

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 Bayport Public Library, Bayport, MN Thursday, April 12, 2018 6:00PM

1. Call to Order – 6:00PM
2. Approval of Minutes
 - a. Draft minutes- February 8 , 2018 **pages. 1-3**
3. Treasurer’s Report
 - a. Report of savings account, assets for March 8, 2018
 - b. Approve payment of bills for March 8, 2018
 - c. First quarter expenditures update
4. Public Comments
5. Old Business
 - a. Board of Water and Soil Resources (BWSR) Watershed-Based Funding Update **pages 4-5**
 - b. One Watershed One Plan Policy Committee Appointment **page 6**
6. New Business
 - a. MSCWMO 2017 Year End Report **pages 7-26**
 - b. MSCWMO Biennial Review **page 27**
 - c. Lake St. Croix Direct South Subwatershed Analysis Draft Final Report **pages 28-91**
 - d. Board of Water and Soil Resources (BWSR) Biennial Budget Request **pages 92-93**
 - e. 2017 MSCWMO Water Monitoring Summary **page 94-135**
7. Grant and Cost Share Applications
 - a. St. Croix River Association \$40,000 Grant Application **page 136**
 - b. Watershed Based Funding Update and Work Plan Approval **pages 140-142**
 - c. 2018 Conservation Corps of Minnesota Clean Water Fund Work Orders pages **143-161**
 - d. North Hill Community Garden Native Plant Grant Application **pages 163-165**
8. Plan Reviews/Submittals
 - a. TH 36 Landscaping Installation, Oak Park Heights **page 166**
 - b. 35 Lakeland Shores Road Shoreline Stabilization, Lakeland Shores **page 167**
 - c. CSAH 24, Stillwater
 - d. Palmer Station, Oak Park Heights **pages 168-179**
 - e. Andersen Windows Redevelopment, Bayport **pages 180-189**
 - f. Crosby Hotel, Stillwater
9. Administrator’s Report **pages 190-191**
10. Adjourn

Middle St. Croix Watershed Management Organization
Bayport Public Library
Minutes February 9th, 2018

Present: Nancy Anderson, City of St. Mary's Point; Doug Menikheim, City of Stillwater; Dan Kylo, West Lakeland Township; Mike Runk, City of Oak Park Heights; John Fellego, Baytown Township; Tom McCarthy, City of Lake St. Croix Beach; Brian Zeller, City of Lakeland Shores; Mike Isensee, MSCWMO Administrator; Drew Chirpich, GreenCorps.

Call to Order- Regular Board Meeting

The meeting was called to order at 6:00 pm

Approval of Minutes

A motion to approve the January 11th, 2018 minutes was made by Mr. Fellego, Seconded by Mr. Zeller. Motion carried.

Treasurer's Report

The Treasurer's report was presented. The board reviewed the monthly budget update.

Administrator Isensee gave an overview of the 2017 Year End Budget Summary. He explained to the large number of small grants awarded to the MSCWMO in 2017, the year-end budget balance was \$6,406.82. Mr. Zeller motioned, Mr. Runk seconded to transfer \$6,406.82 to savings. Motion carried.

Mr. Fellego motioned to approve the budget update and payment of the bills. Mr. Menikheim seconded. Motion carried.

Member Community Fees

Administrator Isensee explained several member communities had missed one or both of their contribution payments to the MSCWMO in 2015, 2016, and 2017. Communities had been notified and the MSCWMO Administrative process has been modified to include a year-end profit loss review to ensure all member communities had submitted payments. Chair Zeller expressed concerns that grant payments may have also been missed. Administrator Isensee explained that the grant payment process is different and already have these controls in place.

Public Comments

None submitted.

2018 Review Fees

Administrator Isensee reviewed the discussion from the January regular meeting regarding the \$4,000 budget over run for project reviews. He provided summary of the amount of time spent on each review and the 25 water quality practices that were approved as part of the review process. The data supported the previous discussion that the issue was there were more government reviews in 2017 than in 2014 and 2015 when the project review budget was set. There is no fee for reviewing government projects. The

board requested Administrator Isensee to continue to track the expenditures and add the amount of time spent reviewing government projects to the Annual Washington County Budget report.

Lake St. Croix Direct Phase III Grant Agreement

Administrator Isensee requested that the board approve the Lake St. Croix Direct Phase III Grant Agreement. Mr. Zeller motioned to approve the agreement. Mr. Runk seconded. Motion carried.

WCD 2017 Program Results

Administrator Isensee gave an overview of the tasks completed in 2017 through partnerships between the MSCWMO and Washington Conservation District.

2018 MSCWMO Cost Share Policy Review

Administrator Isensee gave an overview of the 2018 MSCWMO Cost Share Policy. Mr. Fellegly motioned to approve the policy. Mr. Zeller seconded. Motion carried.

2018 MSCWMO Administrative Time

Administrator Isensee gave an overview of expected time spent on administrative tasks for 2018, and asked that \$5000 be shifted to account for an increase in Admin Services. Mr. Zeller requested a breakdown of where anticipated funds would be shifted from for next month's meeting.

One Watershed One Plan Agreement

Administrator Isensee provided an overview of the upcoming One Watershed One Plan Process, and requested approval by the board to enter into a Memorandum of Understanding to participate in the development of the One Watershed One Plan. Manager Menikheim, expressed reservations about the planning process and potential loss of local control of watershed management. Chair Zeller requested Administrator Isensee and Manager Menikheim meet, review the concerns, and draft a letter to be sent with the memorandum.

Mr. Zeller motioned to approve entering into the One Watershed One Plan agreement with the addition of some concerns about maintaining the autonomy of the WMO. Mr. Fellegly seconded. Motion carried.

BWSR Watershed-Based Funding Pilot Program

Administrator Isensee discussed the upcoming BWSR Watershed-Based Funding Pilot Program process.

Miller Farms Phase VI, Baytown Township

Administrator Isensee gave an overview of the Miller Farms development review. Mr. Fellegly motioned to approve with conditions.. Mr. Kylo seconded. Motion carried.

CSAH 5, Stillwater

Administrator Isensee gave an overview of the CSAH 5 reconstruction near Stillwater review. Mr. Zeller motioned to approve with conditions. Mr. Fellegly seconded. Motion carried.

Inspiration Phase IV, Bayport

Administrator Isensee gave an overview of the Inspiration development project.

Fedorwski Residential Review, Baytown Township

Administrator Isensee gave an overview of the Fedorwski Residential Review in Baytown Township.

Orchards at Cahanes Farm Concept, Bayport Township

Administrator Isensee gave an overview of the Orchards at Cahanes Farm Concept in Bayport Township.

Administrators Report

Administrator Isensee submitted and reviewed the Administrators Report.

Adjourn

Mr. Fellego Motioned to adjourn. Mr. McCarthy seconded. Motion carried. Meeting adjourned at 7:30pm

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March 27, 2018

MSCWMO Board Members

Re: Clean Water Funds, Watershed-Based Funding Pilot Program

Dear MSCWMO Board Members:

We'd like to follow up with you regarding the Board of Water and Soil Resources (BWSR) Watershed-Based Funding Pilot Program. You received an invitation letter in February 2018 to attend a convening meeting on March 7, 2018 at the Washington County Water Consortium, where information about this funding effort was discussed. As a reminder, Washington County, the Washington Conservation District (WCD), and the watershed organizations within Washington County have been meeting as a workgroup to discuss use of this funding among eligible entities. Cities and townships are also eligible entities, but only for projects that are also in a watershed organization's management plan. The goal for use of these funds is to have funding come through the watershed organizations to partner with cities on eligible and timely projects/efforts.

The recommendation from the workgroup for funding allocation under this pilot program is to equally distribute the \$787,600 among the 10 water planning entities within Washington County. This resulted from 1) the desire between all entities to get the money out efficiently and equitably with a very short (June 30) timeframe for discussion, 2) the feedback we heard at the convening meeting discussion, and 3) additional discussion amongst the workgroup following the March 7th meeting. This recommendation will be brought forth to our respective boards for discussion and approval this spring.

It should be noted that while funding is provided on a pilot basis, we do expect watershed based funding to continue into the future in some manner. The workgroup intends to continue to meet and discuss opportunities for more targeted, prioritized and measurable use of the funds, beyond just an equal split. This discussion will also be informed by the Lower St Croix One Watershed One Plan process and future funding decisions from BWSR, related to these two distinct efforts.

Like other activities funded with Clean Water Fund dollars, activities funded through this pilot program must protect, enhance, and restore surface water quality in lakes, rivers, and streams; protect groundwater from degradation; or protect drinking water sources. Projects and programs funded through the program should not supplant other funding, but rather supplement existing funding.

It is the full intent of the watersheds, as well as the WCD and the County, to work collaboratively with cities and townships to utilize these funds for cost effective and high impact projects and programs that will protect and enhance our surface and groundwater resources.

If you have any concerns with this path forward, please contact me to discuss at 612-839-6492 or misensee@mnwcd.org If your city or township has a potentially eligible project, please contact me

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to coordinate collaboration opportunities. We do expect to submit a workplan with projects to BWSR by July 2, 2018.

Sincerely,

Mikael Isensee
Administrator
Middle St. Croix Watershed Management Organization

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MEMORANDUM

TO: Middle St. Croix WMO Board of Managers
FROM: Mike Isensee, Administrator
DATE: April 12, 2018
RE: **5b) Lower St. Croix One Watershed One Plan**

What is One Watershed One Plan

One Watershed One Plan is an approach adopted by the Board of Water and Soil Resource as a result of policy work conducted by the Minnesota Association of Soil and Water Conservation Districts (MASWCD), the Minnesota Association of Watershed Districts (MAWD) and the Association of Minnesota Counties (AMC) during a multi-year Local Government Water Roundtable.

The Lower St. Croix One Watershed One Plan boundary includes 5 Counties, 5 Soil and Water Conservation Districts, 5 Watershed Districts and two Joint Powers WMOs. The 17 local entities will work to coordinate their local plans. The resulting plan will not require local entities to implement or participate in activities that are not in their local plan.

The development of this plan is important because the Board of Water and Soil Resources plans to decrease annual grants and distribute Clean Water Funds to One Water One Plans throughout Minnesota.

The plan development process is anticipated to run from April 2018 to July 2019. During this timeframe 14 steering committee and 13 policy committee meetings are anticipated. Administrator Isensee will serve

Past MSCWMO Action

In November, 2016 the MSCWMO passed a resolution to support the development of a One Watershed One Plan for the Lower St. Croix Basin.

In March, 2018 the board signed a memorandum of agreement to participate in the development of the One Watershed One Plan.

