffer monumentation has been installed	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

# Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Images of non-compliant items, concerns, or general conditions:





## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

**Inspector Name:** Aaron DeRusha **Inspection Date:** 08/31/2022

**Project Name:** Riley Residence **Project Address:** 2159 River Road S

**Site is within one mile of and discharges to an impaired or special water?**

Yes  No

**Inspection Type:**  Pre-construction  Routine  Rainfall  Post-construction

**Overall Site Grade:**

<input checked="" type="checkbox"/> A	The site is <b>in full compliance</b> . All practices are in place and the site is well maintained.
<input type="checkbox"/> B	The site is <b>in compliance</b> , but normal maintenance activities are required.
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<input type="checkbox"/> F	The site is in <b>severe non-compliance</b> . Controllable water quality or off-site impacts have occurred. Enforcement proceedings will be initiated unless immediate corrective actions are taken.

**Corrective Action(s) Required:**

1. Add perimeter control around toe of stockpile along driveway, unless stockpile is to be graded out in next few days.

**General Comments or Potential Areas of Future Concern:**

Slope checks and multi layer perimeter along river are in great shape. Proposed infiltration areas will need to be decompacted when basins are constructed.

**Were any discharges observed during this inspection?**  No  Yes

## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
<b>Erosion Prevention Requirements:</b>				
Soils are stabilized where no construction activity has occurred for 14 days (including stockpiles)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disturbance of steep slopes has been minimized or stabilization practices designed for steep slopes are used	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ditches/swales are stabilized 200' back from point of discharge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pipe outlets have energy dissipation (within 24 hours of connection)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Construction phasing in accordance with the approved plan is being followed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Areas not to be disturbed are marked off (flags, signs, ect.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Sediment Control Requirements:</b>				
Perimeter sediment controls are installed properly on all down gradient perimeters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate BMPs are installed protecting inlets, catch basins, and culvert inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Erodible stockpiles have perimeter control in place	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temporary sediment basin is built as shown on approved construction plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soil compaction is minimized where applicable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Maintenance and Inspection Requirements:</b>				
Previously stabilized areas are maintaining ground cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter controls are maintained and functioning properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inlet protection devices are maintained and adequately protecting inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Temporary sediment basins are being maintained and properly functioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vehicle tracking BMPs are in place at site exits and are maintained/functioning properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tracked sediment is being removed within 24 hours	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters, ditches, conveyances, and discharge points have been inspected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Other Requirements:</b>				
Pollution prevention management measures for solid waste, hazardous materials, concrete and truck washing are in place	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If dewatering is occurring, BMPs are being used to ensure clean water is leaving the site and discharge is not causing erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If being utilized, infiltration/filtration systems are marked and protected from compaction and sediment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If required buffers are preserved around all streams, rivers, lakes, and wetlands during construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If required, buffer monumentation has been installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

# Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Images of non-compliant items, concerns, or general conditions:



# MIDDLE ST. CROIX WATERSHED MANAGEMENT

455 Hayward Avenue, Oakdale, MN 55128  
Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org



## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

**Inspector Name:** Aaron DeRusha **Inspection Date:** 08/31/2022

**Project Name:** Ruprecht Retaining Walls **Project Address:** 737 Quentin Ave S

**Site is within one mile of and discharges to an impaired or special water?**

Yes  No

**Inspection Type:**  Pre-construction  Routine  Rainfall  Post-construction

**Overall Site Grade:**

<input checked="" type="checkbox"/> A	The site is <b>in full compliance</b> . All practices are in place and the site is well maintained.
<input type="checkbox"/> B	The site is <b>in compliance</b> , but normal maintenance activities are required.
<input type="checkbox"/> C	The site is <b>not in compliance</b> . Maintenance or supplemental practices are required.
<input type="checkbox"/> D	The site is <b>not in compliance</b> . Erosion and sediment control practices are in poor condition and controllable water resources or off-site impacts are likely.
<input type="checkbox"/> F	The site is in <b>severe non-compliance</b> . Controllable water quality or off-site impacts have occurred. Enforcement proceedings will be initiated unless immediate corrective actions are taken.

**Corrective Action(s) Required:**

**General Comments or Potential Areas of Future Concern:**

None. Downspout water has been redirected to existing basin. Exposed soils stabilized with final vegetation, or blanketed and awaiting germination.

**Were any discharges observed during this inspection?**  No  Yes



## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
<b>Erosion Prevention Requirements:</b>				
Soils are stabilized where no construction activity has occurred for 14 days (including stockpiles)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disturbance of steep slopes has been minimized or stabilization practices designed for steep slopes are used	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ditches/swales are stabilized 200' back from point of discharge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pipe outlets have energy dissipation (within 24 hours of connection)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Construction phasing in accordance with the approved plan is being followed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Areas not to be disturbed are marked off (flags, signs, ect.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Sediment Control Requirements:</b>				
Perimeter sediment controls are installed properly on all down gradient perimeters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate BMPs are installed protecting inlets, catch basins, and culvert inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Erodible stockpiles have perimeter control in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Temporary sediment basin is built as shown on approved construction plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soil compaction is minimized where applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Maintenance and Inspection Requirements:</b>				
Previously stabilized areas are maintaining ground cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter controls are maintained and functioning properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inlet protection devices are maintained and adequately protecting inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Temporary sediment basins are being maintained and properly functioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vehicle tracking BMPs are in place at site exits and are maintained/functioning properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tracked sediment is being removed within 24 hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Surface waters, ditches, conveyances, and discharge points have been inspected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Other Requirements:</b>				
Pollution prevention management measures for solid waste, hazardous materials, concrete and truck washing are in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If dewatering is occurring, BMPs are being used to ensure clean water is leaving the site and discharge is not causing erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If being utilized, infiltration/filtration systems are marked and protected from compaction and sediment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If required buffers are preserved around all streams, rivers, lakes, and wetlands during construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If required, buffer monumentation has been installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

# Erosion & Sediment Control Compliance Summary & Corrective Action Notice

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## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

**Inspector Name:** Aaron DeRusha **Inspection Date:** 09/29/2022

**Project Name:** Baylon Boathouse **Project Address:** 165 Lakeland Shores Road

**Site is within one mile of and discharges to an impaired or special water?**

Yes  No

**Inspection Type:**  Pre-construction  Routine  Rainfall  Post-construction

**Overall Site Grade:**

<input checked="" type="checkbox"/> A	The site is <b>in full compliance</b> . All practices are in place and the site is well maintained.
<input type="checkbox"/> B	The site is <b>in compliance</b> , but normal maintenance activities are required.
<input type="checkbox"/> C	The site is <b>not in compliance</b> . Maintenance or supplemental practices are required.
<input type="checkbox"/> D	The site is <b>not in compliance</b> . Erosion and sediment control practices are in poor condition and controllable water resources or off-site impacts are likely.
<input type="checkbox"/> F	The site is in <b>severe non-compliance</b> . Controllable water quality or off-site impacts have occurred. Enforcement proceedings will be initiated unless immediate corrective actions are taken.

**Corrective Action(s) Required:**

**General Comments or Potential Areas of Future Concern:**

None. Double silt fence is in place and boathouse structure appears to be constructed according to plan set.

**Were any discharges observed during this inspection?**  No  Yes

## Erosion & Sediment Control Compliance Summary & Corrective Action Notice

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Temporary sediment basin is built as shown on approved construction plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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If required, buffer monumentation has been installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

# Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Images of non-compliant items, concerns, or general conditions:



# MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

455 HAYWARD AVENUE, OAKDALE, MINNESOTA 55082  
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## Staff Report- August/September 2022

### Administration

- Prepared October meeting materials
- Coordination of Grant and Permit Program
- Completed Washington County Budget Reporting
- Attended TAC Meetings
- Began 2023 Planning

### Project Reviews

- Hassis Paintworks-**ACTION**
- 3 Point Road Garage-**ACTION**
- St. Croix Carwash-**ACTION**
- Stillwater Towing-**INFORM**
- Villas of Inspiration-**INFORM**
- St. Croix Prep Trail-**TBD**

### Lily Lake Phosphorus Reductions for Delisting – CWF Grant C20-6055

**Description:** Awarded \$513,500 for in-lake alum treatment and filtration basin to remove 120lbs of phosphorus from Lily Lake.

**Activities This Month:** Conducted establishment maintenance. Planning for installation of a fence to protect the pretreatment chamber. Final closeout and grant reporting will occur this fall. A fall completion ceremony was held on September 30<sup>th</sup> with FLL and EMWREP.

**Staff:** Matt Downing-MSCWMO

### Lake St. Croix Small Communities Phosphorus Reduction Grant – PHASE II

**Description:** \$158,000 grant for stormwater quality improvement south of Bayport (2021-2023). Implement practices in the LSCD South SWA area to achieve a load reduction of up to 7lbs of TP/yr.

**Activities This Month:** Minnesota Native Landscapes has completed work and has requested payment for the Riviera project. Watering of the basins is being conducted by the WMO, City and residents. Remaining Phase II funds for additional bluff toe stabilization (100 lf) north of the 2021 project area were encumbered and Lake St. Croix Beach has accepted a bid, work may commence this fall.

**Staff:** Brett Stolpestad - WCD; Matt Downing - MSCWMO

### Water Monitoring Program

**Description:** The MSCWMO water monitoring program includes the monitoring of flow at three sites. These sites have that equipment serves to collect data on the total volume of water flowing into Lily Lake at the Greeley Street Inlet, through Perro Creek at the Diversion Structure, as well as, the Perro Creek Diversion Structure Overflow. Water

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quality is also collected at the Greeley Street Inlet and the Perro Creek Diversion Structure on a monthly basis, as well as during storm events.

