

# 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, August 11<sup>th</sup>, 2022 6:00PM

1. Call to Order – 6:00PM
  - a. Approval of Agenda
2. Approval of Minutes
  - a. Draft minutes – July 14<sup>th</sup>, 2022 **pg. 1-8**
3. Treasurer’s Report
  - a. Report of savings account, assets for August 11<sup>th</sup>, 2022
  - b. Approve payment of bills for August 11<sup>th</sup>, 2022
4. Public Comment
5. Old Business
6. New Business
  - a. Funding Formula Update **pg. 9**
  - b. BMP/Permit Database Presentation **pg. 10**
  - c. 2023 Final Budget
7. Grant and Cost Share Applications
  - a. Baldrica Shoreline **pg. 11**
  - b. Moosai Infiltration Basin **pg. 12**
8. Plan Reviews/Submittals
  - a. Plan Review and Submittal Summary **pg. 13-29**
    - i. Hassis Paintworks-**INFORM**
    - ii. Ruphrect Hillside Lift-**ACTION**
    - iii. Lahr Residence-**ACTION**
    - iv. St. Croix Prep Trail-**INFORM**
  - b. Erosion and Sediment Control Inspection Reports **pg. 30-34**
9. Staff Report **pg. 35-37**
10. 1W1P Updates
  - a. Workplan Amendment Approval **pg.38-41**
11. Other
12. Adjourn

Regular Meeting of the Middle St. Croix Watershed Management Organization  
West Lakeland Town Hall, 959 Paris Ave Circle N  
Thursday, July 14<sup>th</sup>, 2022  
6:00PM

Present: Brian Zeller, Lakeland Shores; Ryan Collins, Stillwater; Beth Olfelt-Nelson, St. Mary's Point; Mike Runk, Oak Park Heights; Tom McCarthy, Lake St. Croix Beach; Dawn Bullera, Lake St. Croix Beach Alternate; Dan Kylo, West Lakeland Township; John Dahl, Bayport; Administrator Matt Downing; Amanda Herbrand, WCD

**Call to Order**

Manager Zeller called the meeting to order at 6:00PM.

**Approval of Agenda**

Administrator Downing requested an item be added under Other. Manager Kylo motioned to approve the agenda with this addition, Manager Collins seconded the motion. The motion carried with all in favor.

**Approval of Minutes**

Manager McCarthy motioned to approve the draft July 14<sup>th</sup>, 2022 board meeting minutes and Manager Olfelt-Nelson 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 July 14<sup>th</sup> for the month of May 2022 was \$301,172.32. The remaining balance for the month of June was \$74,410.54. First Bank CDs were valued at \$38,549.15. The ending balance in the RBC savings account for May was \$82,728.24. The ending balance for the same account in June was \$82,739.35.

Manager Zeller motioned to accept the report of the savings account assets and Manager McCarthy seconded the motion. The motion passed with all in favor.

Bills to approve this month are: Emmons & Olivier Resources: \$422.50; Emmons & Olivier Resources: \$676.00; Peterson Company: \$3,300.00; Washington Conservation District (Administration): \$2,614.00; Washington Conservation District (EMWREP): \$1,671.40; Washington Conservation District (Technical Services): \$6,174.87; Washington Conservation District (Water Monitoring): \$4,956.00; Washington Conservation District (Grant Hours): \$732.21; Total: \$20,546.98.

Manager Zeller motioned to approve payment of bills and Manager Collins seconded the motion. The motion passed with all in favor.

Administrator Downing noted that Baytown Township has not submitted payment for 2022. He also noted that a number of deposits would be going into the account soon, and that West Lakeland Township has an outstanding balance for a 2021 permit review invoice. Manager

Zeller requested Administrator Downing reach out to the representative from Baytown Township to remind them of the needed payment.

### **Public Comment**

There was no public comment.

### **Old Business**

There was no old business.

### **New Business**

Administrator Downing mentioned before going through the New Business items that those marked as “Inform” were action items for the June meeting. Due to the June meeting being cancelled, the items were discussed with Manager (Chair) Zeller previously for approval as the items were time sensitive, but are being brought to the board officially now.

### **Lily Basin Pay Request – INFORM**

Miller Excavating is requesting payment for the final \$38,205.53 for the Lily Basin Project. Manager Runk asked if the erosion at the basin had been fixed. Administrator Downing states that last he saw, it still looked the same but he had been assured that it would be taken care of.

Manager McCarthy motioned to pay the requested \$38,205.53 for the final payment of the Lily Basin. Manager Runk seconded the motion, and the motion passed with all in favor.

### **2022 Insurance Renewal – INFORM**

The board had previously approved renewal of the MSCWMO insurance policy. A bill totaling \$2,764.00 was paid.

### **Riviera Project Award –INFORM**

The board previously approved the solicitation of bids for a treatment train project along Riviera Avenue. Due to time sensitivity, Administrator Downing and Manager Zeller approved the bid from MNL of \$29,410.00 and informed them they could begin work. Administrator Downing mentioned that the estimate from the engineer was \$70,000.00. All three bids received were far below this amount at \$29,410.00, \$59,023.50, and \$55,400.00.

Manager Zeller motioned to approve Award of Construction Contract to MNL. Manager Dahl seconded the motion, and the motion passed with all in favor.

### **2023 Draft Budget**

Administrator Downing presented the 2023 Draft Budget, which had no changes from the 2022 Budget. Manager Runk asked how it is determined what each community pays, to which Administrator Downing stated there is a formula in the Joint Powers Agreement that takes into account population. Manager Runk asked when that would have last been updated. Administrator

Downing believes it was last updated in 2010. Manager Zeller states it should be looked into again as a few communities have experienced significant population increases since 2010. Administrator Downing states he will read the agreement to see what needs to be done to initiate the process.

Manager Zeller motioned to approve the 2023 Draft Budget. Manager McCarthy seconded the motion and the motion passed with all in favor.

Administrator Downing states he will submit the draft budget to the member communities.