Requested MSCWMO Action

The board is requested to designate a Policy Committee Member and Alternate.

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MEMORANDUM

TO: Middle St. Croix WMO Board of Managers
FROM: Mike Isensee, Administrator
DATE: April 12, 2018
RE: 6b) MSCWMO Biennial Evaluation

Revisions to State Statute 8410 require watersheds at a minimum of every two years, conduct an evaluation of progress on goals and the implementation actions. The following document is the first evaluation of progress since the adoption of the MSCWMO Watershed Management Plan on October 2015.

Example Motion:

Motion by Board Member 1, seconded by Board Member 2, to approve the MSCWMO 2015-2017 Biennial Evaluation.

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MEMORANDUM

TO: Middle St. Croix WMO Board of Managers
FROM: Mike Isensee, Administrator
DATE: April 12, 2018
RE: **6c) Lake St. Croix Direct South Subwatershed Analysis Final Draft Report**

In 2016 the MSCWMO approved the funding to complete the first analysis of the southern portions of the Middle St. Croix Watershed Management Organization. The draft final report summarizes pollutant loads and identifies potential water quality improvement project for areas south of Bayport to St. Mary's Point that directly drain to Lake St. Croix. The final report identifies 10 catchments areas and 19 projects that would reduce phosphorous loading to Lake St. Croix by 110.4 lbs. per year.

Most importantly, the report establishes a cost/benefit that will be used to rank and prioritize future water quality improvement projects for grant funding.

The full draft report and a summary of projects has been provided to each of the communities within the Lake St. Croix Direct Discharge Area.

Staff are requesting board approval of the final report for distribution and posting to the website.

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MEMORANDUM

TO: Middle St. Croix WMO Board of Managers
FROM: Mike Isensee, Administrator
DATE: April 12, 2018
RE: **6d) Board of Water and Soil Resources Biennial Budget Request 2020-2021**

The Board of Water and Soil Resources (BWSR) solicits information regarding local government planned activities and associated budgets for the FY 2020-21 Biennial Budget Request (BBR)

A primary purpose of the BBR is to generate information in a common format necessary to support the State-Local partnership by ensuring that local water management implementation priorities are used in the development of the State budget.

By demonstrating that the MSCWMO and our member communities are prepared and capable of implementing prioritized, targeted and measurable water quality projects, State decision-makers have increased confidence that State funds appropriated for water management projects and activities will achieve their purpose to protect and improve Minnesota's waters.

The MSCWMO BBR includes all projects identified in the 2015 MSCWMO Watershed Management Plan.

Example Motion:

Motion by Board Member 1, seconded by Board Member 2, to approve the MSCWMO 2015-2017 Biennial Budget Request.

BBR Id

Organization Type

Organization

Date Submitted

Staff Contact

Total Resource Project and Activities Budget

Total BMPs

Total FTEs

Total Requested Biennial State Contribution

Total Leveraged Funds

★ Activity Summary

Displaying 1 - 4 of 4 results



WATER RESOURCE CONCERN	ACTIVITY CATEGORY	NARRATIVE	PLAN TYPE	PLAN PRIORITY CONNECTION	ACTION
Lily Lake Stillwater	Urban Stormwater Management Practices	Retrofit of urban stormwater management BMPs to address the remaining 45 lbs./year phosphorous reduction required to address the nutrient impairment for Lily Lake.	Watershed Management Plan (Watershed Districts and Watershed Management Organizations only)	Section 2.2 in the Middle St. Croix Watershed Management Organization watershed management plan.	
Lake St. Croix South	Streambank or Shoreline Protection	Gully stabilization based on Gully Inventory Update to reduce phosphorus and sediment pollution into the St. Croix River direct.	Watershed Management Plan (Watershed Districts and Watershed Management Organizations only)	Implementation item 7 in the Middle St. Croix Watershed Management Organization watershed management plan.	
Lake St. Croix North	Urban Stormwater Management Practices	Landowner outreach, design and installation of targeted and prioritized stormwater management practices to reduce phosphorous loading directly to the St. Croix River as identified in the Lake St. Croix Direct Discharge Subwatershed Analysis.	Watershed Management Plan (Watershed Districts and Watershed Management Organizations only)	Implementation item 10 in the Middle St. Croix Watershed Management Organization watershed management plan.	
Perro Creek Bayport	Urban Stormwater Management Practices	Installation of targeted and prioritized stormwater BMPs identified in the Perro Creek Subwatershed Analysis.	Watershed Management Plan (Watershed Districts and Watershed Management Organizations only)	Implementation item 9 in the Middle St. Croix Watershed Management Organization watershed management plan.	

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MEMORANDUM

TO: Middle St. Croix WMO Board of Managers
FROM: Mike Isensee, Administrator
DATE: April 12, 2018
RE: 7a) St. Croix River Association Grant Application

The St. Croix River Association is now accepting applications for funding through its Lake St. Croix Watershed Improvement program on the Minnesota side of the St. Croix River watershed. Grants awards up to \$40,000 will support phosphorus reduction activities and monitoring projects. Applications are due May 15th, 2018.

The grant funds are available for **two years, and grantees must provide at least 25% of the total project cost.** Match may be a combination of cash and in-kind from non-state sources.

Example Motion:

Motion by Board Member 1, seconded by Board Member 2, to approve an application for up to \$40,000 for the St. Croix River Association Lake St. Croix Watershed Improvement Grant.

Request for Proposals Lake St Croix Watershed Improvement (LSCWI)

The St. Croix River Association is soliciting proposals for funding consideration within the Lake St. Croix Watershed Improvement (LSCWI) program. The intent of the program is to encourage partnerships and capacity growth to: 1) identify sources of phosphorus nutrient loading to Lake St. Croix and 2) to implement best management practices to reduce phosphorus loading to Lake St. Croix to help meet Lake St. Croix TMDL phosphorus reduction goals.

Funding for this program comes from a Minnesota Clean Water Land and Legacy appropriation specifically for watershed improvements on the Minnesota side of the St. Croix watershed. The Minnesota Pollution Control Agency has made \$200,000 in funding available to the St. Croix River Association to allocate towards phosphorus reduction and monitoring activities beginning in 2018. An additional \$200,000 will become available with a subsequent RFP again in 2019.

Selected projects are designed to measurably reduce nutrient runoff to Lake St. Croix and to gain a better understanding of nutrient movement throughout the watershed. Projects leverage technical and financial resources between organizations and their partners to complete on-the-ground activities within the Minnesota side of the St. Croix River watershed. Awards may not be used for lobbying, fundraising, political advocacy, or litigation.

Eligible Applicants:

Non-state agencies and organizations are eligible to apply, including local government units, non-profit organizations, institutions of higher learning, and other conservation organizations. All non-profit organizations must be registered as a 501(c)(3).

Project Timeline, Grant Amount, and Match Requirements:

A watershed improvement grant may be awarded for a period not to exceed **two years, and grantees must provide at least 25% of the total project cost. The maximum award amount is up to \$40,000 per application.** Match may be a combination of cash and in-kind from non-state sources. The SCRA may decrease the matching requirement to as low as 10% if the applicant can demonstrate in writing that fiscal circumstances are constrained to such an extent that fulfilling the matching funds requirement would impose undue hardship.

Proposal Submission:

Proposals should be completed by **Tuesday, May 15th, 2018** and submitted electronically to Monica Zachay, SCRA, at monicaz@scramail.com. Any format is acceptable if the content requirements below are addressed. Selections will be announced by June 1st, 2018 with an anticipated project start date of June 30th, 2018.

Proposal Review and Selection:

An evaluation of eligible projects received will be completed by a Proposal Ranking Team consisting of SCRA representatives and non-competing members of the St. Croix Water Resources Planning Team (Basin Team). Proposals will be evaluated based on clarity of the project description, goals, and activities; the overall need for the project; the extent to which resources are leveraged and partnerships utilized; and the overall impact of the project shown using measurable results.

Additional Information and Requirements:

Consideration will be given to all qualified applications. Applications selected for funding will be required to enter into a grant agreement with the SCRA. Payments will be based on reimbursable expenses. A semi-annual Accomplishment Report and a Final Report will be required of selected projects (further guidance will be provided). All implemented BMPs must be entered into the State of Minnesota's eLink and all monitoring data must be submitted to the MPCA for submittal into the EQuls database.

Proposal Outline and Instructions:

The body of proposals should be no more than 4 pages (maps, budget, and project design plans may appear in an appendix). Proposals must contain the following information:

- 1) Project Title
- 2) Primary Points of Contact – *list names and contact information for lead applicant and any project managers associated with the project*
- 3) Project Area – *describe the project area*
- 4) Need – *describe the need for the project*
- 5) Project Description – *provide clear goals, objectives, activities, and results of your proposed project. For a phosphorus reduction project, the applicant must explain how the proposed project will result in a quantifiable reduction of phosphorus loading into Lake St Croix. For a proposed monitoring project, the applicant must explain how the project will lead to improved monitoring data or that the identified monitoring will lead to an increased understanding of current and future phosphorus levels in the applicant's targeted area. Applicants should provide supporting information, as applicable.*
- 6) Partner Engagement and Contributions – *list actively engaged partners and contributions (funds, staff, or other). Include a budget table clearly showing the financial contribution or dollar value of contribution in-kind from each partner.*
- 7) Monitoring and Evaluation – *describe how you will measure the impact of your project and estimated nutrient reductions, if applicable.*
- 8) Budget - *include a budget table clearly outlining how grant and matching funds will be spent over the two year project period. Include items such as staff wages, anticipated supplies, mileage, printing, consultant fees, and any additional expenses. Cash and in-kind contributions to the project must be identified in the budget as to source and use, and be applicable to the project.*
- 9) Letter of Support - *letters confirming cash and in-kind support from partners and other funding sources must be included with the application.*
- 10) Maps and project designs – *any pertinent project designs and maps of the project location may be included in the proposal as an appendix. Maps and project designs will not count towards the four page maximum proposal length.*

Application submissions, and additional questions regarding the application process and proposal eligibility should be submitted to:

Monica Zachay, *Land & Water Director*
St. Croix River Association
monicaz@scramail.com or (715) 483-3300

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MEMORANDUM

TO: Middle St. Croix WMO Board of Managers
FROM: Mike Isensee, Administrator
DATE: April 12, 2018
RE: 7b) Watershed Based Funding Allocation

Based on the agreed funding formula, the MSCWMO will receive \$78,760 for the watershed based funding for project implementation. The funding requires a minimum of 10% match and must be directed to projects and activities to address water quality issues within the watershed.

Similar to Clean Water Fund Grants, staff will be working with the Board of Water and Soil Resources to develop an approvable work plan.