Additionally, the MSCWMO monitors two lakes, Lily and McKusick for several parameters from April-October. Data is collected on both lakes on a biweekly basis and includes: water level, clarity, pH, temperature and dissolved oxygen profiles, an aesthetics and user profile, and field conditions. Additionally, water quality samples are collected from the surface of the lakes and analyzed for total phosphorus, total Kjeldahl nitrogen, and chlorophyll.

**Activities This Month:** Two storm samples have been collected at the Greeley St monitoring site. One snowmelt, nine storm, and three base flow samples have been collected at the Perro Diversion site. Perro Creek wasn't flowing for part of September, with the pond outlet being shut off. Bank vegetation and creek sediment removal was performed by the City of Bayport. A special E. coli sample was taken on Perro Creek at 3<sup>rd</sup> Ave S following a sewage spill at 2<sup>nd</sup> Ave N and Maine St, as reported by the State Duty Officer. Sample results are pending. Twelve lake water quality samples have been collected on Lily and McKusick Lakes. Special sampling occurred in May on Lily Lake before and after the alum treatment. Post treatment Secchi disk transparency measurements continue to show high water clarity. A citizen volunteer on Brick Pond continues to provide weekly lake elevation gage readings.

**Staff:** Rebecca Oldenburg, WCD; Aaron DeRusha, WCD

### Erosion and Sediment Control Inspections

**Description:** The MSCWMO has contracted with the WCD to conduct erosion and sediment control inspections for construction projects that have been reviewed and recommended for permit approval by partner communities.

**Activities This Month:** Inspections occurred at the 737 Quentin- Ruprecht Retaining Walls and Hillside Lift, 145 Lakeland Shores Rd-Colburn Garage, 2711 Itasca Ave-Morris, and 2159 River Rd- Riley, 1937 Stagecoach- John See Estates, 5<sup>th</sup> St S- Dewall Subdivision, 313 Quixote- Burton, and 165 Lakeland Shores Rd- Baylon Boathouse projects. The Ruprecht Retaining Wall project was confirmed to have runoff water redirected appropriately and all soils were stabilized. No new work is occurring on the hillside lift. The Riley, John See Estates, and Colburn projects were in great shape with no corrective actions needed. The Morris project was found to need better containment of concrete washout waste, and minor repairs to silt fence and temporary vegetation before cooler weather arrives. All items were corrected. Minor repairs to the silt fence at the Dewall Subdivision were needed. The Burton project was complete and only a small amount of additional final vegetation was needed. Inspections will cease for this project. Erosion controls were in good shape at the Baylon project, and the boathouse foundation in progress appeared to be sized and constructed according to plans.

**Staff:** Aaron DeRusha, WCD

### BMP Maintenance

Middle St. Croix Watershed Management Organization Member Communities  
Afton, Bayport, Baytown, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater, & West Lakeland

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**Description:** The MSCWMO has a maintenance obligation for its Capital Improvement Projects and projects funded by Clean Water Fund grants. The MSCWMO partners with the Washington Conservation District to fulfill this maintenance requirement.

### **Activities in August and September:**

Golden Creeper treatment at the Mulberry Ravine. Watering wrapped up at the Lily Lake Basin. Watering at the Riviera project. Vegetative maintenance at the Perro Creek shoreline planting and Stillwater Country Club. Vegetative maintenance at Ozark Ave N raingarden in OPH.

Offline mapping capability is still being trouble-shooted with the new BMP database for tracking maintenance activity for reporting each month.

**Staff:** Cameron Blake, WCD

### **Erosion and Sediment Control Inspection, BMP Project, and Plan Review Database**

**Description:** The MSCWMO has partnered with WCD to develop a new erosion control inspection, BMP project tracking, and project plan review applicant database via ESRI's ArcGIS Online. The database will increase efficiency of erosion control and BMP project reporting, the application process for project plan reviews, and serve as a replacement to the current Mapfeeder software.

**Activities this Month:** Coordination occurred between staff to clarify when projects should be added to the erosion control inspection database from the permit tracking database.

**Staff:** Rebecca Nestingen, WCD; Aaron DeRusha, WCD

### **Small Scale Habitat & Water Quality Enhancement Projects**

**Description:** The MSCWMO has requested Conservation Corps crew time under FY22 Clean Water Funding to support small-scale habitat and water quality enhancement projects in 2022. Projects will include a vegetative buffer enhancement along Perro Creek in Bayport, a 215-foot buffer expansion between Riviera Avenue S and the St. Croix River in Lake St. Croix Beach, and a dune/floodplain enhancement along the St. Croix in St. Mary's Point. The MSCWMO has partnered with WCD to develop proposals for each project.

**Activities This Month:** Site prep for LSCB buffer enhancement and Perro Creek buffer expansion is underway. Perro Creek buffer enhancement prep underway. Lake McKusick shoreline restoration is completed, this is a modification to the workplan as the SMP work was determined to be unfeasible.

**Staff:** Brett Stolpestad – WCD

### **Meetings**

- LSC Steering Team – August 24<sup>th</sup>
- Lily Lake Event Planning – September 12<sup>th</sup>
- LSC Advisory Team – September 14<sup>th</sup>
- WCD/MSCWMO Contract Planning – September 15<sup>th</sup>



**MEMO**  
**Lower St. Croix Partnership – Watershed Based Implementation Funding**

**To:** LSC Local Partner Board  
**From:** LSC Local Partner Staff  
**Subject:** FY23 WBIF Grant Work Plan

**Date:** September 27, 2022

**[MEMO TEMPLATE – PLEASE BRING TO YOUR OCTOBER LOCAL BOARD MEETING]**

**Background/Discussion**

The purpose of this agenda item is for the Lower St. Croix (LSC) local partner boards to consider taking action to approve the FY23 Watershed Based Implementation Funding (WBIF) grant work plan.

At its September 26<sup>th</sup> meeting the Policy Committee recommended grant work plan approval by partner boards, authorized the Planning Team to make non-substantive changes as required by BWSR, designated Chisago SWCD as the fiscal agent authorized to submit the work plan and execute the grant. The grant work plan is being distributed to the LSC partner boards for approval. The Joint Powers Agreement does not describe the process for which the partnership will apply for grants or approve *grant* work plans, but it does describe how the partnership will handle its *annual* work plan, which is different from the grant work plan. The JPA indicates partner boards have 60 days to act on the *annual* work plan. However, a 30-day approval window for this particular *grant* work plan would better accommodate the WBIF project timeline as shown below.

**Proposed Timetable for Grant Work Plan Approval**

September 14, 2022	Advisory Committee recommended grant work plan approval
September 19, 2022	Policy Committee meeting packet sent out
September 26, 2022	Policy Committee recommended grant work plan approval to partner boards
<b>Month of October 2022</b>	<b>Lower St. Croix partner boards consider approving grant work plan. Need 2/3 approval.</b>
<b>October 28, 2022</b>	<b>Requested deadline for local boards approval – please notify Angie Hong, Craig Mell and Emily Heinz</b>
October 31, 2022, 4pm	Goal deadline to submit grant work plan and budget request in eLINK
Months of November/December 2022	Board of Water and Soil Resources reviews and considers approving budget request and grant work plan (can occur simultaneously with fiscal signing the grant agreement)
Early December 2022	Chisago SWCD board meeting – fiscal agent sign grant agreement and return to BWSR
End of December 2022	BWSR executes agreement once grant work plan is approved
January 2023	CLFLWD’s Sunrise River Wetland Enhancement Project estimated construction start date. Project must occur during frozen conditions. This project was awarded up to \$220,000 in FY23 WBIF grant funds at the July 25, 2022 Policy Committee meeting. The grant agreement must be executed prior to construction in order for project expenses to be eligible.

**Project Approval Process**

Note that the work plan does not describe the project approval process but indicates that it will follow the process as posted at the Lower St. Croix website ([www.lsc1w1p.org](http://www.lsc1w1p.org)). If this process were to change, it would not affect the WBIF grant work plan.

## MEMO

### Lower St. Croix Partnership – Watershed Based Implementation Funding

#### Recommended Action

Proposed Motion: Manager \_\_\_\_\_ moves to approve the FY23 WBIF grant work plan as recommended by the Policy Committee, including authorizing the Planning Team to make non-substantive changes as required by BWSR and designating Chisago SWCD as the fiscal agent authorized to submit the work plan and execute the grant. Seconded by Manager \_\_\_\_\_.

Please notify Angie Hong ([ahong@mnwcd.org](mailto:ahong@mnwcd.org)), Craig Mell ([craig.mell@mn.nacdnet.net](mailto:craig.mell@mn.nacdnet.net)) and Emily Heinz ([Emily.heinz@clflwd.org](mailto:Emily.heinz@clflwd.org)) of your board's decision as soon as possible.

**Attached:** Recommended FY23 WBIF Grant Work Plan

FY23 Lower St. Croix 1W1P  
Watershed Based Implementation Funding  
Draft eLINK Work Plan (9/14/22)

Grant ID: TBD | Grant Expiration: December 31, 2025

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## Grant Activities

This section provides a description of each grant activity. The Lower St. Croix Comprehensive Watershed Management Plan (CWMP) identifies four categories for Watershed Based Implementation Funding (WBIF) use: **Implementation – BMPs/Restoration Activities**, **Implementation – Shared Services**, **Prioritization & Analysis**, and **Administration** (CWMP, page 16). Additionally, the Board of Water and Soil Resources requires all WBIF grant work plans assign an eLINK activity category to each activity. Table 1 summarizes the ten grant activities and their associated eLINK categories and CWMP categories.

