

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 Center, 455 Hayward Ave

Attend virtually via ZOOM <https://us02web.zoom.us/j/85230003587>

Wednesday, November 10th, 2021

6:00PM

1. Call to Order – 6:00PM
 - a. Approval of Agenda
2. Approval of Minutes
 - a. Draft minutes – September 9th, 2021 **pg. 1-7**
3. Treasurer’s Report
 - a. Report of savings account, assets for November 10th, 2021
 - b. Approve payment of bills for November 10th, 2021
4. Public Comment
5. Old Business
6. New Business
 - a. 3M PFAS Reimbursement Request **pg. 8-10**
 - b. 2022 Permit Review Submittal and Meeting Dates **pg. 11**
 - c. 2022 MSCWMO-WCD Technical Services Agreement **pg. 12-19**
 - d. Bluff Owner Direct Information Mailing **pg. 20-23**
 - e. MSCWMO Logo Options **pg. 24-26**
7. Grant and Cost Share Applications
 - a. Siegler Shoreline Restoration **pg. 27-33**
 - b. People’s Church Habitat Restoration **pg. 34-35**
 - c. MCC Labor Grant Request **pg.36**
8. Plan Reviews/Submittals
 - a. Plan Review and Submittal Summary **pg. 37-78**
 - i. 200 Chestnut-**INFORM**
 - ii. Burton Retaining Wall and Patio-**INFORM**
 - iii. Stillwater Towing-**ACTION**
 - iv. Park Dental-**ACTION**
 - v. John See Estates-**ACTION**
 - vi. Colburn Garage-**INFORM**
 - vii. MN Party Bus-**INFORM**
 - b. Erosion and Sediment Control Inspection Reports **pg.79-109**

Middle St. Croix Watershed Management Organization Member Communities

Afton, Bayport, Baytown, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary’s Point, Stillwater, & West Lakeland

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9. Staff Report **pg. 110-113**
10. 1W1P Updates
11. Other
12. Adjourn

Regular Meeting of the Middle St. Croix Watershed Management Organization
Bayport Public Library
Thursday, September 9th, 2021
6:00PM

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

Call to Order

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

Approval of Agenda

Manager McCarthy motioned to approve the agenda with this addition and Manager Collins seconded this. The motion carried.

Approval of Minutes

Manager Olfelt-Nelson motioned to approve the draft August 12th, 2021 board meeting minutes and Manager McCarthy seconded this motion. The motion carried.

Treasurer's Report

The treasurer's report and bills to be paid were presented by Manager Kylo. The remaining checking account balance on September 9th for the month of August 2021 was \$452,567.01. First State Bank CDs were valued at \$38,549.15. The ending balance in the RBC savings account for August 2021 was \$76,857.22.

Bills to be approved this month are: Emmons & Oliver: \$1,261.25 total; Washington Conservation District (Administration): \$4,414.50; Washington Conservation District (Technical Services): \$5,310.00; Washington Conservation District (Grant Hours): \$4,000.87, Total: \$14,986.62.

Administrator Downing displayed some of the detailed budget tracking information requested by the board. There was no discussion at this time.

Manager Runk motioned to approve the treasurer's report and pay the bills and Manager Olfelt-Nelson seconded this motion. The motion carried.

Public Comment

There was no public comment.

Old Business

There was no old business.

Baytown-Oak Park Heights Drainage Issue Summary

Administrator Downing received direction to summarize the process so far and make recommendations. He included this information in the board packet along with supporting

documentation. He asked for board direction to pursue any of the recommended actions. Manager Olfelt-Nelson asked about how the MSCWMO can discuss this issue now that there were legal parties involved. Manager Zeller said certain community members can't comment. Manager Olfelt-Nelson asked what process could be conducted in case there was any dispute to the prepared summary and Manager Zeller said he believed they should assume the information is accurate. The information consists of the email chain and documents received, and Administrator Downing summarized phone conversations as best as he could. Manager Zeller asked about the MSCWMO providing technical assistance for the drainage issues and Administrator Downing said this option was briefly raised during the site tour but could be raised again. The MSCWMO can partner with the city to address stormwater issues to the northern properties. As previously discussed, the MSCWMO did not exist when the developments and issue in question occurred so this is the role that the MSCWMO can take.

Manager Zeller noted that if all these developments went through a proper permitting process it could have helped, but that this predates the MSCWMO. Administrator Downing agreed and reiterated that all of this occurred before 2015 when the MSCWMO began the formal permitting review program. There has been no documentation from Baytown and the property owner said this issue took place in 2011-2013.

Manager Zeller asked to send this out to all involved parties indicating the MSCWMO is willing to participate in the two options described. Administrator Downing explained that OPH is willing to work on stormwater design within the northern community; and that it's consistent with our mission to improve those neighborhoods anyway. There is a lot of opportunity for stormwater treatment in those neighborhoods and the MSCWMO could do a targeted campaign of the kind that usually occurs for these kinds of projects.

Manager Olfelt-Nelson inquired as to the list of concerns Administrator Downing raised after reviewing the information provided. Administrator Downing explained that this sparked conversations with the engineer but that he has not heard from either community on some of the bigger concerns. Manager Zeller said to include this in a final letter. Manager Zeller noted it is up to them to respond independently, and suggested that from a cost standpoint the MSCWMO needs to handle this the way we would handle any other outreach and project development. This included being prepared to spend money on stormwater projects.

Manager Olfelt-Nelson wanted to clarify Manager Zeller's direction for:

- 1) Administrator Downing to begin outreach and technical assistance to OPH and Baytown for stormwater practices
- 2) Send a formal request for both communities to follow up with the items the MSCWMO asked for clarification on

Manager Zeller said he wasn't sure that was what he meant for the second point. Administrator Downing has gone as far as he can go until someone asks him for help or responds to him for help. Administrator Downing said he is not expecting any further response. Manager Zeller clarified that he is suggesting a final letter stating that based on the info that has been provided that this is where the process has ended and if additional help is wanted there needs to be a clear request. Administrator Downing suggested sending the memo he created.

Manager Olfelt-Nelson suggested adding a "softer" cover letter for the memo including language about how it is in every community's interest to do our best to manage stormwater

runoff, leading into a description of the issue, and indicating that the MSCWMO offers support for small stormwater projects that residents can engage in.

Manager Zeller explained he didn't envision a targeted approach to this neighborhood in particular. Administrator Downing explained that this was part of what the MSCWMO does and so it was of no additional cost to have EMWREP do some outreach to lead to site visits for the regular TA program. Manager Zeller said he thought ranking and prioritizing neighborhoods was what drove outreach efforts and that it felt too specific to him based on this issue.

Administrator Downing explained that the MSCWMO has spent very little of its \$15,000 cost share project budget and so this work wouldn't be directed at this one issue. The MSCWMO would do analysis to determine if there was value in doing stormwater work in this neighborhood but these sorts of projects are something the MSCWMO has generally identified as value. He explained that earlier development focused on conveying rather than treating stormwater runoff which is why the MSCWMO still focuses on retrofitting suburban areas. Manager Zeller asked that Administrator Downing use his best judgement in determining outreach efforts as he does not want to be so focus don any one neighborhood that we don't do outreach to address issues elsewhere. Administrator Downing said an easy option was a direct mailing that is part of the usual outreach process anyway, and that various levels of interest and response could occur. Manager Zeller noted that a raingarden is only as good as it's long term maintenance.

Manager Zeller motioned for Administrator Downing to follow up with the communities involved with a cover letter and outreach to the northern neighborhood and Manager Olfelt-Nelson seconded this. Manager Dahl said he would be abstaining from the vote due to being close acquaintances with the landowner. Manager Runk is also continuing to abstain. The motion passed with all in favor and two abstentions by Manager's Runk and Dahl.

Permit Review Compliance

Administrator Downing explained that the MSCWMO started reviewing stormwater practices in 2015, and has begun ESC inspections for communities who have requested help. He explained that during the ESC inspections they have noticed that some projects could be in compliance from an ESC perspective but may not be following their approved plans.

Regarding 1635 Rivercrest-Stordahl (Lakeland); additional impervious over what was submitted on the plans was observed. A concrete pad, patio and walkway were constructed on the back side of the house that added approximately 860 square feet of additional impervious from the submitted plans that were reviewed. The additional volume control requirement for this would be 78 cubic feet. The original plan required 1,080 cubic feet of volume control, the approved plans demonstrated 1,274 cubic feet. This is greater than the new required volume, however the additional work is located in close proximity to the bluff and cannot direct runoff to the facilities. The final area of concern is that the original plans called for a rain garden to the south west of the home. This has been replaced by an underground infiltration chamber, the size and function are unknown since it was not included on the plans for review.

Administrator Downing strongly advises against underground practices for private residences due to the relative difficulty in maintaining and inspecting them. The city did not have any on site inspector to catch this either.

Manager Zeller suggested sending a letter or the inspection memo to the city as it is up to the city as the permitting authority to enforce the approved plans. Administrator Downing said the communities asked the MSCWMO to help enforce. Manager Zeller disagreed as the communities have an engineer that they can pay to do this work. Manager Olfelt-Nelson recalled the similar situation in St. Mary's Point in which the city added a stipulation that underground practices be inspected by an external party. They asked if this could be attached to this property and Administrator Downing explained that the work has already been completed. Manager Olfelt-Nelson asked if they should bring this back to the homeowner as they are not in compliance and Administrator Downing explained that he has less concerns about this specific instance, but that this issue raises the question of consistency.

The second case he wants to discuss is of bigger concern to him. Regarding the MN Party Bus Company-2nd Street Commercial (Lakeland Shores); during the most recent erosion and sediment control inspection it was noted that the project was complete minus the construction of the proposed infiltration basins. However, the project was not constructed as shown on the submitted plans and was modified without notifying the City or WMO. The owner claimed that there is less impervious present on the east side of the structure than planned, which is why more was done on the west. The boulder retaining wall was built directly on the property line, the plans showed it meeting setback requirements. As such the project will not be able to manage their stormwater. Manager Zeller said this project has not been received well by the community and has fallen under high scrutiny. There have been mixed perceptions as to the developer's level of responsiveness. Administrator Downing indicated that they have had issues getting the developer to do what has been asked.

Manager Zeller said he could talk to Lakeland Shores and that he thinks the MSCWMO may want to do something to help with our more specialized expertise. The cost for such assistance would then be filed back to the city to be passed onto the developer. The MSCWMO does not have an enforcement role in this situation. Manager Zeller wondered if Administrator Downing could work with the community on a contract to ensure that the MSCWMO is reimbursed.

Administrator Downing asked for input on the permit review process including the question of whether the communities want us to do the final close out process, or inspections beyond ESC to ensure the project is being constructed according to plans. There could be value in this. Manager Zeller said this should be added to the fee schedule if so and asked Administrator Downing to bring a draft of what this could look like to the board. He asked him to communicate in writing to both cities that they have a project out of compliance and that we can provide assistance but there will be a fee involved. The board discussed how different communities may respond differently based on their experience of working with the MSCWMO and their capacity for these activities. Manager Zeller noted that the WMOs can be more solutions oriented than other regulatory agencies cities may be used to working with.

Manager Zeller motioned that Administrator Downing send each community letter indicating that the MSCWMO knows these projects were not built to their approved plan sets and the cost associated with additional review and recommendations from the MSCWMO will be charged back to city who can collect from applicant. Manager Dahl seconded this and the motion carried.

2022 MSCWMO-WCD Water Monitoring Estimate

Administrator Downing explained the 2022 water monitoring is the same as what was planned. This is a discussion item and no action is needed. Action can be taken when the contract is brought to a future meeting. The biggest departure is the Lily Lake Alum sampling which the MSCWMO will be able to count as match towards the grant while utilizing the existing budget.

Grant and Cost Share Applications

There are none. The board wondered if people are doing projects on their own despite high material costs. Administrator Downing explained that he didn't know why there were so few applications. There is upcoming outreach planned for Lake McKusick and he thinks this may bring some more in. Manager Zeller said the MSCWMO should remind communities why the organization exists as well as what activities trigger a WMO review as he has noticed work going on in the watershed. Administrator Downing agreed, explain that he had community meetings planned for this fall with COVID resurgence changing that plan. Manager Zeller asked if a PowerPoint could be emailed to communities that they could walk through themselves, along with some promotion for a recent MSCWMO project to demonstrate added value and our role.

200 Chestnut-INFORM

The MSCWMO originally recommended approval of the project in December 2020 which utilized a green roof to meet volume control standards. The developers have since requested the engineer redesign the project exploring other stormwater management alternatives and a resubmittal was received on July 22nd. MSCWMO staff advised resubmittal following the MIDS alternative compliance sequencing and demonstrate volume control is infeasible onsite to pursue alternative stormwater options. The developer and applicant has since decided to revert the back to the original green roof design approved in 2020.

Ruprecht Retaining Wall-ACTION

The MSCWMO received project review submittal materials on August 10th, 2021 for the repair and replacement of retaining walls on the bluff at 737 Quentin Ave S in Lakeland. MSCWMO staff requested additional review materials and received revised materials from the applicant on September 1st. MSCWMO staff recommend approval with two conditions.

Manager Runk motioned to approve this project with the two conditions stated. Manger Kylo seconded this motion and the motion carried.

Burton Retaining Wall and Patio- INFORM

The MSCWMO received project review submittal materials on August 27th, 2021 for the repair and replacement of failing retaining walls and the construction of a new patio at 313 Quixote Ave N in Lakeland Shores. The MSCWMO staff meet with the project applicant on August 31st and advised the applicant the MSCWMO prohibits construction within 40 feet of the top of blufflines and requires BMPs to achieve volume control when 500 square feet or more of impervious surface is added. The applicant is attempting to revise the project scope so that less than 500 square feet of impervious surface is added and construction within the 40 foot bluffline

setback is limited to repair/replacement of existing retaining walls and minimal soil disturbance/grading.

Administrator Downing explained that this is no longer an action item as enough materials had not been submitted. At this point the MSCWMO would not be recommending approval anyway due to the activity being within 40 feet of the bluffline. Administrator Downing explained the plans further as including fill and impervious in the bluffline, and impervious driveway down to the river. As currently planned they will not be able to comply with the MSCWMO's performance standards. He explained they had not heard back from the DNR representative filling in for the recent replacement representative. The board discussed the DNR and BWSR's hiring freeze due to budgetary considerations.

Administrator Downing explained that the city issued the permit and the applicant is saying they just need approval from the WMO. Manager Zeller said the city should know the bluffline trigger. Administrator Downing said this has happened previously in which the city issues approval for the permit and informs the MSCWMO after receiving the MSCWMO's recommendation letter. Manager Zeller discussed which clerk is being filled in the auto forms and said he would follow up with Kim to see if the permit really has been issued. If it has been issued the MSCWMO recommends the project not be done this way and the permit should be issued on condition approval form the WMO.

Manager Zeller asked if a permit was issued for the adjoining property about a year ago and Administrator Downing said he would check on this.

Erosion and Sediment Control Inspection Reports

Administrator Downing ran through the ESC inspection reports. He explained the format looks different because they are now using the new approved database. The new database is saving time, workload, money and is all map based with an online permit application system.

Administrator Downing explained that Scanlan Residence looks good and they are adding some additional infiltration areas to address an unplanned large pickle ball court. The resident received some incorrect information when planning and has been very receptive towards addressing things. The project in St. Mary's Point had some issues earlier but is now in full compliance.

Staff Report

Administrator Downing presented the staff report. The construction of the Lily Lake project has started. There was old concrete found dumped which needed to be removed. The alum treatment is pushed back to next spring as the project will not be online this year. Administrator Downing is working to close out some of the WBF grants and receive final payments. Lake St. Croix Small Communities Phosphorus Reduction Grant – PHASE II identified some practices in Lakeland over the next few years. PFAS updates are being forwarded to board managers. Monitoring work is going as planned and he will demonstrate the new database update to the board.

1W1P Updates

Manager Fellego has not attended the recent meetings. Administrator Downing explained that implementation and project selection has begun. They are developing the processes for how to

allocate funding. The first shared staff member has been hired and is working. The second shared staff member, and agronomist, is being hired through the UMN extension service. Both these positions will be focusing on the upper LSCWD which has less capacity.

Other

Manager McCarthy asked if we were continuing to meet every month. Administrator Downing said he was hoping to be able to skip a meeting in the next couple months.

The board again discussed whether the MSCWMO can go back to Zoom meetings based on legal requirements for open meeting laws. Administrator Downing explained that the WCD invested in equipment that would meet those requirements but that it isn't portable. Someone still needs to be physically present conducting the meeting. The board discussed potential locations based on the current meeting schedule. Manager Zeller suggested the next meeting held at the Bayport Library again but to explore where the meeting could be conducted from there such as the WCD office. The board remarked that the flexibility for board members to attend in person or virtually is nice.

Adjourn

Manager Fellegly motioned to adjourn the meeting and Manager McCarthy seconded this. The meeting was adjourned at 7:00pm.

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: Middle St. Croix WMO Board of Managers
FROM: Matt Downing, Administrator
DATE: September 29th, 2021

RE: 6a.) 3M PFAS Contamination Groundwater Model Technical Services Reimbursement Request

Our 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 \$1,183.00 (EOR August, September).

Recommended Board Action- Approve Submittal of 3M PFAS Reimbursement Request Totaling \$1,183.00

Invoice

Emmons & Olivier Resources, Inc.
1919 University Ave. W, Ste 300
St. Paul, MN 55104-3455
Phone 651.770.8448
Fax 651.770.2552
www.eorinc.com



Invoice Total \$845.00

Matt Downing
Middle St. Croix WMO
C/O WCD
455 Hayward Avenue North
Oakdale, MN 55128

September 15, 2021
Invoice No: 00405-0011 - 18

Job 00405-0011 3M Groundwater Model Review

- Summary of Work Performed:
- Presentation to the MSCWMO Directors, 8/12/2021.
 - Attend MPCA report release meeting, 8/18/2021.

Professional Services from August 1, 2021 to August 31, 2021
Professional Personnel

	Hours	Rate	Amount	
Professional 4				
Grubb, Stuart	5.00	169.00	845.00	
Totals	5.00		845.00	
Total Labor				845.00
		Total this Invoice		\$845.00

Invoice

Emmons & Olivier Resources, Inc.
1919 University Ave. W, Ste 300
St. Paul, MN 55104-3455
Phone 651.770.8448
Fax 651.770.2552
www.eorinc.com



Invoice Total \$338.00

Matt Downing
Middle St. Croix WMO
C/O WCD
455 Hayward Avenue North
Oakdale, MN 55128

October 18, 2021
Invoice No: 00405-0011 - 19

Job 00405-0011 3M Groundwater Model Review

Summary of Work Performed:
Attend Subgroup 1 meeting 9/22/2021.

Professional Services from September 1, 2021 to September 30, 2021

Professional Personnel

	Hours	Rate	Amount	
Professional 4				
Grubb, Stuart	2.00	169.00	338.00	
Totals	2.00		338.00	
Total Labor				338.00
				Total this Invoice \$338.00

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MSCWMO PROJECT REVIEW PROCESS –SINGLE RESIDENTIAL LOT SUBMITTAL TIMING

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

Member communities may require a pre-application meeting. The following table contains the pre-application meeting deadline, submittal deadline, and board meeting dates for 2021.

2022 PROJECT REVIEW IMPORTANT DATES

Pre-Application Meeting Deadline*	Submittal Deadline	MSCWMO Board Meeting
December 9 th , 2021	December 30 th , 2021	January 13 th , 2022
January 13 th , 2022	January 27 th , 2022	February 10 th , 2022
February 10 th , 2022	February 17 th , 2022	March 10 th , 2022
March 17 th , 2022	March 31 st , 2022	April 14 th , 2022
April 21 st , 2022	April 28 th , 2022	May 12 th , 2022
May 12 th , 2022	May 19 th , 2022	June 9 th , 2022
June 9 th , 2022	June 30 th , 2022	July 14 th , 2022
July 21 st , 2022	July 28 th , 2022	August 11 th , 2022
August 18 th , 2022	August 25 th , 2022	September 8 th , 2022
September 22 nd , 2022	September 29 th , 2022	October 13 th , 2022
October 20 th , 2022	October 27 th , 2022	November 10 th , 2022
November 17 th , 2022	November 24 th , 2022	December 8 th , 2022

* *Not required*

**2022 SERVICE AGREEMENT
BETWEEN
WASHINGTON CONSERVATION DISTRICT
AND MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION**

A. PARTIES

This Agreement is made and entered into by Washington Conservation District, (WCD), and the Middle St. Croix Watershed Management Organization (MSCWMO).