Staff recommend applying the funding to “shovel ready projects”. Two such project areas currently exist: Lily Lake stormwater best management practices and Perro Creek stormwater best management practices.

Example Motion:

Motion by Board Member 1, seconded by Board Member 2, to apply \$xx,xxx to Lily Lake Subwatershed implementation projects and \$xx,xxx to Perro Creek Subwatershed implementation projects.

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March 27, 2018

MSCWMO Board Members

Re: Clean Water Funds, Watershed-Based Funding Pilot Program

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The recommendation from the workgroup for funding allocation under this pilot program is to equally distribute the \$787,600 among the 10 water planning entities within Washington County. This resulted from 1) the desire between all entities to get the money out efficiently and equitably with a very short (June 30) timeframe for discussion, 2) the feedback we heard at the convening meeting discussion, and 3) additional discussion amongst the workgroup following the March 7th meeting. This recommendation will be brought forth to our respective boards for discussion and approval this spring.

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If you have any concerns with this path forward, please contact me to discuss at 612-839-6492 or misensee@mnwcd.org If your city or township has a potentially eligible project, please contact me

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to coordinate collaboration opportunities. We do expect to submit a workplan with projects to BWSR by July 2, 2018.

Sincerely,

Mikael Isensee
Administrator
Middle St. Croix Watershed Management Organization

**CLEAN WATER GRANT FUND WORK ORDER BETWEEN THE
Middle St Croix WMO AND
CONSERVATION CORPS**

Project Number:11970

This work order is between the Project Host, Middle St Croix WMO ("Project Host") and CONSERVATION CORPS ("The Corps"). This work order is issued under the authority of the Laws of Minnesota 2017, Chapter 91, Article 2, Sec. 7(p), which requires the Board to contract with the Conservation Corps for restoration, maintenance, and other activities, for at least \$500,000 in each year of the 2018-19 biennium, and is subject to all provisions of the Board of Water and Soil Resources Clean Water Grant Fund Contract No 131838, which is incorporated by reference.

1. TERM OF WORK ORDER

- 1.1 **5/1/2018**, or the date the Corps obtains all required signatures under, whichever is later.
- 1.2 **12/15/2018**, or until all obligations have been satisfactorily fulfilled, whichever occurs first.

2. DUTIES OF THE CORPS

- 2.1 Complete services as specified in Clean Water Fund Project Request Form, which is attached hereto, and shall be a part of this work order.
- 2.2 Enroll and supervise AmeriCorps members in accordance with program guidelines.
- 2.3 Provide basic orientation and training as appropriate for corpsmembers.
- 2.4 Provide consultation and on-site project review to ensure that service is progressing in accordance with this work order and program guidelines.
- 2.5 Provide personnel and payroll administration for corpsmembers.
- 2.6 Provide all necessary transportation of corpsmembers to and from service sites.
- 2.7 Provide basic tools, safety gear, personal supplies and equipment needed by corpsmembers to meet all PROJECT HOST and federal safety requirements. Provide professional liability and worker's compensation insurance for all corpsmembers.
- 2.8 Track services completed and make this information available to PROJECT HOST upon request.
- 2.9 Report financial information on the use of state funds, and outcome and match information in eLINK using information provided by the PROJECT HOST.

3. DUTIES OF PROJECT HOST

- 3.1 Provide project specific direction and assistance to the corpsmember(s).
- 3.2 Maintain records of and provide any requested project information for purposes of grant reporting consistent with the FY18 Clean Water Fund Policy (available on the BWSR website - http://www.bwsr.state.mn.us/cleanwaterfund/fy2018/FY18_CWF_Policy.pdf)
 - 3.2.1 This includes any records of match, direct expenses, pollution reduction estimates, or other project data which may be completed or collected by a third party project partner.
- 3.3 Provide at least one media promotion to the public stating that the services(s) are being performed by the Corps. Any publicity regarding the subject matter of this work order must not be released without prior approval from the Corps' Authorized Representative.
- 3.4 Ensure safe working conditions in and around project areas that meet all state and federal standards.
- 3.5 Secure all local, county, and federal permits required by law prior to the commencement of work.
- 3.6 Provide Conservation Corps Crew with training and educational opportunities relevant to the services being performed. This includes an on-site project overview at the outset of the project which outlines project background, goals and overall outcomes expected as a result of the crews efforts.
- 3.7 Provide specialized tools, safety gear, personal supplies and equipment that are not available through the Corps that is needed by corpsmembers to meet all state and federal safety requirements.
- 3.8 Assist in the acquisition of camping/lodging accommodations if necessary.
- 3.9 Provide all project materials, supplies and chemicals.

4. CONSIDERATIONS AND PAYMENT

- 4.1 The Corps will pay for services performed, utilizing its Clean Water Grant Fund accounts. Expenditures from these accounts shall be expended only for the purposes for which they were approved and intended.
- 4.2 Materials (chemicals, lumber, hardware, plant material, etc.) shall be provided by the PROJECT HOST at the expense of the PROJECT HOST.

5. PROJECT MANAGERS

The PROJECT HOST's Project Manager is Tara Kline, Natural Resource Specialist, 455 Hayward Ave N, Oakdale, MN 55128. The PROJECT HOST's Project Manager will certify acceptance on each invoice submitted for payment. If the PROJECT HOST's Project Manager changes at any time during this work order, the PROJECT HOST must immediately notify the Corps.

The Corps' Project Manager is Dorian Hasselmann, District Manager, 60 Plato Blvd #210, St Paul, MN 55107. If the Project Manager changes at any time during this work order, the Corps must immediately notify the PROJECT HOST.

6. DUPLICATION, DISPLACEMENT, SUPPLANTATION

- 6.1 Conservation Corps crews are subject to the provisions of 42 U.S.C. §§ 12501 - 12682 and 45 C.F.R. parts 2500 - 2550. These laws require, in part, that AmeriCorps assistance be used only for a program that:
 - 6.1.1 Does not duplicate, and is in addition to, an activity otherwise available in the locality of the program;
 - 6.1.2 Will not displace an employee or position, including partial displacement such as reduction in hours, wages, or employment benefits; and
 - 6.1.3 Will not create a service opportunity that will infringe on the promotional opportunity of an employee.
- 6.2 An AmeriCorps/Conservation Corps member shall not perform services or duties or engage in activities that:
 - 6.2.1 Would otherwise be performed by an employee as part of the employee's assigned duties.
 - 6.2.2 Will supplant the hiring of employed workers.
 - 6.2.3 Are services or duties with respect to which an individual has recall rights pursuant to a collective bargaining agreement or applicable personnel procedures.
 - 6.2.4 Have been performed by or were assigned to any presently employed worker; an employee who recently resigned or was discharged; an employee who is on leave, on strike, being locked out, subject to a reduction in force, or has recall rights subject to a collective bargaining agreement or applicable personnel procedure.

7. CANCELLATION

- 7.1 This work order may be cancelled by the PROJECT HOST or the Corps at any time, with or without cause, upon 30 days written notice to the other party. In the event of such cancellation, the Corps shall expend dedicated funds for services performed up to date of cancellation.
- 7.2 The Corps reserves the right to withdraw corpsmembers from PROJECT HOST for emergency response work including, but not limited to, natural disasters and wild fire response. THE CORPS will make reasonable efforts to accommodate the needs of the PROJECT HOST to ensure rescheduling.

CONSERVATION CORPS PROJECT MANAGER

PROJECT HOST AUTHORIZED REPRESENTATIVE

By:	By:
Title:	Title:
Date:	Date:

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: Mike Isensee, Administrator
DATE: April 12, 2018
RE: 7c) 2018 Conservation Corps of Minnesota Grant Agreements

The MSCWMO was awarded 14 Minnesota Conservation Crew days to assist communities with the installation of water quality BMPs. Staff request to sign and execute the grant agreements.

Example Motion:

Motion by Board Member 1, seconded by Board Member 2, to approve signature and execution of the Clean Water Fund Minnesota Conservation Corps 2018 Grant Agreements.

Clean Water Fund Project Application



Project name:	Raingardens and Gully Stabilization Installations in the Lake St. Croix Watershed		
Date of application:	12/15/18	Contact address:	455 Hayward Ave N. Oakdale, MN 55128
Local government unit:	Middle St. Croix Watershed Management Organization		
Contact name:	Tara Kline	Contact phone:	651-330-8220 x 28
Contact title:	Natural Resource Specialist	Contact e-mail:	Tara.kline@mnwcd.org

Water resource of concern:	St. Croix River		
BMP to be installed: [choose from the drop-down]	Urban landscaping - Raingarden		
	CLICK HERE		
	CLICK HERE		
Pollutant reduction estimate: [choose from the drop-down or insert estimator under "other"]	Pollutant	Amount	Estimation method:
	Phosphorus - est. reduction (lbs/yr)	STLWTR Schools 17.3 STLWTR Gully 40.0 St. Mary's RG 1.6 1111 6 th RG 0.9 Oak Park El. RG 12.4 Ozark RG .0.75 Shurburne RGs 0.8	Other: MIDS Calculator WinSLAMM
	Sediment - TSS (tons/yr)	STLWTR Schools 4.0 STLWTR Gully 23.0 St. Mary's RG 0.3 1111 6 th RG 0.4 Oak Park El. RG 1.1 Ozark RG .25 Shurburne RGs 0.1	Other: MIDS Calculator WinSLAMM
	CLICK HERE		CLICK HERE
	CLICK HERE		CLICK HERE

Est. length of crew time required: [# of days based on a 5 person crew]	9	Season/dates preferred: [crews are available Mar 1 - Dec 10]	June - November
Project location: [address or physical description] Attach aerial photo/map with project location	Stillwater Schools Junior High Biofiltration Basin- 523 Marsh Street West, Stillwater Stillwater Gully Stabilization and Bioretention Basin- 1875 Greeley Street S, Stillwater St. Mary's Church Bioretention Basin- 423 5 th Street S, Stillwater Stillwater Jr. High Curb Cut Bioretention Basin-523 Marsh Street West, Stillwater 1111 6 th Street S, Stillwater Curb Cut Bioretention Basin Oak Park Elementary School Bioretention Basin- 6355 Osman Avenue, Stillwater Ozark and 64 th Street North, Stillwater Bioretention Basin		