*Table 1. Grant Activities and Categories*

Activity #	Activity Name	eLINK Activity Category	CWMP Category
1	Structural Ag BMP Implementation	Agricultural Practices	Implementation – BMPs/Restoration Activities
2	Structural Urban BMP Implementation	Urban Stormwater Practices	
3	Non-Structural Ag/Urban Implementation	Non-Structural Management Practices	
4	Wetland Restoration Implementation	Wetland Restoration/Creation	
5	Agronomy Outreach Specialist	Project Development	Implementation – Shared Services
6	Shared Services Education	Education/Information	
7	Technical/Engineering	Technical/Engineering Assistance	
8	Internal Analyses	Planning and Assessment	Prioritization & Analysis
9	Targeting Analyses	Planning and Assessment	
10	Administration/Coordination	Administration/Coordination	Administration

## Implementation – BMPs/Restoration Activities

### Activity 1: Structural Ag BMP Implementation

**eLINK Activity Category:** Agricultural Practices

**Grant:** \$140,000

**Match:** \$37,500

**Match Source(s):** local or landowner funds

**Lead Agency:** Chisago SWCD, Craig Mell (also the lead for non-structural ag BMP implementation; subcontracts with local partners for specific projects).

**Co-lead Agency:** Washington Conservation District, Jay Riggs

**Priority areas:**

- Tier 1: Rock Lake, Rock Creek, Sunrise River, St. Croix River tributaries with direct discharge to the St. Croix River.
- Tier 2: lakes that drain to St. Croix tributaries:
  - Rush and Goose Lakes in Chisago County
  - Forest Lake in CLFLWD (drains to Sunrise River)
- Priority tiers were developed by LSC Planning Team members and submitted to the Policy Committee in the FY21 grant work plan. The Policy Committee approved the FY21 grant work plan containing this tier structure on January 25, 2021.
- The project ranking subcommittee will also consider CWMP Figure 5-1 Vulnerable Groundwater in Agricultural Areas when evaluating potential projects.

**CWMP Reference:** Page 61

**Activity Description:** Provide cost-share/incentives for installing or implementing structural agricultural best management practices (e.g., feedlot improvements, buffers, WASCObS, diversions, lined waterways, grade stabilization structures, vegetative swales, livestock water management, etc.). Project partners will check BWSR eligibility requirements and consult the BWSR Board Conservationist to ensure projects are eligible. NRCS or other BWSR accepted standards will be followed for all practices installed. For feedlot improvement projects, the project partner will complete the BWSR supplemental feedlot worksheet to ensure compliance with BWSR policy for using CWF funds for feedlot improvements. Projects to be chosen through targeting and prioritization process described in Section VII.B and Appendix C of the CWMP.

The target phosphorus load reduction for this Activity is 100 lb/yr.

**Subcommittee:** A subcommittee composed of LSC partners will meet on an as-needed basis in order to review projects and assist with project planning. Subcommittees may be grouped by implementation category. A subcommittee meeting is not required for all project requests; partners may submit project requests directly to the Steering Committee for consideration.

**Project Review & Grant Approval Process:** See project approval policies and procedures at [www.lsc1w1p.org](http://www.lsc1w1p.org).

## Activity 2: Structural Urban BMP Implementation

**eLINK Activity Category:** Urban Stormwater Practices

**Grant:** \$140,000

**Match:** \$37,500

**Match Source(s):** Local or landowner funds

**Lead Agency:** Carnelian-Marine-St. Croix WD, Mike Isensee (also the lead for nonstructural urban BMP implementation)

**Co-lead Agency:** Chisago SWCD, Craig Mell (subcontracts with local partners for specific projects)

**Priority areas:** St. Croix River direct drainage, Sunrise River watershed, Fish Lake, Big Carnelian, Big Marine, Forest Lake.

**CWMP Reference:** Page 65

**Activity Description:** Provide cost-share/incentives for implementing structural urban best management practices (e.g., vegetated swales, pervious pavement, gully stabilization, rain gardens, and other urban practices). BWSR accepted standards will be followed for all practices installed. Projects to be chosen through targeting and prioritization process described in Section VII.B and Appendix C of the CWMP.

The target phosphorus load reduction for this Activity is 100 lb/yr.

**Subcommittee:** A subcommittee composed of LSC partners will meet on an as-needed basis in order to review projects and assist with project planning. Subcommittees may be grouped by implementation category. A subcommittee meeting is not required for all project requests; partners may submit project requests directly to the Steering Committee for consideration.

**Project Review & Grant Approval Process:** See project approval policies and procedures at [www.lsc1w1p.org](http://www.lsc1w1p.org).

## Activity 3: Non-Structural Ag/Urban BMP Implementation

**eLINK Activity Category:** Non-Structural Management Practices

**Grant:** \$100,079

**Ag Lead Agency:** Chisago SWCD, Craig Mell (also the lead for Structural Ag BMP Implementation)

**Urban Lead Agency:** Carnelian-Marine-St. Croix WD, Mike Isensee (also the lead for Structural Urban BMP Implementation)

**Urban/Ag Co-lead Agency:** Chisago SWCD, Craig Mell (subcontracts with local partners for specific projects)

**Priority areas:**

- **Ag:**
  - Tier 1: Rock Lake, Rock Creek, Sunrise River, St. Croix River tribs with direct discharge.
  - Tier 2: lakes that drain to St. Croix tribs.
    - Rush and Goose Lakes in Chisago County
    - Forest and Comfort Lakes in CLFLWD (drain to Sunrise River)

- Projects may also occur at other priority waters as identified in Table 5-2 and Table 5-3 of the LSC CWMP. Partners will also consider CWMP Figure 5-1 Vulnerable Groundwater in Agricultural Areas when evaluating potential projects.
- **Urban:** Communities or roadways draining to the waterbodies listed in Table 5-2 and Table 5-3 of the LSC CWMP are priorities.

**CWMP Reference:** Pages 61 and 65

**Activity Description:** Provide cost-share/incentives for implementing non-structural **agricultural** best management practices (e.g., soil health BMPs, reduced tillage, cover crops, nutrient management planning, forage/biomass plantings). NRCS or other BWSR accepted standards will be followed for all practices installed. Projects to be chosen through targeting and prioritization process described in Section VII.B and Appendix C of CWMP.

Provide cost-share/incentives for implementing non-structural **urban** best management practices (e.g., enhanced street sweeping). BWSR accepted standards will be followed for all practices implemented. Projects to be chosen through targeting and prioritization process described in Section VII.B and Appendix C of CWMP. Specific enhanced street sweeping targeting analyses will be performed for priority areas.

View the Non-Structural Agricultural Practices Policy and Enhanced Street Sweeping Protocols at [www.lsc1w1p.org](http://www.lsc1w1p.org).

The target phosphorus load reduction for this Activity is 100 lb/yr.

Grant funds under this Activity will not be used to pay for staff time. See Implementation Category Budget Breakdown at the end of the Detail Work Plan Text.

**Subcommittee:** A subcommittee composed of LSC partners will meet on an as-needed basis in order to review projects and assist with project planning. Subcommittees may be grouped by implementation category. A subcommittee meeting is not required for all project requests; partners may submit project requests directly to the Steering Committee for consideration.

**Project Review & Grant Approval Process:** WBIF grant funding under this activity will be bifurcated between agricultural and urban practices.

**Agricultural Non-Structural:** Due to the urgent nature of implementing non-structural agricultural practices with landowner coordination, these practices do not require approval by the Steering Committee nor the Policy Committee. See project approval policies and procedures at [www.lsc1w1p.org](http://www.lsc1w1p.org).

**Urban Non-Structural:** Urban non-structural street sweeping incentive funding will only be available to communities with approved enhanced street sweeping plans. See project approval policies and procedures at [www.lsc1w1p.org](http://www.lsc1w1p.org).

## Activity 4: Wetland Restoration Implementation

**eLINK Activity Category:** Wetland Restoration/Creation

**Grant:** \$220,000

**Match:** \$50,000

**Match Source(s):** Local funds

**Lead Agency:** Chisago SWCD, Craig Mell (subcontracts with local partners for specific projects)

**Priority areas:** Priority wetland restorations will result in measurable improvements to rivers/streams in Table 5-2 and/or lakes in Table 5-3 of the LSC CWMP. Areas of particular concern include the St. Croix River direct drainage area, Sunrise River corridor, Rock Creek corridor and subwatersheds identified in Figure 5-5 of the LSC CWMP.

**CWMP Reference:** Page 70

**Activity Description:** The target phosphorus load reduction for this Activity is 81 lb/yr. This Activity will involve implementation of wetland restoration project(s) as needed to achieve the target phosphorus reduction. The primary purpose of the wetland restoration project(s) will be for the improvement of water quality in receiving lakes/streams. Secondary benefits of wetland restoration projects will be considered as well, such as floodplain storage and habitat creation/enhancement.

Wetland restorations will not be used to mitigate wetland impacts. Grant funds will not be used for fee title land acquisition (but may be used as match in accordance with WBIF Policy). LSC Partners will ensure proposed wetland restorations are consistent with WBIF eligibility requirements. LSC Partners will target specific restorations through utilization of existing studies and targeting analyses (e.g., drained wetland inventories, diagnostic studies, subwatershed assessments), performance of additional modeling analyses using existing data from said studies, and completion of additional targeting analyses as necessary to fill data gaps. Work pertaining to targeting strategies is included as part of other grant Activities. Wetland restoration phosphorus reduction will be dependent on a number of factors beyond acres restored (e.g., proximity to target waterbody, level of degradation, hydrology).