B. PURPOSE

WHEREAS, the MSCWMO has requested assistance from the WCD to implement the policies specified in MINN. STAT. §§ 103A.206 and 103D.201; and

WHEREAS, the WCD is authorized to enter agreements to provide such assistance pursuant to MINN. STAT. §§ 103C.331, SUBD. 3 and 7 and 103D.335, subd. 21.

NOW, THEREFORE, the parties agree as follows:

C. TERM OF CONTRACT

The term of this agreement shall be from January 1, 2022 to December 31, 2022 unless extended or terminated earlier as provided herein.

D. SCOPE OF SERVICES

The WCD will perform all services and furnish and deliver work products generally described the attached Exhibits.

E. COST

In full consideration for services under this agreement, the WCD shall charge the MSCWMO for its services at the rate set forth in Section F. Costs for services for activities detailed in the attached Exhibits include:

Exhibit A: Administrative Services - \$33,890.00
Exhibit B: Technical Services - \$69,398
Exhibit C: Water Monitoring Services - \$22,075.00

TOTAL: \$125,363.00

Any additional costs for special studies or capital projects must be set forth in a written amendment to this Agreement.

F. BILLING RATE AND PAYMENTS

1. Services in Exhibit A, B and Task 5 in Exhibit C are billed on an hourly basis at the rate of \$31.00 - \$89.00 per hour, based on personnel and task. Invoices for Exhibits A and B will be sent on a monthly basis and will list specifically the work performed.

AIS Watercraft Inspectors	\$31
Seasonal	\$41
Technician	\$63
Senior Technician/Specialist	\$68
Senior Tech II/Specialist II	\$74

Senior Specialist	\$80
Manager/Administrator/Engineer	\$89

Services for BWSR grants will be billed per the BWSR calculator. Tasks 1-4 in Exhibit C are billed on a lump sum basis for services and project expenses. Invoices in Exhibit C will be sent on a quarterly basis.

2. Project expenses will be billed as they are accrued.
3. Invoices are payable by the MSCWMO within 60 days.
4. Office supplies, normal office reproduction expenses, and transportation are included in the hourly rate. Other expenses are to be reimbursed at actual cost.

G. EQUAL EMPLOYMENT OPPORTUNITY- CIVIL RIGHTS

During the performance of this Agreement, the WCD agrees to the following:

No person shall, on the grounds of race, color, religion, age, sex, disability, marital status, public assistance, criminal record, creed or national origin, be excluded from full employment rights in, be denied the benefits of, or be otherwise subjected to discrimination under any program, service, or activity under the provisions of and all applicable federal and state laws against discrimination including the Civil Rights Act of 1964.

H. STANDARDS

The WCD shall comply with all applicable Federal and State statutes and regulations as well as local ordinances now in effect or hereafter adopted. Failure to meet the requirements of the above may be cause for cancellation of this contract effective the date of receipt of the Notice of Cancellation.

I. DATA PRIVACY

All data collected, created, received, maintained, or disseminated, or used for any purpose in the course of the WCD’s performance of the Agreement is governed by the Minnesota Government Data Practices Act, Minnesota 1984, Section 13.01, et seq. Or any other applicable state statutes and state rules adopted to implement the Act, as well as state statutes and federal regulations on data privacy. The WCD agrees to abide by these statutes, rules and regulations and as they may be amended.

J. AUDITS, REPORTS, AND MONITORING PROCEDURES

The WCD will:

1. Maintain records that reflect all revenues, cost incurred and services provided in the performance of the Agreement.
2. Agree that the County, the State Auditor, or legislative authority, or any of their duly authorized representatives at any time during normal business hours, and as often as they may deem reasonably necessary, shall have access to the rights to examine audit, excerpt, and transcribe any books, documents, papers, records, etc., and accounting procedures and practices of the WCD which are relevant to the contract.

K. INDEMNITY

The WCD and the MSCWMO mutually agree, to the fullest extent permitted by law, to indemnify and hold each other harmless for any and all damages, liability or cost (including reasonable attorneys’ fees and costs of defense) arising from their own negligent acts, errors or omissions in the performance of their services under this agreement, to the extent each party is responsible for such damages and losses on a comparative basis of fault. Parties agree to provide proof of contractual liability insurance upon request. This paragraph does not diminish, with respect to any third party, any defense, immunity or liability limit that the WCD or the MSCWMO may enjoy under law.

L. INDEPENDENT CONTRACTOR

It is agreed that nothing herein contained is intended or should be construed in any manner as creating or establishing the relationship of co-partners between the parties hereto or as constituting the WCD as the agent, representative, or employee of MSCWMO for any purpose or in any manner whatsoever. The WCD is to be and shall remain an independent contractor with respect to all services performed under this Agreement.

The WCD represents that it has, or will secure at its own expense, all personnel required in performing services under this Agreement. Any and all personnel of the WCD or other person, while engaged in the performance of any work or services required by the WCD under this Agreement, shall have no contractual relationship with the MSCWMO and shall not be considered employees of the MSCWMO.

M. MODIFICATIONS

Any material alteration or variation shall be reduced to writing as an amendment and signed by the parties. Any alteration, modification, or variation deemed not to be material by written agreement of the WCD and the MSCWMO shall not require written approval.

N. MERGER

It is understood and agreed that the entire agreement of the parties is contained here, except as modified during the term of the Agreement by a writing under Paragraph M above concerning a non-material change, and that this contract supersedes oral agreements and negotiations between the parties relating to this subject matter. All items referred to in this contract are incorporated or attached and deemed to be part of the contract.

O. TERMINATION

Either the WCD or the MSCWMO may terminate this Agreement with or without cause by giving the other party thirty (30) days written notice prior to the effective date of such termination. If the MSCWMO terminates this Agreement, it may specify work to be performed by the WCD before termination is effective and shall pay the WCD for services performed by the WCD up to the time specified for termination. If the WCD terminates the Agreement, it will not be compensated for part completion of a task except to the extent part completion has value to the MSCWMO.

P. OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY

All property of the MSCWMO used, acquired or created in the performance of work under this Agreement, including documents and records of any kind, shall remain the property of the MSCWMO. The MSCWMO shall have the sole right to use, sell, license, publish, or otherwise disseminate any product developed in whole or in part during the performance of work under this Agreement.

**2022 SERVICE AGREEMENT
BETWEEN
WASHINGTON CONSERVATION DISTRICT
AND MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION**

IN TESTIMONY WHEREOF the parties have duly executed this agreement by their duly authorized officers.

APPROVED:

MSCWMO

WCD

BY: _____
Board Chair Date

BY: _____
Board Chair Date

BY: _____
Secretary Date

BY: _____
WCD Manager Date

Approval as to form and execution:

Date

EXHIBIT A

2022 MSCWMO ADMINISTRATIVE SERVICES AGREEMENT

At the request of the MSCWMO the WCD shall furnish the following services under the terms of the AGREEMENT.

TASK 1. Administrative Services

The WCD will provide administrative services to the MSCWMO. A WCD staff member shall serve as the Administrator of the MSCWMO. This staff member will be appointed by the WCD. The Administrator shall act on behalf of the Board of Managers to implement MSCWMO policies and actions. Administrative services will include: agenda and board packet preparation and distribution; receiving and sending official MSCWMO correspondence; submitting official notices for publication; coordination of meetings for the board, committees and other groups as necessary; maintaining the MSCWMO website; maintaining the MSCWMO files (except for projects conducted by the Watershed's Engineer or confidential legal records); directing activities between the MSCWMO, Engineer, Attorney, Recording Secretary, Local and State Units of Government and the public; acting as the primary and first response to inquiries from the public as to programs, projects and written policies or rules and other questions on MSCWMO issues, and other administrative duties as assigned by the MSCWMO Board.

Subtotal for Task 1: \$31,160

TASK 2. Bookkeeping

The WCD will provide bookkeeping services to the MSCWMO. These services include: administration of accounts receivable and accounts payable including check generation, preparation of invoices for disbursement, and monthly bank reconciliation; coordination of annual audit and preparation of items necessary for audit; preparation of monthly reporting to the Board; preparation of budgets; and coordination of cash investment activities. The MSCWMO Board will direct any changes to accounts or investments.

Subtotal for Task 2: \$1,550

TASK 3. Meeting Minutes

The WCD will provide note taking services for all regularly scheduled MSCWMO Board meetings. These services will include a WCD staff member being present at MSCWMO meetings for note taking, and the compilation and presentation of meeting minutes to the board for approval prior to posting as public record.

Subtotal for Task 3: \$1,180

BUDGET FOR 2020 = \$33,890.00

EXHIBIT B

2022 MSCWMO TECHNICAL SERVICES AGREEMENT

At the request of the MSCWMO the WCD shall furnish the following services under the terms of the AGREEMENT.

TASK 1. Review of Development Plans and Erosion Control Monitoring

The WCD will provide review and comment on development plans on behalf of the MSCWMO. Comments and recommendations for erosion and sediment control, grading, drainage, and wetland protection will be made. Follow-up development site inspections will be performed if deemed appropriate and coordinated with the member communities. Plan Review Fees will offset the cost of this program to the greatest extent possible.

Subtotal for Task 1: \$8,190

TASK 2. Best Management Practices (BMP) Program Administration

The WCD will act as the primary and first response to inquiries from the public regarding general MSCWMO BMP Program information, program eligibility, and best management practice information. One WCD staff person will be identified as the BMP Program Coordinator. Initial inquiries about general topics and water quality issues, and initial site visits will be responded to as part of the standard WCD programs and not charged under this contact. Specific inquiries regarding MSCWMO cost share, development of site concepts and designs, implementation assistance, receiving and sending official MSCWMO correspondence related to the Program, maintaining the Program files, administering cost-share documents needed as a part of the Program, and follow-up project reviews will be responded to as part of the MSCWMO BMP Program and will be charged as a part of this contract. Overall program coordination, summary reports, and ongoing program evaluation will be provided.

Subtotal for Task 2: \$25,188

TASK 3. Community Outreach and Education

The WCD will use targeted and broad-based outreach techniques to generate interest in and understanding of the MSCWMO. The techniques used will include participation in local fairs, events, and community group meetings as a representative of the MSCWMO. The WCD will provide technical assistance and information to the citizens and communities of the MSCWMO through this program. This task is separate from but coordinated with the East Metro Water Resource Education Program.

Subtotal for Task 3: \$3,000

TASK 4. Clean Water Grant Fund Administration and Implementation

The WCD will successfully carryout the work plan items identified in the Clean Water Fund Grants: Lake St. Croix Direct South Phase 2 and Lily Lake Delisting grants. The WCD will administer and implement the grants in cooperation with member community staff and in compliance with Board of Water and Soil Resource documentation and reporting requirements.

Subtotal for Task 4: \$29,000 (\$25,000 LSCD P2, \$4,000 Lily)

TASK 5. Establishment Period Maintenance of Grant Funded Projects

The WCD will carry out maintenance and outreach activities during the establishment period of two years for targeted stormwater best management practices designed and installed as part of the cooperative retrofit program.

Subtotal for Task 5: \$4,020

BUDGET FOR 2022 = \$69,398

EXHIBIT C

2022 MSCWMO WATER MONITORING SERVICES AGREEMENT

TASK 1. Lake Monitoring Services

The WCD will monitor McKusick Lake and Lily Lake 14 times per year, April through October. Surface water quality samples are collected and analyzed for total phosphorus, chlorophyll-a, and total Kjeldahl nitrogen. Other measurements include Secchi disk transparency, dissolved oxygen and temperature profiles, and lake level. The fee includes labor, lab costs, all equipment, vehicles, canoe, ice, storage, etc. that is required to conduct the monitoring.

TASK 2. Lily Lake Alum Treatment Monitoring Services

The WCD will monitor Lily Lake to assess buffering capacity for an alum treatment and the conditions of benthic water. Hypolimnetic samples and near shore pH readings will be collected 14 times, April through October. In addition to baseline dissolved oxygen and temperature profiles, pH profiles and alkalinity samples will be collected prior to and following the alum treatment. Alkalinity samples and pH profiles will be used to calculate the lake's buffering capacity to increase the effectiveness of the alum treatment and water quality for aquatic life.

TASK 3. Brick Pond Flow and Water Quality Monitoring

The WCD will install flow monitoring equipment the outfall of Brick Pond to Lily Lake. Water quality samples will be collected and analyzed for total phosphorus and total suspended solids.

TASK 4. Perro Creek Flow and Water Quality Monitoring

The WCD will install a fully automated monitoring station that collects stage, velocity, and discharge in 15-minute intervals at the Perro Creek outfall to Lake St. Croix. Flow measurements will be collected through the monitoring season, April through October. Monthly base grab samples and storm event composites will be collected to establish water quality and total discharge and loading to Lake St. Croix will be calculated.

TASK 5. Water Monitoring Report

A water monitoring report will be generated that will incorporate current and previous years' data.

Budget for 2022 = \$22,075.00

2022 MSCWMO Water Monitoring Estimate

Lake WQ Monitoring	Type	Labor	Travel Time/Mileage	Lab	Total	Notes
Lily Lake	LWQE1	\$1,827	\$0	\$550	\$2,377	14x/year with WQ sampling + deep lake for DO
McKusick Lake	LWQD1	\$914	\$0	\$550	\$1,464	14x/year with WQ sampling
Lily Lake Alum Treatment Sampling	NA	\$1,008	\$0	\$394	\$1,402	14x Hypolimnetic sampling + pretreatment alkalinity sampling and pH profiles + Bi weekly near shore pH readings
Total Lake WQ Monitoring	N/A	\$3,749	\$0	\$1,494	\$5,243	
Lake Gage Monitoring	Type	Labor	Travel Time/Mileage	Lab	Total	Notes
Lily Lake	LEA1	\$161	\$0	\$0	\$161	Install and/or Survey and/or Remove. Read during WQ sampling by WCD
McKusick Lake	LEA1	\$161	\$0	\$0	\$161	Install and/or Survey and/or Remove. Read during WQ sampling by WCD
Total Lake Gage Monitoring		\$322	\$0	\$0	\$322	
Lily Lake and Perro Pond Targeted WQ Monitoring	Type	Labor	Travel Time/Mileage	Lab	Total	Notes
Greely Street Inlet to Lily Lake	V	\$5,070	\$651	\$200	\$5,921	Grab samples
Perro Diversion Structure & Overflow	III	\$6,305	\$1,170	\$714	\$8,189	Fully automated station
TOTAL	N/A	\$11,375	\$1,821	\$914	\$14,110	
Report	Type	Labor	Travel Time/Mileage	Lab	Total	Notes
Water Monitoring Report	NA	\$2,400	\$0	\$0	\$2,400	
2022 Total Monitoring Costs		\$17,846	\$1,821	\$2,408	\$22,075	

DO YOU HAVE
EROSION

on your property?

Contact us for assistance:

651-330-8220 or www.mnwcd.org/site-visit-signup-form



455 Hayward Avenue North
OAKDALE, MINNESOTA 55128

Phone 651-330-8220 www.mscwmo.org

Erosion puts your home and property at risk and pollutes the St. Croix River. Don't wait until you have a major gully to fix the problem.

To prevent erosion:

- Maintain trees, shrubs and deep-rooted native plants along bluff and shoreline
- Re-direct runoff away from bluff when possible
- Cover bare soil with seed/sod and use erosion control during landscaping projects



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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: Middle St. Croix WMO Board of Managers
FROM: Matt Downing, Administrator
DATE: October 28th, 2021

RE: 6d.) MSCWMO Logo

The MSCWMO has become more active with direct promotion of practices and education in recent years. A key component of these activities typically is a simple logo for organization identification. As part of the Lower Saint Croix River Partnership, I requested the basin-wide educator develop some sample logos for review by the Board.

A)



Middle St. Croix
WATERSHED MANAGEMENT
ORGANIZATION

B)



Middle St. Croix
WATERSHED
MANAGEMENT
ORGANIZATION

C)

Middle St. Croix



WATERSHED
MANAGEMENT
ORGANIZATION

D)



MIDDLE ST. CROIX
WATERSHED
MANAGEMENT
ORGANIZATION

E)

MSCWMO



F)



MIDDLE ST. CROIX
WATERSHED MANAGEMENT ORGANIZATION

G)



Middle St. Croix
WATERSHED MANAGEMENT ORGANIZATION

H)

Middle St. Croix



**WATERSHED
MANAGEMENT
ORGANIZATION**

I)



Middle St. Croix

**WATERSHED
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ORGANIZATION**

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: Middle St. Croix WMO Board of Managers
FROM: Brett Stolpestad, Senior Landscape Restoration Technician,
Washington Conservation District
DATE: Oct. 14, 2021

RE: 7a.) Siegler Shoreline Buffer – 1410 Meadowlark Dr, Stillwater, MN 55082 United States

The Siegler's are applying for the Landscaping for Habitat grant in the amount of \$1,000.00. They would like to install a 1,000 sq. ft. shoreline stabilization and buffer expansion practice on the west side of the property on McKusick Lake to prevent erosion and enhance wildlife habitat. Their property contains over 300 linear feet of shoreline on McKusick Lake with one documented State Special Concern Species (*Decodon verticillatus*), making it an ideal location for a water quality and habitat improvement project.

Total Contractor Estimate: \$\$9,383

Amount of Phosphorus Removed: 0.75-1.3 lbs/yr (estimated shoreline erosion reduction)

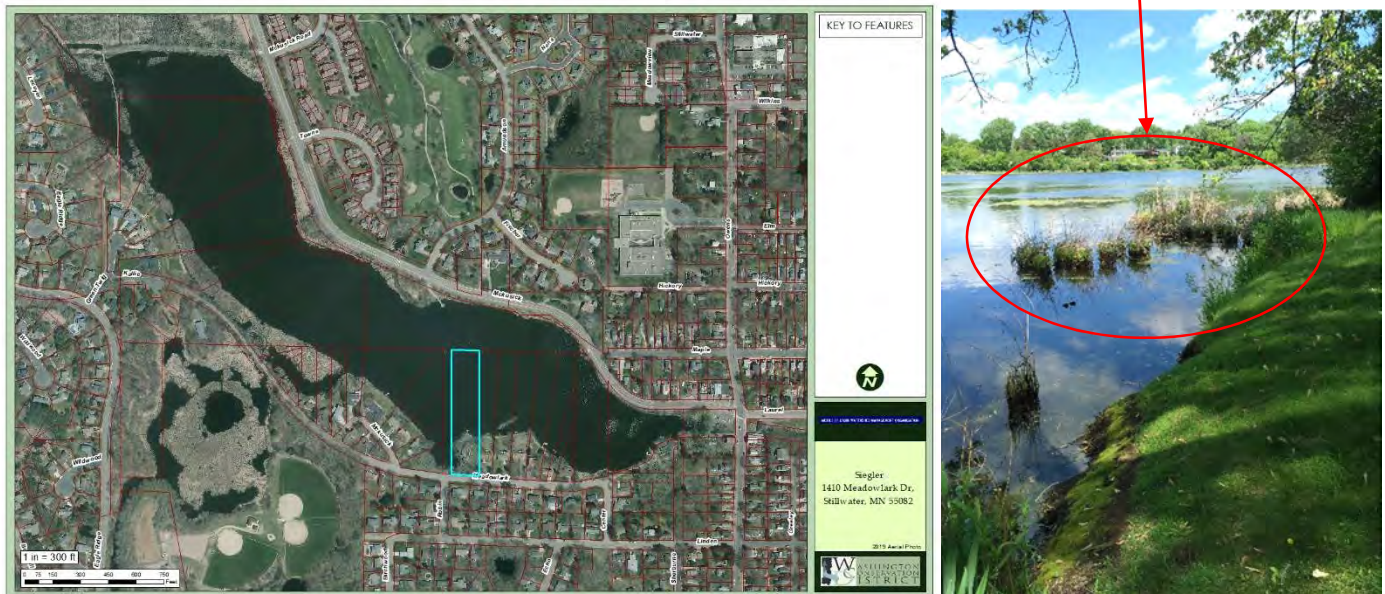
Cost Share Requested: \$1,000.00

Requested Board Action:

Motion by Board Member 1, seconded by Board Member 2, to approve encumbrance of \$1,000.00 cost share for the installation of the Siegler buffer planting.