**Clean Water Fund
Project Application**



<p>Detailed description and purpose of project including desired outcomes:</p>	<p>Stillwater Schools Junior High Bioretention Basins- Stillwater Schools is installing a 7,000 ft² biofiltration basin with an iron enhanced sand filter and a 900 square foot bioretention basin to intercept stormwater from 13.6 acres of urban runoff currently discharging directly to Lake St. Croix with no treatment. In 2018 the MSCWMO is seeking MCC assistance to install native plantings on this voluntary retrofit project.</p> <p>Stillwater Gully Stabilization and Bioretention Basin project will divert 6.1 acres of urban drainage that is flowing down an active gully and into the Lily Lake. The project will divert the stormwater into an 11,000 ft² bioretention basin. High flows will then flow into the City’s existing storm sewer system. In 2018 the MSCWMO is seeking MCC assistance to install native plantings on this voluntary retrofit project.</p> <p>St. Mary’s Church Bioretention Basin project will intercept 1.2 acres of urban drainage and infiltrate the first flush of stormwater in a 300 ft² bioretention basin. Currently, stormwater runoff and pollutants discharge to Lake St. Croix with no treatment. In 2018 the MSCWMO is seeking MCC assistance to install plantings on this voluntary retrofit project.</p> <p>The 300 ft²curb cut bioretention basin at 1111 6th Street will intercept stormwater from 2.0 acres of urban drainage prior to discharging to Lake St. Croix through the City of Stillwater storm sewer system. In 2018 the MSCWMO is seeking MCC assistance to install plantings on this voluntary retrofit project.</p> <p>Oak Park Elementary Biofiltration Basin will intercept 19.8 acres of urban drainage in a 16,000 ft² bioinfiltration basin. Currently stormwater and runoff discharges to Lake St. Croix with no treatment. In 2018 the MSCWMO is seeking MCC assistance to install plantings in this voluntary retrofit project.</p> <p>The 400 ft²curb cut bioretention basin at the intersection of Ozark and 64th Street in Stillwater will intercept stormwater from 1.2 acres of urban drainage prior to discharging to Lake St. Croix through the City of Stillwater storm sewer system. In 2018 the MSCWMO is seeking MCC assistance to install plantings on this voluntary retrofit project.</p>
<p>Description of crew responsibilities and tasks to be carried out:</p>	<p>Primarily planting bed preparation, plant installation and mulching.</p>
<p>List hand and power tools needed for the project:</p>	<p>Trowels, hard rakes, shovels and occasionally a covered dump trailer for plant, mulch, or debris transport.</p>

<p>Double-click to check the box that best describes the project. [Projects will be funded based on priority level, listed from high to low]</p>	<p><input checked="" type="checkbox"/> HIGH - New installation or establishment of BMPs</p> <p><input type="checkbox"/> MEDIUM - Maintenance of newly established BMPs (within a 3-year establishment period)</p> <p><input type="checkbox"/> LOW - General maintenance beyond the establishment period</p>
<p>Is all permitting, contracting,</p>	<p>Permitting and landowner consent and project letting is complete for all of</p>

**Clean Water Fund
Project Application**



<p>landowner consent completed? If not, what is still required which may cause delay or cancellation of this project? Please explain.</p>	<p>the listed projects. At the writing of this application, the Stillwater Schools and Greeley Gully projects have been bid and awarded. The remaining projects have completed design documents and the projects are planned for letting in February 2018.</p>
<p>Has a TMDL implementation plan, watershed management plan, county comprehensive local water management plan, local surface water management plan, metro groundwater plan, surface water intake plan or well head protection plan been approved and locally adopted? Please explain.</p>	<p>All the proposed projects in this application are located within and discharge to Lake St. Croix.</p> <p>Addressing the Lake St. Croix TMDL is identified as a high priority for federal and state agencies as well as local units of government. Lake St. Croix TMDL http://tinyurl.com/qjf3u2z Ch. 6, pg. 45, 47-48 identifies the prioritization process and LID BMPs to achieve the required load reductions in urban areas. 2015 MSCWMO Watershed Management Plan http://tinyurl.com/oa43rdw : Pg. 51, S1 Identifies reducing nutrient loading to the St. Croix River as a high priority water body within the MSCWMO.</p> <p>The Stillwater Gully project is within the Lily Lake watershed, which also drains to Lake St. Croix. MSCWMO 2015 Watershed Management Plan identifies Lily Lake as a high priority water body within the MSCWMO. The Lily Lake: Stormwater Retrofit Assessment 2010: Page 15-33 - identifies potential projects, locations and pollutant load reductions to improve the water quality of Lily Lake.</p> <p>City of Stillwater's 2030 comprehensive plan outlines goals for improving the surface water of Lily Lake in section 7.3 page 49- this section outlines the city's commitment to partnerships and the development of stormwater treatment systems. Stillwater approved Local Surface Water Management Plan has similar concerns for Lily Lake and states support for MSCWMO goals.</p> <p>All the projects in this application were targeted and prioritized in a Subwatershed Assessment to reduce stormwater pollutants discharging into Lake St. Croix or Lily Lake.</p>
<p>How will this project ensure practices implemented will be of long-lasting public benefit with a minimum 10 years effective life?</p>	<p>All practices in this application are installed within the right-of-way or in a drainage and utility easement and under legal agreements that require the project remains in place for a minimum of 10 years. In addition, all agreements identify maintenance responsibility and all practices are integrated in the Washington County Stormwater Quality BMP Tracking and Inspection Database.</p>
<p>Describe the project's educational value and/or on-site education provided to the crew.</p>	<p>These practices and others are part of an ongoing basin-wide effort to improve quality of Lake St. Croix. While working side by side with crew members, watershed staffs discuss the history of water resource and the drivers for the projects. Watershed staff cover topics such as, subwatershed analysis, the evolution of technical design standards for raingardens, the socio-economic impacts on neighborhoods, and the long-term governance structures in place to restore water resources. The crew also learns about the importance of maintenance, plant identification, erosion issues, and construction methods.</p>
<p>Local financial contribution - itemized description and amount:</p>	<p>\$20,000 project materials</p>

**Clean Water Fund
Project Application**



While there is no required match minimum, local financial contribution is still desired. Input in-kind staff time, non-state funds and/or project materials and total \$ amount	
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Application Deadline December 15!

Submit completed electronic Project Application in MS Word format with PDF aerial photo/map of project location to cleanwater@conservationcorps.org

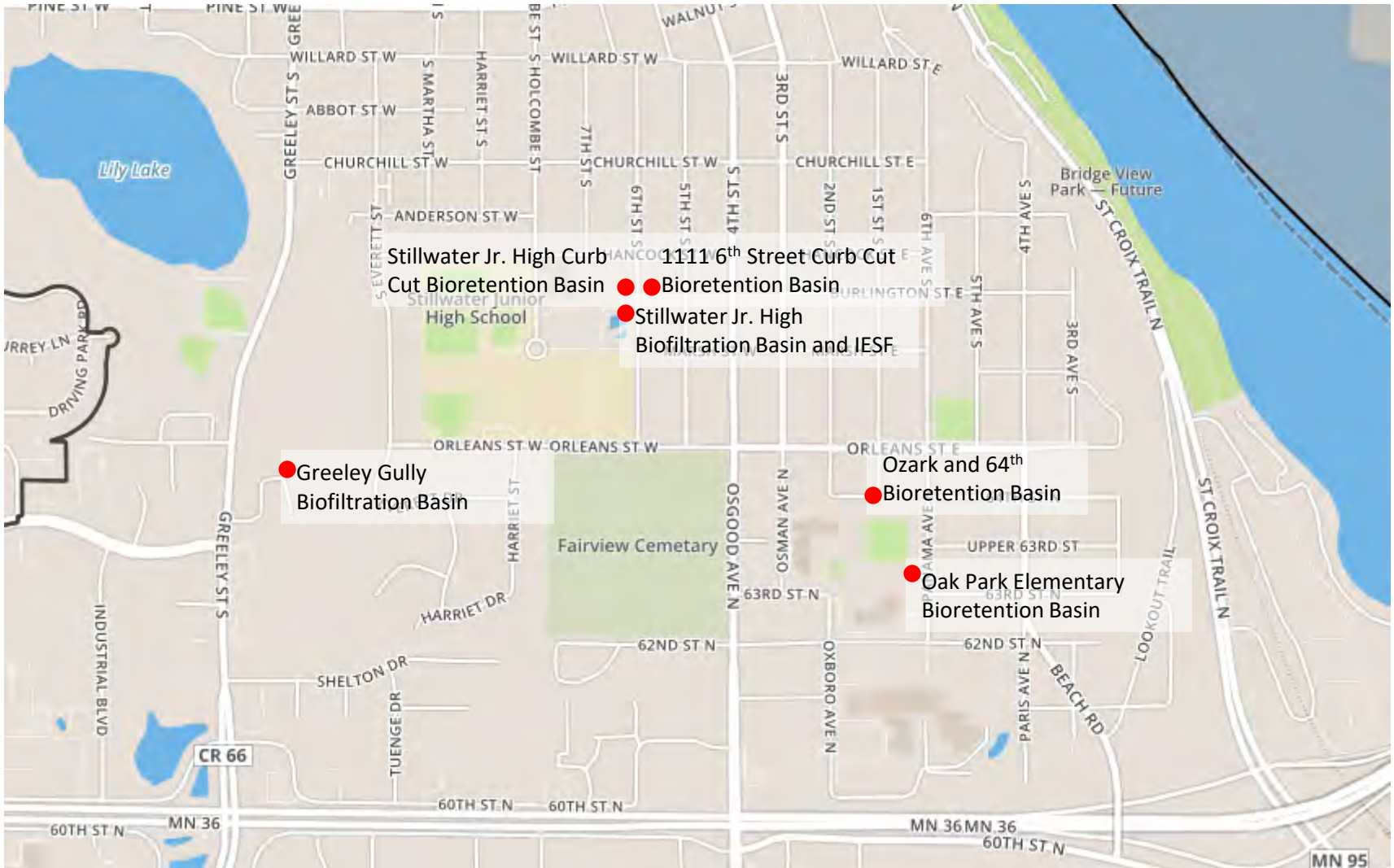
Conservation Corps Minnesota

60 Plato Blvd E Ste 210, Saint Paul MN 55107

Phone: 651-209-9900 x19

conservationcorps.org

2018 Stillwater Raingarden Installations



**CLEAN WATER GRANT FUND WORK ORDER BETWEEN THE
Middle St Croix WMO AND
CONSERVATION CORPS**

Project Number:11971

This work order is between the Project Host, Middle St Croix WMO ("Project Host") and CONSERVATION CORPS ("The Corps"). This work order is issued under the authority of the Laws of Minnesota 2017, Chapter 91, Article 2, Sec. 7(p), which requires the Board to contract with the Conservation Corps for restoration, maintenance, and other activities, for at least \$500,000 in each year of the 2018-19 biennium, and is subject to all provisions of the Board of Water and Soil Resources Clean Water Grant Fund Contract No 131838, which is incorporated by reference.