At its July 25, 2022 meeting, the Policy Committee recommended the Sunrise River Wetland Restoration Project for grant allocation, which was then approved by a 2/3 majority of partner organization boards. This project may utilize FY21 WBIF funds at a minimum of \$80,449 and FY23 WBIF funds at a maximum of \$220,000 for a total allocation of \$300,449. Depending on the outcome of other FY21 project initiatives, more FY21 dollars may be allocated to this project, resulting in less FY23 dollars being used. This project will divert flow from an existing drainage ditch system out of Heims Lake at the Highway 61 culvert and then diffuse the flow into a multi-cell wetland complex located on the Tax Forfeit property owned by the Comfort Lake-Forest Lake Watershed District. The proposed project will result in annual phosphorus reductions of approximately 81 lb/yr to the Sunrise River, a LSC CWMP priority watercourse. The full outcome will be reported to the FY23 WBIF grant reporting. Construction requires frozen conditions and is estimated to occur January/February 2023.

**Subcommittee:** A subcommittee composed of LSC partners will meet on an as-needed basis in order to review projects and assist with project planning. Subcommittees may be grouped by implementation category. A subcommittee meeting is not required for all project requests; partners may submit project requests directly to the Steering Committee for consideration.

**Project Review & Grant Approval Process:** See project approval policies and procedures at [www.lsc1w1p.org](http://www.lsc1w1p.org).



## Implementation – Shared Services

### Activity 5: Agronomy Outreach Specialist

**eLINK Activity Category:** Project Development

**Grant:** \$225,000

**Lead Agency:** Washington Conservation District, Jay Riggs (partnership with UMN Extension)

**Co-lead Agency:** Chisago SWCD, Craig Mell

**Priority areas:** Agronomy outreach specialist will focus on priority areas described in Structural Ag BMP Implementation and Non-Structural Ag/Urban Implementation

**CWMP Reference:** Page 61

**Activity Description:** Agronomy outreach specialist. (A) Shared Services: Work with an agricultural conservationist (one individual) 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. See Attachment A – Agronomy Outreach Specialist Details & Milestones for more information.

This would allow for 1 full time agronomy outreach specialist to work basin-wide. Staff will work basin-wide and may have more than one office space. LSC partners will ensure duties assigned to this staff member will be in alignment with WBIF funding intent and requirements.

Costs billed to this item for the embedded Extension Agent will include the following: Staff salary, supervisory time (by University of MN), benefits, travel expenses, training expenses, and office supplies. As with all grant activities, LSC partners will ensure program expenses are eligible before billing to the grant/match. All costs will primarily benefit water quality in a priority resource as identified in the LSC CWMP. In addition to direct landowner outreach and technical assistance, as described above, staff time will also include program and work plan coordination: annual partner coordination meetings, updates to partners, interfacing with the shared services educator, coordinated planning efforts, regular basin-scale coordination meetings with LSC partners and other agencies as appropriate.

**Subcommittee:** A subcommittee composed of LSC partners will meet on an as-needed basis in order to review projects and assist with project planning. Subcommittees may be grouped by implementation category.

**Project Review & Grant Approval Process:** Not applicable. Approval for expenditure of grant dollars under this activity is inherent in work plan approval.

## Activity 6: Shared Services Education

**eLINK Activity Category:** Education/Information

**Grant:** \$270,500

**Match:** \$2,857.90

**Match Source:** Parties to the LSC JPC

**Lead Agency:** Washington Conservation District, Jay Riggs

**Co-lead Agency:** Chisago SWCD, Craig Mell (Subcontract with WCD to act as host entity)

**Priority areas:** Basin-wide

**CWMP Reference:** Page 65

**Activity Description:** Facilitate shared education and outreach program across basin to provide education; engage residents, businesses, and local officials; and promote and market programs and practices. Education and outreach tasks will serve the goals outlined in the LSC CWMP and may not always pertain to the implementation items described in this WBIF grant work plan, but will always have a primary benefit to water quality in priority resources.

- 90% = develop, distribute and implement outreach programs that result in behavioral changes achieving water quality benefits;
- 10% = solicit willing landowners to install BMPs that are goals within this plan. Promoted practices will be in line with BWSR eligibility requirements and will focus on water quality.

[0.5 FTE to expand EMWREP basin wide]. Outreach will specifically include MIDS promotion to communities. Outreach will also include preliminary work with LGUs to set shoreline "view corridors" to 25% of lot width or maximum 35' width and maximum vegetation clearing standards or adopt innovative shoreland standards to protect buffers, native ecosystems, and habitat corridors. This work will provide water quality benefits through their protection of shoreline and streambank buffers. LSC partners will ensure duties assigned to this staff member will be in alignment with WBIF funding intent and requirements. See Attachment B Education Details & Milestones for more information.

Costs billed to this item will include staff pay, program expenses, and contracted services for MIDS adoption initiative. As with all grant activities, LSC partners will ensure program expenses are eligible before billing to the grant/match. All costs will primarily benefit water quality in a priority resource as identified in the LSC CWMP. In addition to the outreach tasks described above, staff time will also include program and work plan coordination: annual partner coordination meetings, updates to partners, interfacing with the agronomy outreach specialist, coordinated planning efforts.

**Subcommittee:** A subcommittee composed of LSC partners will meet on an as-needed basis in order to review projects and assist with project planning. Subcommittees may be grouped by implementation category.

**Project Review & Grant Approval Process:** This activity is composed of three types of education & outreach expenditures.

**Shared Services Educator:** Approval for expenditure of grant dollars for this task is inherent in work plan approval.

**Education Materials/Expenses:** Approval for expenditure of grant dollars for this task is inherent in work plan approval.

**MIDS Adoption Initiative:** MIDS Adoption Initiative expenditures will be composed of professional services (technical assistance from a MIDS subject matter expert). See project approval policies and procedures at [www.lsc1w1p.org](http://www.lsc1w1p.org).

## Activity 7: Technical/Engineering

**eLINK Activity Category:** Technical/Engineering Assistance

**Grant:** \$40,000

**Lead Agencies:**

- Chisago SWCD, Craig Mell (lead agency for structural and non-structural ag implementation; subcontracts with local partners for specific projects)
- Carnelian-Marine-St. Croix WD, Mike Isensee (lead agency for structural and non-structural urban BMP implementation)

**Staff Qualifications:** This task will be completed by existing qualified staff members of LSC Partner organizations and/or third party consultants.

**Activity Description:** This Activity will include technical site assessment, surveys, preliminary analysis and design, final design, construction supervision, installation, inspection, and completion of projects. Funds may be used to contract with a third-party consultant for technical/engineering assistance. Funding allocation will be prioritized in areas where there are not local funds to support design work.

**Project Review & Grant Approval Process:** See project approval policies and procedures at [www.lsc1w1p.org](http://www.lsc1w1p.org).

## Prioritization & Analysis

### Activity 8: Internal Analyses

**eLINK Activity Category:** Planning and Assessment

**Grant:** \$18,000

**Lead Agency:** Chisago County, Susanna Wilson-Witkowski

**Co-lead Agency:** Chisago SWCD, Craig Mell (subcontracts with local partners for each subwatershed project)

**Staff Qualifications:** Work is likely to be performed by an outside consultant which will be vetted for staff qualifications.

**Activity Description:** Lakes will be awarded through the project evaluation process identified in the plan. The group will develop a timeline for evaluating internal load evaluation for lakes. Internal load evaluation should only occur after external loading is substantially addressed. Work under this activity will likely be performed by a contracted consultant.

Priority projects identified include:

- Linwood Lake and Martin Lake Anoka. Both are priority A for internal loading analysis in LSC CWMP Table 5-4.
- Goose Lake Washington. Priority B for internal loading analysis in CWMP Table 5-4. Water monitoring indicates watershed loads are addressed. Internal load reduction is the last step to delisting from MPCA Impaired waters list.
- Priority "A" lakes with Rush (E & W) and Goose Lakes as our preferred top three.
- Priority A Basin listed in Table 5-4, Downs Lake will be considered.
- Wallmark, Pioneer and North Goose Lakes in Chisago all priority A

**Subcommittee:** A subcommittee composed of LSC partners will meet on an as-needed basis in order to review projects and assist with project planning. Subcommittees may be grouped by implementation category. A subcommittee meeting is not required for all project requests; partners may submit project requests directly to the Steering Committee for consideration.

**Project Review & Grant Approval Process:** See project approval policies and procedures at [www.lsc1w1p.org](http://www.lsc1w1p.org).

### Activity 9: Targeting Analyses

**eLINK Activity Category:** Planning and Assessment

**Grant:** \$45,000

**Lead Agency:** Washington Conservation District, Jay Riggs

**Co-lead Agency:** Chisago SWCD, Craig Mell (subcontracts with local partners for each subwatershed project)

**Staff Qualifications:** This task will be completed by existing qualified staff members of LSC Partner organizations.

**Activity Description:** This Activity includes two general types of analyses: 1) Subwatershed Assessment (or similar analysis, not necessarily SWA protocols) and 2) Targeted Street Sweeping Analysis.

All priority waterbodies are listed in tables 5.2 and 5.3 Regionally Significant Lakes, Rivers and Streams for Pollutant Reductions. Subwatershed analysis requests will be reviewed by the Steering Committee and other committees as appropriate.

Communities or roadways draining to the waterbodies listed in Table 5-2 and Table 5-3 of the LSC CWMP are priorities for Targeted Street Sweeping Studies. Studies will follow the Tree Canopy Assessment Protocol which is available at [www.lsc1w1p.org](http://www.lsc1w1p.org).