Location & Photos:

Swamp Loosestrife (*Decodon verticillatus*)

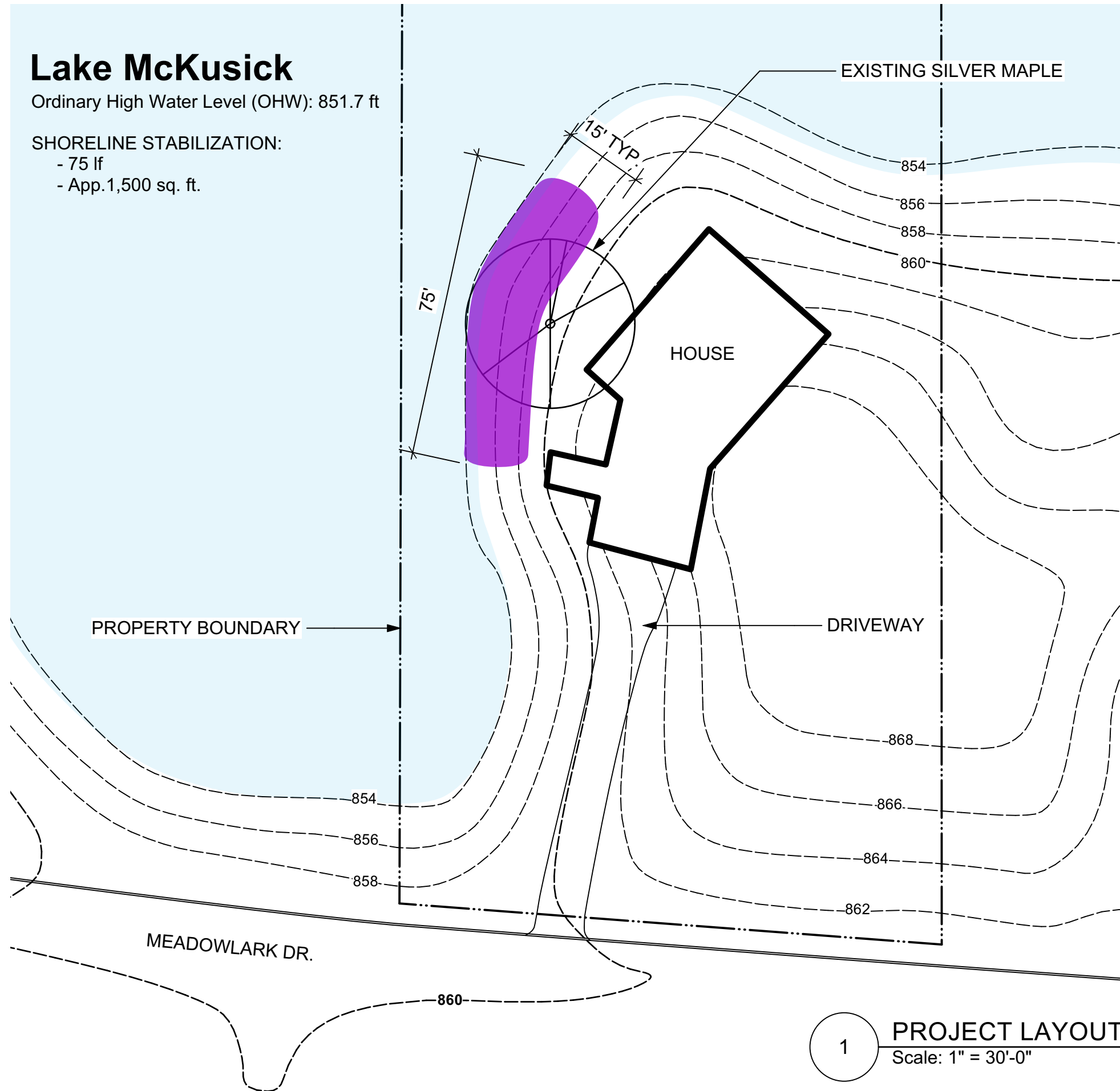


Lake McKusick

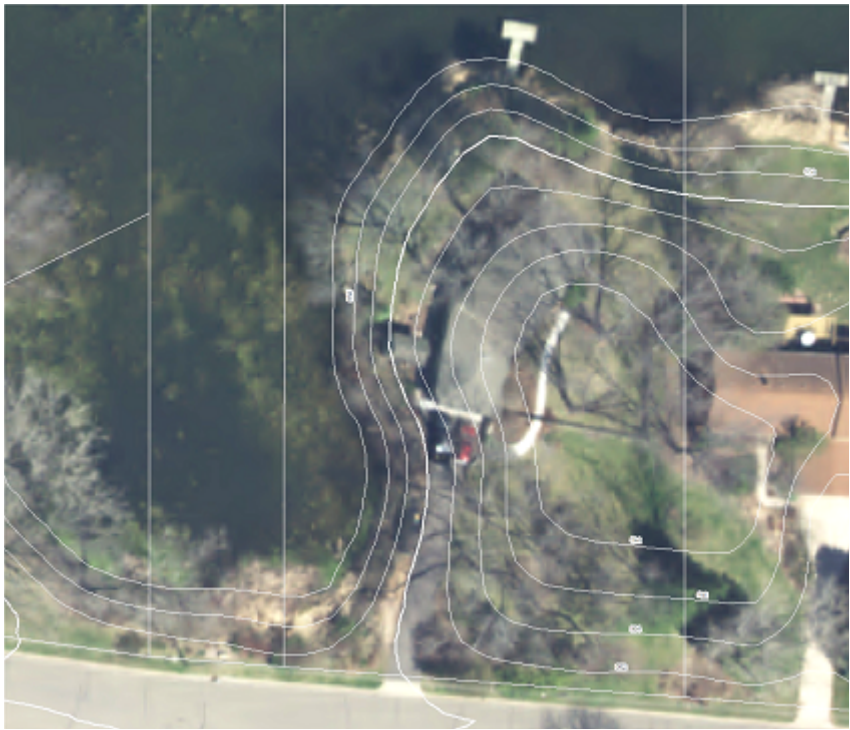
Ordinary High Water Level (OHW): 851.7 ft

SHORELINE STABILIZATION:

- 75 lf
- App. 1,500 sq. ft.



1 PROJECT LAYOUT
Scale: 1" = 30'-0"



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455 Hayward Ave N
Oakdale, MN 55128
(651) 330-8220
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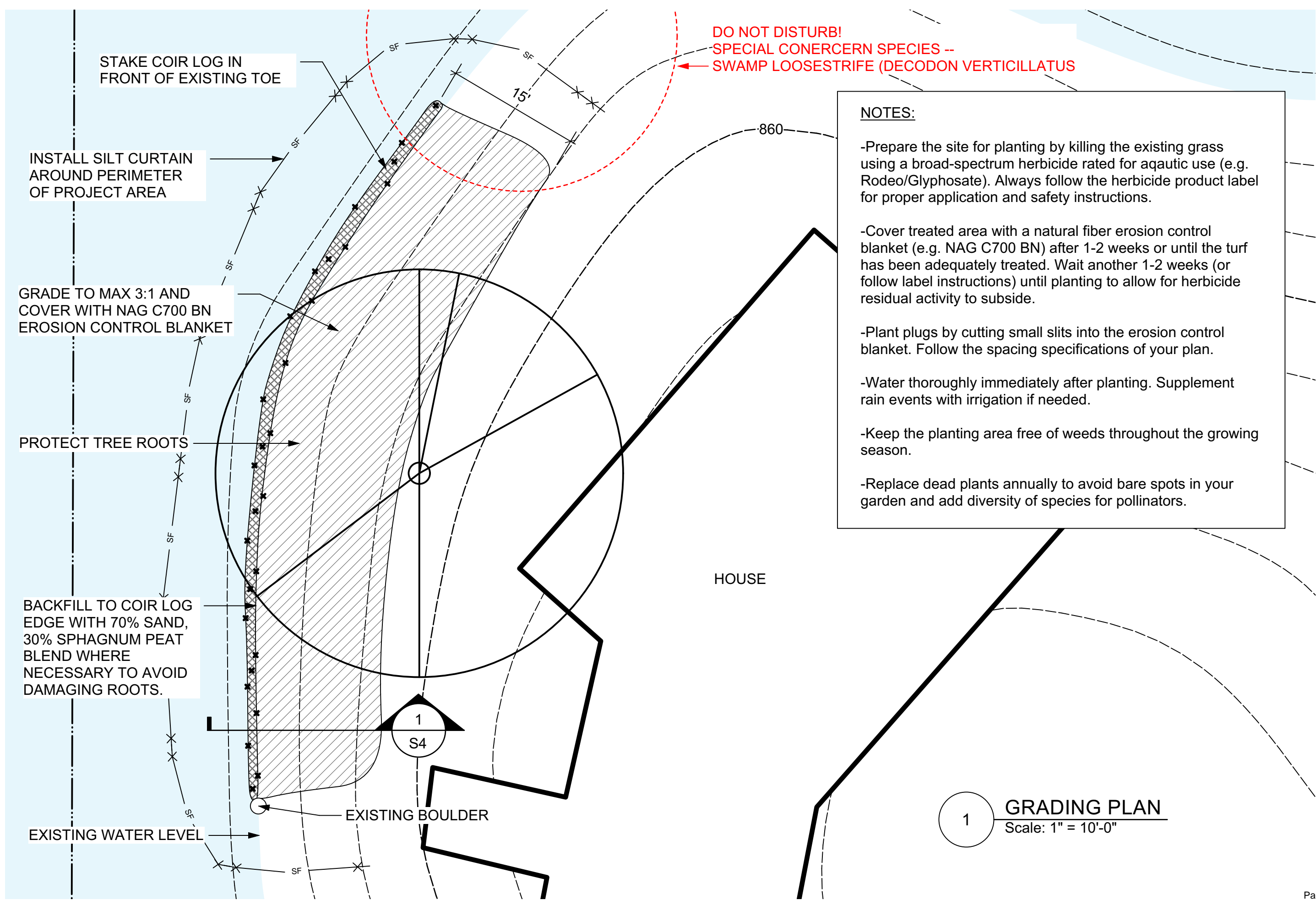
plan created by:

Project Address Siegler Residence 1410 Meadowlark Dr, Stillwater, MN 55082	Drawn
Project Manager Brett Stolpestad Washington Conservation District	Reviewed Revision

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION
455 Hayward Ave N
Oakdale, MN 55128
(651) 330-8220 xt 22
www.msowmo.org

Project Title Residential Shoreline - Lake McKusick	Date 10/14/2021
Sheet Title LAYOUT PLAN	CAD File Name Siegler_shoreline.vwx

Sht-1
of
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DO NOT DISTURB!
SPECIAL CONCERN SPECIES --
SWAMP LOOSESTRIPE (DECODON VERTICILLATUS)

NOTES:

- Prepare the site for planting by killing the existing grass using a broad-spectrum herbicide rated for aquatic use (e.g. Rodeo/Glyphosate). Always follow the herbicide product label for proper application and safety instructions.
- Cover treated area with a natural fiber erosion control blanket (e.g. NAG C700 BN) after 1-2 weeks or until the turf has been adequately treated. Wait another 1-2 weeks (or follow label instructions) until planting to allow for herbicide residual activity to subside.
- Plant plugs by cutting small slits into the erosion control blanket. Follow the spacing specifications of your plan.
- Water thoroughly immediately after planting. Supplement rain events with irrigation if needed.
- Keep the planting area free of weeds throughout the growing season.
- Replace dead plants annually to avoid bare spots in your garden and add diversity of species for pollinators.

1 GRADING PLAN
 Scale: 1" = 10'-0"

Washington Conservation District
 455 Hayward Ave N
 Oakdale, MN 55128
 (651) 330-8220
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plan created by:
 Project Address: Slegler Residence, 1410 Meadowlark Dr, Stillwater, MN 55082
 Project Manager: Brett Stolpestad
 Drawn: [blank]
 Reviewed: [blank]
 Revision: [blank]

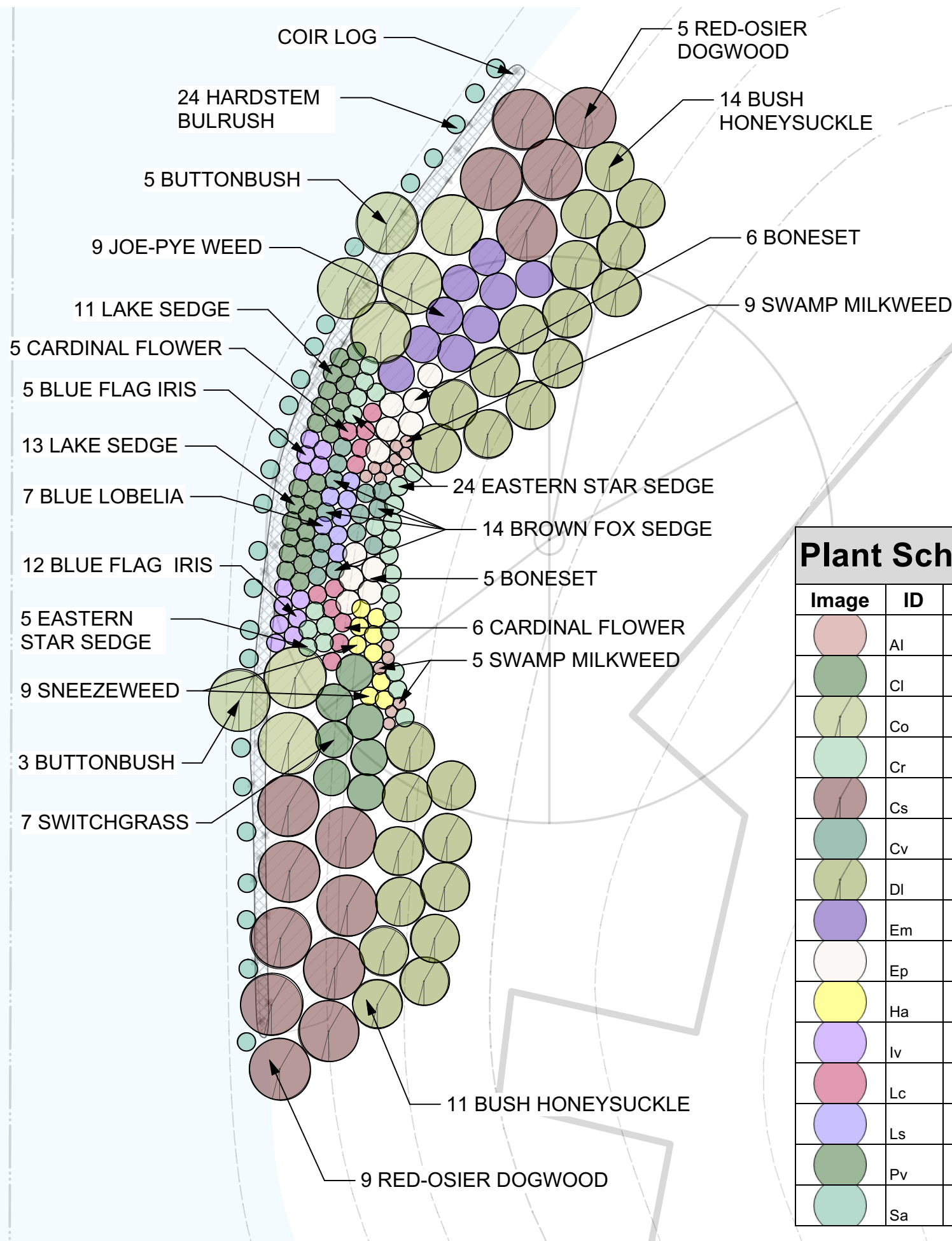
MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION
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 Oakdale, MN 55128
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Project Title: Residential Shoreline - Lake McKusick
 Sheet Title: GRADING PLAN
 CAD File Name: Slegler_shoreline.vrx

Date: 10/14/2021

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1 PLANTING PLAN
Scale: 1" = 10'-0"

Notes:
Plant plugs by cutting small slits into the erosion control blanket. Suggested spacing for native plant species is approximately 1 plant per square foot or 12-18" O.C.

Trees and shrubs may be planted as potted nursery stock, bare root, or cuttings. Emergent plants may be planted in shallow standing water as long as there little risk of the plants becoming overtopped.

Plant Schedule

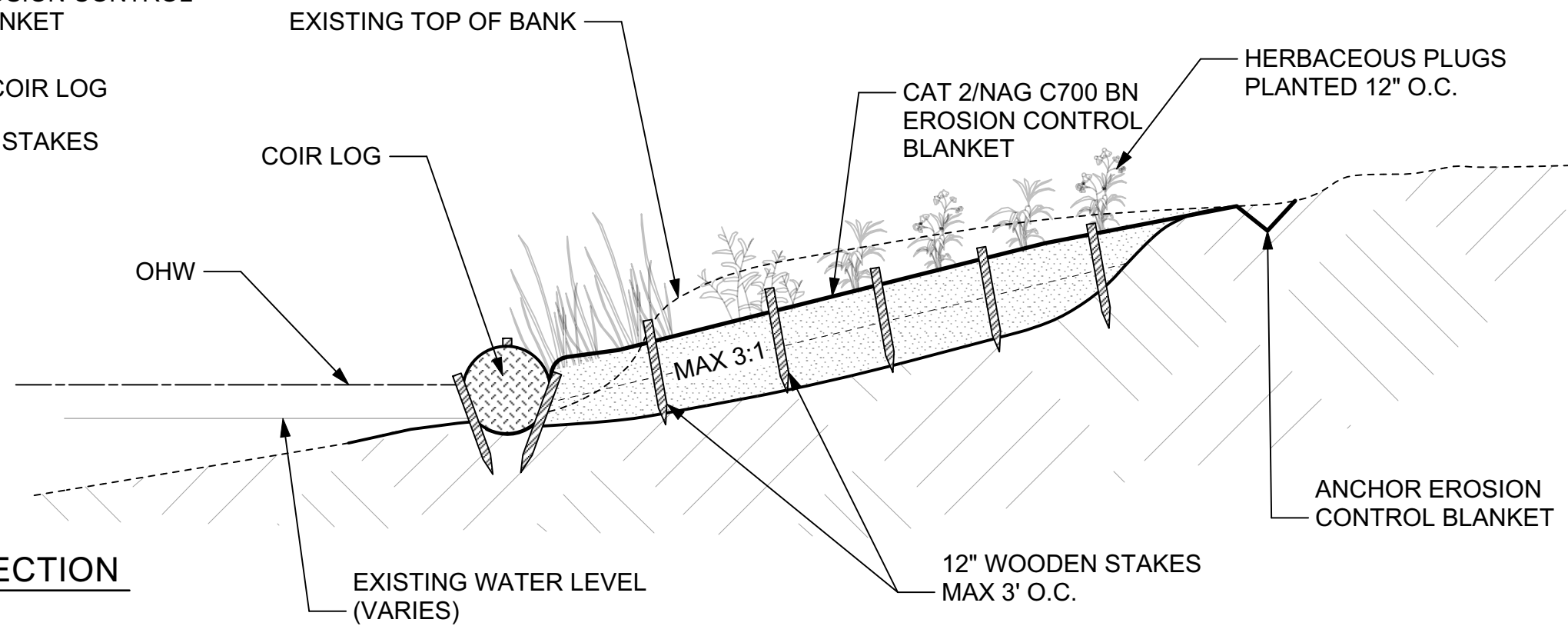
Image	ID	Qty	Botanical Name	Common Name	Scheduled Size	Spacing
	Al	15	Asclepias incarnata	Swamp Milkweed	Plug	12-18" o.c.
	Cl	24	Carex lacustris	Lake Sedge	Plug	12-18" o.c.
	Co	8	Cephalanthus occidentalis	Buttonbush	1 Gallon	4-5' o.c.
	Cr	24	Carex radiata	Eastern Star Sedge	Plug	12-18" o.c.
	Cs	14	Cornus sericea	Red Osier Dogwood	1 Gallon/bare-root/cutting	4-5' o.c.
	Cv	14	Carex vulpinoidea	Brown Fox Sedge	Plug	12-18" o.c.
	DI	25	Diervilla lonicera	Dwarf Bush Honeysuckle	1 Gallon	3-4' o.c.
	Em	9	Eutrochium maculatum	Joe-Pye Weed	Plug	12-18" o.c.
	Ep	11	Eupatorium perfoliatum	Boneset	Plug	12-18" o.c.
	Ha	9	Helenium autumnale	Sneezeweed	Plug	12-18" o.c.
	Iv	12	Iris versicolor	Northern Blue Flag Iris	Plug	12-18" o.c.
	Lc	11	Lobelia cardinalis	Cardinal Flower	Plug	12-18" o.c.
	Ls	7	Lobelia siphilitica	Great Blue Lobelia	Plug	12-18" o.c.
	Pv	7	Panicum virgatum	Switch Grass	Plug	12-18" o.c.
	Sa	24	Scirpus acutus	Hardstem Bulrush	Plug	3-4' o.c.