1. TERM OF WORK ORDER

- 1.1 **5/1/2018**, or the date the Corps obtains all required signatures under, whichever is later.
- 1.2 **12/15/2018**, or until all obligations have been satisfactorily fulfilled, whichever occurs first.

2. DUTIES OF THE CORPS

- 2.1 Complete services as specified in Clean Water Fund Project Request Form, which is attached hereto, and shall be a part of this work order.
- 2.2 Enroll and supervise AmeriCorps members in accordance with program guidelines.
- 2.3 Provide basic orientation and training as appropriate for corpsmembers.
- 2.4 Provide consultation and on-site project review to ensure that service is progressing in accordance with this work order and program guidelines.
- 2.5 Provide personnel and payroll administration for corpsmembers.
- 2.6 Provide all necessary transportation of corpsmembers to and from service sites.
- 2.7 Provide basic tools, safety gear, personal supplies and equipment needed by corpsmembers to meet all PROJECT HOST and federal safety requirements. Provide professional liability and worker's compensation insurance for all corpsmembers.
- 2.8 Track services completed and make this information available to PROJECT HOST upon request.
- 2.9 Report financial information on the use of state funds, and outcome and match information in eLINK using information provided by the PROJECT HOST.

3. DUTIES OF PROJECT HOST

- 3.1 Provide project specific direction and assistance to the corpsmember(s).
- 3.2 Maintain records of and provide any requested project information for purposes of grant reporting consistent with the FY18 Clean Water Fund Policy (available on the BWSR website - http://www.bwsr.state.mn.us/cleanwaterfund/fy2018/FY18_CWF_Policy.pdf)
 - 3.2.1 This includes any records of match, direct expenses, pollution reduction estimates, or other project data which may be completed or collected by a third party project partner.
- 3.3 Provide at least one media promotion to the public stating that the services(s) are being performed by the Corps. Any publicity regarding the subject matter of this work order must not be released without prior approval from the Corps' Authorized Representative.
- 3.4 Ensure safe working conditions in and around project areas that meet all state and federal standards.
- 3.5 Secure all local, county, and federal permits required by law prior to the commencement of work.
- 3.6 Provide Conservation Corps Crew with training and educational opportunities relevant to the services being performed. This includes an on-site project overview at the outset of the project which outlines project background, goals and overall outcomes expected as a result of the crews efforts.
- 3.7 Provide specialized tools, safety gear, personal supplies and equipment that are not available through the Corps that is needed by corpsmembers to meet all state and federal safety requirements.
- 3.8 Assist in the acquisition of camping/lodging accommodations if necessary.
- 3.9 Provide all project materials, supplies and chemicals.

4. CONSIDERATIONS AND PAYMENT

- 4.1 The Corps will pay for services performed, utilizing its Clean Water Grant Fund accounts. Expenditures from these accounts shall be expended only for the purposes for which they were approved and intended.
- 4.2 Materials (chemicals, lumber, hardware, plant material, etc.) shall be provided by the PROJECT HOST at the expense of the PROJECT HOST.

5. PROJECT MANAGERS

The PROJECT HOST's Project Manager is Tara Kline, Natural Resource Specialist, 455 Hayward Ave N, Oakdale, MN 55128. The PROJECT HOST's Project Manager will certify acceptance on each invoice submitted for payment. If the PROJECT HOST's Project Manager changes at any time during this work order, the PROJECT HOST must immediately notify the Corps.

The Corps' Project Manager is Dorian Hasselmann, District Manager, 60 Plato Blvd #210, St Paul, MN 55107. If the Project Manager changes at any time during this work order, the Corps must immediately notify the PROJECT HOST.

6. DUPLICATION, DISPLACEMENT, SUPPLANTATION

- 6.1 Conservation Corps crews are subject to the provisions of 42 U.S.C. §§ 12501 - 12682 and 45 C.F.R. parts 2500 - 2550. These laws require, in part, that AmeriCorps assistance be used only for a program that:
 - 6.1.1 Does not duplicate, and is in addition to, an activity otherwise available in the locality of the program;
 - 6.1.2 Will not displace an employee or position, including partial displacement such as reduction in hours, wages, or employment benefits; and
 - 6.1.3 Will not create a service opportunity that will infringe on the promotional opportunity of an employee.
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 - 6.2.1 Would otherwise be performed by an employee as part of the employee's assigned duties.
 - 6.2.2 Will supplant the hiring of employed workers.
 - 6.2.3 Are services or duties with respect to which an individual has recall rights pursuant to a collective bargaining agreement or applicable personnel procedures.
 - 6.2.4 Have been performed by or were assigned to any presently employed worker; an employee who recently resigned or was discharged; an employee who is on leave, on strike, being locked out, subject to a reduction in force, or has recall rights subject to a collective bargaining agreement or applicable personnel procedure.

7. CANCELLATION

- 7.1 This work order may be cancelled by the PROJECT HOST or the Corps at any time, with or without cause, upon 30 days written notice to the other party. In the event of such cancellation, the Corps shall expend dedicated funds for services performed up to date of cancellation.
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CONSERVATION CORPS PROJECT MANAGER

PROJECT HOST AUTHORIZED REPRESENTATIVE

By:	By:
Title:	Title:
Date:	Date:

Clean Water Fund Project Application



Project name:	Bayport Perro Creek Native Shoreline Restoration		
Date of application:	12/14/17	Contact address:	455 Hayward Ave N. Oakdale, MN 55128
Local government unit:	Middle St. Croix Watershed Management Organization		
Contact name:	Tara Kline	Contact phone:	651-330-8220 x 28
Contact title:	Natural Resource Specialist	Contact e-mail:	Tara.kline@mnwcd.org

Water resource of concern:	St. Croix River		
BMP to be installed: [choose from the drop-down]	Streambank and shoreline protection		
	CLICK HERE		
	CLICK HERE		
Pollutant reduction estimate: [choose from the drop-down or insert estimator under "other"]	Pollutant	Amount	Estimation method:
	Phosphorus - est. reduction (lbs/yr)	0.7 lbs.	BWSR Estimator (filter strip)
	Sediment - TSS (tons/yr)	0.6	BWSR Estimator (filter strip)
	CLICK HERE		CLICK HERE
	CLICK HERE		CLICK HERE

Est. length of crew time required: [# of days based on a 5 person crew]	3	Season/dates preferred: [crews are available Mar 1 - Dec 10]	June - November
Project location: [address or physical description] Attach aerial photo/map with project location	2 nd St. N & 3 rd Ave N. Bayport		
Detailed description and purpose of project including desired outcomes:	<p>Perro Creek runs through City of Bayport's Perro Park. The creek, runs along the north and east boundaries of the park. Shoreline buffer restoration will be 100 linear feet by 10 feet on each side of the creek. Currently, there is no shoreline buffer and grass is mowed up to the edge. The shoreline buffer restoration will reduce erosion, filter stormwater runoff and provide habitat.</p> <p>This project is being completed through a partnership with the City of Bayport, Bayport Girl Scouts, Washington Conservation District and the Middle St. Croix Watershed Management Organization.</p>		
Description of crew responsibilities and tasks to be carried out:	Restoration preparation is killing turf, installing biorolls where they are needed, native seeding entire project area, placing an erosion control blanket over the seeded area, and planting plugs into the erosion blanket as needed.		
List hand and power tools needed for the project:	Trowels, hard rakes, shovels and occasionally a covered dump trailer for plant or mulch transport.		

Clean Water Fund Project Application



<p>Double-click to check the box that best describes the project.</p> <p>[Projects will be funded based on priority level, listed from high to low]</p>	<p><input checked="" type="checkbox"/> HIGH - New installation or establishment of BMPs</p> <p><input type="checkbox"/> MEDIUM - Maintenance of newly established BMPs (within a 3-year establishment period)</p> <p><input type="checkbox"/> LOW - General maintenance beyond the establishment period</p>
<p>Is all permitting, contracting, landowner consent completed? If not, what is still required which may cause delay or cancellation of this project? Please explain.</p>	<p>Permitting and landowner consent is complete.</p>
<p>Has a TMDL implementation plan, watershed management plan, county comprehensive local water management plan, local surface water management plan, metro groundwater plan, surface water intake plan or well head protection plan been approved and locally adopted? Please explain.</p>	<p>All the proposed projects in this application are located within and discharge to Lake St. Croix.</p> <p>Addressing the Lake St. Croix TMDL is identified as a high priority for federal and state agencies as well as local units of government. Lake St. Croix TMDL http://tinyurl.com/qif3u2z Ch. 6, pg. 45, 47-48 identifies the prioritization process and LID BMPs to achieve the required load reductions in urban areas. 2015 MSCWMO Watershed Management Plan http://tinyurl.com/oa43rdw : Pg. 51, S1 Identifies reducing nutrient loading to the St. Croix River as a high priority water body within the MSCWMO.</p>
<p>How will this project ensure practices implemented will be of long-lasting public benefit with a minimum 10 years effective life?</p>	<p>All practices in this application are installed within the right-of-way or in a drainage and utility easement and under legal agreements that require the project remains in place for a minimum of 10 years. In addition, all agreements identify maintenance responsibility and all practices are integrated in the Washington County Stormwater Quality BMP Tracking and Inspection Database.</p>
<p>Describe the project's educational value and/or on-site education provided to the crew.</p>	<p>These practices and others are part of an ongoing basin-wide effort to improve quality of Lake St. Croix. While working side by side with crew members, watershed staffs discuss the history of water resource and the drivers for the projects. Watershed staff cover topics such as, subwatershed analysis, the evolution of technical design standards for raingardens, the socio-economic impacts on neighborhoods, and the long-term governance structures in place to restore water resources. The crew also learns about the importance of maintenance, plant identification, erosion issues, and construction methods.</p>
<p>Local financial contribution - itemized description and amount:</p> <p>While there is no required match minimum, local financial contribution is still desired. Input in-kind staff time, non-state funds and/or project materials and total \$ amount</p>	<p>\$2,000 project materials and \$1,000 in kind time.</p>

Application Deadline December 15!