**Subcommittee:** A subcommittee composed of LSC partners will meet on an as-needed basis in order to review projects and assist with project planning. Subcommittees may be grouped by implementation category. A subcommittee meeting is not required for all project requests; partners may submit project requests directly to the Steering Committee for consideration.

**Project Review & Grant Approval Process:** See project approval policies and procedures at [www.lsc1w1p.org](http://www.lsc1w1p.org).

## Administration

### Activity 10: Administration/Coordination

**eLINK Activity Category:** Administration/Coordination

**Grant:** \$80,000

**Lead Agencies:** Chisago SWCD, WCD

**Activity Description:** This Activity will include the following tasks. See Attachment C - Staff Assignments and Qualifications for specific assignments and qualifications.

- Grant and progress reporting – includes coordinating with Chisago SWCD and other partners to gather reporting information, compiling said information, and entering reports into eLINK; will also include assisting Chisago SWCD with any grant/work plan amendments as necessary. Progress reporting will include demonstration of progress toward measurable outcomes (i.e., nutrient load reductions seen at target waterbodies) – examples include pounds of phosphorus and tons of total suspended solids removed from existing loads. Partners may use local funding to perform effectiveness monitoring to demonstrate actual outcomes achieved by projects. Otherwise, modeled loads will be reported. Staff will also report on outputs achieved (i.e., the interim steps needed in order to achieve the ultimate outcomes) – examples include number of landowners contacted, number of projects completed, description of outreach activities performed. Progress reporting will include comparison of budget vs actual spend for each cost category, as described in the final section of this work plan and on page 16 of the LSC CWMP.
- Coordination among Policy Committee, Steering Committee, Advisory Committee, and work plan activity planning team (lead coordination of meetings, agendas, meeting material distribution)
- Website upkeep: This activity includes the use of grant funds to host and update the LSC interactive web map as necessary.
- Fiscal agent administration and contract coordination – includes coordinating with other partners to gather reporting information and reviewing draft report; will also include leading any grant/work plan amendments as necessary
- Agronomy Outreach Specialist and Educator payroll administration.

**Project Review & Grant Approval Process:** Approval for expenditure of grant dollars for administration activities, as described above, is inherent in work plan approval. Planning Team members will seek Steering Committee approval if expenditures are expected to exceed the grant amount indicated above.

## Budget

Table 2. Grant Budget

Activity #	Activity Name	Grant Budget	Match Budget	Total Budget
1	Structural Ag BMP Implementation	\$140,000.00	\$37,500.00	\$177,500.00
2	Structural Urban BMP Implementation	\$140,000.00	\$37,500.00	\$177,500.00
3	Non-Structural Ag/Urban Implementation	\$100,079.00		\$100,079.00
4	Wetland Restoration Implementation	\$220,000.00	\$50,000.00	\$270,000.00
5	Agronomy Outreach Specialist	\$225,000.00		\$225,000.00
6	Shared Services Education	\$270,500.00	\$2,857.90	\$273,357.90
7	Technical/Engineering	\$40,000.00		\$40,000.00
8	Internal Analyses	\$18,000.00		\$18,000.00
9	Targeting Analyses	\$45,000.00		\$45,000.00
10	Administration/Coordination	\$80,000.00		\$80,000.00
<b>Total</b>		<b>\$1,278,579.00</b>	<b>\$127,857.90</b>	<b>\$1,406,436.90</b>

Table 3. Shared Services Education Budget Breakout

Activity #	Activity Name	Grant	Match	Total
6	<b>Shared Services Education</b>	<b>\$270,500.00</b>	<b>\$2,857.90</b>	<b>\$273,357.90</b>
	Educator Compensation (half time, Mar '23 thru June '25)	\$180,500.00	\$2,857.90	\$183,357.90
	Education Materials/Equipment	\$30,000.00		\$30,000.00
	MIDS Adoption Initiative - Contracted Services	\$60,000.00		\$60,000.00

The Lower St. Croix Comprehensive Watershed Management Plan ([page 16](#)) provides an expected distribution of WBIFs across program areas. The following table compares the FY23 WBIF grant budget to the CWMP distribution.

Table 4. Grant Budget Distribution Across Program Areas

	LSC CWMP (Page 16)	Work Plan (Grant Funds)	Actual Grant Spend**
Implementation - BMPs/Restoration Activities*	45%	47%	TBD
Implementation - Shared Services	25%	42%	TBD
Prioritization & Analysis	25%	5%	TBD
Administration	5%	6%	TBD
	100%	100%	100%

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

\*\*Progress reporting will include comparison of budget vs actual spend for each cost category.

## Measurable Outcomes/Outputs and Milestones

Acti vity #	Grant Activity	Overall Measurable Outcome/Output	Year 1 (2023) Milestones	Year 2 (2024) Milestones	Year 3 (2025) Milestones
A1	Structural Ag BMP Implementation	Outcome: reduce phosphorus loading to target waterbodies by 100 lb/yr	Meet with landowners	Implement projects to achieve a phosphorus reduction of 50 lb/yr	Implement projects to achieve a phosphorus reduction of 50 lb/yr
A2	Structural Urban BMP Implementation	Outcomes: reduce phosphorus loading to target waterbodies by 100 lb/yr	Meet with landowners	Implement projects to achieve a phosphorus reduction of 50 lb/yr	Implement projects to achieve a phosphorus reduction of 50 lb/yr
A3	Non-Structural Ag/Urban Implementation	Outcomes: reduce phosphorus loading to target waterbodies by 100 lb/yr	Meet with landowners	Implement enhanced street sweeping programs and non-structural best management practices to achieve a phosphorus reduction of 50 lb/yr	Implement enhanced street sweeping programs and non-structural best management practices to achieve a phosphorus reduction of 50 lb/yr
A4	Wetland Restoration Implementation	Outcomes: reduce phosphorus loading to target waterbodies by 81 lb/yr	Implement 1 wetland restoration to achieve a phosphorus reduction of 81 lb/yr		
A5	Agronomy Outreach Specialist	Output: Engage agricultural landowners (of both large and small operations) to implement structural and nonstructural BMPs as outlined in other Activities	See Attachment A	See Attachment A	See Attachment A

		See Attachment A – Agronomy Outreach Specialist Details & Milestones			
A6	Shared Services Educator	Output: 0.5 FTE to expand EMWREP basin-wide  See Attachment B – Education Details & Milestones	See Attachment B	See Attachment B	See Attachment B
A7	Technical/ Engineering				
A8	Internal Analyses	Outputs: Complete 1 internal loading analysis		Complete 1 internal loading analysis	
A9	Targeting Analyses	Outputs: Complete 2 enhanced street sweeping studies	Complete 2 enhanced street sweeping studies		
A10	Administration/ Coordination	Complete eLINK annual reporting as required	Complete annual report	Complete annual report	Complete annual report



## Phosphorus Reduction Goals and Progress

Phosphorus Reductions from CWMP	10-Year Phosphorus Reduction Goal (lb/yr)	2-Year Average (lb/yr)	FY21 WBIF Goal (lb/yr)	FY23 WBIF Goal (lb/yr)
Priority Streams (CWMP Table 5-2)	4,140	828	915	381
Priority Lakes (CWMP Table 5-3)	1,363	273		
<b>TOTAL</b>	<b>5,503</b>	<b>1,101</b>		

Phosphorus Reductions Proposed in this Work Plan	WBIF Proposed Reduction (lb/yr)
<a href="#">Activity 1: Structural Ag BMP Implementation</a>	100
<a href="#">Activity 2: Structural Urban BMP Implementation</a>	100
<a href="#">Activity 3: Non-Structural Ag/Urban BMP Implementation</a>	100
<a href="#">Activity 4: Wetland Restoration Implementation</a>	81
<b>TOTAL</b>	<b>381</b>

The tables above contain total priority streams and priority lakes phosphorus reduction goals from the LSC CWMP (see tables 5-2 and 5-3 on pages 81 and 82). If divided equally throughout the 10-year plan period, the average total lakes/streams phosphorus reduction goal would be 1,101 pounds/year achieved every 2-year period. The WBIF goal load reductions are below the CWMP 2-year average. The LSC partners estimated that the full basin-wide goal cannot be achieved solely with WBIF funds. Partners must leverage local dollars and other funding sources in order to meet the basin's goals.

LSC partners may utilize multiple calculation tools to estimate load reductions. Examples include MIDS calculator, PTMApp, BWSR Pollutant Reduction Estimator, estimation via outflow, and internal loading analysis. See CWMP page 99 for a full list of potential reduction tools and their general intended uses. LSC partners will choose the calculation tool best suited to the proposed BMP. Phosphorus reductions will be estimated at the target waterbody (not just at edge-of-field).

Phosphorus reductions achieved at specific priority waterbodies will be reported annually. LSC partners will also estimate, on an annual basis, the load reduction achieved at the St. Croix River as a result of implemented practices.

## Attachment A – Agronomy Outreach Specialist Details & Milestones

### Agronomy Outreach Specialist

**CWMP Reference:** Page 61

**Activity Description:** Facilitate a shared agronomy outreach program across the basin to provide education and technical assistance to agricultural producers; and support implementation of economical farming practices that have water quality and soil health benefits.

WBIF funded education and outreach will include:

- 80% = working directly 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.
- 20% = supporting implementation of BMPs led by others.

High priority and secondary priority actions that will be accomplished include (pg. 40 of CWMP):

- Provide agronomy, outreach, and technical assistance to agricultural producers including conservation planning and support to develop nutrient management plans.