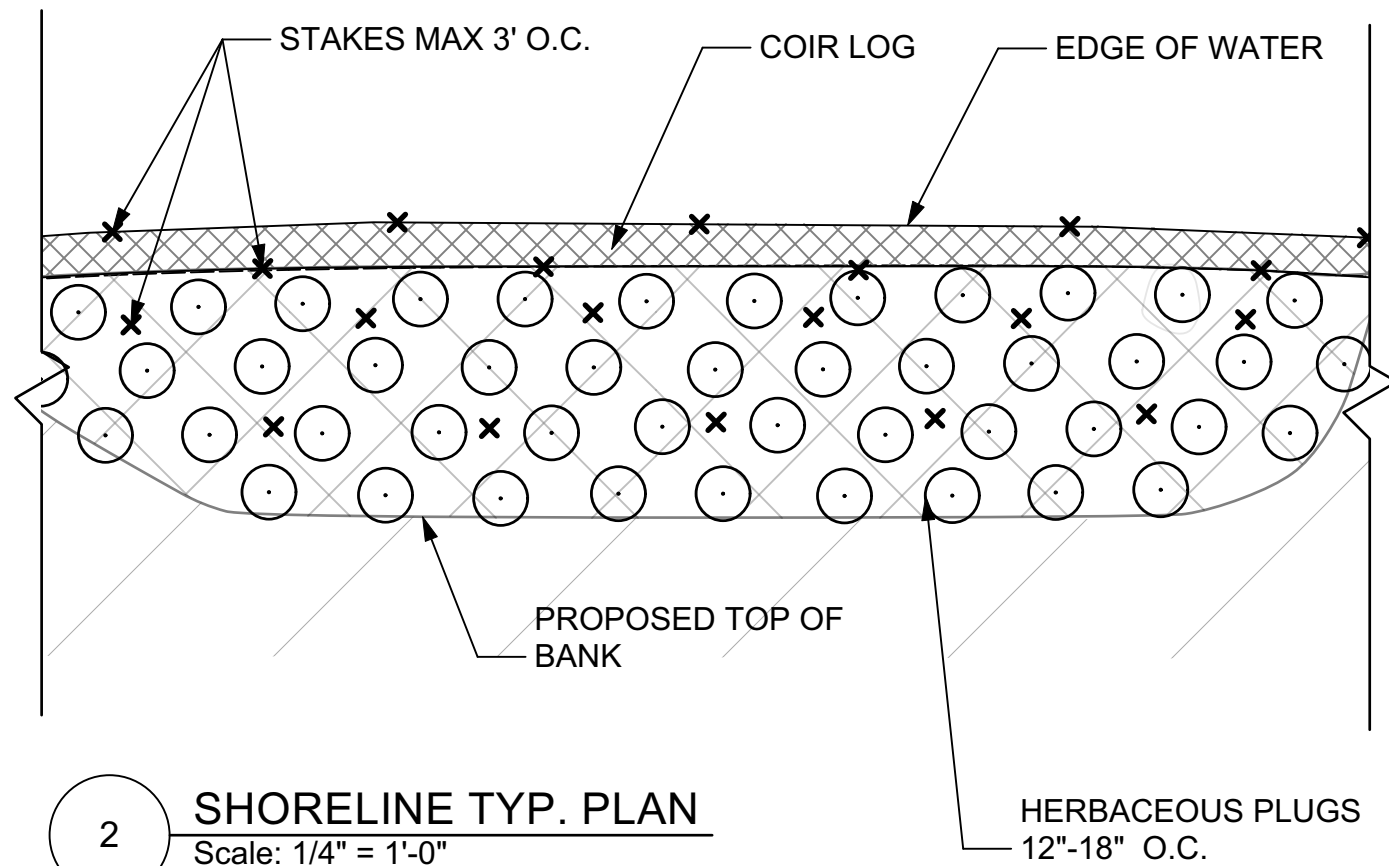
EROSION CONTROL
BLANKET

COIR LOG

STAKES



1 **SHORELINE TYP. CROSS-SECTION**
Scale: 1/4" = 1'-0"



2 **SHORELINE TYP. PLAN**
Scale: 1/4" = 1'-0"

NOTES:

- PREP SITE FOR PLANTING BY KILLING EXISTING TURF USING A BROAD-SPECTRUM HERBICIDE RATED FOR AQUATIC USE. ALWAYS REFER TO LABEL FOR PROPER USAGE AND SAFETY INSTRUCTIONS.
- COVER AND STABILIZE TREATED AREA WITH CAT 2 OR NAG C700 BN EROSION CONTROL BLANKET. BLANKET TO BE PLACED MINIMUM 3 FEET INSIDE BANK AND STAKED WITH 12" WOOD STAKES. PLACE BLACK DIRT ON TOP OF FILL MATERIAL AND WRAP BLANKET OVER SOIL TO COMPLETE THE LIFT. THE SLOPE OF THE SOIL LIFT SURFACE SHALL BE MAX 3:1.
- PLANT PLUGS 12-18" O.C. BY CUTTING SMALL SLITS INTO EROSION CONTROL BLANKET.
- WATER THOROUGHLY AND DEEPLY IMMEDIATELY AFTER PLANTING. SUPPLEMENT RAIN EVENTS WITH IRRIGATION IF NEEDED.
- KEEP THE PLANTING AREA FREE OF WEEDS THROUGHOUT THE GROWING SEASON. REPLACE DEAD PLANTS ANNUALLY TO AVOID BARE SPOTS AND/OR TO ADD SPECIES DIVERSITY.
- DETAIL IS INTENDED FOR GUIDANCE PURPOSES ONLY; PERMIT APPLICATION SHALL INCLUDE PROJECT-SPECIFIC DESIGNS & DETAILS FOR DISTRICT REVIEW. ADDITIONAL PERMITS MAY BE REQUIRED BEYOND DISTRICT PERMIT. PERMITTEE SHALL BE RESPONSIBLE FOR & ACQUIRE ANY ADDITIONAL REQUIRED PERMITS.

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



Project Address
Siegler Residence
1410 Meadowlark Dr, Stillwater,
MN 55082

Project Manager
Brett Stolpestad
Washington
Conservation District

Drawn
Reviewed
Revision

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

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Oakdale, MN 55128
(651) 330-8220 xt 22
www.mscwmo.org

Project Title
Residential Shoreline - Lake
McKusick

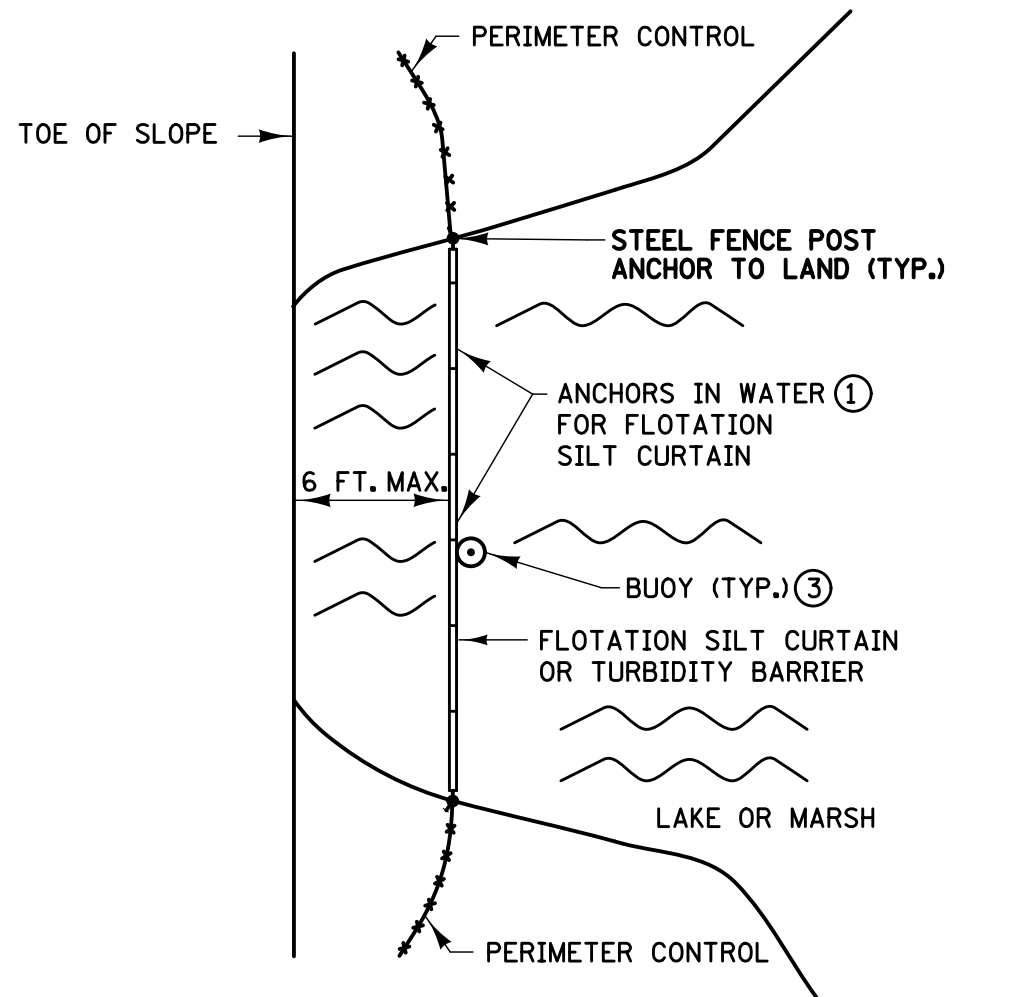
Sheet Title
CONSTRUCTION DETAILS

CAD File Name
Siegler Shoreline.rvt

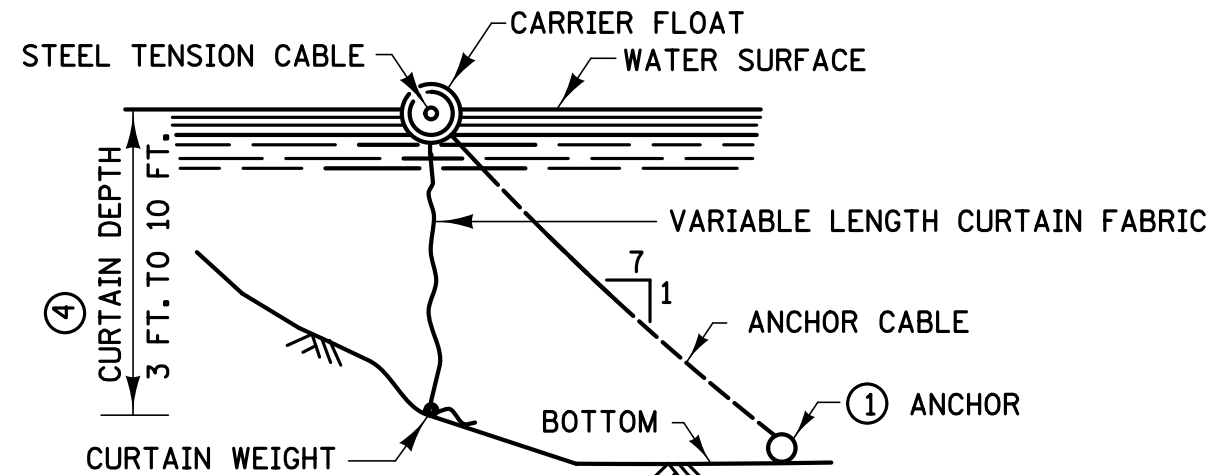
Date
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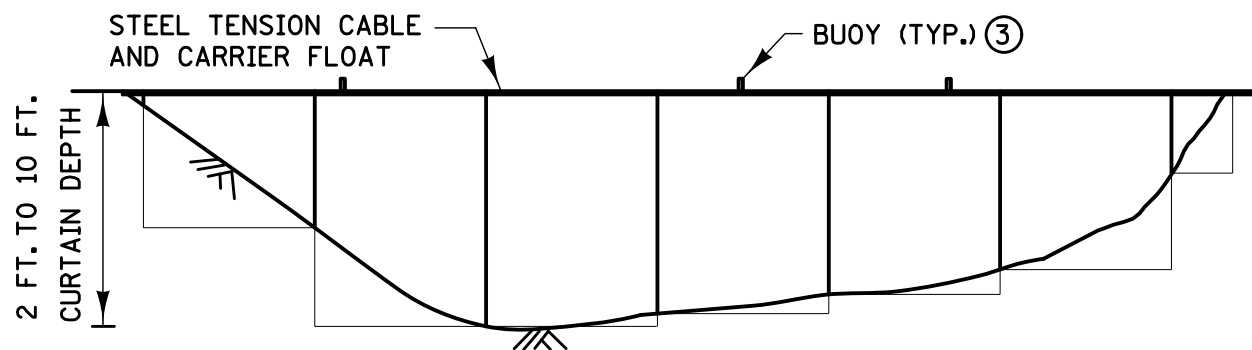
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PLAN VIEW FOR LAKE OR MARSH (6)(7)



FLOTATION SILK CURTAIN



FRONT VIEW FOR FLOTATION SILT CURTAIN (4)

NOTES:

SEE SPECS. 2573, 3886, 3887 & 3893.

- (1) FOR ANCHOR SPACING AND WEIGHT REQUIREMENTS, SEE SPEC. 2573.
- (2) IN AREAS WHERE THE PLAN CALLS FOR RIPRAP AT A BRIDGE, CULVERT, OR SLOPE, A TEMPORARY ROCK BERM CONSTRUCTED FROM THE RIPRAP CAN BE USED TO PROVIDE ADDITIONAL PROTECTION. WHEN THE WORK IS COMPLETE THE RIPRAP CAN THEN BE MOVED TO THE PERMANENT LOCATION INDICATED IN THE PLANS. THE TEMPORARY ROCK BERM IS INCIDENTAL.
- (3) ON U.S. COAST GUARD OR OTHER MOTORIZED WATERWAYS, BUOYS ARE REQUIRED TO MARK THE ENDS AND SPECIAL AREAS FOR VISIBILITY. PLACE BUOYS AS REQUIRED FOR NAVIGATIONAL PURPOSES.
- (4) WATER DEPTH CAN BE 0 TO 10 FEET. THE DEPTH OF THE SILT CURTAIN VARIES.
- (5) MINIMUM WATER DEPTH APPLIES TO THE DEEPEST POINT ALONG THE FLOTATION SILT CURTAIN OR TURBIDITY BARRIER FOR DETERMINING APPLICABILITY OF FLOTATION SILT CURTAIN OR TURBIDITY BARRIER.
- (6) SILT CURTAIN SHOULD BE REMOVED WHEN THE AREA CONTRIBUTING DIRECT RUNOFF HAS BEEN TEMPORARILY OR PERMANENTLY STABILIZED. SILT CURTAIN SHOULD ALSO BE REMOVED BEFORE WINTER IF ICE UP OR ICE FLOW IS ANTICIPATED.
- (7) EMBED POST INTO BOTTOM A MINIMUM OF 40% OF THE WATER DEPTH (INCLUDING WAVE HEIGHT), BUT IN NO CASE SHALL EMBEDMENT BE LESS THAN 2 FEET.
- (8) ANCHOR FLOAT MUST BE CONNECTED SECURELY TO SLEEVE WITH A MINIMUM TENSILE STRENGTH OF 100 LBS. CONNECTION METHOD MUST ALLOW FOR SLEEVE TO MOVE FREELY ON POST.
- (9) PROVIDE SUFFICIENT NUMBER OF POST ANCHORS TO MAINTAIN SILT CURTAIN POSITION.



Plan created by:

Project Address	Siegler Residence 1410 Meadowlark Dr, Stillwater, MN 55082	Drawn	Reviewed	Revision
Project Manager	Brett Stolpestad	Washington Conservation District		

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Engineer Name _____ Date _____ Concept _____
 Reg. No. #####

Project Title
Residential Shoreline - Lake
McKusick

Sheet Title
MN DOT SPEC SILT CURTAIN

CAD File Name - Siegler shoreline.rvt

Date
10/14/2021

Sht-5

of

GENERAL NOTES

MNDOT SPECIFICATIONS - All material and construction specifications herein reference the MNDOT Division II and Division III sections of the 2018 MNDOT Specifications Manual.

WCD DESIGN STANDARDS - All work must comply with Washington Conservation Bioretention Design and Installation Standards where noted.

DESIGNER CONTACT / FIELD VERIFICATION - The Washington Conservation District (WCD) is providing quality control and field verifications of the bioretention installations. Call Andrew Novak (WCD) at (612) 423-5375 to schedule field verifications prior to burying any work and/or installing any concrete, mulch, or erosion control materials.

FIELD VERIFICATION - Notify the WCD prior to placing any mulch or installing any plantings. The WCD shall field verify elevations, soil compaction and permeability. Note: Depending on conditions observed, compaction removal by hand may be needed prior to placing mulch and/or after plantings.

TESTING OF SOIL REPLACEMENT MEDIA - Deliver sample materials and test results for WCD approval prior to delivery of materials to the site. Soil media for infiltration basin shall be Plaisted's 70-30 Raingarden Peat Mix or approved equal. Soil media test results must be submitted to WCD at least 14 days prior to material delivery. **Test results must include grain size analysis (sand, silt, clay), pH, organic content, Bray phosphorus test.** Prior to beginning the installation, sufficient material quantities shall be onsite to complete the installation and stabilize exposed soil areas without delay.

PERMITS - Contractor is responsible for all permits related to construction.

UTILITIES - It shall be contractor's responsibility to locate any existing utilities located within the project areas. Protect all existing utilities. Contractor is responsible for repairs of all damage that may occur to utilities during construction.

SITE CLEANUP - On completion of the work, remove all excess material, debris, and equipment. Repair all damage to other work resulting from conduct of the Project.

ACCESS, STAGING, AND EQUIPMENT

PROJECT BOUNDARIES - The project area must be staked off and marked to keep all construction traffic, equipment, and material stockpiles out of the proposed infiltration basin area.

STORAGE OF EQUIPMENT - Overnight storage of equipment and materials shall not be allowed on public streets or within public right of ways. See Staging Area Map for location. Contractor is responsible for identifying and securing rights to stage vehicles, materials and equipment for the Project, as necessary, outside of approved Staging Area.

NOISE DISTURBANCE - Noise must be kept to a minimum prior to 8am

SITE RESTORATION (street and hardscape) - Contractor is responsible for replacing all sod at access points as well as repairing/replacing any other damage as result of construction activity. Contractor is responsible for repairing or replacing damaged bituminous and concrete surfaces in and around the construction, access, and staging zones.

SITE RESTORATION (vegetation) - Contractor shall repair damaged turf and open field areas within Project area and any Staging areas. Repair of these areas (MNDOT Spec 2574) shall be top dressed with topsoil (borrowed soil MNDOT Spec 3877 or purchased compost MNDOT Spec 3890) and seeded with MNDOT seed mixture 270.