**Clean Water Fund
Project Application**



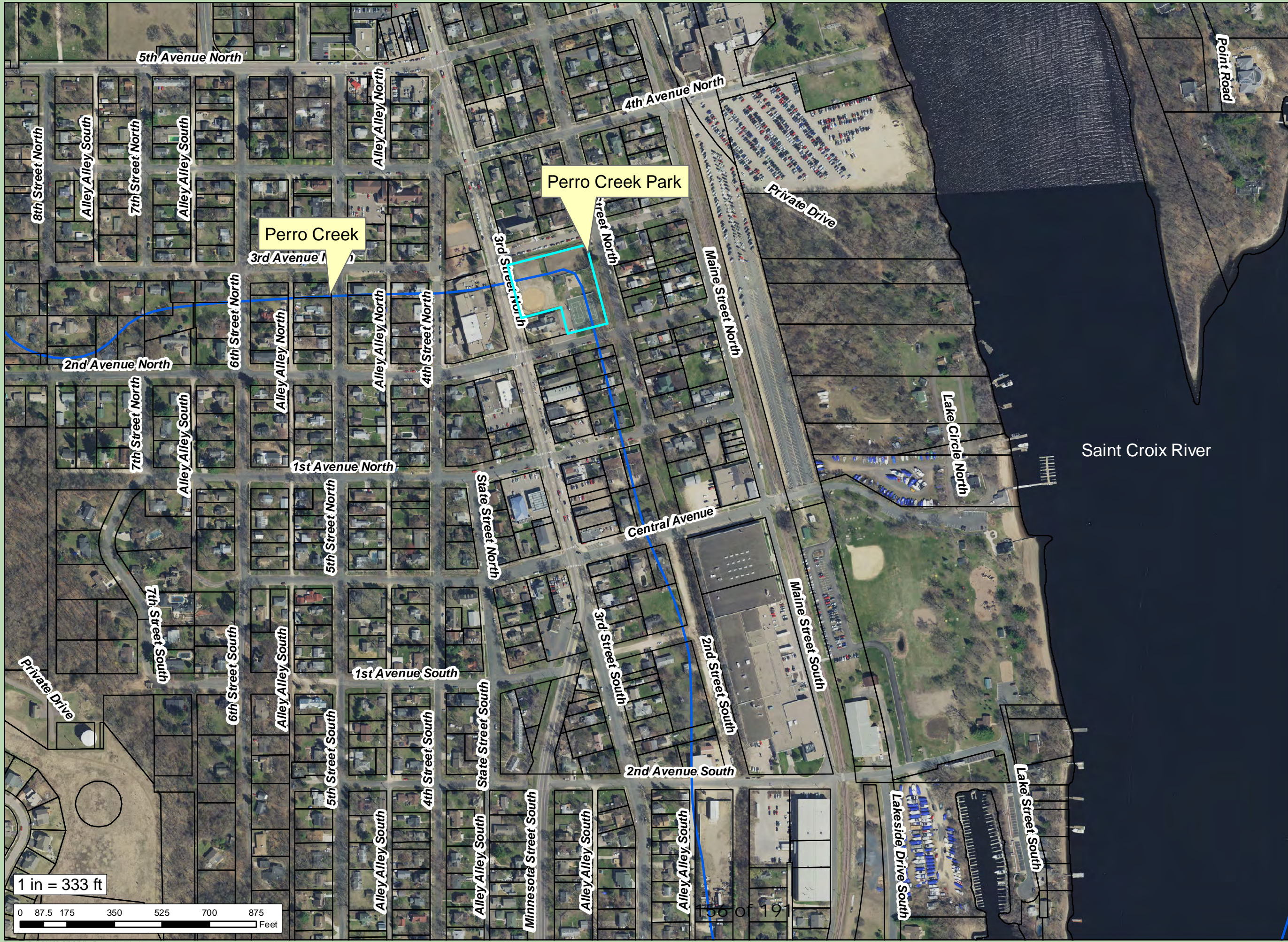
Submit completed electronic Project Application in MS Word format with PDF aerial photo/map of project location to cleanwater@conservationcorps.org

Conservation Corps Minnesota



60 Plato Blvd E Ste 210, Saint Paul MN 55107

Phone: 651-209-9900 x19

conservationcorps.org



KEY TO FEATURES

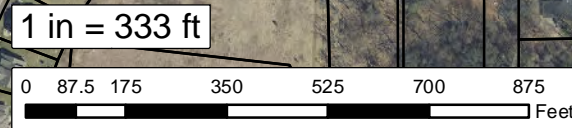
-  Parcels
-  Streams (DNR 24K)



MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

Bayport Perro Creek
Native Shoreline
Restoration

2016 Aerial Photo



**CLEAN WATER GRANT FUND WORK ORDER BETWEEN THE
Middle St Croix WMO AND
CONSERVATION CORPS**

Project Number:11972

This work order is between the Project Host, Middle St Croix WMO ("Project Host") and CONSERVATION CORPS ("The Corps"). This work order is issued under the authority of the Laws of Minnesota 2017, Chapter 91, Article 2, Sec. 7(p), which requires the Board to contract with the Conservation Corps for restoration, maintenance, and other activities, for at least \$500,000 in each year of the 2018-19 biennium, and is subject to all provisions of the Board of Water and Soil Resources Clean Water Grant Fund Contract No 131838, which is incorporated by reference.

1. TERM OF WORK ORDER

- 1.1 **5/1/2018**, or the date the Corps obtains all required signatures under, whichever is later.
- 1.2 **12/15/2018**, or until all obligations have been satisfactorily fulfilled, whichever occurs first.

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CONSERVATION CORPS PROJECT MANAGER

PROJECT HOST AUTHORIZED REPRESENTATIVE

By:	By:
Title:	Title:
Date:	Date:

Clean Water Fund Project Application



Project name:	Lake St. Croix Beach Shoreline Planting		
Date of application:	12/14/17	Contact address:	455 Hayward Ave N. Oakdale, MN 55128
Local government unit:	Middle St. Croix Watershed Management Organization		
Contact name:	Tara Kline	Contact phone:	651-330-8220 x 28
Contact title:	Natural Resource Specialist	Contact e-mail:	Tara.kline@mnwcd.org

Water resource of concern:	St. Croix River		
BMP to be installed: [choose from the drop-down]	Streambank and shoreline protection		
	CLICK HERE		
	CLICK HERE		
Pollutant reduction estimate: [choose from the drop-down or insert estimator under "other"]	Pollutant	Amount	Estimation method:
	Phosphorus - est. reduction (lbs/yr)	1.4	BWSR Estimator (sheet and rill)
	Sediment - TSS (tons/yr)		Other:
	CLICK HERE		CLICK HERE
	CLICK HERE		CLICK HERE

Est. length of crew time required: [# of days based on a 5 person crew]	3	Season/dates preferred: [crews are available Mar 1 - Dec 10]	June - November
Project location: [address or physical description] Attach aerial photo/map with project location	Riviera Ave S. in Lake St. Croix Beach		
Detailed description and purpose of project including desired outcomes:	<p>The bluff along the St. Croix River will be seeded, erosion control blanket installed and planted with native plugs and shrubs. Targeted weed control through cutting and herbicide and re-planting with shrubs and perennials. The shoreline buffer restoration will reduce erosion, filter stormwater runoff and provide habitat.</p> <p>There are two primary locations where the City of Lake St. Croix Beach has removed and actively controlling buckthorn and Siberian Elm. The crew will NOT be controlling buckthorn or Siberian Elm, but conducting activities to restore native vegetation to denuded and eroding areas after invasives have been removed.</p>		
Description of crew responsibilities and tasks to be carried out:	Installing native seed, placing an erosion control blanket over the seeded areas, and planting native perennial plugs, shrubs, and trees.		
List hand and power tools needed for the project:	Trowels, hard rakes, shovels and occasionally a covered dump trailer for plant or mulch transport.		

Clean Water Fund Project Application



<p>Double-click to check the box that best describes the project.</p> <p>[Projects will be funded based on priority level, listed from high to low]</p>	<p><input checked="" type="checkbox"/> HIGH - New installation or establishment of BMPs</p> <p><input type="checkbox"/> MEDIUM - Maintenance of newly established BMPs (within a 3-year establishment period)</p> <p><input type="checkbox"/> LOW - General maintenance beyond the establishment period</p>
<p>Is all permitting, contracting, landowner consent completed? If not, what is still required which may cause delay or cancellation of this project? Please explain.</p>	<p>Permitting and landowner consent is complete.</p>
<p>Has a TMDL implementation plan, watershed management plan, county comprehensive local water management plan, local surface water management plan, metro groundwater plan, surface water intake plan or well head protection plan been approved and locally adopted? Please explain.</p>	<p>All the proposed projects in this application are located within and discharge to Lake St. Croix.</p> <p>Addressing the Lake St. Croix TMDL is identified as a high priority for federal and state agencies as well as local units of government. Lake St. Croix TMDL http://tinyurl.com/qif3u2z Ch. 6, pg. 45, 47-48 identifies the prioritization process and LID BMPs to achieve the required load reductions in urban areas. 2015 MSCWMO Watershed Management Plan http://tinyurl.com/oa43rdw : Pg. 51, S1 Identifies reducing nutrient loading to the St. Croix River as a high priority water body within the MSCWMO.</p>
<p>How will this project ensure practices implemented will be of long-lasting public benefit with a minimum 10 years effective life?</p>	<p>All practices in this application are installed within the right-of-way or in a drainage and utility easement and under legal agreements that require the project remains in place for a minimum of 10 years. In addition, all agreements identify maintenance responsibility and all practices are integrated in the Washington County Stormwater Quality BMP Tracking and Inspection Database.</p>
<p>Describe the project's educational value and/or on-site education provided to the crew.</p>	<p>These practices and others are part of an ongoing basin-wide effort to improve quality of Lake St. Croix. While working side by side with crew members, watershed staffs discuss the history of water resource and the drivers for the projects. Watershed staff cover topics such as, subwatershed analysis, the evolution of technical design standards for raingardens, the socio-economic impacts on neighborhoods, and the long-term governance structures in place to restore water resources. The crew also learns about the importance of maintenance, plant identification, erosion issues, and construction methods.</p>
<p>Local financial contribution - itemized description and amount:</p> <p>While there is no required match minimum, local financial contribution is still desired. Input in-kind staff time, non-state funds and/or project materials and total \$ amount</p>	<p>\$2,000 project materials</p>

Application Deadline December 15!