### AGRONOMY OUTREACH

**Audience:** Agricultural producers and landowners

**Activity description:** Provide education and technical assistance to agricultural producers and landowners to support implementation of economical farming practices that have water quality and soil health benefits. This may include:

- Conducting site visits and assessing crop production on farms;
- Helping farmers to set up test-plots; develop conservation plans and nutrient management plans; evaluate and improve seed quality;
- Planning field days and creating farmer-led councils or similar learning networks;
- Promoting implementation of cover crops and alternative crops;
- Providing outreach support for implementation of structural and non-structural BMPs;
- Working in partnership with Discovery Farms and performing agronomy research including: laboratory tests of soil, seed, and crop samples; quality control for seed caliber and soil standards; keeping records of research, testing, and results; presenting results of data and analysis.

#### 2-year program goals (Table 5-1, Part A)

1. Conduct outreach to 200 operators of large and small farms, with a cumulative total of at least 3000 acres.
2. Provide technical support to help 20 farmers set up test plots on their land in order to evaluate the performance of practices such as cover crops, reduced tillage, and nutrient management.
3. Host six fields days.
4. Provide outreach support for installation or implementation of structural and nonstructural BMPs:

- 2,000 acres of non-structural best management practices, or enough to achieve a 400 lb/yr phosphorus reduction to target water bodies
  - 300 acres of structural or non-structural BMPs that improve soil health and/or reduce nitrogen and pesticide pollution to groundwater in locations where 1) DWSMA vulnerability is moderate, high, or very high; 2) Pollution sensitivity to wells is high or very high; 3) Pollution sensitivity to near surface materials is karst or high; or 4) Well testing show  $\geq 5$  mg/L nitrate
  - 300 acres of structural or non-structural BMPs near sensitive lakes or in direct lake catchments for significant lakes to reduce TP by 150 lbs
  - Structural or non-structural BMPs that reduce total phosphorus by 450 lbs/year to regionally significant rivers and streams
5. Create at least one farmer-led council or similar learning network

## Attachment B – Shared Services Educator Details & Milestones

### Shared Services Education (Basin Water Outreach Program)

**CWMP Reference:** Page 65

**Activity Description:** Facilitate a shared education and outreach program across the basin to provide education; engage residents, businesses, and local officials; and promote and market programs and practices. [0.5 FTE to expand EMWREP basin wide]

- WBIF funds will be combined with EMWREP local funds to fund a full-time education and outreach position.
- Shared services educator will work with EMWREP to conduct education and outreach basin-wide. Duties will be distributed so that all staff are able to work basin-wide.
- In addition to the education objectives listed below, this program will help to build social capacity, which is an over-arching goal of the LSC CWMP.

WBIF funded education and outreach will include:

- 90% = develop and implement outreach programs that result in behavioral changes achieving water quality benefits
- 10% = solicit willing landowners to install BMPs that are goals within this plan. Promoted practices will be in line with BWSR eligibility requirements and will focus on water quality.

High priority and secondary priority actions that will be accomplished include (pg. 41 and 42 of CWMP):

1. Facilitate a shared education and outreach program across the basin to provide education; engage residents, businesses, and local officials; and promote and market programs and practices.
2. Provide outreach, education and ordinance development on Minimal Impact Design Standards with local governments, developers, and others.
3. Work with LGUs to set shoreline "view corridors" to 25% of lot width or maximum 35' width and maximum vegetation clearing standards or adopt innovative shoreland standards to protect buffers, native ecosystems, and habitat corridors. This work will provide water quality benefits through the protection of shoreline and streambank buffers.
4. Actively promote best management practices and green infrastructure on developed or developing lands.
5. Provide outreach and education to lake associations and lake groups or shoreline owners to promote shoreline restoration projects.

Additional detail is provided on the following pages.

#### **EDUCATION AND OUTREACH FOR LOCAL DECISION MAKERS**

**Audience:** Local government staff and elected/appointed officials

**Activity description:** Provide local decision makers (city councils, planning commissions, watershed boards, county commissioners, etc.) with information and training needed to implement policies, programs, and practices that protect and restore water resources. This includes, but is not limited to, Minimal Impact Development Standards (MIDS), Shoreland/Buffer rules, and wetland buffer rules.

**Education objectives:**

- Local decision makers will understand that stormwater runoff, erosion, and illicit discharge contaminate surface and groundwater resources and, also, that there are best management practices to reduce these causes of water pollution.
- Local decision makers will understand that land use impacts water quality and that there are a variety of policies, programs and practices cities, counties, and watershed management organizations can implement to protect their water resources, including MIDS, shoreland/buffer rules, and wetland buffer rules.
- Local staff and decision makers will understand the impacts of chlorides on water quality and that there are many ways to reduce these impacts.

**Program goals:**

1. MIDS (see Table 5-1, Part B)
  - **2-Year:** Establish relationships, build trust, provide education, and lay groundwork for in-depth ordinance review, revision, and adoption in years 5-8.
  - **10-Year:** Implement Minimal Impact Design Standards or more restrictive in 20 communities; including climate resiliency provisions or standards
2. Shoreline standards / “view corridors” (see Table 5-1, Part C)
  - **2-Year:** Establish relationships, build trust, provide education, and lay groundwork for in-depth ordinance review, revision, and adoption in years 3-6.
  - **10-Year:** Increase the number of LGUs (including counties) by 2 that adopt innovative shoreland standards
3. Wetland protection
  - **2-Year:** Increase by 1 the number of LGUs with adopted wetland protections including buffer requirements and setbacks for permanent structures.
  - **10-Year:** Increase by 5 the number of LGUs with adopted wetland protections including buffer requirements and setbacks for permanent structures.
4. Chlorides (see Table 5-1, Part B)
  - **2-year:** 15% of all cities have staff certified in MPCA’s Level 1 and Level 2 Smart Salting Training
  - **10-year:** 75% of all cities have staff certified in MPCA’s Level 1 and Level 2 Smart Salting Training

## **OUTREACH SUPPORT FOR BMP IMPLEMENTATION**

**Audience:** Urban and rural landowners, shoreland property owners

**Activity description:** Promote best management practices and green infrastructure on developed or developing lands. Provide outreach and education to lake associations, lake groups, and shoreline owners to promote shoreline restoration projects. Provide outreach support for existing cost-share programs and new projects funded with WBIF. Train and assist urban and rural residents to complete projects on their land that reduce runoff pollution, conserve groundwater, and increase infiltration.

This activity will build on and expand existing programs and activities offered through EMWREP and the Anoka WEP, including Blue Thumb – Planting for Clean Water.

### **Education objectives:**

- Landowners will learn that they can help to reduce runoff pollution, conserve groundwater, and increase infiltration by installing best management practices such as habitat plantings, raingardens, and shoreline plantings; repairing erosion; and managing drainage around homes, farms, and commercial buildings.
- Landowners will develop the knowledge and skills to complete habitat and water quality improvement projects on their land, including: native plantings, raingardens, and native shoreline buffers.
- Landowners will be aware of and utilize BMP, cost-share and other incentive programs to complete projects.

### **Program goals:**

1. Outreach support for large projects (Table 5-1, Part B)
  - **2-year:** Provide outreach support to retrofit 4 existing developments with infiltration, recharge and reuse projects
  - **10-year:** Provide outreach support to retrofit 20 existing developments with infiltration, recharge and reuse projects
2. Outreach support for small projects (Table 5-1, Part B)
  - **2-year:** Provide outreach support for approximately 40 BMP projects in priority locations
  - **10-year:** Provide outreach support for approximately 200 BMP projects in priority locations
3. Outreach to shoreland property owners (Table 5-1, Part B)
  - **2-year:** Provide outreach support to install 20 shoreline restoration projects.
  - **10-year:** Provide outreach support to install 100 shoreline restoration projects.
4. Outreach for Landscape Stewardship Planning (Table 5-1, Part C)
  - **2-year:** Provide outreach support to create 4 new Landscape Stewardship Plans and 4 Woodland Stewardship Plans
  - **10-year:** Provide outreach support to create 20 new Landscape Stewardship Plans and 23 Woodland Stewardship Plans

## **PUBLIC EDUCATION AND ENGAGEMENT**

**Audience:** General Public, Lake Associations

**Activity description:** Educate the public about nonpoint source water pollution, groundwater conservation, and basic watershed ecology and management. Build partnerships with state and local government, non-profit organizations, lake associations, and other community groups. Motivate the public to practice behaviors that protect water resources.

This activity will build on and expand existing programs and activities offered through EMWREP and the Anoka WEP.

### **Education objectives:**

Residents and visitors of the Lower St. Croix watershed will learn:

- That nonpoint source water pollution comes from a variety of land uses - residential, commercial, and agricultural.
- That common pollutants impacting surface and groundwater resources in the Lower St. Croix Watershed include phosphorus, sediment, nitrates, E. coli, chloride, and mercury.
- That a watershed includes all of the land draining to a lake, stream or river, and that Watershed Districts and Watershed Management Organizations are special-purpose local units of government charged with managing the resources of a given watershed to prevent flooding and protect water quality.
- That surface and groundwater resources interact.
- That the public can help to prevent nonpoint source water pollution through a variety of behaviors, including raking leaves and grass clippings out of the street, using less fertilizers and chemicals on lawns and gardens, covering bare soil during landscaping and construction, picking up pet poop, replacing failing septic systems, using less salt for winter maintenance and water softening, disposing of household waste properly, and using less electricity.

### **Program goals:**

1. Deliver information to at least 90,000 people per year through articles in local newspapers.
2. Deliver information to at least 30,000 people per year through online news services.
3. Deliver information to at least 120,000 people per year through social media platforms.
4. Provide educational instruction for at least 1000 people per year through webinars and workshops.
5. Recruit 500 new people to adopt storm drains through the Adopt a Drain program (2 year goal).