TREE PROTECTION AND REPLACEMENT - Protection and care for existing trees, and replacement of damaged existing trees shall be per MNDOT Spec 2572.

WCD BIORETENTION DESIGN AND INSTALLATION STANDARDS

FIELD VERIFICATION - The Washington Conservation District (WCD) is providing quality control and field verifications of the infiltration basin installation. Call the WCD at (651) 330-8220 to schedule field verifications prior to burying any work and/or installing any concrete, seed, mulch, or erosion control materials.

DIVERSION OF DRAINAGE AREA - Upland drainage areas shall remain diverted from infiltration basin area until the infiltration basin has been fully stabilized.

TIMING AND WEATHER - Installation with dry soil conditions is critical to prevent smearing and compaction. Schedule work for periods of dry weather. Do not work if soil conditions are wet. Excavation, soil placement and rapid stabilization of perimeter slopes with must be completed before the next precipitation event.

UTILITY MOVEMENT - Existing Gas and Electric lines shall be moved to allow for full garden footprint and subgrade depth. It shall be the contractor's responsibility to verify location of all utilities. All utilities must be marked before excavation. If utility line must be located, hand dig 2' on either side of marked location to locate.

OVERNIGHT EROSION CONTROL - Do not leave infiltration areas and/or perimeter slopes exposed overnight. Secure the site from risk of precipitation damages at the end of every work day. In the event of rain, take action to divert stormwater away from the work area and temporarily cover of all exposed soils with filter fabric or impermeable sheeting.

PONDING DEPTH - Basin Full elevation (the designed ponding depth) shall be measured from downhill flowline at curb cut. See curb cut and inlet details.

PRETREATMENT BOX - Use ACD Bunker Pretreatment Box for 12" Ponding per mfr. detail and specifications

SOIL REPLACEMENT MEDIA - The replacement soil media shall be a well-blended mixture of 70% ASTM C-33 coarse washed sand (MNDOT 3126) and 30% peat from Plaisted's (or approved equal).

SUBSOIL PREPARATION - Use backhoe with tooth bucket for basin excavation to avoid compacting or smearing of soils. (Do not use skid steer for excavation within the basin) Use tooth bucket to scarify (rip) underlying soils 6" to 9" deep to remove compaction. Gently mix the first lift of engineered soils with the loosened underlying soils to avoid stratification and promote permeability. Use excavator bucket to loosely place materials. (Do not use skid steer to place or spread materials within the cell). Leveling and final grading within the cell must be completed by hand.

UNDERDRAIN - Shall consist of perforated 4" dia. HDPE pipe, wrapped in a circular knit polymeric filament filter sock per ASTM D6707-01 (Perforated rigid PVC *shall not* be used as a substitute. MNDOT 3733 Type I sewn seam non-woven fabric *shall not* be used. SEE SPEC).

GATEVALVE - See Detail Sheet

PIPE CONNECTIONS - Cleanout assemblies and solid pipe connections shall be 4" diameter Sch. 40 PVC pipe. All connections will be made with flexible couplings, and filtersocks will be tucked into the coupling connections. See Detail Sheet.

INSTALL CHECKPOINT - Notify the WCD prior to placing any seed, erosion control blanket, and/or plants as applicable to the project. The WCD shall field check elevations, soil compaction and permeability. Note: Depending on conditions observed, compaction removal by hand may be needed prior to seeding.

SIDESLOPE GRADING - All side slopes to bottom of garden shall be 3:1 or shallower unless approved by WCD..

BERM / EDGE GRADING - All basin edges at least 3" higher than overflow bypass/basin full elevation

GRADING SHELF - Basin edges should have a minimum 12" level shelf where practical. Shelf area typically extends from landscape edging to brow/top of slope.

EDGING - Aluminum or steel edging shall be used and shall be staked/stapled every 30".

WCD BIORETENTION DESIGN AND INSTALLATION STANDARDS (continued)

BLOCK INLET - After installation, garden shall remain offline and inlet shall remain blocked for up to one year to facilitate healthy plant establishment. WCD designer will determine the date that the inlet blocks shall be removed.

MULCH - Shredded hardwood mulch (Type 6 MNDOT 3882)

EROSION CONTROL BLANKET - When specified in plans, slopes shall be stabilized per MNDOT spec and use MNDOT Cat. 2 Natural Net Erosion Control Blanket. Net must be biodegradable

WALL STONE - Fieldstone boulders used for retaining wall shall be no less than 12 inches in diameter.

EROSION AND SEDIMENT CONTROL

EROSION CONTROL REQUIREMENTS - Contractor is responsible for all on-site implementation of erosion and sediment controls in compliance with the requirements of the State of Minnesota NPDES/SDS Construction Stormwater General Permit.

TEMPORARY STABILIZATION - Stabilization of all exposed soils must be initiated immediately whenever construction has permanently or temporarily ceased for 7 calendar days, including stockpiles; per MNDOT Spec.

TEMPORARY STABILIZATION - Use MNDOT approved Cat. 2 Curlex Natural Fiber Net Erosion Control Blanket

SEEDING/PLANTING/WATERING

SEED BED PREPARATION - must be completed in compliance with MnDOT 2574. Contractor must prepare the soil surface to provide a smooth, moist, and evenly textured foundation before sowing seed. Use cultivating equipment such as disks, harrows, field diggers, or tillers capable of loosening the soil to a depth of at least 3" on all areas except for slopes steeper than 1:2 (V:H). Till the soil surface to remove track imprints from wheeled or tracked equipment. Operate cultivating equipment on slopes at right angles to the direction of surface drainage. Soil clods, lumps, and tillage ridges 3"high may remain in place for seeding operations.

PLANT BED PREPARATION - must be completed in compliance with MnDOT 2574. Contractor must scarify existing soil at basin bottom of the raingarden to break compaction and allow for effective infiltration of water. The Contractor must prepare the soil surface to provide a smooth, moist, and evenly textured foundation before planting. All plant material must be completely buried in growing media to the base of the plant as it sits in the nursery container. Roots of each plant should be surrounded by soil, not mulch.

INSTALL MAINTENANCE - Contractor is responsible to maintain and repair all areas for a minimum of 30days from planting or until acceptance, whichever is later. This includes provide mowing, watering, and weeding throughout maintenance period to ensure healthy, growing turf. Weed seeded areas by hand pulling or spot spraying with a contact herbicide only. Replace areas that are found to be dead, unhealthy, or not achieving normal growth. If maintenance responsibility is transferred to property owners, WCD designer must approve of transfer before any maintenance activity occurs.

WATERING - Contractor is responsible for the following minimum watering standards: 1. Apply water as needed in combination with rainfall to achieve the following: a. Minimum rate: 1 inch per week. b. Maximum interval between watering: 72 hours. c. Minimum application per watering: 0.25 inch. 2. During extreme heat or drought periods, increase watering to maintain moist soil to a depth of 4 inches. 3. Maintain adequate soil moisture in the upper 12-inches for 3 weeks after sodding, planting or seeding. If watering responsibility is transferred to property owners, WCD designer must approve of transfer before watering activity occurs.

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



plan created by:

Project Address Siegler Residence 1410 Meadowlark Dr, Stillwater, MN 55082	Drawn	Reviewed	Revision
Project Manager Brett Stolpestad	Washington Conservation District		

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Date Concept
 Reg. No. #####
 Engineer Name

Project Title
Residential Shoreline - Lake McKusick

Sheet Title
SPECIFICATIONS

CAD File Name Siegler_shoreline_vers

Date
 10/14/2021

Sht-6
 of
 8

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: Middle St. Croix WMO Board of Managers

FROM: Tara Kelly, WCD Staff

DATE: October 5, 2021

RE: 7b.) People's Church Landscaping for Habitat Planting - Cost Share Application

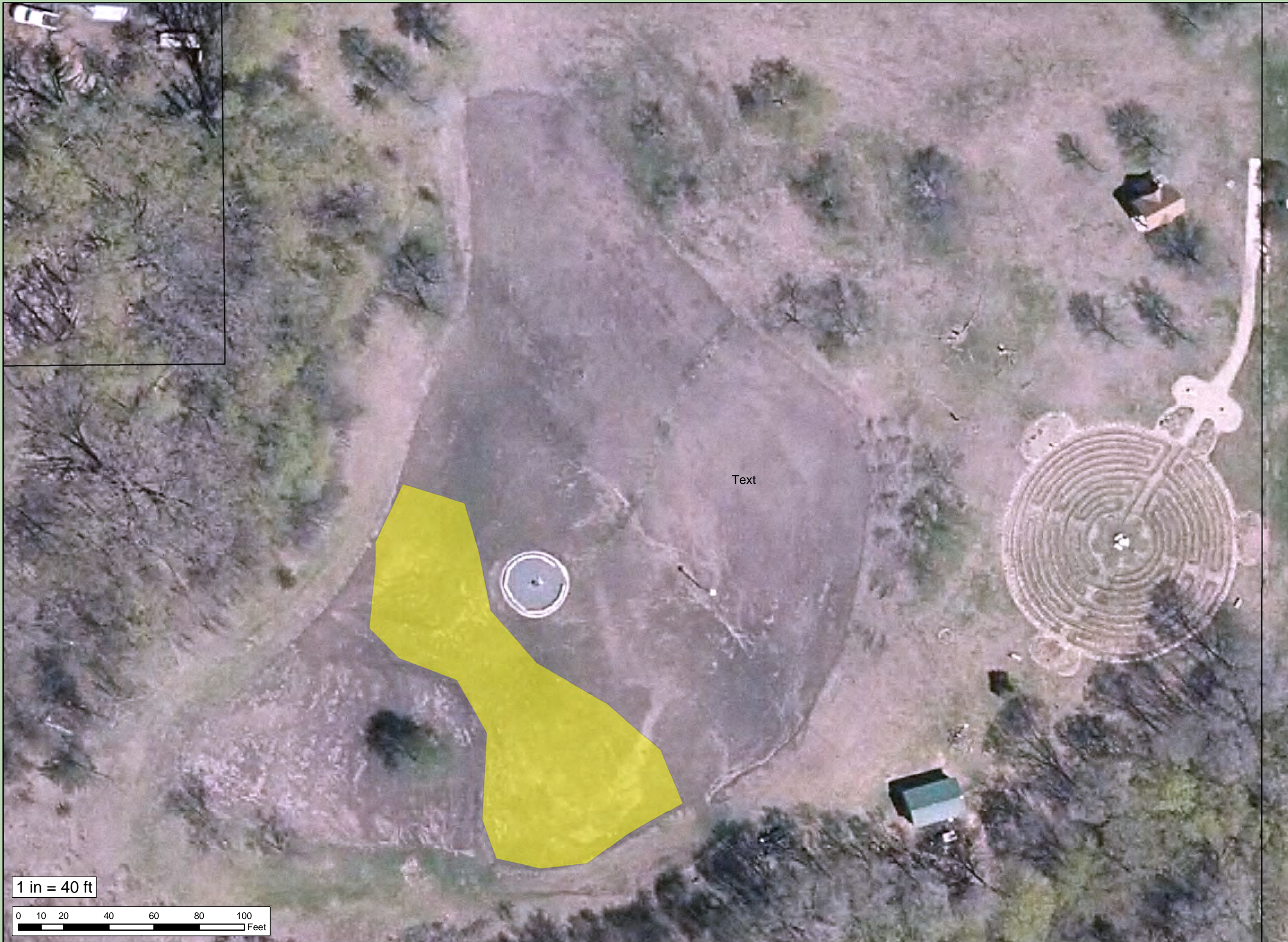
People's Church in Bayport is requesting a MSCWMO Landscaping for Habitat grant to install up to 10,000 square feet of prairie to reduce runoff and enhance habitat at their property. The site is located at 1035 5th Ave in Bayport. The site was previously restored with funding from the Board of Water and Soil Resources Capacity funding and the MSCWMO Water Quality grant. Part of this larger restoration was damaged when a neighbor drained a low area of his property and discharged the runoff through the restoration. The neighbor graded and seeded the damaged area two years ago, but it has become clear the seed that was used was turf grass seed and not prairie seed.

Members of People's Church are working to restore this area. The site was treated with herbicide this summer and will be burned in the spring with the rest of the restoration. After the prescribed burn, they would like to reseed this area with native prairie seed. The requested cost share would cover the cost of the seed for this area.

Staff recommend approval.

Example Motion

Motion Board Manager 1, second Board Manager 2 to approve a cost share award not to exceed \$500 for the People's Church Prairie Restoration.



KEY TO FEATURES

Legend

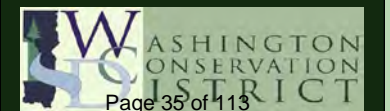
 Prairie redo
10,000 sq ft



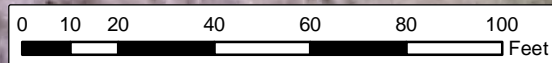
MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

People's Church

2016 Aerial Photo



1 in = 40 ft



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MEMORANDUM

TO: Middle St. Croix WMO Board of Managers
FROM: Matt Downing, Administrator
DATE: October 28th, 2021

RE: 7c.) Minnesota Conservation Corps Grant Application

The MSCWMO has been very successful in obtaining large CWF grants for the implementation of capital projects over the last 5 years. Through this implementation a number of smaller practices have been identified that do not fit inside that funding framework. Examples include bluff and habitat restoration in Lake St. Croix Beach and St. Mary's Point, small residential infiltration basins across the WMO and shoreline restoration on Lily and McKusick Lakes.

I am seeking board approval to submit an application for up to 100 hours of Minnesota Conservation Corps labor for the implementation of practices as referenced above. If awarded, this grant would require MSCWMO match in the form of already budgeted technical assistance. The communities of Lake St. Croix Beach, St. Mary's Point and Bayport have already expressed interest in potential partnership if awarded.

Recommended Board Action- Approve the submittal of a Minnesota Conservation Corps grant application for up to 100 hours of crew labor, for work to be completed as identified across the WMO.



MEMORANDUM

TO: Matt Downing, Administrator
FROM: Rebecca Nestingen, PE
DATE: November 5, 2021

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):

- **200 Chestnut.** The MSCWMO originally recommended approval of the project in December 2020 which utilized a green roof to meet volume control standards. The developers have since requested the engineer redesign the project exploring other stormwater management alternatives and a resubmittal was received on July 22nd. MSCWMO staff advised resubmittal following the MIDS alternative compliance sequencing and demonstrate volume control is infeasible onsite to pursue alternative stormwater options. The developer and applicant has since decided to revert the back to the original green roof design approved in 2020. We have been in correspondence with the engineer regarding the recalculation of the proposed water quality volume based on testing results of the water retention capacity of the green roof media.
- **Burton Retaining Wall and Patio.** The MSCWMO, MNDNR and City of Lakeland Shores met with the project applicant on October 3rd, 2021 for the repair and replacement of failing retaining walls and the construction of a new patio at 313 Quixote Ave N in Lakeland Shores. The applicant was advised that the MSCWMO prohibits construction within 40 feet of the top of blufflines and requires BMPs to achieve volume control when 500 square feet or more of impervious surface is added. The applicant is attempting to revise the project scope so that less than 500 square feet of impervious surface is added and construction within the 40 foot bluffline setback is limited to repair/replacement of existing retaining walls and minimal soil disturbance/grading. No further information has been
- **Stillwater Towing.** The Middle St. Croix Watershed Management Organization (MSCWMO) received submittal items on September 15, 2021 for impervious surface improvements and a new vehicle storage lot for Stillwater Towing at 1749 Greeley Street in Stillwater. Revised review materials were received on September 28, 2021 including a memo documenting a higher level of engineering review for the infiltration facilities since the project is located within a high vulnerability DWSMA but outside of an ERA. *MSCWMO staff recommend approval with four conditions.*
- **Park Dental.** The MSCWMO receive project review submittal materials on September 15th, 2021 for the demolition of existing building and utilities and reconstruction of a new building and associated improvements at 13961 60th St. N in Oak Park Heights. After the initial MSCWMO staff review the applicant was asked to revise and resubmit H&H model materials as well as provide a higher level of engineering review for the suitability of infiltration in a high vulnerability DWSMA on September 17th, 2021. The higher level of engineering review was received on October 19th, 2021 and revised H&H model submittal materials were received November 3rd, 2021. *MSCWMO staff recommend conditional approval with five conditions.*
- **John See Estates.** The MSCWMO receive project review submittal materials on September 28th, 2021 for the 4 lot subdivision development at 1937 Stagecoach Trail North. MSCWMO staff

requested and received revision and resubmittal of hydrologic and hydraulic models to determine conformance with MSCWMO stormwater management standards on November 5th, 2021. *MSCWMO staff recommend approval with 1 conditions.*

- **Jerry Colburn's Garage.** A MSCWMO project review application was received on September 30th, 2021 for the tear down of 2 two-car garages and construction of 1 six-car garage at 145 Lakeland Shores Rd in Lakeland. The applicant was notified their application was incomplete and MSCWMO staff are awaiting submittal of required materials to begin the project review.
- **MN Party Bus.** The applicant was notified after the last MSCWMO meeting by the City of Lakeland Shores that they were not in compliance with their approved site plan and permit. City staff requested the MSCWMO take the lead on enforcement related to permit compliance. MSCWMO staff met with the applicant on September 23rd and informed them that their options were to :
 - Remove the impervious and grading that were done to the conditions that were on their approved plan
 - **OR**
 - Revise and resubmit an application showing how the stormwater requirements for the site can be met in a different manner

The applicant retained the designer of the original site plan to make modifications and complete the resubmittal. MSCWMO was contacted on October 21st and asked clarifying questions by the designer. No further communication or application has been received.

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

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



September 29, 2021

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

RE: Stillwater Towing Site Improvements

Dear Mr. Sanders:

The Middle St. Croix Watershed Management Organization (MSCWMO) received submittal items on September 15, 2021 for impervious surface improvements and a new vehicle storage lot for Stillwater Towing at 1749 Greeley Street located within MSCWMO boundaries and in the City of Stillwater. Revised review materials were received on September 28, 2021 including a memo documenting a higher level of engineering review for the infiltration facilities since the project is located within a high vulnerability DWSMA but outside of an ERA. The proposed project qualifies for full review under the MSCWMO 2015 Watershed Management Plan (WMP).

Stormwater is proposed to be managed two infiltration basins and underground storage/infiltration chambers. The project meets the applicable Policies and Performance Standards contained within Section 7.0 of the 2015 MSCWMO WMP. **The MSCWMO recommends approval with the following four conditions:**

1. Final construction plans are provided with details of proposed stormwater management facilities including identification of a test method to demonstrate the infiltration basins are functioning, a way to visually verify the underground system is operating as designed, and adequate construction guidance to prevent clogging or compaction.
2. A SWPPP is provided with contact information and training requirements for responsible parties, a 7 day time frame for stabilization, requirements for maintenance and inspection records, and ESC item tabulated quantities.
3. Dedications or easements for the portions of the property which lie below the 100 year flood level for stormwater management facilities and conveyances are provided.
4. A proposed maintenance agreement is provided.

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

Sincerely,



Matt Downing
Administrator
Middle St. Croix Watershed Management Organization



PROJECT REVIEW

MSCWMO Project Review ID: 21-009

Project Name: Stillwater Towing Site Improvements

Applicant: Matt Woodruff (Larson Engineering, Inc.)

Purpose: Add impervious area for new vehicle storage lot

Location: 1749 Greeley Street, Stillwater

Review date: 09/29/21

Recommendation: Approve with the following four conditions:

1. Final construction plans are provided with details of proposed stormwater management facilities including identification of a test method to demonstrate the infiltration basins are functioning, a way to visually verify the underground system is operating as designed, and adequate construction guidance to prevent clogging or compaction
2. A SWPPP is provided with contacts information and training requirements for responsible parties, a 7 day time frame for stabilization, requirements for maintenance and inspection records, and ESC item tabulated quantities.
3. Dedications or easements for the portions of the property which lie below the 100 year flood level for stormwater management facilities and conveyances are provided.
4. A proposed maintenance agreement is provided.