**Clean Water Fund
Project Application**



Submit completed electronic Project Application in MS Word format with PDF aerial photo/map of project location to cleanwater@conservationcorps.org

Conservation Corps Minnesota

60 Plato Blvd E Ste 210, Saint Paul MN 55107

Phone: 651-209-9900 x19

conservationcorps.org



KEY TO FEATURES

Parcels



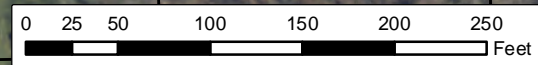
MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

Lake St. Croix Beach
Shoreline Restoration

2016 Aerial Photo

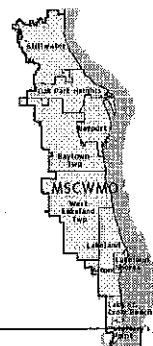


1 in = 104 ft



MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

455 Hayward Avenue OAKDALE, MINNESOTA 55128
Phone 651.275.1136 x22 www.mscwmo.org



Landscaping for Habitat and Water Quality Grant Application Form

1. Contact Information

Name <i>Leah Smith</i>		
Address <i>909 William St N</i>		
City <i>Stillwater</i>	State <i>MN</i>	Zip Code <i>55082</i>
Project Location (if different than above) <i>North Hill Community Garden (NHCG) 1004 Martha St N Stillwater</i>		
Lake or Stream (if applicable) <i>N/A</i>	Previous Grant Recipient? What Project? <i>No</i>	
Home Phone <i>N/A</i>	Work or Cell Phone <i>651 491 5612</i>	
Email Address <i>leahsmith4@hotmail.com</i>	Other Contact Info <i>info@northhillcommunitygarden.org</i>	

2. Project Type Raingarden Native Slope Stabilization Native Shoreline

3. Source of Runoff Roof Driveway Other (specify) _____

4. Project Measurements

Size of Runoff Area (square feet)	Size of Raingarden / Native Slope Stabilization / Native Shoreline (square feet)
	<i>910 sq ft</i>

5. Attach Project Plans and Completed Cost Estimate Worksheet.

I certify to the best of my knowledge that the information included in this application is true, complete, and accurate. I acknowledge that if approved, cost share funding expires on November 30, 2017, unless an extension is granted by the MSCWMO prior to the expiration.

Signature of Applicant/Contact <i>[Signature]</i>	Date <i>2/20/18</i>	Signature of Property Owner <i>[Signature]</i>	Date <i>3/12/18</i>
--	------------------------	---	------------------------

Grants Policy

- Eligible project types are limited to native slope stabilization, raingardens and native shoreline stabilizations that demonstrate compliance with Blue Thumb technical recommendations.
- Grant applicants must successfully complete an East Metro Watershed Education Program presentation and submit a grant application, project plan and cost estimate for the watershed to review and approval prior to beginning the installation. (Grant is not retroactive)
- Watershed staff will review applications, select grant recipients, verify completed projects and distribute grants in accordance to program policy.
- Applications requesting grant approval will be reviewed in two application rounds. Application must be received by a round's start date and awarded grants automatically expire if the project is not completed by the end date of the round it was awarded in.
- The Landscaping for Habitat Grant amount is limited to \$250.00 per approved application.
- The Landscaping for Water Quality amount is limited to \$500.00 per approved application. Qualifying projects must be raingardens or native shoreline restorations within the direct discharge areas of Lily Lake, Lake McKusick, Lake St. Croix or Perro Creek.
- Only one grant allowed per applicant per year. Applications not approved in a preceding round may be resubmitted for review in following rounds.
- District Staff will prioritize grant awards based on watershed location, proximity to water resources and potential to provide water quality benefits.
- Blue Thumb Grants are subject to funding availability and may be discontinued or subject to policy revisions by the Board as it determines to be appropriate.

North Hill Community Garden Project Plan and Cost Estimate Worksheet

Job Description

Landscape west hill of NHCG with pollinator-friendly native plants to provide habitat, reduce erosion, and control invasive species growing on hill

Cost Estimate

1 plant plug per square foot = 910 plant plugs from Landscape Alternatives and/or Prairie Restorations
 = \$5.75-\$7.00/6-pack of plant plugs
 = 910/6 = 151.67 6-packs
 = 152 6-packs x 5.75 (or 7.00) = \$874 (or \$1,064)

Mulch for mulch berm Free from City of Stillwater

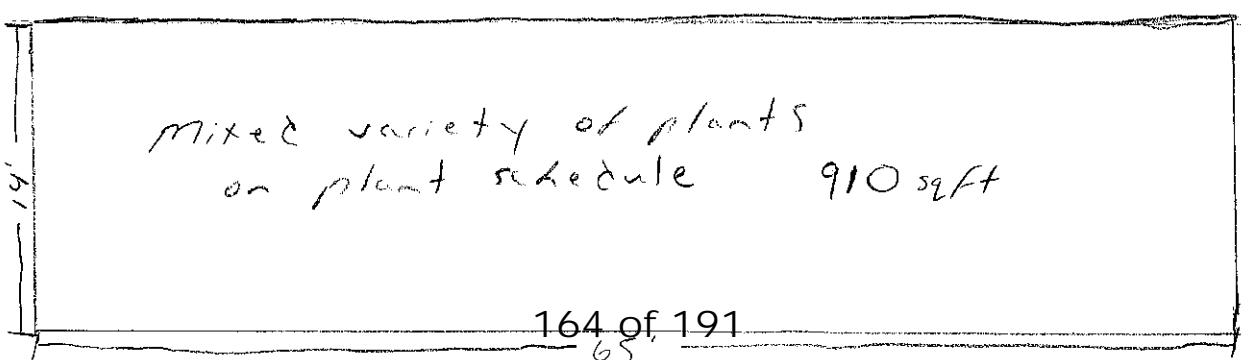
Labor Free volunteer hours

Project Cost: \$874 - \$1,064
 MSCWMO Cost Share: \$250

Plant Schedule

Qty	Botanical Name	Common Name	Size	Spacing
114	<i>Schizachyrium scoparium</i>	Little Bluestem Grass	Plug	1/square foot
114	<i>Monarda fistulosa</i>	Monarda	Plug	1/square foot
114	<i>Monarda punctata</i>	Dotted Mint	Plug	1/square foot
114	<i>Heliopsis helianthoides</i>	Oxeye Daisy	Plug	1/square foot
114	<i>Solidago rigida</i>	Stiff Goldenrod	Plug	1/square foot
114	<i>Agastache foeniculum</i>	Anise Hyssop	Plug	1/square foot
114	<i>Asclepias</i>	Milkweed	Plug	1/square foot
114	<i>Ratibida pinnata</i>	Gray-headed Coneflower	Plug	1/square foot

Aspen St



Martha St N

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: Mike Isensee, Administrator
DATE: April 12, 2018
RE: 7d) North Hill Community Garden Grant Application

The North Hill Community Garden is applying for cost share funding not to exceed \$250 for a 910 square foot native garden installation on their property at 1004 Martha Street N. in Stillwater. Technical staff have reviewed the project and recommend approval.

Example Motion:

Motion by Board Member 1, seconded by Board Member 2, to approve a native plant grant not to exceed \$250 for the North Hill Community Garden Native Garden.

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

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



March 22, 2018

Mr. Eric Johnson
City of Oak Park Heights
PO Box 2007
Oak Park Heights, MN 55082

RE: TH 36 SP 8214-176

Dear Mr. Johnson:

The Middle St. Croix Watershed Management Organization (MSCWMO) received required submittal items on March 8, 2018 for the proposed TH36 SP 8214-176, located within MSCWMO boundaries and in the City of Oak Park Heights. The proposed project qualifies for full review under the MSCWMO 2015 Watershed Management Plan (WMP).

The project, as submitted, meets the Policies and Performance Standards contained within Section 7.0 of the 2015 MSCWMO WMP. The MSCWMO recommends approval.

This recommended approval is based on the technical review of MSCWMO performance standards and does not constitute approval by the City of Oak Park Heights. The enclosed checklist contains detailed information on project review qualification and the policies and performance standards of the WMP. MSCWMO review process information can be downloaded from www.mscwmo.org. Please contact me at 651-330-8220 x22 or misensee@mnwcd.org if you have any questions regarding these comments.

Sincerely,

Mikael Isensee
Administrator
Middle St. Croix Watershed Management Organization

Cc: Christina Caouette, MnDOT Water Resources, Graduate Engineer 2, christina.caouette@state.mn.us

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

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



March 22, 2018

Kim Points
City Administrator
City of Lakeland Shores
P.O. Box 246
Lakeland Shores, MN 55043

RE: 35 Lakeland Shores Road Shoreline Stabilization

Dear Ms. Points:

The Middle St. Croix Watershed Management Organization (MSCWMO) transmitted review results on March 13, 2018 for the proposed shoreline stabilization at 35 Lakeland Shores Road within MSCWMO boundaries and in the City of Lakeland Shores.

The MSCWMO appreciates the landowner's proposal to include soil filled rip rap and re-establish native vegetation as part of the stabilization technique and strongly encourages the landowner to apply for MSCWMO cost share.

The project as submitted meets all applicable Policies and Performance Standards contained within Section 7.0 of the MSCWMO WMP. The MSCWMO recommends approval.

This review does not constitute approval by the City of Lakeland Shores. MSCWMO review process information can be downloaded from www.mscwmo.org. Please contact me at 651-330-8220 x22 or misensee@mnwcd.org if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Mike Isensee".

Mike Isensee
MSCWMO, Administrator

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

455 HAYWARD AVE. N
OAKDALE, MINNESOTA 55128
Phone 651.275.1136 x22 fax 651.275.1254 www.mscwmo.org



April 10, 2018

Eric Johnson, Administrator
City of Oak Park Heights
PO Box 2007
Oak Park Heights, MN 55082

RE: Palmer Station, Oak Park Heights

Dear Mr. Johnson,

The Middle St. Croix Watershed Management Organization (MSCWMO) received required submittal items for the proposed Palmer Station project, located within MSCWMO boundaries and in the City of Oak Park Heights. The proposed project qualifies for full review under the MSCWMO 2015 MSCWMO Watershed Management Plan (WMP).

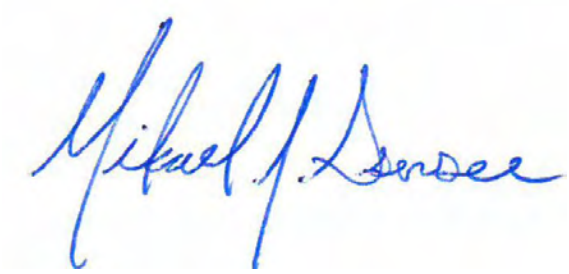
The MSCWMO Board required revisions and resubmission of the project at their regular board meeting on April 12, 2018.

Please make the following revisions and resubmit.

- 1) Submit dedication or easement of the property which are adjacent to the facility and which lie below the 100 year flood level.
- 2) Submit a maintenance agreement in a format approved by the City.
- 3) Identify training requirements for the person responsible for erosion and sediment control inspections.
- 4) Identify inlet protection for stormwater inlets.
- 5) Add redundant sediment controls required around wetland #1.
- 6) Expand non impacted buffer areas for wetland #1 to compensate for the required buffer averaging.
- 7) Label proposed buffer areas!
- 8) Modify the following building lot elevations: Building lot # 8 must increase elevation by .1 ft. Building lot #13 needs LFO to be 955.9.
- 9) Revised MIDS calculator utilizing the correct practices and ponding depth restrictions for the biofiltration basin to demonstrate compliance with MIDS FTO #2.
- 10) Identify as built survey and method to demonstrate infiltration or filtration basin is functioning.
- 11) Include the following construction standards for the biofiltration basin:
 - a. 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.
 - b. 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.
 - c. Prior to the release of any remaining fee or security, the permit holder must provide documentation that constructed volume control facilities perform as designed.
- 12) Identify the location of the 8.0' maintenance access to the South Filtration Basin on the grading plans.