### **2021 Audit – INFORM**

The 2021 Audit was required to be completed and submitted to the State by June 30<sup>th</sup>, 2022. The audit found no concerns and no further concerns should be expected in the future as past grants close out. Administrator Downing states that moving forward he has a better idea of what the auditors are looking for in terms of format of documentation.

Manager Runk motioned to accept the audit. Manager Olfelt-Nelson second the motion. The motion passed with all in favor.

### **2022 Second Half Contribution Requests**

Manager Zeller motioned for Administrator Downing to send out the second half contribution requests to the member communities. Manager McCarthy seconded the motion. The motion passed with all in favor.

### **Lake St. Croix South Direct Phase II Encumbrance**

In 2020, the MSCWMO and the City of Lake St. Croix Beach implemented a cooperative project stabilizing 404 feet of failing bluff toe. The project utilized City funds along with \$220,00 of CWF grant monies secured by the WMO. The design called for 515 feet of shoreline to be stabilized but was limited but funding constraints. Bids for the Riviera Treatment Train (also funded by this grant) came in much lower than expectations, leaving ~\$100,000 for other projects. Since the Phase II grant has the same target areas identified as priorities as Phase I, Administrator Downing is recommending the bluff work be completed using the leftover grant sum. The completion of the stabilization will reduce total phosphorus (TP) loading to Lake St. Croix by a comparable amount of pounds per year as the Phase I project based on BWSR calculator modeling.

Manager Zeller motioned to approve encumbrance of remaining grant funds for the construction of the remaining engineered bluff toe stabilization in Lake St. Croix Beach. Manager McCarthy seconded the motion, and the motion passed with all in favor.

### **3M PFAS Reimbursement Request**

The MSCWMO consultant at EOR has been reviewing documents and providing technical input on the development of the water supply groundwater model as part of the 3M PFAS settlement. Staff is requesting reimbursement from MPCA totaling \$422.50 (EOR February).

Manager Runk motioned to approve submittal of 3M PFAS Reimbursement request totaling \$422.50. Manager Collins seconded the motion and the motion passed with all in favor.

## **Grant and Cost Share Applications**

### **Townsend Native Planting**

Justin and Rhonda Townsend are applying for the Landscaping for Habitat grant to install a 3,000 sq. ft. native pollinator garden over an existing drain field. The property is located within 500 feet of the St. Croix River, making it an ideal location for habitat improvement project. The estimated cost for the project is \$1,296.00, and the cost share requested is \$250.00.

### **Berres Native Planting**

Annie Berres is applying for the Landscaping for Habitat grant. She would like to install a 500 sq. ft. native planting to support educational opportunities for her home pre-school program. Her property is located less than 500 ft from the Bayport Wildlife Management Area, making it a suitable location for a water quality and habitat improvement project. The estimated cost of the project is \$515.00, and the cost share request is \$250.00.

Manager Zeller motioned to approve encumbrance of \$250.00 cost share for the installation of the Townsend native planting, and to approve encumbrance of \$250.00 cost share for the installation of the Berres native planting. Manager Dahl seconded the motion and the motion passed with all in favor.

### **Kelly Native Planting**

On May 12th the MSCWMO Board of Managers approved cost share encumbrance of \$250 for the Kelly Native Planting project. The landowner has submitted receipts for work (installation of 65 native perennials and three native trees/shrubs) conducted in the spring of 2022, totaling \$243.43 in materials costs. Technical staff have confirmed the work and expenses and recommend reimbursing costs of \$243.43.

Manager McCarthy motioned to approve reimbursement of \$243.43 for the Kelly Native Planting. Manager Runk seconded the motion, and the motion passed with all in favor.

### **Siegler Shoreline**

On November 10th, 2021 the MSCWMO Board of Managers approved cost share encumbrance of \$1,000 for the Siegler Shoreline Buffer project. The landowner has submitted receipts for work conducted in the spring of 2022, totaling \$10,948.00 for materials and labor. Technical staff have confirmed the work and expenses and recommends reimbursing costs of \$1,000.00.

Manager Zeller motioned to approve reimbursement of \$1,000.00 for the Siegler shoreline buffer. Manager Olfelt-Nelson seconded the motion and the motion passed with all in favor.

### **Hietpas Shoreline**

Sarah Hietpas is applying for the Landscaping for Water Quality grant. She would like to enhance 96 linear feet of shoreline on Lake McKusick. This work would include 600 square feet of rip rap removal and maintenance along with 800 square feet of turf conversion to native plantings. The estimated cost for the project materials is \$777.50, and the cost share requested is \$500.00.

Manager Zeller motioned to approve encumbrance of \$500.00 cost share for the installation of the Hietpas buffer enhancement. Manager McCarthy seconded the motion and the motion passed with all in favor.

### **Plan Reviews/Submittals**

#### **2022 Stillwater Streets – ACTION**

An application for project review was submitted on March 29th, 2022 for the City of Stillwater 2022 Street Improvement project which includes pavement rehabilitation, storm and sanitary sewer repair, curb and gutter repair, and sidewalk replacement for numerous City streets. Also included is the addition of 650 feet of new sidewalk along Brick Street and new curb along Ramsey Street. The rain gardens are also located in an emergency response area (ERA) that is in a high vulnerability DWSMA so infiltration is prohibited. The project meets MIDS flexible treatment option 2 and rate control standards with two lined rain gardens. MSCWMO staff recommends approval without any conditions.

Manager Zeller motioned to approve the project without any conditions. Manager Collins seconded the motion. The motion passed with all in favor.

#### **Hassis Paintworks – 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.

#### **Colburn Garage – ACTION**

An application for project review was submitted on May 11th, 2022 for a detached garage project reconstruction at 145 Lakeland Shores Rd in Lakeland Shores. The project consists of removal of the existing garage and construction of a new six car garage which adds/reconstructs

3023 sf of new impervious surfaces. Resubmittal materials that were received on June 27th utilized an infiltration basin to provide volume retention. MSCWMO staff recommend approval with 7 conditions:

1. Erosions and sediment control notes describe installation timing and stabilization timeframes
2. Erosion and sediment control installation details are provided (plan sheet states “see detail” but no details were provided)
3. Type and stabilization methods for permanent vegetation is provided.
4. Frequency of erosion and sediment control inspections and maintenance is described as well as contact information for responsible party.
5. Pollution prevention measures are described.
6. For the infiltration basin construction methods meeting MSCWMO standards are described and a standard cross section detail is provided.
7. Sufficient volume retention is provided to meet the required volume retention for all new/reconstructed impervious area, not just the net increase.