## Attachment C – Staff Assignments & Qualifications

### Staff Qualifications & Billing (Listed Alphabetically)

Name	Position Title	Organization	Qualifications	Work Plan Assignment	Billing Rate, Estimated Hours, Estimated Cost*
Jennifer Hahn	Extension Educator, Water Resources	University of Minnesota Extension	17 years of experience working with producers and landowners providing technical assistance including completing conservation planning and implementation, soil assessments, and education and outreach. Applicable JAA available on request.	Activity 5 Agronomy Outreach Specialist: Serve as agronomy outreach specialist.	\$64.04/hour; 3,513 hours
Barbara Heitkamp	Water Resources Education Specialist	East Metro Water Resource Education Program	1.5 years of experience implementing the East Metro Water Resource Education Program and education and outreach of the Lower St. Croix Watershed Partnership; 10 years as a communications specialist and water resources researcher at the University of Minnesota; M.S. in Water Resources Science and B.S. in Geology	Activity 6 Shared Services Education: Serve as shared services educator.	\$71.19/hour; 2,576 hours
Angie Hong	Water Education Senior Specialist	East Metro Water Resource Education Program	15 years of experience implementing the East Metro Water Resource Education Program, a partnership of 25 local government entities. M.S. in Natural Resource Science and Mgmt, with an emphasis on environmental education.	Activity 6 Shared Services Education: Assist with shared services education.  Activity 10 Administration: Coordinate Policy Committee meetings. Website upkeep.	\$79.39/hr 200 hours



Name	Position Title	Organization	Qualifications	Work Plan Assignment	Billing Rate, Estimated Hours, Estimated Cost*
Craig Mell	District Administrator	Chisago Soil and Water Conservation District	22 years of experience in water resources management	Activity 10 Administration: Fiscal agent administration and contract coordination.  Chisago SWCD is the intended fiscal agent/grantee. Craig will assist with fiscal agent responsibilities.	\$86/hr  483 hours
Jay Riggs	District Manager	Washington Conservation District	District Manager, Washington Conservation District, 2005 To Present. Urban Conservationist, Dakota County Soil And Water Conservation District, 1997 To 2005. Environmental Scientist, Westwood Professional Services, Inc., 1994 To 1997. Environmental Planner, Southeast Michigan Council of Governments (SEMCOG), 1993 to 1994. M.S. Degree, Michigan State University, May 1993, Major: Natural Resource Management, Minor: Watershed Ecology. B.S. Degree, University of WI-Eau Claire, Dec. 1989, Double Majors: Biology and Psychology. Certifications: Certified Wetland Delineator #1298; Certified Professional in Storm Water Quality, CPSWQ #0062; Certified Professional in Erosion and Sedimentation Control, CPESC #2059; NREMT #E2443774.	Activity 10 Administration: Agronomy Outreach Specialist and Educator payroll administration.	\$100.37/hr  50 hours

Name	Position Title	Organization	Qualifications	Work Plan Assignment	Billing Rate, Estimated Hours, Estimated Cost*
TBD	TBD	Washington Conservation District	A qualified WCD staff member will perform meeting coordination. The partnership will consult BWSR BC with selection.	Activity 10 Administration: Meeting coordination (Planning Team, Steering Committee, Advisory Committee)	TBD
TBD	TBD	TBD	A qualified LSC partner staff member or hired third party professional will perform progress reporting. The partnership will consult BWSR BC with selection.	Activity 10 Administration: Grant and Progress Reporting	TBD
TBD	TBD	TBD	A qualified LSC partner staff member or hired third party professional may utilize grant funds under Activity 7 for project technical/engineering work.	Activity 7 Technical/Engineering	TBD
Note: If A10 Administration staff do not require the full amount of hours listed, and spending under this activity is under budget, grant funds will be shifted to another work plan activity. Administrative spending will be evaluated after 6 months of implementation, and futures years planning will be adjusted if needed.					

\*Billing rates are determined following the BWSR Guidelines for Determining a Billing Rate in the Grants Administration Manual and include salary, benefits and overhead.

# MEMO

## Lower St. Croix Partnership – Local Partner Approval Request

**To:** LSC Local Partner Board

**Date:** September 27, 2022

**From:** LSC Local Partner Staff

**Subject:** **Comprehensive Watershed Management Plan Amendment Request**

***[MEMO TEMPLATE – PLEASE BRING TO YOUR OCTOBER LOCAL BOARD MEETING]***

### **Background/Discussion**

The purpose of this memo is for the Lower St. Croix (LSC) local partner boards to consider the Policy Committee’s recommended [simple] amendment to the Comprehensive Watershed Management Plan (CWMP).

At its September 26<sup>th</sup> meeting the Policy Committee approved a request to add two additional water bodies to the priority list as well as adding completed inventories and prioritization efforts to the CWMP. Specifically, the Valley Branch Watershed District (VBWD) requests to:

- 1) Add Valley Creek and Kelle’s Creek to the other regionally significant streams listed in Table 5-2 and Figure 5-2.
- 2) Add completed subwatershed assessments and inventories to Table 7-1 and Figure 7-1.

Both of these watercourses are significant sources of pollutant loading to the St. Croix River. The associated inventories and subwatershed assessments will guide implementation efforts to meet CWMP goals.

The proposed CWMP amendment must be approved by a 2/3 majority vote by local partners. The Policy committee encourages prompt consideration of this request to ensure the FY23 budgeting process is not delayed.

### **Recommended Action**

Proposed Motion: Manager/Supervisor \_\_\_\_\_ moves to 1) Add Valley Creek and Kelle’s Creek to the other regionally significant streams listed in Table 5-2 and Figure 5-2 and 2) Add completed subwatershed assessments and inventories to Table 7-1 and Figure 7-1 as recommended by the Policy Committee. Seconded by Manager/Supervisor \_\_\_\_\_. **Motion** \_\_\_\_\_.

Please notify Angie Hong ([ahong@mnwcd.org](mailto:ahong@mnwcd.org)), Craig Mell ([craig.mell@mn.nacdnet.net](mailto:craig.mell@mn.nacdnet.net)) and Emily Heinz ([Emily.heinz@clflwd.org](mailto:Emily.heinz@clflwd.org)) of your board’s decision as soon as possible.

**Attached:** VBWD Request Memo

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) <sup>1</sup>	10-year TP Reduction Goal (lbs/yr) <sup>2</sup>
Sunrise River and Tributaries	18,306	2,256
Lawrence Creek <sup>3</sup>	1,177	118
Browns Creek <sup>4</sup>	848	85
<u>Valley Branch (includes Valley Creek and Kelle's Creek)<sup>3</sup></u>	<u>968</u>	<u>97</u>
Trout Brook <sup>3</sup>	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
<b>TOTAL</b>	<b><u>37,143,38,111</u></b>	<b><u>4,140,237</u></b>
<p>(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, <u>Valley Branch</u>, 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.</p>		

	street sweeping; lakeshore restorations. Projects modeled for estimated pollution reduction and project cost.	
McKusick Lake Subwatershed Assessment	<u>Urban and Shoreline:</u> Variety of stormwater retrofit approaches were identified including maintenance of, or alterations to, existing stormwater treatment practices; residential curb-cut rain gardens; swales with check dams; street sweeping; lakeshore restorations. Projects modeled for estimated pollution reduction and project cost.	Washington Conservation District, Middle St Croix WMO <a href="http://www.metrotsa4.org/swa">www.metrotsa4.org/swa</a>
Lily Lake Subwatershed Assessment	<u>Urban and Shoreline:</u> Variety of stormwater retrofit approaches were identified including maintenance of, or alterations to, existing stormwater treatment practices; residential curb-cut rain gardens; swales with check dams; street sweeping; lakeshore restorations. Projects modeled for estimated pollution reduction and project cost.	Washington Conservation District, Middle St Croix WMO <a href="http://www.metrotsa4.org/swa">www.metrotsa4.org/swa</a>
Perro Creek Subwatershed Assessment	<u>Urban and Streambank:</u> Variety of stormwater retrofit approaches were identified including maintenance of, or alterations to, existing stormwater treatment practices; residential curb-cut rain gardens; swales with check dams; street sweeping; stream restorations. Projects modeled for estimated pollution reduction and project cost.	Washington Conservation District, Middle St Croix WMO <a href="http://www.metrotsa4.org/swa">www.metrotsa4.org/swa</a>
St Croix River Direct PII Subwatershed Assessment	<u>Urban and Shoreline:</u> Variety of stormwater retrofit approaches were identified including maintenance of, or alterations to, existing stormwater treatment practices; residential curb-cut rain gardens; swales with check dams; street sweeping; lakeshore restorations. Projects modeled for estimated pollution reduction and project cost.	Washington Conservation District, Middle St Croix WMO <a href="http://www.metrotsa4.org/swa">www.metrotsa4.org/swa</a>
Top50P! Subwatershed Assessment	One of the first Rural SWAs. Identifies and ranks the Top 50 potential BMPs to reduce Phosphorus loads to the St. Croix from the rural portion of Washington County, south of I94.	Washington Conservation District, Middle St. Croix WMO, Valley Branch WD, South Washington WD <a href="http://www.metrotsa4.org/swa">www.metrotsa4.org/swa</a>
DeMontreville Lake Subwatershed Assessment	<u>Urban and Shoreline:</u> Variety of stormwater retrofit approaches were identified including maintenance of, or alterations to, existing stormwater treatment practices; residential curb-cut rain gardens; swales with check dams; street sweeping; lakeshore restorations. Projects modeled for estimated pollution reduction and project cost.	Washington Conservation District, Valley Branch WD <a href="http://www.metrotsa4.org/swa">www.metrotsa4.org/swa</a>
<u>Kelle's Creek/Sunfish Lake TMDL</u>	<u>Identifies sources of pollution and an implementation plan to reduce pollution</u>	<u>Minnesota Pollution Control Agency</u>