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 misensee@mnwcd.org if you have any questions regarding these comments.

Sincerely,

A handwritten signature in blue ink that reads "Michael J. Isensee". The signature is written in a cursive style with a large initial 'M'.

Mike Isensee
MSCWMO 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

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



PROJECT REVIEW

MSCWMO Project Review ID: 18-005

Project Name: Palmer Station

Applicant: Mark Guenther, Creative Homes Construction Investment LLC, 707 Commerce Drive, Suite 410, Minneapolis, MN 55401

Purpose: 13 Lot Residential Subdivision

Location: Oak Park Heights

Review date: 3/26/2018

Recommendation: Revise and resubmit. Revisions required:

- 1) Submit dedication or easement of the property which are adjacent to the facility and which lie below the 100 year flood level
- 2) Submit a maintenance agreement in a format approved by the City.
- 3) Identify training requirements for the person responsible for erosion and sediment control inspections.
- 4) Identify inlet protection for stormwater inlets
- 5) Add redundant sediment controls required around wetland #1.
- 6) Expand non impacted buffer areas for wetland #1 to compensate for the required buffer averaging.
- 7) Label proposed buffer areas
- 8) Modify the following building lot elevations: Building lot # 8 must increase elevation by .1 ft. Building lot #13 needs LFO to be 955.9.
- 9) Revised MIDS calculator utilizing the correct practices and ponding depth restrictions for the biofiltration basin to demonstrate compliance with MIDS FTO #2.
- 10) Identify as built survey and method to demonstrate infiltration or filtration basin is functioning.
- 11) Include the following construction standards for the biofiltration basin:
 - a. 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.
 - b. 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.
 - c. Prior to the release of any remaining fee or security, the permit holder must provide documentation that constructed volume control facilities perform as designed.
- 12) Identify the location of the 8.0" maintenance access to the South Filtration Basin on the grading plans.

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.

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

- 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

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** 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.

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

- 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

*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.

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

- 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. Proposed inlets draining to the fore-bay require protection.**
 - 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. Redundant sediment controls required around wetland #1.**
- 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). **Label buffer areas.**
- NA** Location of areas where construction will be phased to minimize duration of exposed soil areas.
- NA** *Blufflines are protected from construction activities in urban (40 foot buffer) areas and rural areas (100-foot buffer). N/A*

LAKE, STREAM AND WETLAND BUFFERS

- A buffer zone of unmowed natural vegetation is maintained or created upslope of all water bodies (wetlands, streams, lakes). **Expand non impacted buffer areas for wetland #1 to compensate for the required buffer averaging.**
- 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

Middle St. Croix Watershed Management Organization

MEMBER COMMUNITIES:

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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. **Building lot # 8 must increase elevation by .1 ft. Building lot #13 needs LFO to be 955.9**

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 documented due to the site being located within the City of Oak Park Heights Well Head Protection Zone.**

Volume Retention Required (cu. ft.)	Volume Retention Provided (cu. ft.)	
103,600 * 0.55” = 4,748 and 75% TP Reduction per MIDS Calculator	BMP	Volume
	BMP #1	6,417 cu. ft.
	BMP #2	8,107 cu. ft.
Total Required 4,748 cu. ft. and 75% TP Reduction per MIDS.	Total Proposed	14,524 cu.ft.

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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 60% of the annual total phosphorous. **When used correctly, the MIDS calculator indicates 60% TP load reduction is not achieved.**

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.
- The following condition exists that prohibits infiltration of stormwater on the site
 Areas of Hydrologic Soil Group D (clay) soils
- 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 or the MIDS calculator.
 - 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.

Middle St. Croix Watershed Management Organization

- 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.

NA The least permeable soils horizon identified in the soil boring dictated the infiltration rate. **Filtration makes this NA**

- Additional flows are bypassed and are routed through stabilized discharge points.
- Filtration basin demonstrates a basin draw down between 24 hours and 48 hours. **Ponding depth of the biofiltration basins exceed 1.5' maximum ponding depth standards. Maximum ponding depth of filter is 4' – condition met**

N/A 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 built 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.
 - d. Excavation within 2.0 feet of final grade for infiltration/filtration systems is prohibited until contributing drainage areas are constructed and fully stabilized.
 - e. Rigorous sediment and erosion controls planned to divert runoff away from the system.
 - f. **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.**
 - g. **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.**
 - h. **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. **Clarify the location of the maintenance access to the South Filtration Basin on the grading plans.**

WETLAND PERFORMANCE STANDARDS

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

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- Any potential changes to the hydrology of the wetland (i.e. changes to the outlet elevation or contributing drainage area) must be reviewed to evaluate the impact of both the existing and proposed wetland conditions and approved by the MSCWMO.
- Land-altering activities shall not increase the bounce in water level or duration of inundation from a 2.0-inch 24-hour storm for any downstream wetland beyond the limit specified in Table 7.2 for the individual wetland susceptibility class.

Notes/Conditions:

Filters shall have a liner.

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MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

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



April 10, 2018

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

RE: Andersen Building Expansion and Parking and Water Quality Improvements

Dear Mr. Bell,

The Middle St. Croix Watershed Management Organization (MSCWMO) received required submittal items on March 12, 2018 and XP SWMM Model results on March 26, 2018 for the proposed Andersen Building Expansion and Parking and Water Quality Improvements, located at 100 4th Ave. N., within MSCWMO boundaries and in the City of Bayport. The proposed project qualifies for full review under the MSCWMO 2015 Watershed Management Plan (WMP).

The project, as revised, meets all applicable Performance Standards contained within Section 7.0 of the 2015 MSCWMO WMP. The MSCWMO recommends approval with one condition:

1. Submit a maintenance agreement approved by the City of Bayport.

The enclosed checklist contains detailed information on project review qualification and the policies and performance standards of the WMP. MSCWMO review process information can be downloaded from www.mscwmo.org. Feel free to contact me at 651-330-8220 x22 or misensee@mnwcd.org if you have any questions regarding these comments.

Sincerely,

Mikael Isensee
Administrator
Middle St. Croix Watershed Management Organization

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PROJECT REVIEW

MSCWMO Project Review ID: 18-007

Project Name: Andersen Building Expansion and Parking and Water Quality Improvements

Applicant: Andersen Windows

Purpose: Facility expansion and TSS/COD reduction to Lake St. Croix

Location: 100 4th Ave N

Review date: 4/10/2018

Recommendation: Approve with one condition

1. Submit a proposed maintenance agreement, which may be in the format of Appendix K, or other form approved by the City of Bayport.

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.

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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.

NA 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.

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- 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.
- NA 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.
 - 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

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

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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. XP SWMM Model indicates tail water. Conditions are improved from existing.
- 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.
- NA Flowage easements up to the 100-yr flood level have been secured for stormwater management facilities (such as ditches and storm sewers).
- NA Lowest floor elevations of structures built adjacent to stormwater management features and other water bodies are a minimum of two feet above the 100-year flood elevation and a minimum of two feet above the natural overflow of landlocked basins. Building listed at 692.9, node 51P peak @ 696.51

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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.)	
294030 sf *1.1" = 26,950 cu. ft.	BMP	Volume
	BMP #1	29,950 cu. ft.
Total Required	Total Proposed	29,950 cu.ft.
26,950 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.
- 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.

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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. B10, b11 682-.5 gw elev SP .8"/hr

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.

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- 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.

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Administrator's Report- February & March 2018

Administration

- Watershed Annual Report
- Biennial Implementation Evaluation
- Board of Water and Soil Resources Biennial Budget Request
- One Watershed One Plan Meetings and Agreements
- Watershed Based Funding Formulas
- Audit Documents and Voucher Tests

Project Reviews

- Orchards at Cahanes Farm Preapplication Meetings, Baytown Township
- CSAH 24, Stillwater
- Palmer Station, Oak Park Heights
- Bischoff Shoreline Stabilization, Lakeland Shores
- Andersen Windows Redevelopment, Bayport
- TH36 Landscaping Plans, Oak Park Heights
- Crosby Hotel, Stillwater

Conservation Project Technical Assistance and Cost Share

- Lake St. Croix Direct Discharge South Final Report

Managing Existing Projects

Lily Lake Phase III Grant

Description: \$109,000 for stormwater quality improvements for areas discharging to Lily Lake (2014-2018). This grant is fully allocated to the Greeley Gully Stabilization Project.
Activities This Month: Finalized 2017 financials, submitted grant report.

South Lake St. Croix Direct Discharge Subwatershed Analysis Grant

Description: \$10,000 grant to investigate and prioritize water quality improvement projects in the South MSCWMO (2016).
Activities This Month: Developing models and BMP cost estimates.

Lake St. Croix Direct Discharge Phase I

Description: \$142,000 grant for stormwater quality improvements in Oak Park Heights, Stillwater and Bayport (2014-2018).

Activities This Month: Finalized 2017 financials, submitted grant report.

Lake St. Croix Direct Discharge Phase II

Description: \$151,000 grant for stormwater quality improvements in Oak Park Heights, Stillwater and Bayport (2015-2018).

Activities This Month: Finalized 2017 financials, submitted grant report.

Lily Lake Final – 45

Description: \$58,000 grant to identify and partially design stormwater practices to reduce phosphorous discharges to Lily Lake by at least 45 lbs. per year.

Activities This Month: Presented draft feasibility to Stillwater City Council and Lily Lake Association. Coordinated soil borings access. Collected lake bottom sediment cores. Finalized 2017 financials, submitted grant report.

Perro Creek Water Quality Improvements Phase I

Description: \$63,000 grant to design and install stormwater quality practices to reduce nutrients and bacteria discharging directly into Perro Creek and then to Lake St. Croix.

Activities This Month: Finalized 2017 financials, submitted grant report.

Meetings

- One Watershed One Plan Meetings (1)
- Adopt A Raingarden Spring Clean Up Meetings (2)
- Lower St. Croix 10 Year Monitoring Cycle Meetings (2)
- MPCA Future 319 Grant Funding Meeting (1)
- Watershed Based Funding Meetings (3)
- Master Water Stewards Meetings (2)
- Stillwater Parks Commission