Manager Zeller motioned to approve the project with the seven conditions. Manager McCarthy 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. The project consists of 416 sf of new impervious surfaces and construction within 40’ of the bluffline. MSCWMO staff does not recommend approval for projects involving unnecessary grading or additional impervious within 40’ of the top of the bluffline, but has made exceptions for retaining wall reconstructions to stabilize slopes. MSCWMO staff recommend the applicant revise and resubmit with only necessary grading/proposed impervious to stabilize the existing retaining wall/bluff slope.

Administrator Downing restates that any project proposal would involve construction activity within 40’ of the bluffline. He states that in the past MSCWMO has given approval to reconstruct existing structures, such as walls. Manager Zeller states that approving reconstruction of a wall has been trouble in the past and that if that is the MSCWMO recommendation, before and after photos will be needed for the project. Administrator Downing recommends informing the community that the project cannot add any impervious and agrees with Manager Zeller that the reconstruction of the wall has to be very specific. Administrator Downing confirms that if the project becomes just a wall replacement, MSCWMO will still review it and the erosion control measures for the project. Manager Dahl asks if it’s necessary to send out a memorandum to the communities to remind them that MSCWMO needs to review projects and make recommendations due to some concerns of projects being approved without MSCWMO review. Administrator Downing requests that board members that are council members in their own communities ask at the council-level if projects have been reviewed by the WMO as they are approved by their community.

Manager Olfelt-Nelson motioned to approve the MSCWMO recommendation that the applicant revise and resubmit with only necessary grading/proposed impervious to stabilize the existing retaining wall/bluff slope. Manager Dahl seconded the motion. The motion passed with all in favor.

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

Administrator Downing went through the ESC reports from May and July. Many of the projects inspected were inspected in both months and showed improvements at the second inspection that brought the site into compliance. The inspections from July show all projects as having a grade of A or B. There is one project that has raised some concerns from MSCWMO and the City as the downspouts and pipes from the home direct water down towards the river before sump pump pumps the water back to the top of the slope where the property's rain garden is. This project continues to have follow up visits from the City engineer and MSCWMO is continuing to keep an eye on it.

Manager Olfelt-Nelson asked when compaction of infiltration areas becomes enough of a concern that it is brought to the attention of the site owner or contractor. Administrator Downing states that infiltration areas are not dug to final grade until other areas of the project are completed to protect them, so as other areas of the project finish the contractor should be returning to infiltration areas to loosen the soil and finish them.

### **Staff Report**

Administrator Downing presented the June/July staff report. Administration items included June and July meeting materials, coordination of grant and permit program, and finalized 2021 audit information.

Administrator Downing discussed the Lily Basin planting that occurred June 1<sup>st</sup>. Manager Collins, EOR, WCD staff, Prairie Restoration staff, and many volunteers attended the event. Due to the lack of rain, MSCWMO had enlisted the assistance of WCD maintenance staff to water the basin, and the City of Stillwater opened fire hydrants twice. Administrator Downing is working with Miller Excavating and EOR to ensure the last items are completed on the basin and has been working on the closeout for the project. The project was completed far under the original estimated cost, with the final project's total cost being approximately \$470,00.00.

The Lake St. Croix Small Communities Phosphorus Reduction Grant is in Phase II. Minnesota Native Landscapes (MNL) has been contracted and will start work along Riviera in the coming months. The remaining grant funds will be used to finish the bluff toe stabilization project as motioned earlier in the meeting.

WCD staff continue their work conducting water monitoring activities in the watershed including monitoring the drainage from brick pond, though staff are having trouble with that particular piece of equipment. Search for a replacement piece of equipment is underway. Lake monitoring activities continue as normal.



Manager Dahl asked if the Perro Creek *E. coli* study was ever wrapped up. Administrator Downing stated genetic marker testing was conducted and concluded that the *E. coli* was likely not human-sourced. Once this was determined, nothing further was done as the risk to human health is determined to be very low. Administrator Downing then mentioned that they did discover that there is some roof run off that was found to be improperly routed that may have been the source.

Other items on the staff report include erosion and sediment control inspections, which were discussed earlier in the meeting. Administrator Downing mentioned that WCD staff will be giving a presentation on the new database the board previously approved.

BMP maintenance, as previously mentioned, has been watering plants in the Lily Basin to ensure they establish, and has also been conducting their other regular maintenance activities. Some projects BMP maintenance has done since last meeting include inlet cleanout at the Stillwater Country Club, vegetation assessment of SCC and discussion about vegetation management plan for 2022, and Perro Creek Shoreline restoration.

Small Scale Habitat & Water Quality Enhancement Projects have been underway in Bayport and Lake St. Croix Beach. Site prep for LSCB buffer enhancement and Perro Creek buffer expansion is underway. Light earthwork/grading for passive revegetation of SMP beach will begin this month. Overseeding at SMP beach site anticipated for fall 2022 or spring 2023 as supplement.

Manager Zeller mentioned seeing some erosion at Lakeland beach under the bridge and mentioned that it may make a good future project. Administrator Downing will look into it.

### **1W1P Updates**

Manager Runk states the next 1W1P meeting will be July 25th, location is yet to be determined. There was no other update.

### **Other**

Administrator Downing presented an additional item. Some other communities have had some concerns with *E. coli* at swimming beaches and is asking the board if they want him to look into testing, either by helping the community find the means to do it or taking it on as a task that MSCWMO conducts. He mentioned that Valley Creek has recently received positive results for human-sourced *E. coli*. There are several possibilities for how the testing could be conducted, Administrator Downing mentions the communities entering a cooperative agreement with the WCD for testing amongst other options.

Manager Zeller mentioned concerns about blue-green algae as well. Manager Zeller recommends reaching out to County Public Health.