Applicability:

- Any project undertaking grading, filling, or other land alteration activities that 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 reconstructs 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
- Any project with grading within public waters
- Any project with grading within buffers
- Any project with grading 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 adds five hundred (500) square feet or more 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:

Electronic submittals are highly encouraged

- A completed and signed project review application form and review fee
- Grading Plan/Mapping Exhibits
 - a. Property lines and delineation of lands under ownership of the applicant.
 - b. Delineation of existing on-site wetlands, shoreland and/or floodplain areas (including any buffers).
 - c. Ordinary High Water (OHW) elevations and datum, as determined by the MDNR (if applicable).
 - d. Existing and proposed site contour elevations related to NAVD 1988 datum (preferred) or NGVD, 1929. Datum must be noted on exhibits.
 - e. 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.
 - f. Minimum building elevation for each lot.
 - g. Identification of downstream water body.
- Permanent Stormwater Management System in compliance with the requirements of the NPDES SDS Construction Stormwater Permit and MSCWMO Performance Standards.
 - a. Impervious areas (Pre- and Post-Construction).
 - b. Construction plans and specifications for all proposed stormwater management facilities.
 - c. Location(s) of past, current or future onsite well and septic systems (if applicable).
- Other exhibits required to show conformance to these Performance Standards
- A Stormwater Pollution Prevention Plan in compliance with the requirements of the NPDES SDS Construction Stormwater Permit
- Grading Plan/Mapping Exhibits:

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary’s Point, Stillwater and West Lakeland Township

- a. Delineation of the subwatersheds contributing runoff from off-site, proposed and existing on-site subwatersheds, and flow directions/patterns.
- b. Location, alignment, and elevation of proposed and existing stormwater facilities.
- c. Existing and proposed normal water elevations and the critical (the highest) water level produced from the 100-year 24-hour storms.
- d. Location of the 100-year flood elevation, natural overflow elevation, and lowest floor elevations.

Hydrologic/Hydraulic Design Exhibits:

- a. 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.
- b. A table (or tables) must be submitted showing the following:
 - i. A listing of all points where runoff leaves the site and the existing and proposed stormwater runoff rates and volumes.
 - ii. 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.

- Dedications or easements for the portions of the property which are adjacent to the facility and which lie below the 100 year flood level. For sites within public right-of-way, no easement is required.
- A proposed maintenance agreement, which may be in the format of Appendix K, or other form approved by the city.

HISTORY & CONSIDERATIONS:

SPECIAL OR IMPAIRED WATER

- This site drains to, and is within one mile of special or impaired water and complies with enhanced protections.
 - a. Scenic or Recreational river C.1., C.2., C.3.
 - b. Scientific and Natural area C.1., C.2., C.3.
 - c. Waterbody with a TMDL C.1., C.2.
 - C.1. Stabilization initiated immediately and all soils protected in seven days/provide temp basin for five acres draining to common location.
 - C.2. Treat water quality volume of one inch of runoff by retaining on site unless not feasible due to site conditions (See Part III.D.1. design requirements).
 - C.3. Maintain buffer zone of 100 linear feet from Special Water.

EROSION AND SEDIMENT CONTROL *[A checked box indicates compliance]*

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater and West Lakeland Township

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

Narrative

- Identify the person knowledgeable and experienced who will oversee the implementation of the SWPPP; the installation, inspection, and maintenance of the BMPs.
- a. Identifies the person who will oversee the BMP inspection and maintenance.
 - b. Identify the training requirements are satisfied.
 - c. Inspections performed once every 7 days.
 - d. Inspections performed within 24 hours of a rain event greater than 0.5 in/24 hours.
 - e. Inspection and Maintenance records include:
 - i. Date and time of inspection.
 - ii. Name of person(s) conducting inspections.
 - iii. Finding of inspections, including the specific location where corrective actions are needed.
 - iv. Corrective actions taken (including dates, times, and party completing maintenance activities).
 - v. Date and amount of rainfall events greater than 0.5 in/24 hours.
 - vi. Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, or by a weather station that is within one mile or by a weather reporting system.
 - vii. Requirements to observe, describe, and photograph any discharge that may be occurring during the inspection.
 - viii. All discovered nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs within 24 hours after discovery, or as soon as field conditions allow.
- Describes procedures to amend the SWPPP and establish additional temporary ESC BMPs as necessary for site conditions.
- Describes the installation timing for all Erosion Sediment Control (ESC) Best Management Practices (BMPs).
- Describes final stabilization methods for all exposed areas.
- Methods used to minimize soil compaction and preserve topsoil must be described.
- NA Describes dewatering technique to prevent nuisance conditions, erosion, or inundation of wetlands?
- NA Identifies any specific chemicals and the chemical treatment systems that may be used for enhancing the sedimentation process on the site, and how compliance will be achieved with the permit requirements.
- Describes 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.

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater and West Lakeland Township

- 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**)
Basin design meets the following criteria:

- a. Adequately sized – 2-year, 24-hour storm, minimum 1,800 feet/acre; or no calculative minimum 3,600ft³/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. 50 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.

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater and West Lakeland Township

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).
- Location of areas where construction will be phased to minimize duration of exposed soil areas.
- Blufflines are protected from construction activities in urban (40 foot buffer) areas and rural areas (100-foot buffer).*

LAKE, STREAM AND WETLAND BUFFERS

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

STORMWATER MANAGEMENT *[A checked box indicates compliance]*

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

Rate and Flood Control Standards

- The peak rate of stormwater runoff from a newly developed or redeveloped site shall not exceed the 2-, 10-, and 100-year 24-hour storms with respective 2.8, 4.2, and 7.3-inch rainfall depths with MSCWMO approved time distribution based on Atlas 14 for existing and proposed conditions. The runoff curve number for existing agriculture areas shall be less than or equal to the developed condition curve number. The newly developed or redeveloped peak rate shall not exceed the existing peak rate of runoff for all critical duration events, up to and including the 100-year return frequency storm event for all points where discharges leave a site during all phases of development.
- Predevelopment conditions assume "good hydrologic conditions" for appropriate land covers as identified in TR-55 or an equivalent methodology. Runoff curve numbers have been increased where predevelopment land cover is cropland:
 - Hydrologic Soil Group A: Runoff Curve Number 56
 - Hydrologic Soil Group B: Runoff Curve Number 70
 - Hydrologic Soil Group C: Runoff Curve Number 79
 - Hydrologic Soil Group D: Runoff Curve Number 83
- Computer modeling analyses includes secondary overflows for events exceeding the storm sewer systems level-of-service up through the critical 100-year event.

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater and West Lakeland Township

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

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

Volume Control Standards

- Calculations/computer model results indicate stormwater volume is controlled for new development and redevelopment requirements per the MSCWMO Design Standards.
 1. New Nonlinear Development 1.1" * new impervious surfaces
 2. Reconstruction/Redevelopment Projects 1.1" * reconstructed impervious surfaces
 3. Linear Projects 0.55" * new and/or fully reconstructed impervious surface and 1.1" from net increase in impervious area
 4. Sites with Restrictions- flexible treatment options documentation has been provided.

Volume Retention Required (cu. ft.)	Volume Retention Provided (cu. ft.)	
107,560 sf * 1.1" = 9,860cu. ft.	BMP	Volume
	Underground #1	10,539 cu. ft.
	Basin #2	724 cu. ft.
	Basin #3	264
Total Required 9,860 cu. ft.	Total Proposed	11,527 cu.ft.

Flexible Treatment Options (when applicable)

- Applicant demonstrated qualifying restrictions as defined in Section 7.2.2 (4) of the 2015 MSCWMO Watershed Management Plan that prohibits the infiltration of the entire required volume.
- MIDS calculator submission removes 75% of the annual total phosphorous.

Infiltration/Filtration Design Standards

- Proposed stormwater management features meet or exceed NPDES General Construction Permit requirements are designed in conformance with the most recent edition of the State of Minnesota Stormwater Manual.
- None of the following conditions exist that prohibit infiltration of stormwater on the site
 - 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.

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary’s Point, Stillwater and West Lakeland Township

- 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 device(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.

- a. 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.
- b. 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 ft²; between 1,000 and 5,000 ft², two borings, between 5,000 and 10,000 ft², three borings and greater than 10,000 ft² 4 borings plus an additional boring for every 2,500 ft² beyond 12,500 ft²
- 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.

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

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Additional flows are bypassed and are routed through stabilized discharge points.

Filtration basin demonstrates a basin draw down between 24 hours and 48 hours.

NA Filtration system Iron Enhanced Sand Filter is sized to bind soluble phosphorous removal for 30 year functional life of the system using the published value of 17lbs.phosphorous removal per 20 yards of 5% by weight iron filings to 95% sand.

Identify as build survey and method to demonstrate infiltration or filtration basin is functioning.

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.

WETLAND PERFORMANCE STANDARDS

NA Direct discharge of stormwater to wetlands and all other water bodies without water quality treatment is prohibited.

NA Any potential changes to the hydrology of the wetland (i.e. changes to the outlet elevation or contributing drainage area) must be reviewed to evaluate the impact of both the existing and proposed wetland conditions and approved by the MSCWMO.

NA Land-altering activities shall not increase the bounce in water level or duration of inundation from a 2.0-inch 24-hour storm for any downstream wetland beyond the limit specified in Table 7.2 for the individual wetland susceptibility class.

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater and West Lakeland Township

September 28, 2021

Shawn Sanders
City of Stillwater Public Works Director
216 N 4th Street
Stillwater, MN 55082

Re: Higher Level Engineering Review
Stillwater Towing Site Improvements
1749 Greeley St. S.
Stillwater, MN 55082
LEMN Project No: 12216081.000

Dear Mr. Sanders

Stillwater Towing is expanding at the location shown on Figure 1. The project is located within the Wellhead Protection Area and Drinking Water Supply Management Area (DWSMA) with a high vulnerability. According to the Construction Stormwater General Permit and the Minnesota Stormwater Manual, since the site is located within a WHPA and high vulnerability DWSMA a “higher level of engineering review” must be completed to demonstrate that infiltration is appropriate.

Stillwater Towing understands the potential to impact the stormwater due to the nature of their work. The proposed Stillwater Towing parking lot will primarily be used to store impounded vehicles. Sometimes these vehicles are involved in car accidents (crashes) where the vehicle is damaged. It is very rare that any of the impounded vehicles are leaking any fluids such as gasoline, diesel fuel, oil, vehicle coolant, etc. In the event that a towed vehicle is leaking fluids, the Applicant’s process for mitigating a potential spill contamination is to place the vehicle in their maintenance garage and drain all necessary fluids and dispose of the fluids properly. The impounded vehicle will then be placed in the storage lot so the potential for vehicle fluids to leak onto the lot is very rare.

Analysis

Per City of Stillwater’s Engineering Design Guidelines for Stormwater Management, “infiltration practices shall not be used within 50 feet of a municipal, community, or private well, unless specifically allowed by an approved wellhead protection plan. Stillwater Towing meets the guidelines specified above, as shown in Figure 1.

Per the Minnesota Stormwater Manual, there are two conditions in which infiltration is prohibited under the Construction Stormwater General Permit unless a higher level of engineering review is conducted. Stillwater Towing falls under the second condition since the site is outside of an ERA

and within a high vulnerability DWSMA. The Stormwater Manual breaks the analysis for this condition into two steps.

- Determine the one-year travel time surrounding the infiltration practice.
- Determine if there are any active receptors utilizing the aquifer within the one-year travel time area.

All active receptors within a 1-mile radius of the site were determined using the Minnesota Well Index. The MPCA Construction Stormwater Special Waters Search provides a map that shows DWSMAs and ERAs. The receptors from the Minnesota Well Index were overlaid on this map, as shown in Figure 1. Based on the map in Figure 1, the project site is outside of the 1-year travel time of all adjacent receptors.

Conclusion

This higher level of review has found that the proposed stormwater infiltration system for Stillwater Towing will not have adverse impacts to the ground water because there are no active receptors within the one-year travel time. Therefore, the project meets the requirements of the Construction Stormwater General Permit.

Sincerely,

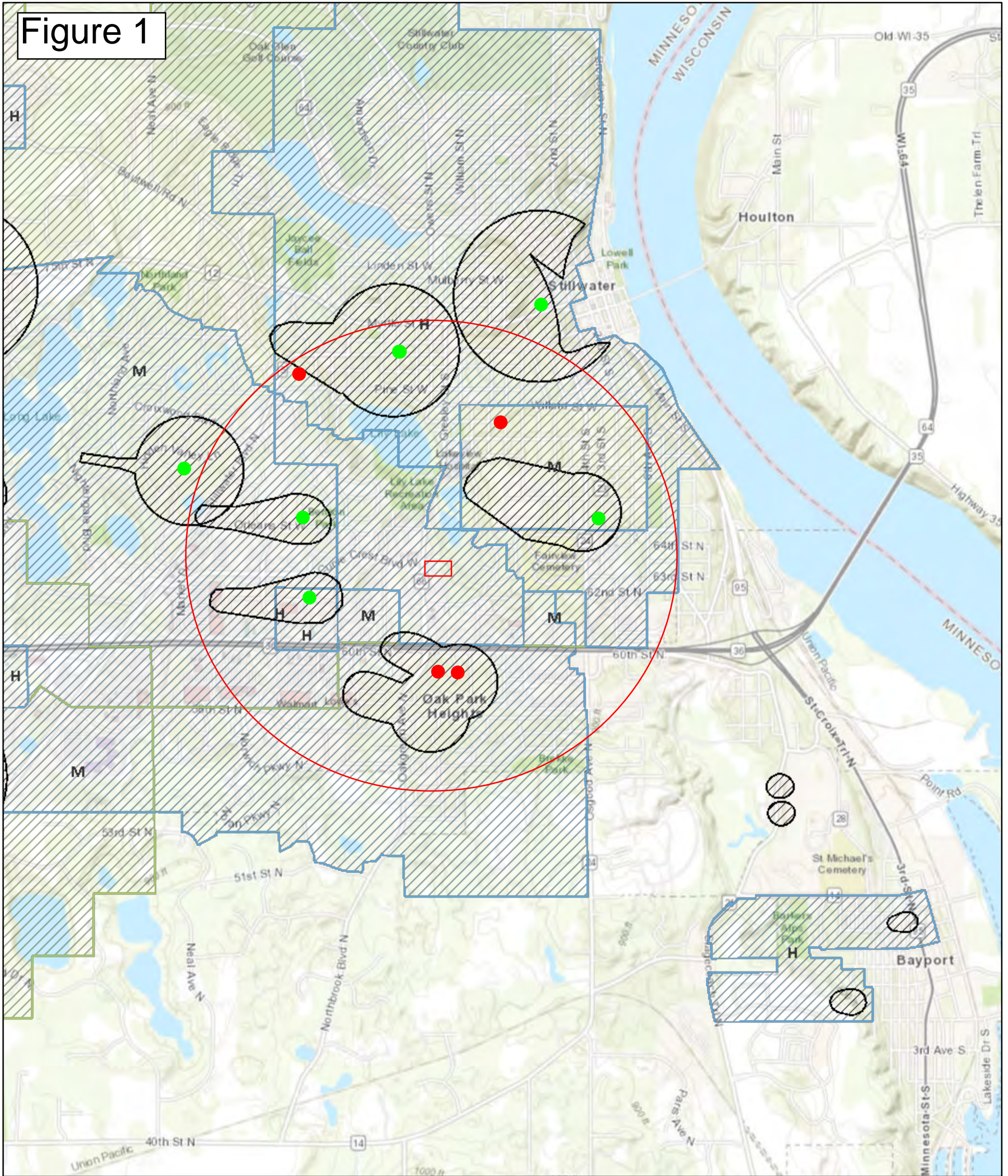
Larson Engineering, Inc.

A handwritten signature in black ink that reads "T.J. Rose". The signature is written in a cursive style with a large, stylized "R".





T.J. Rose, P.E
Professional Engineer

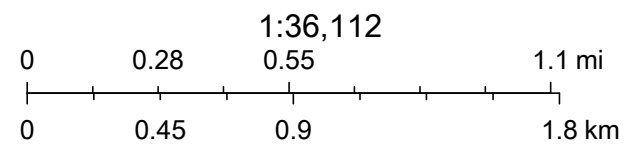
MPCA's Construction Stormwater Special Waters Search




Figure 1



9/27/2021, 9:13:19 AM

-  MDH - Drinking Water Supply Management Area - medium vulnerability
-  MDH - Drinking Water Supply Management Area - high vulnerability
-  MDH - Drinking Water Supply Management Area - very high vulnerability
-  MDH - Emergency Response Areas



-  Project Location
-  Municipal Well
-  Private Well

Washington County, MN, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

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



November 4, 2021

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

RE: Park Dental, Oak Park Heights

Dear Mr. Johnson,

The Middle St. Croix Watershed Management Organization (MSCWMO) received an application for project review on September 15th, 2021 for the demolition of existing building and utilities and reconstruction of a new building and associated improvements at 13961 60th St. N, located within MSCWMO boundaries and in the City of Oak Park Heights. The proposed project qualifies for full review under the MSCWMO 2015 MSCWMO Watershed Management Plan (WMP). After the initial MSCWMO staff review the applicant was asked to revise and resubmit H&H model materials as well as provide a higher level of engineering review for the suitability of infiltration in a high vulnerability DWSMA on September 17th, 2021. The higher level of engineering review was received on October 19th, 2021 and revised H&H model submittal materials were received November 3rd, 2021. The revised submittals contain sufficient information to determine compliance with the performance standards identified in Section 7.0 of the MSCWMO Watershed Management Plan. The MSCWMO recommends approval with the following five conditions:

1. Timing of inlet protection is provided in the SWPPP or Grading, Drainage & Erosion Control Specifications.
2. Flowage easements up to the 100-yr flood level have been secured for stormwater management facilities.
3. A proposed maintenance agreement approved by the city is provided.
4. Methods to demonstrate infiltration or filtration basin is functioning as designed prior to the release of any remaining fee or security are identified in the plans.
5. Plans/SWPPP specifies that for installation of infiltration systems:
 - a. the installation occurs in dry soil conditions,
 - b. excavation, soil placement and rapid stabilization of perimeter slopes must be accomplished prior to the next precipitation event, and
 - c. excavation and placement of materials shall be performed by an excavator with a toothed bucket.

November 4, 2021

Page 2 of 2

The enclosed checklist contains detailed information on project review and the policies and performance standards of the WMP. Also enclosed is a copy of the high level of engineering review for determining the suitability of infiltration at the site. Feel free to contact me at 651-330-8220 x22 or mdowning@mnwcd.org if you have any questions regarding these comments.

Sincerely,



Matt Downing
MSCWMO, Interim Administrator

Enclosure

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater and West Lakeland Township



PROJECT REVIEW

MSCWMO Project Review ID: 21-010

Project Name: Park Dental St. Croix Valley

Applicant: Vicki VanDell

Purpose: Demolition of existing buildings and utilities, reconstruction of a new building with associated improvements.

Location: 13961 60th St N, Oak Park Heights

Review date: 11/04/21

Recommendation: Approval with the following conditions:

1. Timing of inlet protection is provided in the SWPPP or Grading, Drainage & Erosion Control Specifications.
2. Flowage easements up to the 100-yr flood level have been secured for stormwater management facilities.
3. A proposed maintenance agreement approved by the city is provided.
4. Methods to demonstrate infiltration or filtration basin is functioning as designed prior to the release of any remaining fee or security are identified in the plans.
5. Plans/SWPPP specifies that for installation of infiltration systems:
 - a. the installation occurs in dry soil conditions,
 - b. excavation, soil placement and rapid stabilization of perimeter slopes must be accomplished prior to the next precipitation event, and
 - c. excavation and placement of materials shall be performed by an excavator with a toothed bucket.