		<a href="#">Valley Branch Watershed District Total Maximum Daily Load (TMDL) (state.mn.us)</a>
<a href="#">Valley Branch Watershed District Watershed Restoration and Protection Strategy Report Lower St. Croix River-Major Watershed</a>	<a href="#">Assessed nutrient loads and identified implementation projects for Sunfish Lake (impaired), Eagle Point Lake, Lake Edith, Silver Lake (impaired), and Horseshoe Lake, and assessed bacteria source and identified implementation projects for Kelle’s Creek</a>	<a href="#">Minnesota Pollution Control Agency Valley Branch Watershed District Watershed Restoration and Protection Strategy (WRAPS) Report (state.mn.us)</a>

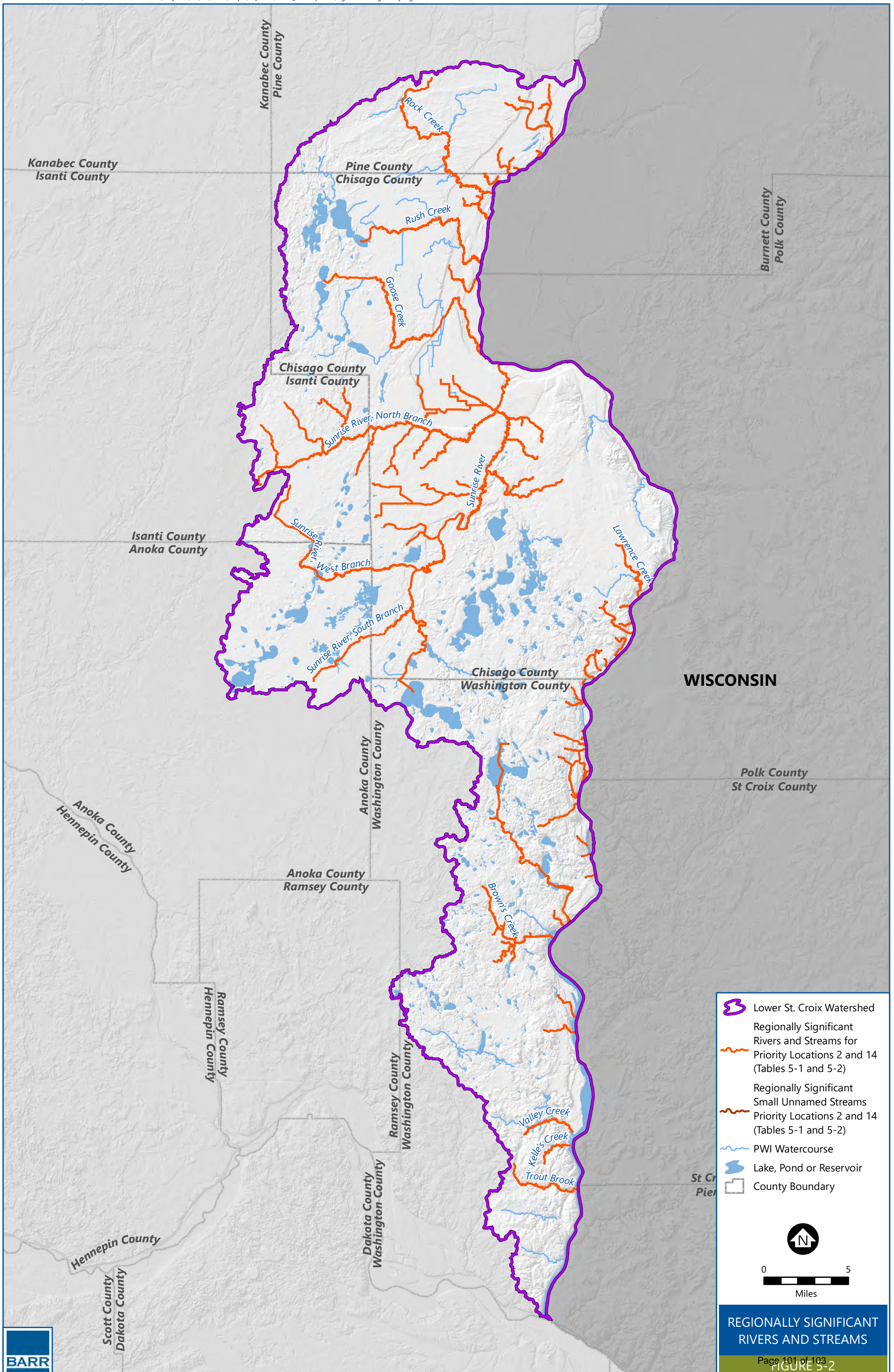
There are a variety of pollution reduction estimation tools available to analyze different types of projects. In general, the following types of projects will be analyzed with the listed estimation tools.

- Urban stormwater BMPs: MIDS calculator for volume, total suspended solids, and total phosphorus (particulate and dissolved)
- Agricultural runoff BMPs: PTMApp, SWMM, RUSLE2, Simple method, ACPF or BWSR Pollutant Reduction Estimator
- Gully stabilization BMPs or streambank/shoreline restoration BMPs: BWSR Pollutant Reduction Estimator or an alternate method agreed to by the Steering Committee
- Wetland Restoration for Pollutant Reduction: Estimation via outflow monitoring or other methods agreed to by the Steering Committee
- In-lake internal loading treatment: Internal loading analysis

Some proposed activities, such as habitat restoration or land protection, will not be able to be analyzed for pollutant reductions. In those cases, it will take a discussion of the proposed project’s merits and the opportunity it offers to address issues and meet the goals and outcomes of this Plan to determine if WBIFs are warranted during that fiscal year.

When possible, proposed projects that meet the gatekeeper criteria, should be scored using the targeting criteria and scoring matrix ([Appendix C](#)). Resulting scores for projects, such as best management practices in urban and agricultural areas, will be used as guidance by the Steering Committee to compare and contrast various projects being considered for inclusion in the annual work plan. Components of the targeting criteria and scoring matrix include:

- Cost benefit
- Proximity to stream or river
- Reduction of total phosphorus in highest priority lakes on Minnesota’s Lake Phosphorus Sensitivity Significance List
- Multiple benefits such as groundwater protection, flood reduction, habitat improvements, and educational opportunities
- Project readiness and urgency
- Partnerships and funding leveraged





September 14, 2022

Commissioner Fran Miron  
 Lower St. Croix Watershed Partnership Policy Committee  
[fran.miron@co.washington.mn.us](mailto:fran.miron@co.washington.mn.us)

Dear Commissioner Miron,

The Valley Branch Watershed District (VBWD) requests that the Lower St. Croix Watershed Partnership Policy Committee approve an amendment to the Lower St. Croix River Comprehensive Watershed Management Plan (The Plan) to:

- 1) Add Valley Creek and Kelle’s Creek to the other regionally significant streams listed in Table 5-2 and Figure 5-2.
- 2) Add completed subwatershed assessments and inventories to Table 7-1 and Figure 7-1.

**Regionally Significant Streams**

Page 34 of The Plan says, “Regionally significant streams (Table 5-2 and Figure 5-2) were identified as those contributing the highest amount of total phosphorus in the Lake St. Croix Total Maximum Daily Load (TMDL) Study (MPCA, 2012).” Table B-7 of that study shows that Valley Branch (also known as Valley Creek) has a larger total phosphorus load and load reduction to the St. Croix than other streams currently listed in Table 5-2 and shown in Figure 5-2, such as Trout Brook, Browns Creek, Rock Creek, Rush Creek, and Goose Creek. Based on the figure in Appendix B, Washington County, page 2, of the Lake St. Croix TMDL Implementation Plan (MPCA, 2013), Kelle’s Creek was included in the Valley Branch watershed rather than separated into its own watershed.

The VBWD submitted a similar comment during the comment period for The Plan, yet The Plan was not modified.

**Subwatershed Assessments**

Please also add the following to Table 7-1. We can provide data for updating Figure 7-1.

Title	Description	Author and Link
Kelle’s Creek/Sunfish Lake TMDL	Identifies sources of pollution and an implementation plan to reduce pollution	Minnesota Pollution Control Agency <a href="http://state.mn.us">Valley Branch Watershed District Total Maximum Daily Load (TMDL) (state.mn.us)</a>
Valley Branch Watershed District Watershed Restoration and Protection Strategy Report Lower St.	Assessed nutrient loads and identified implementation projects for Sunfish Lake (impaired), Eagle Point Lake, Lake Edith, Silver Lake (impaired), and Horseshoe Lake, and assessed bacteria	Minnesota Pollution Control Agency <a href="http://state.mn.us">Valley Branch Watershed District Watershed Restoration and Protection</a>



Title	Description	Author and Link
Croix River-Major Watershed	source and identified implementation projects for Kelle's Creek	<a href="#">Strategy (WRAPS) Report (state.mn.us)</a>

The VBWD submitted a similar comment regarding these subwatershed assessments during the comment period of The Plan, but these assessments were not included in The Plan before it was adopted.

Thank you for considering these requests. If you or the Policy Committee need additional information, please contact John Hanson at [jhanson@barr.com](mailto:jhanson@barr.com).

Sincerely,

Ed Marchan  
Board President

- c: Angie Hong, East Metro Water Resources Education Program
- Michelle Jordan, Minnesota Board of Water and Soil Resources
- Barb Peichel, Minnesota Board of Water and Soil Resources

DRAFT