Administrator Downing states he will reach out to the County and the communities with beaches along the river to see if there is interest.

### **Adjourn**

Manager Zeller motioned to adjourn the meeting and Manager McCarthy seconded this. The meeting was adjourned at 7:04PM.

# MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

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



## MEMORANDUM

**TO:** MSCWMO Board of Managers  
**FROM:** Matthew Downing, Middle St. Croix WMO  
**DATE:** August 1, 2022

### RE: MSCWMO Funding Formula Update

The MSCWMO Joint Powers Agreement specifies the funding of the entity as follows:

- a) 40 percent shall be borne based upon the total acreage of each member local governmental unit based as a percentage of the acreage of the entire Middle St. Croix Watershed;
- b) Twenty percent shall be borne by each member local governmental unit based upon the tax capacity of the particular community's area of the watershed as a percentage of the tax capacity of the entire Middle St. Croix Watershed. To determine the tax capacity portion of each community in the watershed to use in the formula described here, the total tax capacity of the particular community is multiplied by the percentage of the acreage that community has within the Middle St. Croix Watershed;
- c) Forty percent shall be borne by each member local governmental unit based upon population of particular community's area of the watershed as a percentage of the total population of the entire Middle St. Croix Watershed. To determine the population portion of each community in the watershed to use in the formula described here, the total population of the particular community is multiplied by the percentage of the acreage that community has within the Middle St. Croix Watershed.

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. A summary of updated values using 2020/2022 data is as follows:

Community	% Contribution	2023 Budget Update	2022 Budget	% Change
Afton	0.4481%	\$637.85	\$637.72	0.02%
Bayport	13.5148%	\$19,238.00	\$17,257.42	11.48%
Baytown	11.4040%	\$16,233.41	\$14,501.85	11.94%
Lake St. Croix Beach	2.9699%	\$4,227.53	\$5,556.41	-23.92%
Lakeland Shores	1.6927%	\$2,409.54	\$1,674.01	43.94%
Lakeland	9.1875%	\$13,078.16	\$14,156.51	-7.62%
Oak Park Heights	16.1459%	\$22,983.35	\$22,737.38	1.08%
St. Mary's Point	1.4047%	\$1,999.61	\$1,143.48	74.87%
Stillwater	28.2979%	\$40,281.46	\$43,938.70	-8.32%
West Lakeland	14.9346%	\$21,259.10	\$20,744.51	2.48%
	<b>100.00%</b>	<b>\$142,348.00</b>	<b>\$142,347.99</b>	

Requested Board Action:

Move to utilize updated funding formula for the 2023 Budget requests to member communities.

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



## MEMORANDUM

**TO:** MSCWMO Board of Managers

**FROM:** Aaron DeRusha, WCD

**DATE:** 8/11/2022

**RE:** ESRI ArcGIS Online BMP Activity, Erosion Control, and Permit Tracking Database Option

In 2021 the Washington Conservation District (WCD) evaluated options to replace its Mapfeeder database, developed by a third party engineer, in order to provide more efficient service to partner organizations. Through coordination with partners, the database was desired to fit the following criteria and functions:

- Map based
- Centralized storage for activities listed below that can be broken out for each watershed or partner
- Tracks BMP implementation, cost share, grant, TMDL reductions, maintenance, and education and outreach activities
- Stores BMP and erosion control inspections and photos, and generates inspection reports
- Allows user to create customized inspection forms for various practices
- Has interface for construction permit applicants to apply for permits, track permit status, and submit application documents and plans
- Ability to modify the database and inspection forms by internal staff

Development of the new database began late in 2021, and was completed in 2022. Currently, Brown's Creek Watershed District, Carnelian Marine St. Croix Watershed District, Middle St. Croix Watershed Management Organization, and WCD are using the database according to the criteria above.

Staff conducting work for MSCWMO currently utilize modules for construction plan reviews, erosion control inspections, and best management practice (BMP) inspection and maintenance. Applications for plan reviews can be filled out by residents on the MSCWMO's Project Application webpage. This allows staff to begin an internal review of the project and make recommendations to the partner community to approve or deny the project. Approved projects that trigger erosion and sediment control standards are then transferred to the erosion control inspection module for routine inspections. An inspection field app allows staff to conduct inspections and automatically generate a report for distribution to project contacts. A separate module also allows staff to inspect BMPs that were constructed by or received cost share funding from MSCWMO, and track maintenance activities for those practices. All modules have internal "dashboards" that help staff stay organized and increase efficiency. A public facing dashboard showing all BMP implementation projects across Washington County is available on the WCD webpage here:

<https://www.arcgis.com/apps/dashboards/3c71eb5c98d54e788d1525e3f614edde>

These projects can be filtered by watershed, community, date, and practice type, and their pollutant load reductions are summarized.

Overall, the products developed through this database migration have streamlined workflows across multiple program areas while being able to better display work being done to the public. An added benefit is a lower overall cost to MSCWMO. Previously, approximately \$900 per year was allocated by MSCWMO to pay for Mapfeeder. After the initial development cost of approximately \$1,500, the annual cost to MSCWMO to implement the database is \$350.

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## MEMORANDUM

**TO:** Middle St. Croix WMO Board of Managers  
**FROM:** Brett Stolpestad, Landscape Restoration Technician, Washington Conservation District  
**DATE:** August 11<sup>th</sup>, 2022

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

Colleen Baldriga 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 lf enhancement area at 1322 Meadowlark (Hietpas Buffer Enhancement).

**Project Estimate:** \$270.00 (*Materials Estimate*)  
**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 Baldriga Buffer Enhancement.

### Location & Photos:



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## MEMORANDUM

**TO:** Middle St. Croix WMO Board of Managers  
**FROM:** Brett Stolpestad, Landscape Restoration Senior Technician  
Washington Conservation District  
**DATE:** August 11<sup>th</sup>, 2022

**RE:** Moosai Bioretention Basin/Quixote Ave N Drainage Improvements  
661 Quixote Ave N  
Lakeland, MN 55043

Sunny Moosai is applying for the Water Quality Improvement grant. She would like to 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.