Applicability:

- Any project undertaking grading, filling, or other land alteration activities that 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 reconstructs 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
- Any project with grading within public waters
- Any project with grading within buffers
- Any project with grading 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 adds five hundred (500) square feet or more 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:

Electronic submittals are highly encouraged

- A completed and signed project review application form and review fee
- Grading Plan/Mapping Exhibits
 - a. Property lines and delineation of lands under ownership of the applicant.
 - b. Delineation of existing on-site wetlands, shoreland and/or floodplain areas (including any buffers).
 - c. Ordinary High Water (OHW) elevations and datum, as determined by the MDNR (if applicable).
 - d. Existing and proposed site contour elevations related to NAVD 1988 datum (preferred) or NGVD, 1929. Datum must be noted on exhibits.
 - e. 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.
 - f. Minimum building elevation for each lot.
 - g. Identification of downstream water body.
- Permanent Stormwater Management System in compliance with the requirements of the NPDES SDS Construction Stormwater Permit and MSCWMO Performance Standards.
 - a. Impervious areas (Pre- and Post-Construction).
 - b. Construction plans and specifications for all proposed stormwater management facilities.
 - c. Location(s) of past, current or future onsite well and septic systems (if applicable).
- Other exhibits required to show conformance to these Performance Standards
- A Stormwater Pollution Prevention Plan in compliance with the requirements of the NPDES SDS Construction Stormwater Permit
- Grading Plan/Mapping Exhibits:
 - a. Delineation of the subwatersheds contributing runoff from off-site, proposed and existing on-site subwatersheds, and flow directions/patterns.

- b. Location, alignment, and elevation of proposed and existing stormwater facilities.
- c. Existing and proposed normal water elevations and the critical (the highest) water level produced from the 100-year 24-hour storms.
- d. Location of the 100-year flood elevation, natural overflow elevation, and lowest floor elevations.

Hydrologic/Hydraulic Design Exhibits:

- a. 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.
- b. A table (or tables) must be submitted showing the following:
 - i. A listing of all points where runoff leaves the site and the existing and proposed stormwater runoff rates and volumes.
 - ii. 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.

Dedications or easements for the portions of the property which are adjacent to the facility and which lie below the 100 year flood level. For sites within public right-of-way, no easement is required.

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

HISTORY & CONSIDERATIONS:

SPECIAL OR IMPAIRED WATER

- This site drains to, and is within one mile of special or impaired water and complies with enhanced protections.
- a. Scenic or Recreational river C.1., C.2., C.3.
 - b. Scientific and Natural area C.1., C.2., C.3.
 - c. Waterbody with a TMDL C.1., C.2.
 - C.1. Stabilization initiated immediately and all soils protected in seven days/provide temp basin for five acres draining to common location.
 - C.2. Treat water quality volume of one inch of runoff by retaining on site unless not feasible due to site conditions (See Part III.D.1. design requirements).
 - C.3. Maintain buffer zone of 100 linear feet from Special Water.

EROSION AND SEDIMENT CONTROL [A checked box indicates compliance]

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).
Timing of inlet protection not listed in sequencing.
- Describes final stabilization methods for all exposed areas.
- Methods used to minimize soil compaction and preserve topsoil must be described.
- Describes dewatering technique to prevent nuisance conditions, erosion, or inundation of wetlands?
- NA Identifies any specific chemicals and the chemical treatment systems that may be used for enhancing the sedimentation process on the site, and how compliance will be achieved with the permit requirements.
- Describes 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.

NA *Temporary Sediment Basins required (10 acres draining to common location or 5 acres App. A)*
Basin design meets the following criteria:

- a. Adequately sized – 2-year, 24-hour storm, minimum 1,800 feet/acre; or no calculative minimum 3,600ft³/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. 50 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).
- 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).

LAKE, STREAM AND WETLAND BUFFERS

- 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.

STORMWATER MANAGEMENT *[A checked box indicates compliance]*

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

Rate and Flood Control Standards

- The peak rate of stormwater runoff from a newly developed or redeveloped site shall not exceed the 2-, 10-, and 100-year 24-hour storms with respective 2.8, 4.2, and 7.3-inch rainfall depths with MSCWMO approved time distribution based on Atlas 14 for existing and proposed conditions. The runoff curve number for existing agriculture areas shall be less than or equal to the developed condition curve number. The newly developed or redeveloped peak rate shall not exceed the existing peak rate of runoff for all critical duration events, up to and including the 100-year return frequency storm event for all points where discharges leave a site during all phases of development.
- Predevelopment conditions assume "good hydrologic conditions" for appropriate land covers as identified in TR-55 or an equivalent methodology. Runoff curve numbers have been increased where predevelopment land cover is cropland:
- Hydrologic Soil Group A: Runoff Curve Number 56
 - Hydrologic Soil Group B: Runoff Curve Number 70
 - Hydrologic Soil Group C: Runoff Curve Number 79
 - Hydrologic Soil Group D: Runoff Curve Number 83
- Computer modeling analyses includes secondary overflows for events exceeding the storm sewer systems level-of-service up through the critical 100-year event.
- NA In sub-areas of a landlocked watershed, the proposed project does not increase the predevelopment volume or rate of discharge from the sub-area for the 10-year return period event.

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

Volume Control Standards

- Calculations/computer model results indicate stormwater volume is controlled for new development and redevelopment requirements per the MSCWMO Design Standards.
1. New Nonlinear Development 1.1" * new impervious surfaces
 2. Reconstruction/Redevelopment Projects 1.1" * reconstructed impervious surfaces

- 3. Linear Projects 0.55" * new and/or fully reconstructed impervious surface and 1.1" from net increase in impervious area
- 4. Sites with Restrictions- flexible treatment options documentation has been provided.

Volume Retention Required (cu. ft.)	Volume Retention Provided (cu. ft.)	
0.882 ac * 1.1" = 3,522 cu. ft.	BMP	Volume
	BMP #1	2,212 cu. ft.
	BMP #2	1,760cu. ft.
Total Required 3,522cu. ft.	Total Proposed	3,972cu.ft.

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 MIDS calculator submission removes 75% of the annual total phosphorous.

Infiltration/Filtration Design Standards

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

- None of the following conditions exist that prohibit infiltration of stormwater on the site
- 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. [Higher level of engineering review completed for DWSMA.](#)
 - 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 device(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.
 - a. 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.
 - b. 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 ft²; between 1,000 and 5,000 ft², two borings, between 5,000 and 10,000 ft², three borings and greater than 10,000 ft² 4 borings plus an additional boring for every 2,500 ft² beyond 12,500 ft²
 - 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.
- NA Filtration basin demonstrates a basin draw down between 24 hours and 48 hours.
- NA Filtration system Iron Enhanced Sand Filter is sized to bind soluble phosphorous removal for 30 year functional life of the system using the published value of 17lbs.phosphorous removal per 20 yards of 5% by weight iron filings to 95% sand.
- Identify as build survey and method to demonstrate infiltration or filtration basin is functioning.
- 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.

WETLAND PERFORMANCE STANDARDS

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

October 18, 2021

Vicki VanDell
Loucks, Inc.
7200 Hemlock Lane
Suite 300
Maple Grove, MN 55369

Subject: Higher level engineering review
Park Dental Site
Oak Park Heights, Minnesota

Dear Ms. VanDell:

We reviewed the hydrogeology information available for the Park Dental Site. The site is shown on Figure 1. The project is within the wellhead protection area (WHPA) and drinking water supply management area (DWSMA) for the City of Oak Park Heights municipal water supply wells. The area is classified as having high vulnerability. According to the Minnesota Stormwater Manual and the Construction Stormwater General Permit, infiltration areas that are constructed in high vulnerability areas within a DWSMA must have a higher level engineering review.

Guidance documents

The Minnesota Stormwater Manual (MPCA, 2021) states that:

“There are two conditions in which infiltration is prohibited under the Construction Stormwater General Permit unless a higher level of engineering review is conducted and demonstrates that a functioning treatment system will prevent adverse impacts to groundwater.

1. An Emergency Response Area (ERA) within a DWSMA classified as moderate vulnerability
2. Outside of an ERA within a DWSMA classified as having high or very high vulnerability”

The Park Dental site meets Condition 2. To complete a higher level engineering review, the stormwater manual guidance is:

“The primary concern for this condition, however, is to identify or protect other receptors, which typically will be private well owners. This can be achieved by limiting the risk of contaminant exposure, as described above for condition 1. A second option is to conduct a receptor survey. This is a two step process:

1. “Determine the one year travel time surrounding the infiltration practice. This can be estimated using simple calculators...
2. “Determine if there are any active receptors utilizing the aquifer within the one year travel time area.

Receptor Survey

The Prairie du Chien aquifer is the primary drinking water aquifer in the Oak Park Heights area. The one year time of travel through the aquifer can be measured from the wellhead protection areas calculated for the nearby municipal wells, as shown on Figure 1. The maximum distance for a one-year time of travel is approximately 2,000 feet. Note that it is the same for all the municipal wells.

Figure 1 also shows the one-year time of travel around the subject property. Two Oak Park Heights municipal wells were identified as potential receptors downgradient from the subject property. Other potential receptor wells were identified from the Minnesota Well Index (MDH, 2021). Two private residential wells (Unique ID 123503 and 242865) were identified within the one-year time of travel and downgradient from the Park Dental site. Several other wells in the area were identified as being abandoned and sealed. Oak Park Heights has a municipal drinking water supply, so any residential wells in this area are likely to be used exclusively for non-drinking water purposes such as lawn watering. This reduces the potential threat of health effects from contaminated groundwater.

The Oak Park Heights wellhead protection plan delineated emergency response areas using a groundwater model to calculate the one-year time of travel area for each well, as shown on Figure 1. The Park Dental site lies outside of these areas. The municipal wells are not potential receptors for storm water infiltrating at the Park Dental site within the designated one-year time limit.

Both of the identified residential wells are completed in the Prairie du Chien aquifer, as indicated by the well logs included as Attachment A. The one-year capture areas for the two residential wells were calculated using the method prescribed by the Minnesota Department of Health (MDH, 2018), but using one-year pumping rates instead of 10-year pumping rates. The pumping rate for a residential well was assumed to be 300 gallons/day (109,500 gallons/year). The calculated wellhead protection radius is shown in Table 1.

Table 1. Calculated Wellhead Protection Radius (r) for Residential Wells

Well #	Q (1 yr) (gal)	n	L (ft)	r (ft)
123503	109500	0.1	112	55.8
242865	109500	0.1	52	81.9

The capture areas were also extended upgradient 2000 feet to reflect the one-year time of travel. The calculated one-year capture areas for the residential wells are shown on Figure 1. A more rigorous groundwater model would show some interference between the Oak Park Heights municipal wells and the residential wells, but it is still clear that the Park Dental site is outside the one-year capture areas of the residential wells.

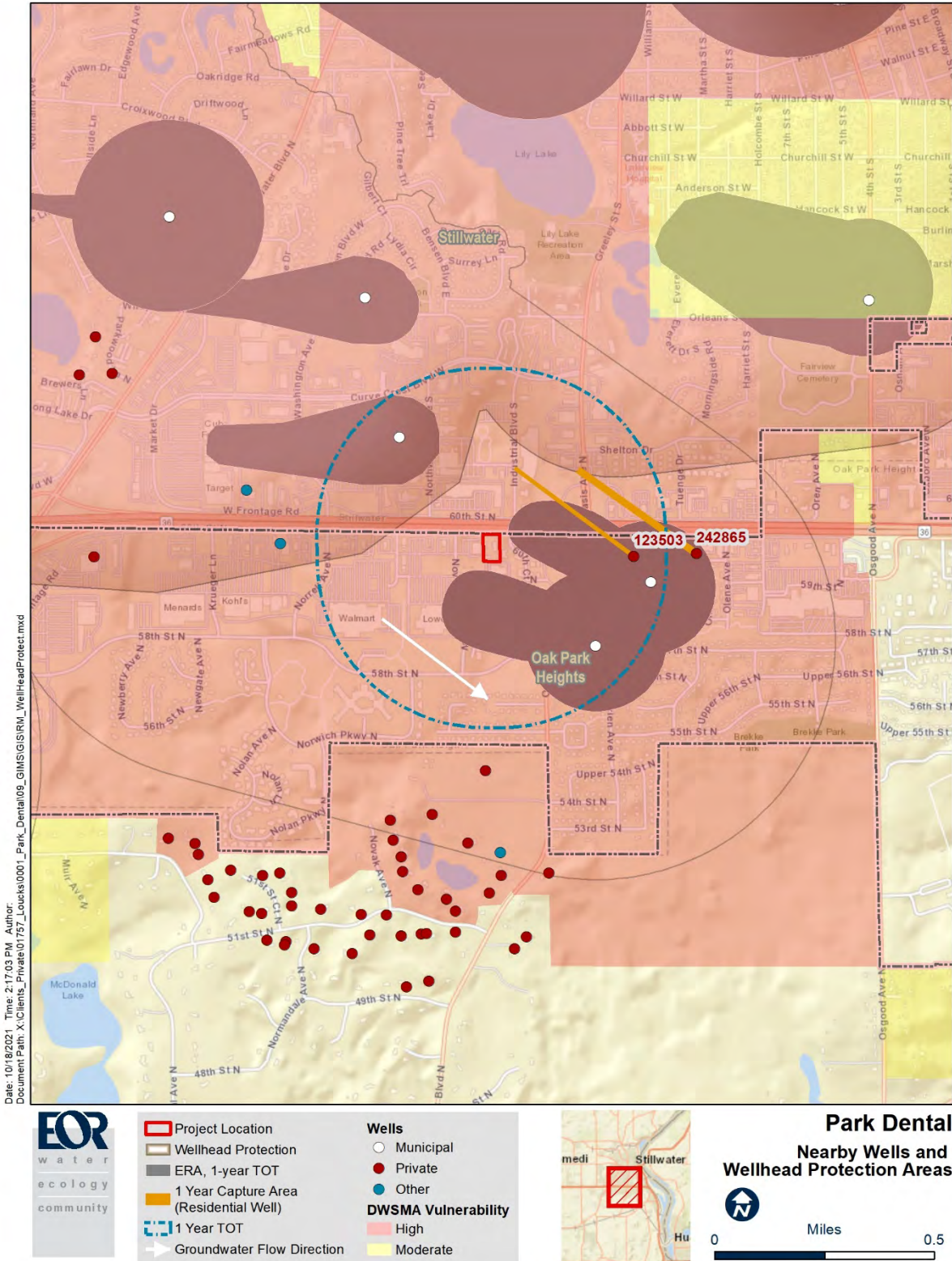
Conclusion

This higher level of engineering review has found that stormwater infiltrating from the Park Dental site will have no adverse impacts to groundwater because there are no active receptors utilizing the aquifer within the one-year travel time area of the receptors. Therefore, the project meets the requirements of the Construction Stormwater General Permit.

References

- Minnesota Department of Health (MDH), 2018. "Preliminary Wellhead Protection Area Delineation." Available online at [Preliminary Wellhead Protection Area Delineation \(state.mn.us\)](https://www.health.state.mn.us/ocwa/permits/pwpa/pwpa.html).
- Minnesota Department of Health (MDH), 2021. Minnesota Well Index. Available online at <https://mnwellindex.web.health.state.mn.us/>
- Minnesota Pollution Control Agency (MPCA), 2021. "Minnesota Stormwater Manual. Guidance and recommendations for conducting a higher level of engineering review for stormwater infiltration in DWSMAs and Wellhead Protection Areas." Available online at https://stormwater.pca.state.mn.us/index.php?title=Main_Page

Figure 1



Attachment A - Residential Well Logs

Minnesota Unique Well No.

County Washington
 Quad Stillwater
 Quad ID 118D

123503

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 1031

Entry Date 03/01/1989
 Update
 Received Date 02/14/2014

Well Name	Township	Range	Dir	Section	Subsection	Use	Status	Well Depth	Depth Completed	Date Well Completed	Lic/Reg. No.		
CHAMPIONM,	29	20	W	4	BBAAC	domestic	A	185 ft.	185 ft.	10/25/1976	82084		
Elevation	933 ft.	Elev. Method	7.5 minute topographic map (+/- 5 feet)			Aquifer	Prairie Du Chien	Depth to Bedrock	73 ft	Open Hole	170 - 185 ft	Static Water Level	140 ft
Field Located By	Minnesota Geological Survey		Locate Method	Digitized - scale 1:24,000 or larger (Digitizing)				Universal Transverse Mercator (UTM) - NAD83 - Zone 15 -					
Unique No. Verified	Address verification		Input Source	Minnesota Geological Survey				UTM Easting (X)	514292				
Geological Interpretation	Bruce Bloomgren		Input Date	01/01/1990				UTM Northing (Y)	498684				
Agency (Interpretation)							Interpretation Method	Geologic study 1:24k to 1:100k					

Geological Material	Color	Hardness	Depth (ft.)		Thickness	Elevation (ft.)		Stratigraphy	Primary Lithology	Secondary	Minor Lithology
			From	To		From	To				
SAND & CLAY & BOULDERS	BROWN	SFT-HRD	0	73	73	933	860	pebbly sand/silt/clay-	sand	clay	boulder
LIMEROCK	YEL/WHT	HARD	73	185	112	860	748	Prairie Du Chien	dolomite		

Minnesota Well Index - Stratigraphy Report	123503	Printed on 10/18/2021
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Minnesota Unique Well No.

242865

County Washington
 Quad Stillwater
 Quad ID 118D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
Minnesota Statutes Chapter 1031

Entry Date 10/09/1990
 Update
 Received Date 02/14/2014

Well Name	Township	Range	Dir	Section	Subsection	Use	Status	Well Depth	Depth Completed	Date Well Completed	Lic/Reg. No.		
	29	20	W	4	BABACD	domestic	A	126 ft.	126 ft.		MGS		
Elevation	916 ft.	Elev. Method	7.5 minute topographic map (+/- 5 feet)			Aquifer	Prairie Du Chien	Depth to Bedrock	42 ft	Open Hole	94 - 126 ft	Static Water Level	116 ft
Field Located By	Minnesota Geological Survey		Locate Method	Digitization (Screen) - Map (1:24,000) (15 meters)				Universal Transverse Mercator (UTM) - NAD83 - Zone 15 -					
Unique No. Verified	Information from owner-site		Input Source	Minnesota Geological Survey				UTM Easting (X)	514518				
Geological Interpretation	Bruce Bloomgren		Input Date	02/13/2004				UTM Northing (Y)	498686				
Agency (Interpretation)							Interpretation Method	Inferred from geophysical log					

Geological Material	Color	Hardness	Depth (ft.)		Thickness	Elevation (ft.)		Stratigraphy	Primary Lithology	Secondary	Minor Lithology
			From	To		From	To				
GLACIAL DRIFT			0	42	42	916	874	Quaternary deposit	drift		
ST. PETER SANDSTONE			42	74	32	874	842	St.Peter Sandstone	sandstone		
PRAIRIE DU CHIEN GROUP			74	126	52	842	790	Prairie Du Chien	dolomite		

Minnesota Well Index - Stratigraphy Report

242865

Printed on 10/18/2021

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

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



November 5, 2021

Carrie Seifert, Town Clerk
West Lakeland Township
959 Paris Avenue Circle N
West Lakeland Township, MN 55082

RE: John See Estates, West Lakeland Township

Dear Mrs. Seifert,

The Middle St. Croix Watershed Management Organization (MSCWMO) received an application for project review on September 28th, 2021 for the 4 lot subdivision development at 1937 Stagecoach Trail North located within MSCWMO boundaries and in the West Lakeland Township. The proposed project qualifies for full review under the MSCWMO 2015 MSCWMO Watershed Management Plan (WMP). After the initial MSCWMO staff review the applicant was asked to revise and resubmit H&H model materials on October 28th, 2021. Revised H&H model submittal materials were received November 5th, 2021. The revised submittals contain sufficient information to determine compliance with the performance standards identified in Section 7.0 of the MSCWMO Watershed Management Plan. The MSCWMO recommends approval with the following one condition:

1. Execution of the proposed Stormwater Management Facilities Declaration and Easement Agreement.

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

Sincerely,

Matt Downing
MSCWMO, Interim Administrator

Enclosure



PROJECT REVIEW

MSCWMO Project Review ID: 21-011

Project Name: John See Estates

Applicant: John See

Purpose: 4-lot residential subdivision

Location: 1937 Stagecoach Trail N in West Lakeland Township

Review date: 11/5/21

Recommendation: Conditional approval with the following one condition:

1. Execution of the proposed Stormwater Management Facilities Declaration and Easement Agreement.

Applicability:

- Any project undertaking grading, filling, or other land alteration activities that 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 reconstructs 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
- Any project with grading within public waters
- Any project with grading within buffers
- Any project with grading 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 adds five hundred (500) square feet or more 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:

Electronic submittals are highly encouraged

- A completed and signed project review application form and review fee
- Grading Plan/Mapping Exhibits
 - a. Property lines and delineation of lands under ownership of the applicant.
 - b. Delineation of existing on-site wetlands, shoreland and/or floodplain areas (including any buffers).
 - c. Ordinary High Water (OHW) elevations and datum, as determined by the MDNR (if applicable).
 - d. Existing and proposed site contour elevations related to NAVD 1988 datum (preferred) or NGVD, 1929. Datum must be noted on exhibits.
 - e. 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.
 - f. Minimum building elevation for each lot.
 - g. Identification of downstream water body.
- Permanent Stormwater Management System in compliance with the requirements of the NPDES SDS Construction Stormwater Permit and MSCWMO Performance Standards.
 - a. Impervious areas (Pre- and Post-Construction).
 - b. Construction plans and specifications for all proposed stormwater management facilities.
 - c. Location(s) of past, current or future onsite well and septic systems (if applicable).
- Other exhibits required to show conformance to these Performance Standards
- A Stormwater Pollution Prevention Plan in compliance with the requirements of the NPDES SDS Construction Stormwater Permit
- Grading Plan/Mapping Exhibits:
 - a. Delineation of the subwatersheds contributing runoff from off-site, proposed and existing on-site subwatersheds, and flow directions/patterns.
 - b. Location, alignment, and elevation of proposed and existing stormwater facilities.
 - c. Existing and proposed normal water elevations and the critical (the highest) water level produced from the 100-year 24-hour storms.
 - d. Location of the 100-year flood elevation, natural overflow elevation, and lowest floor elevations.
- Hydrologic/Hydraulic Design Exhibits:

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary’s Point, Stillwater and West Lakeland Township

- a. 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.
- b. A table (or tables) must be submitted showing the following:
 - i. A listing of all points where runoff leaves the site and the existing and proposed stormwater runoff rates and volumes.
 - ii. 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.
- Dedications or easements for the portions of the property which are adjacent to the facility and which lie below the 100 year flood level. For sites within public right-of-way, no easement is required.
- A proposed maintenance agreement, which may be in the format of Appendix K, or other form approved by the city.