**Project Estimate:** \$5,480.37 (\$6,302.42 with +15% contingency)

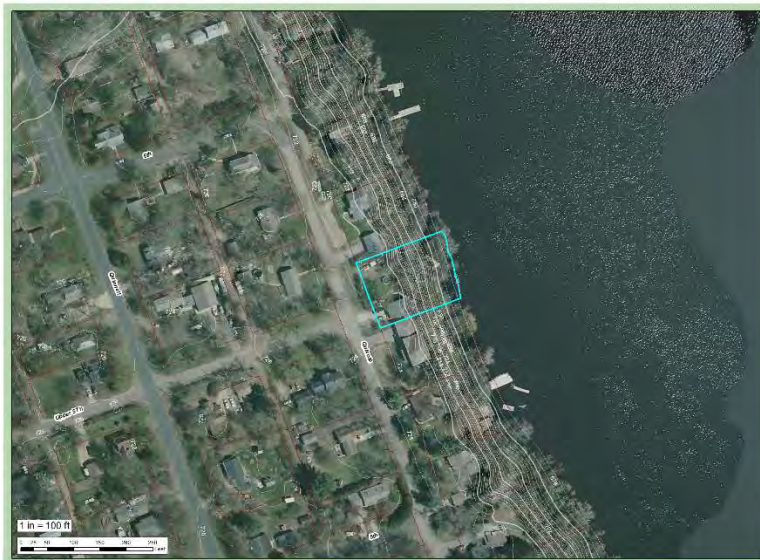
**Amount of Phosphorus Removed:** 1 lb

**Cost Share Requested:** \$5,000.00

### Requested Board Action:

Motion by Board Member 1, seconded by Board Member 2, to approve encumbrance of \$5,000.00 cost share for the installation of the Moosai Bioretention Basin.

### Location & Photos:





MEMORANDUM

**TO:** Matt Downing, Administrator  
**FROM:** Rebecca Nestingen, PE  
**DATE:** August 5, 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 filtration system for stormwater management therefore will need to demonstrate compliance with MIDS flexible treatment options. MSCWMO staff recommends the applicant revise and resubmit the project for further review.
- **Ruprecht Hillside Lift.** An application for project review was submitted on July 15<sup>th</sup>, 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. *MSCWMO staff recommend conditional approval with one condition.*
- **Lahr Residence.** An application for project review was submitted on June 8<sup>th</sup>, 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 4<sup>th</sup>, 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. *MSCWMO staff recommend approval with the condition that no grading or additional impervious (including compaction) occurs with the installation of new decking.*
- **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. *MSCWMO staff recommends the applicant revise and resubmit.*

# MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

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



August 3, 2022

Michelle Elsner  
690 Quinnell Ave. N  
Lakeland, MN 55043-0643

RE: Ruprecht Hillside Lift MSCWMO Project Review

Dear Ms. Elsner:

The Middle St. Croix Watershed Management Organization (MSCWMO) received the required submittal items on July 15<sup>th</sup>, 2022 for the proposed hillside elevator project located at 737 Quentin Ave S within MSCWMO boundaries and in the City of Lakeland. The proposed project qualifies for full review under the MSCWMO 2015 Watershed Management Plan (WMP).

The project, as submitted, contains sufficient information to determine conformance with the Policies and Performance Standards contained within Section 7.0 of the MSCWMO Watershed Management Plan. **The MSCWMO recommends approval of the project with the following condition:**

1. Provide plan amendments documenting OHW, HWL, landing platform elevation, bluffline, erosion and sediment control inspection frequency, and pollution prevention requirements on the construction plans.

This recommended conditional approval is based on the technical review of the MSCWMO performance standards and does not constitute approval by the City of Lakeland. The enclosed checklist contains detailed information on project review qualifications and the policies and performance standards of the WMP. MSCWMO review process information can be downloaded from [www.mscwmo.org](http://www.mscwmo.org). 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  
MSCWMO Administrator  
[mdowning@mnwcd.org](mailto:mdowning@mnwcd.org)



# PROJECT REVIEW FOR SINGLE LOT RESIDENTIAL

**MSCWMO Review ID:** 22-012

**Project Name:** Hillside Lift - Ruprecht

**Applicant:** Shane Hoefs

**Purpose:** Construct a residential incline elevator to get down the bluff to the St. Croix

**Location:** 737 Quentin Ave

**Review Date:** 8/3/2022

**Recommendation:** Conditionally approve with plan amendments documenting OHW, HWL, landing platform elevation, bluffline, inspection/maintenance, and pollution prevention requirements on plans.

## Submittal Items:

A completed and signed project review application form and \$350 review fee.

NA 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.

Ordinary High Water (OHW) elevations and location of all existing water bodies. OHW = 680.00' and 100-yr HWL = 692.00' (show on plans)

Location of all bluff lines. Show top of bluffline on plan

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. Show landing platform elevation

Delineation of existing wetlands, shoreland, ordinary high water levels, drain tiling, and floodplain areas. Display contour line and label elevations for OHW and HWL on plans

NA Details of proposed buffer upslope of water resources including site and vegetation characteristics (when applicable).

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

Erosion and sediment control plan demonstrating locations, specifications, and details of the following items:

- A. Erosion Prevention NA – no grading or soil disturbance during construction
  - 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 NA – no grading or soil disturbance during construction



- 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. Specify inspection frequency requirements on plans.
- 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. Include responsible person/party contact information on plans.

**D. Pollution Prevention** Specify below pollution prevention requirements on plans.

- 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** NA – no grading or soil disturbance during construction

- 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.

**NA** 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
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\*Minimum with slopes directed away from the building

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.)						
$XX,XXX \text{ sq. ft.} \times \frac{1.1 \text{ in}}{12 \text{ in/ft}} = X,XXX \text{ cu. ft.}$	<table border="0"> <tr> <td><b>BMP</b></td> <td><b>Volume</b></td> </tr> <tr> <td>BMP #1</td> <td>X,XXX cu. ft.</td> </tr> <tr> <td>BMP #2</td> <td>X,XXX cu. ft.</td> </tr> </table>	<b>BMP</b>	<b>Volume</b>	BMP #1	X,XXX cu. ft.	BMP #2	X,XXX cu. ft.
<b>BMP</b>	<b>Volume</b>						
BMP #1	X,XXX cu. ft.						
BMP #2	X,XXX cu. ft.						
<b>Total Required Volume Retention = X,XXX cu. ft.</b>	<b>Total Provided Volume Retention = X,XXX 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/Bioretenention\\_plan\\_and\\_section\\_drawings](https://stormwater.pca.state.mn.us/index.php/Bioretenention_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.

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455 HAYWARD AVENUE, OAKDALE, MINNESOTA 55128  
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August 4, 2022

Michelle Elsner  
690 Quinnell Ave. N  
Lakeland, MN 55043-0643

RE: Lahr Residence MSCWMO Project Review

Dear Ms. Elsner:

The Middle St. Croix Watershed Management Organization (MSCWMO) received the required submittal items on June 8<sup>th</sup>, 2022 for the proposed retaining wall reconstruction, small patio, stairs, and planting project located at 681 Quixote Ave N within MSCWMO boundaries and in the City of Lakeland. Additional submittal items were received on August 4, 2022. The proposed project qualifies for full review under the MSCWMO 2015 Watershed Management Plan (WMP).

The project, as submitted, does not conform with the Policies and Performance Standards contained within Section 7.0 of the MSCWMO Watershed Management Plan. According to the WMP construction is prohibited within 40' of the top of blufflines (MSCWMO WMP 7.3.1.H). Exceptions have been made for repairs and replacement of existing retaining walls to stabilize slopes however MSCWMO does not recommend approval for projects involving grading or additional impervious surfaces (such as patios) within 40' of the top of blufflines. **MSCWMO recommends approval with the condition that no grading or additional impervious (including compaction) occurs with the installation of new decking.**

This recommended approval is based on the technical review of the MSCWMO performance standards and does not constitute approval by the City of Lakeland. The enclosed checklist contains detailed information on project review qualifications and the policies and performance standards of the WMP. MSCWMO review process information can be downloaded from [www.mscwmo.org](http://www.mscwmo.org). Please contact me at 651-330-8220 x22 or [m Downing@mnwcd.org](mailto:m Downing@mnwcd.org) if you have any questions.

Sincerely,

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

Matt Downing  
MSCWMO Administrator  
[m Downing@mnwcd.org](mailto:m Downing@mnwcd.org)



# PROJECT REVIEW FOR SINGLE LOT RESIDENTIAL

**MSCWMO Review ID:** 22-011

**Project Name:** Lahr Residence

**Applicant:** Evan Todd

**Purpose:** Retaining wall replacement, small patio, stairs, and planting

**Location:** 681 Quixote Ave N, Lakeland

**Review Date:** 8/4/2022

**Recommendation:** Approve with the condition that no grading or additional impervious (including compaction) occurs with the installation of new decking.

## 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.
- Ordinary High Water (OHW) elevations and location of all existing water bodies.
- Location of all bluff lines. **Construction is prohibited within 40' of the top of blufflines (MSCWMO WMP 7.3.1.H). Exceptions have been made for repairs and replacement of existing retaining walls to stabilize slopes however MSCWMO does not recommend approval for projects involving grading or additional impervious surfaces (such as patios) within 40' of the top of blufflines. Applicant has revised plans to remove existing concrete patio and replace with a smaller paver patio, and build a floating deck, no grading or impervious proposed.**
- 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.
- Delineation of existing wetlands, shoreland, ordinary high water levels, drain tiling, and floodplain areas.
- Details of proposed buffer upslope of water resources including site and vegetation characteristics (when applicable).
- 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.

NA Details of proposed structural stormwater practices (Meets Minnesota Stormwater Manual guidelines) **Under 500 square feet of proposed impervious in St. Croix Riverway.**

- 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
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\*Minimum with slopes directed away from the building

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

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



August 5, 2022

Nancy Healey  
Baytown Township  
4020 McDonald Dr.  
Stillwater, MN 55082

RE: St. Croix Prep Nature Trail

Dear Ms. Healey,

The Middle St. Croix Watershed Management Organization (MSCWMO) received initial submittals on July 21<sup>st</sup>, 2022 for the proposed St. Croix Prep Nature Trail, located within MSCWMO boundaries in the Township of Baytown. The proposed project qualifies for full review under the MSCWMO 2015 Watershed Management Plan (WMP).

The project as submitted does not compliance with applicable Performance Standards contained within Section 7.0 of the 2015 MSCWMO WMP. The project submittal demonstrated 3,649 cubic feet (cf) of volume control however this falls short of the 7,429 cf required by MSCWMO volume control standards. The applicant also did not submit any materials to demonstrate compliance with the rate control standard. **The MSCWMO staff recommend the applicant revise and resubmit to address items in the attached review checklist.**

MSCWMO review process information can be downloaded from [www.mscwmo.org](http://www.mscwmo.org). Please 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', written over a light blue horizontal line.

Matt Downing  
MSCWMO Administrator



# PROJECT REVIEW

**MSCWMO Review ID:** 22-013

**Project Name:** Nature Trail Construction

**Applicant:** Eric Meyer | Larson Engineering

**Purpose:** Construction of trails around the school property for student and teacher use

**Location:** 4260 Stagecoach Trail North, Stillwater

**Review Date:** 8/4/2022

**Recommendation:** Recommendation

## 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.
- 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 is not in compliance with NPDES CSW or MSCWMP performance standards.
- Permanent Stormwater Management System in compliance with the requirements of the NPDES SDS Construction Stormwater Permit and MSCWMO Performance Standards. Permanent stormwater management is not in compliance with NPDES CSW or MSCWMP 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. No submittal of tables and H&H modeling to demonstrate compliance with rate control 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:
  - 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. Volume control does not meet standards therefor sufficient treatment is not provided.

**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.
- 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. MIDS calculations do not demonstrate that the project achieves the required volume control.