HISTORY & CONSIDERATIONS:

SPECIAL OR IMPAIRED WATER

- This site drains to, and is within one mile of special or impaired water and complies with enhanced protections.
 - a. Scenic or Recreational river C.1., C.2., C.3.
 - b. Scientific and Natural area C.1., C.2., C.3.
 - c. Waterbody with a TMDL C.1., C.2.
 - C.1. Stabilization initiated immediately and all soils protected in seven days/provide temp basin for five acres draining to common location.
 - C.2. Treat water quality volume of one inch of runoff by retaining on site unless not feasible due to site conditions (See Part III.D.1. design requirements).
 - C.3. Maintain buffer zone of 100 linear feet from Special Water.

EROSION AND SEDIMENT CONTROL [A checked box indicates compliance]

- 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.

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater and West Lakeland Township

- 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.
- Describes dewatering technique to prevent nuisance conditions, erosion, or inundation of wetlands?
- NA Identifies any specific chemicals and the chemical treatment systems that may be used for enhancing the sedimentation process on the site, and how compliance will be achieved with the permit requirements.
- Describes 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

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater and West Lakeland Township

NA *Temporary Sediment Basins required (10 acres draining to common location or 5 acres App. A)*
Basin design meets the following criteria:

- a. Adequately sized – 2-year, 24-hour storm, minimum 1,800 feet/acre; or no calculative minimum 3,600ft³/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. 50 foot natural buffers preserved or (if not feasible) provide redundant sediment controls when a surface water is located within 50 feet of the project's earth disturbances and drains to the surface water.
- Tabulated quantities of all erosion prevention and sediment control BMPs.
- Stormwater flow directions and surface water divides for all pre- and post-construction drainage areas.
- NA Locations of areas not to be disturbed (buffer zones).
- 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).

LAKE, STREAM AND WETLAND BUFFERS

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater and West Lakeland Township

- 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.

STORMWATER MANAGEMENT *[A checked box indicates compliance]*

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

Rate and Flood Control Standards

- The peak rate of stormwater runoff from a newly developed or redeveloped site shall not exceed the 2-, 10-, and 100-year 24-hour storms with respective 2.8, 4.2, and 7.3-inch rainfall depths with MSCWMO approved time distribution based on Atlas 14 for existing and proposed conditions. The runoff curve number for existing agriculture areas shall be less than or equal to the developed condition curve number. The newly developed or redeveloped peak rate shall not exceed the existing peak rate of runoff for all critical duration events, up to and including the 100-year return frequency storm event for all points where discharges leave a site during all phases of development.
- Predevelopment conditions assume "good hydrologic conditions" for appropriate land covers as identified in TR-55 or an equivalent methodology. Runoff curve numbers have been increased where predevelopment land cover is cropland:
- Hydrologic Soil Group A: Runoff Curve Number 56
 - Hydrologic Soil Group B: Runoff Curve Number 70
 - Hydrologic Soil Group C: Runoff Curve Number 79
 - Hydrologic Soil Group D: Runoff Curve Number 83
- NA Computer modeling analyses includes secondary overflows for events exceeding the storm sewer systems level-of-service up through the critical 100-year event.
- NA In sub-areas of a landlocked watershed, the proposed project does not increase the predevelopment volume or rate of discharge from the sub-area for the 10-year return period event.
- Flowage easements up to the 100-yr flood level have been secured for stormwater management facilities (such as ditches and storm sewers).
- Lowest floor elevations of structures built adjacent to stormwater management features and other water bodies are a minimum of two feet above the 100-year flood elevation and a minimum of two feet above the natural overflow of landlocked basins.

Volume Control Standards

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

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- Calculations/computer model results indicate stormwater volume is controlled for new development and redevelopment requirements per the MSCWMO Design Standards.
 1. New Nonlinear Development 1.1" * new impervious surfaces
 2. Reconstruction/Redevelopment Projects 1.1" * reconstructed impervious surfaces
 3. Linear Projects 0.55" * new and/or fully reconstructed impervious surface and 1.1" from net increase in impervious area
 4. Sites with Restrictions- flexible treatment options documentation has been provided.

Volume Retention Required (cu. ft.)		Volume Retention Provided (cu. ft.)	
27,200 sf * 1.1" = 2,493 cu. ft.		BMP	Volume
		BMP #1	23,549 cu. ft.
Total Required	2,493 cu. ft.	Total Proposed	23,549 cu.ft.

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 MIDS calculator submission removes 75% of the annual total phosphorous.

Infiltration/Filtration Design Standards

- Proposed stormwater management features meet or exceed NPDES General Construction Permit requirements are designed in conformance with the most recent edition of the State of Minnesota Stormwater Manual.
- None of the following conditions exist that prohibit infiltration of stormwater on the site
 - 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

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

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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 device(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.
 - a. 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.
 - b. 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 ft²; between 1,000 and 5,000 ft², two borings, between 5,000 and 10,000 ft², three borings and greater than 10,000 ft² 4 borings plus an additional boring for every 2,500 ft² beyond 12,500 ft²
 - 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.
- NA Filtration basin demonstrates a basin draw down between 24 hours and 48 hours.
- NA Filtration system Iron Enhanced Sand Filter is sized to bind soluble phosphorous removal for 30 year functional life of the system using the published value of 17lbs.phosphorous removal per 20 yards of 5% by weight iron filings to 95% sand.
- Identify as build survey and method to demonstrate infiltration or filtration basin is functioning.

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary’s Point, Stillwater and West Lakeland Township

- 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.

WETLAND PERFORMANCE STANDARDS

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

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

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MIDDLE ST. CROIX WATERSHED MANAGEMENT

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



Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Inspector Name: Aaron DeRusha **Inspection Date:** 09/27/2021

Project Name: Lily Lake Ball Fields Infiltration Area **Project Address:** Greeley Street

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

Yes No

Inspection Type: Pre-construction Routine Rainfall Post-construction

Rainfall Amount: inches

Overall Site Grade:

<input type="checkbox"/> A	The site is in full compliance . All practices are in place and the site is well maintained.
<input checked="" type="checkbox"/> B	The site is in compliance , but normal maintenance activities are required.
<input type="checkbox"/> C	The site is not in compliance . Maintenance or supplemental practices are required.
<input type="checkbox"/> D	The site is not in compliance . 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 severe non-compliance . 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. Other

Potential Areas of Future Concern:

Spoke with Jarret with Miller Excavating on site. Work on the slope occurred today, and topsoil application and blanketing in anticipated this week.

Were any discharges observed during this inspection? No Yes:

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

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

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

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



MIDDLE ST. CROIX WATERSHED MANAGEMENT

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



Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Inspector Name: Aaron DeRusha

Inspection Date: 10/12/2021

Project Name: Toland

Project Address: 801 Quentin Ave S

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

Yes No

Inspection Type: Pre-construction Routine Rainfall Post-construction

Overall Site Grade:

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

Corrective Action(s) Required:

General Comments or Potential Areas of Future Concern:

Silt fence is installed well and site is fully contained. Slope of site is very low.

Were any discharges observed during this inspection? No Yes

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
Erosion Prevention Requirements:				
Soils are stabilized where no construction activity has occurred for 14 days (including stockpiles)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disturbance of steep slopes has been minimized or stabilization practices designed for steep slopes are used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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"/>
Maintenance and Inspection Requirements:				
Previously stabilized areas are maintaining ground cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Perimeter controls are maintained and functioning properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Surface waters, ditches, conveyances, and discharge points have been inspected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Requirements:				
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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"/>
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If required, buffer monumentation has been installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

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



MIDDLE ST. CROIX WATERSHED MANAGEMENT

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



Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Inspector Name: Aaron DeRusha **Inspection Date:** 10/12/2021

Project Name: Stordahl Home Reconstruction **Project Address:** 1635 Rivercrest Rd 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 in full compliance . All practices are in place and the site is well maintained.
<input checked="" type="checkbox"/> B	The site is in compliance , but normal maintenance activities are required.
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<input type="checkbox"/> D	The site is not in compliance . 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 severe non-compliance . Controllable water quality or off-site impacts have occurred. Enforcement proceedings will be initiated unless immediate corrective actions are taken.

Corrective Action(s) Required:

General Comments or Potential Areas of Future Concern:

Lower portion of bluff has some small scours that will need stabilization. currently covered with grass clippings. Remainder of project complete. impervious directed to underground rock infiltration trench and front yard.

Were any discharges observed during this inspection? No Yes

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
Erosion Prevention Requirements:				
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"/>
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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"/>
Maintenance and Inspection Requirements:				
Previously stabilized areas are maintaining ground cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter controls are maintained and functioning properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inlet protection devices are maintained and adequately protecting inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Temporary sediment basins are being maintained and properly functioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vehicle tracking BMPs are in place at site exits and are maintained/functioning properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tracked sediment is being removed within 24 hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Surface waters, ditches, conveyances, and discharge points have been inspected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Requirements:				
Pollution prevention management measures for solid waste, hazardous materials, concrete and truck washing are in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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If required buffers are preserved around all streams, rivers, lakes, and wetlands during construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If required, buffer monumentation has been installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

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

Erosion & Sediment Control Compliance Summary & Corrective Action Notice



Erosion & Sediment Control Compliance Summary & Corrective Action Notice



MIDDLE ST. CROIX WATERSHED MANAGEMENT

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



Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Inspector Name: Aaron DeRusha **Inspection Date:** 10/27/2021

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

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

Yes No

Inspection Type: Pre-construction Routine Rainfall Post-construction

Overall Site Grade:

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

Corrective Action(s) Required:

General Comments or Potential Areas of Future Concern:

Perimeter controls in good shape, soils hydromulched. Silt fence in front yard not trenched, but appears to be in place to protect soils from compaction rather than sediment control.

Were any discharges observed during this inspection? No Yes

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
Erosion Prevention Requirements:				
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"/>
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Pipe outlets have energy dissipation (within 24 hours of connection)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Construction phasing in accordance with the approved plan is being followed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Areas not to be disturbed are marked off (flags, signs, ect.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sediment Control Requirements:				
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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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance and Inspection Requirements:				
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"/>
Other Requirements:				
Pollution prevention management measures for solid waste, hazardous materials, concrete and truck washing are in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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If required, buffer monumentation has been installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

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



MIDDLE ST. CROIX WATERSHED MANAGEMENT

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



Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Inspector Name: Aaron DeRusha **Inspection Date:** 10/27/2021

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

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

Yes No

Inspection Type: Pre-construction Routine Rainfall Post-construction

Overall Site Grade:

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

Corrective Action(s) Required:

General Comments or Potential Areas of Future Concern:

Proposed infiltration area on east line of house under stockpiles and will need to be dug out to eliminate compaction. Concrete being poured, trucks have self contained washout.

Were any discharges observed during this inspection? No Yes

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
Erosion Prevention Requirements:				
Soils are stabilized where no construction activity has occurred for 14 days (including stockpiles)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Temporary sediment basin is built as shown on approved construction plans	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Soil compaction is minimized where applicable	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
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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



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



Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Inspector Name: Aaron DeRusha **Inspection Date:** 10/27/2021

Project Name: Locke Residence **Project Address:** 1868 Redwing Ave S

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

Yes No

Inspection Type: Pre-construction Routine Rainfall Post-construction

Overall Site Grade:

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

Corrective Action(s) Required:

General Comments or Potential Areas of Future Concern:

Project is stable. Infiltration depressions are present and need final construction, otherwise project is complete. Pervious pavers to be installed on driveway.

Were any discharges observed during this inspection? No Yes

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
Erosion Prevention Requirements:				
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Soil compaction is minimized where applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Maintenance and Inspection Requirements:				
Previously stabilized areas are maintaining ground cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter controls are maintained and functioning properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Inlet protection devices are maintained and adequately protecting inlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Temporary sediment basins are being maintained and properly functioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vehicle tracking BMPs are in place at site exits and are maintained/functioning properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Surface waters, ditches, conveyances, and discharge points have been inspected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Requirements:				
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If required, buffer monumentation has been installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

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



MIDDLE ST. CROIX WATERSHED MANAGEMENT

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Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Inspector Name: Aaron DeRusha

Inspection Date: 10/12/2021

Project Name: Fox Trail

Project Address: 1485 Rivercrest Rd N

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

Yes No

Inspection Type: Pre-construction Routine Rainfall Post-construction

Overall Site Grade:

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

Corrective Action(s) Required:

General Comments or Potential Areas of Future Concern:

Slope is fully stabilized. Water diversions installed on trail to break up slope and sheet runoff.

Were any discharges observed during this inspection? No Yes

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

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

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

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Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Inspector Name: Aaron DeRusha **Inspection Date:** 10/12/2021

Project Name: Lily Lake Ball Fields Infiltration Area **Project Address:** Greeley Street

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

Yes No

Inspection Type: Pre-construction Routine Rainfall Post-construction

Overall Site Grade:

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

Corrective Action(s) Required:

General Comments or Potential Areas of Future Concern:

Grading currently being done on slope. Biologs in place at top of slope to slow water. Infiltration area dug out, some machine tracking in bottom of basin. Traffic and compaction of basin bottom should be minimized.

Were any discharges observed during this inspection? No Yes

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
Erosion Prevention Requirements:				
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Temporary sediment basin is built as shown on approved construction plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Inspector Name: Aaron DeRusha

Inspection Date: 10/12/2021

Project Name: Scanlan Residence

Project Address: 125 Lakeland Shores Road

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

Yes No

Inspection Type: Pre-construction Routine Rainfall Post-construction

Overall Site Grade:

<input checked="" type="checkbox"/> A	The site is in full compliance . All practices are in place and the site is well maintained.
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Corrective Action(s) Required:

General Comments or Potential Areas of Future Concern:

Project is fully stabilized. Impervious runoff directed away from bluff and into low lying infiltration areas and existing rain garden. Any remaining biologs may be removed.

Were any discharges observed during this inspection? No Yes

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

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Staff Report- September/October 2021

Administration

- Prepared November meeting materials
- Coordination of Grant and Permit Program
- Began Planning for 2022

Project Reviews

- 200 Chestnut-INFORM
- Burton-INFORM
- Stillwater Towing-ACTION
- Park Dental-ACTION
- John See Estates-ACTION
- Colburn Garage-INFORM
- MN Party Bus-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: Basin is 95% constructed, final street work is being done this fall. Bio-retention media is installed. Piping from the apartments is complete. Preliminary planting will be done this fall, final planting will be done in the spring with volunteer help.

Staff: Bryan Pynn-WCD; Matt Downing-MSCWMO

Watershed Based Funding- Lily Lake Raingardens/LSCB Bluff

Description: \$39,636 CWF Watershed Based Funding was reallocated to Lake St Croix Small Communities Phosphorus Reduction CWF grant in 2020.

Activities This Month: See LSCSCPR Grant Phase I description below for activities.

Staff: Bryan Pynn - WCD

Lake St. Croix Small Communities Phosphorus Reduction Grant – PHASE I

Description: \$200,000 grant for stormwater quality improvement south of Bayport (2019-2021). Partnership with City of Lake St. Croix Beach to stabilize the bluff on the north side of town.

Activities This Month: Contractor has installed 410 LF of the project and has completed construction activities. Final payment of the grant was on the August meeting agenda. Aiming for close out of both grants by December.

Staff: Bryan Pynn - WCD; Matt Downing – MSCWMO

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

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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: Awarded grant in January 2021. Project investigation has occurred in multiple locations across the watershed, including Bayport, Lakeland and Lake St. Croix Beach. Preliminary design for several basins will begin later this month in Lake St. Croix Beach, as that has been the only area deemed viable to pursue at this time. Basin approved at the August meeting has since been deemed unfeasible and will not be pursued.

Staff: Bryan Pynn - WCD; Matt Downing - MSCWMO

3M PFAS Settlement MPCA Staff Reimbursement Grant

Description: Up to \$40,000 reimbursement of staff time for both the Administrator and consultant (Stu Grub with EOR) to participate in the development of the groundwater model for the PFAS contamination in the southern portion of the watershed.

Activities This Month: Additional materials were sent prior to the meeting, no further updates.

Staff: Matt Downing, MSCWMO; Stu Grub, EOR

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 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: Lake sampling has been completed for the season with fourteen samples collected on both Lily Lake and McKusick Lake. Stream monitoring has concluded with eight samples collected at the Greeley Street Inlet and fifteen samples collected at the Perro Creek Diversion Structure. All monitoring equipment has been removed for the season. Routine equipment testing and maintenance will follow.

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

Erosion and Sediment Control Inspections

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

Activities This Month: Inspections occurred at the 125 Lakeland Shores Rd- Scanlan, Lily Lake Ball Fields Infiltration, 1485 Rivercrest Rd- Fox Trail, 1868 Redwing Ave- Locke, 2711 Itasca Ave- Morris, 2159 River Rd- Riley, 1635 Rivercrest Rd- Stordahl, and 801 Quentin Ave- Toland projects. The Scanlan, Fox, Stordahl, and Locke projects were found to be complete with the exception of final stormwater features at the Locke project, and minor final stabilization issues at the Stordahl project. The Lily Lake Ball Fields Infiltration, Morris, Riley, and Toland projects were all in compliance. As freeze up is expected in the coming weeks and inspection funds have been expended, inspections will cease at this time, except for emergency situations.

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: Annual CWF project inspections and plant assistance to Adopt-A-Raingarden Adoptee.

Staff: Cameron Blake, WCD

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

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

Activities this Month: Erosion control inspections and review applications have been entering the database successfully. Development of the BMP implementation, inspection, and maintenance modules continues.

Staff: Aaron DeRusha, WCD; Rebecca Nestingen, WCD

Meetings

- Lily Lake Basin Update – September 13th
- Erosion Control Mailers – September 16th
- Baytown Township Permit Coordination – September 16th
- Lily Lake Basin Tour – September 17th
- LSC Steering Team – September 22nd
- MN Party Bus – September 23rd
- LSC Policy Committee – September 27th
- Baytown Township Board Meeting – October 3rd

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- 313 Quixote Site Review – October 5th
- St. Michael's Cemetery Review – October 14th
- LSCB Implementation Meeting – October 29th