Volume Retention Required (cu. ft.)	Volume Retention Provided (cu. ft.)
$81040 \text{ sq. ft.} \times \frac{1.1 \text{ in}}{12 \text{ in/ft}} = 7429 \text{ cu. ft.}$ $XX,XXX \text{ sq. ft.} \times \frac{0.55 \text{ in}}{12 \text{ in/ft}} = X,XXX \text{ cu. ft.}$	<b>BMP Volume</b> BMP #1 3649 cu. ft. BMP #2 X,XXX cu. ft.
<b>Total Required Volume Retention = 7,429 cu. ft.</b>	<b>Total Provided Volume Retention = 3,649 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. NPDES CSW permit requires permanent stormwater management to treat the water quality volume of 1" of the net increase of impervious surface (6753 cf). If project is revised to include infiltration facilities to meet standards, the facility must meet the following standards and NPDES CSW permit standards.

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

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.

- 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.
- Appropriate soil borings have been conducted that meet the minimum standards.
  - a. 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>.
  - b. 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.
  - c. A minimum of three feet of separation to the seasonal water table and/or bedrock.
  - d. 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.
- 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.
  - a. Excavation within 2.0 feet of final grade for infiltration/filtration systems is prohibited until contributing drainage areas are constructed and fully stabilized.
  - b. Rigorous sediment and erosion controls planned to divert runoff away from the system.
  - c. 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.
  - d. 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.
  - e. 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.
- 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. **It appears there are wetlands on site however they are not delineated on the plans.**
- 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.
- 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.



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

**Inspector Name:** Aaron DeRusha **Inspection Date:** 07/22/2022

**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 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. Biologs or other perimeter controls needed along street.

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

Confirm seed was placed with straw blanket. Straw blanket is not making contact with the soil in several spots, additional stapling or flattening of blanket needed. Good management of downspout water away from disturbed soils, and into energy dissipation.

**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 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 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:



# Erosion & Sediment Control Compliance Summary & Corrective Action Notice



# Erosion & Sediment Control Compliance Summary & Corrective Action Notice



# MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

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



## Staff Report- August 2022

### Administration

- Prepared August meeting materials
- Coordination of Grant and Permit Program
- Updated Funding Formula
- Attended TAC Meetings
- Began 2023 Planning

### Project Reviews

- Hassis Paintworks-**INFORM**
- Ruphrect Hillside Lift-**ACTION**
- Lahr Residence-**ACTION**
- St. Croix Prep Trail-**INFORM**

### 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. Final closeout and grant reporting will occur after this meeting. Planning a fall completion ceremony 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 been contracted and will start work along Riviera in the coming months. A preconstruction meeting occurred on August 3<sup>rd</sup>. 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.

**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 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

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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:** One storm sample has been collected at the Greeley St monitoring site. One snowmelt, four storm, and one base flow samples have been collected at the Perro Diversion site. Stage and velocity monitoring equipment was moved from the Perro Diversion Overflow site to the Greeley St site due to malfunctioning equipment. Back up monitoring equipment was deployed at the Perro Diversion Overflow site. Seven 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. An additional lake elevation gage was deployed on Brick Pond to monitor fluctuating water levels, and is being read by a citizen volunteer.

**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:** An inspection at the 313 Quixote Avenue- Burton Retaining Wall project found the site to be compliant, with some minor adjustments to soil cover needed. The owner confirmed a revegetation timeline. Follow up also occurred with the 737 Quentin- Ruprecht Retaining Wall project regarding redirection of downspout runoff away from the bluff. A sump pump was installed to redirect water to an infiltration area above the bluff, rather than discharging to the slope and river. Questions were answered regarding construction of infiltration areas at the John See Estates project.

**Staff:** Aaron DeRusha, WCD

### BMP Maintenance

**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 this Month:**

Vegetative maintenance at the Stillwater Country Club, Perro Creek Water Quality Improvement BMP, and the Perro Creek Shoreline restoration in July. Weekly watering is occurring at the Lily Basin planting.

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

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**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:** General database management occurred and a presentation on the final product will be given during the August board meeting.

**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 underway, this is a modification to the workplan as the SMP work was determined to be unfeasible.

**Staff:** Brett Stolpestad – WCD

### **Meetings**

- LSC Steering Team – July 13<sup>th</sup>
- Brick Pond Sediment Issues – July 19<sup>th</sup>
- 661 Quixote Site Meeting – July 22<sup>nd</sup>
- St. Croix Valley Regional Trail – August 2<sup>nd</sup>

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**To:** Policy Committee

**Date:** July 18, 2022

**From:** Steering Committee

**Subject:** WBIF Project Requests: Trout Brook and Sunrise River Projects

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### **Background/Discussion**

At its July 13<sup>th</sup> meeting, the Steering Committee discussed two Watershed Based Implementation Funding project requests exceeding \$50,000. According to the process discussed at the April 25<sup>th</sup> Policy Committee meeting, all WBIF grant requests exceeding \$50,000 will come to the Policy Committee for recommended approval to the fiscal agent. The purpose of this agenda item is to consider acting on these two requests. 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 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. This memo provides a summary of each project, three options for funding, and one recommendation.

### **Project Summaries**

- **Sunrise River Wetland Restoration – Comfort Lake-Forest Lake Watershed District** WBIF request: \$300,449. 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. Construction requires frozen conditions and is estimated to occur January/February 2023. [More information on the project can be downloaded here.](#)
- **Trout Brook Project – South Washington Watershed District** WBIF request: \$350,000. South Washington Watershed District (SWWD) proposes to work with to Minnesota 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 lbs/yr and TSS loading by 154 tons/yr to Trout Brook, a tributary of the St. Croix River, a LSC CWMP priority watercourse. Tree work to occur fall 2022 and main construction to occur spring 2023. More information on the project can be downloaded here: 1) [Project request form](#); 2) [Project proposal](#); 3) [Technical memo - water quality benefits](#); 4) [60% Design Report](#)

### **Funding Options Discussed at July 13<sup>th</sup> Steering Committee**

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

Option 3 would require a FY21 WBIF grant work plan revision in order to shift budget dollars to A5 Structural Urban BMP Implementation for the Trout Brook Project (required shift = \$160,000 added to A5) and to shift budget dollars to A6 Wetland Restoration Implementation for the Sunrise River Project (required shift = \$66,326 added to A6). See attached budget table. The revision must be approved by 2/3 of the partners prior to submitting it to the Board of Water and Soil Resources for approval. The grant work plan revision must be approved by BWSR before the associated funds are expended. Staff estimates the grant work plan revision can be completed by this September.

Option 3 also requires the FY23 WBIF grant agreement be executed prior to the Sunrise River Project's construction beginning (estimated for January/February 2023). This also requires the approval of 2/3 of the partner boards. Staff estimates this can be completed by end of this December.

### **Recommended Action**

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.

**Attached:** WBIF Budget Table and Funding Scenarios



**FY21 WBIF - Lower St. Croix Watershed Partners Grant**

A		B	C	D	E	F	G	H	I	J
ACTIVITY		WBIF BUDGET (April 1, 2021)	WBIF BUDGET ENCUMBERED (July 1, 2022)	WBIF BUDGET AVAILABLE (July 1, 2022)	ANTICIPATED ADDITIONAL WBIF TO BE ENCUMBERED PRIOR TO 12/31/2023	WBIF BUDGET AVAILABLE (July 13, 2022)	PROPOSED PROJECTS (July 13, 2022)	LSC WP PROJECT SPONSOR AND NAME (Option 3)	FY21 WBIF Change in Budget	FY21 WBIF Revised Budget
A1	Basin Ag Outreach Program	\$ 200,000.00	\$ 200,000.00	\$ -	\$ -	\$ -			\$ -	\$ 200,000.00
A2	Structural Ag BMP Implementation	\$ 160,000.00	\$ 106,462.31	\$ 53,537.69		\$ 53,537.69			\$ (52,826.00)	\$ 107,174.00
A3	Shared Services Educator	\$ 125,000.00	\$ 125,000.00	\$ -	\$ -	\$ -			\$ -	\$ 125,000.00
A4	Non-Structural BMPs	\$ 200,000.00	\$ 100,000.00	\$ 100,000.00	\$ -	\$ 100,000.00			\$ (100,000.00)	\$ 100,000.00
A5	Structural Urban BMP Implementation	\$ 200,000.00	\$ 10,000.00	\$ 190,000.00		\$ 190,000.00	\$ 350,000.00	SWWD Trout Brook Project Construction	\$ 160,000.00	\$ 360,000.00
A6	Wetland Restoration Implmentation	\$ 39,531.00	\$ 25,408.00	\$ 14,123.00		\$ 14,123.00	\$ 80,449.00	CLFLWD Sunrise River Tax Forfeit Project	\$ 66,326.00	\$ 105,857.00
A7	Internal Analysis	\$ 50,000.00	\$ 16,500.00	\$ 33,500.00	\$ -	\$ 33,500.00			\$ (33,500.00)	\$ 16,500.00
A8	Targeting Analysis	\$ 150,000.00	\$ 75,813.40	\$ 74,186.60	\$ 74,186.60	\$ -			\$ -	\$ 150,000.00
A9	Technical/Engineering	\$ 40,000.00	\$ -	\$ 40,000.00	\$ -	\$ 40,000.00			\$ (40,000.00)	\$ -
A10	Administration Coordination	\$ 100,000.00	\$ 88,600.00	\$ 11,400.00	\$ 11,400.00	\$ -			\$ -	\$ 100,000.00
<b>PROJECT BALANCE:</b>		\$ 1,264,531.00	\$ 747,783.71	\$ 516,747.29	\$ 85,586.60	\$ 431,160.69	\$ 430,449.00	\$ 711.69	\$ -	\$ 1,264,531.00

59%                      41%

Balance

	CLFLWD (\$300,449)		SWWD (\$350,000)		Total		Total	
	FY21 WBIF	FY23 WBIF	FY21 WBIF	FY23 WBIF	FY21 WBIF	FY23 WBIF	FY21+FY23 WBIF	
Option 1 (Fund neither)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Option 2.1 (Karen Kill)	\$ 200,000.00	\$ -	\$ 235,000.00	\$ -	\$ 435,000.00	\$ -	\$ 435,000.00	
Option 2.2 (Mike Isensee)	\$ 136,000.00	\$ -	\$ 300,000.00	\$ -	\$ 436,000.00	\$ -	\$ 436,000.00	
<b>Option 3 RECOMMENDED</b>	\$ 80,449.00	\$ 220,000.00	\$ 350,000.00	\$ -	\$ 430,449.00	\$ 220,000.00	\$ 650,449.00	

**ATTACHMENT - RECOMMENDED FUNDING SCENARIO (as discussed at July 13th Steering Committee meeting)**  
**CLFLWD and SWWD Projects**

Project	Requested Grant \$	FY21			FY23			Total Recommended Award
		FY21 Remaining Grant Budget	Recommended FY21 Award	Balance After Rec Award	FY23 Preliminary Targeting/CIP Budget	Recommended FY23 Award	Balance After Rec Award	
CLFLWD Sunrise River Wetland Project	\$300,449.00		\$80,449.00			\$220,000.00		\$300,449.00
SWWD Trout Brook Project	\$350,000.00		\$350,000.00					\$350,000.00
<b>TOTAL</b>	<b>\$650,449.00</b>	<b>\$431,160.69</b>	<b>\$430,449.00</b>	<b>\$711.69</b>	<b>\$683,829.00</b>	<b>\$220,000.00</b>	<b>\$463,829.00</b>	<b>\$650,449.00</b>
Comments		Remaining unencumbered \$ amt per Craig Mell's revised program log July 13 2022 (includes Jahnz Wetland). Current unencumbered balance minus anticipated encumbrances (A8 Targeting Analyses, A10 Adm/Coord)		Balance (note that an additional \$100K has been encumbered for yet unidentified non-structural ag practices)	Per Tom Dietrich's 6/22/22 convene meeting presentation*		Balance remaining for additional FY23 WBIF projects	Fully fund both requests by spanning FY21 and FY23 grants and seeking competitive grant awards when feasible.

**\*Total pooled FY23 WBIF = \$1,278,579.00**