MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION
455 HAYWARD AVENUE, OAKDALE, MINNESTOA 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, January 12, 2017
6:00PM

1. Call to Order – 6:00PM

2. Approval of Minutes
   a) Draft minutes- December 8, 2016-*page 1*

3. Treasurer's Report
   a. Report of savings account, assets for January 12, 2017
   b. Approve payment of bills for January 12, 2017

4. Public Comments
   a. Natalie Warren, Saint Croix River Association Riverway Proposed Project Review Process

5. Old Business
   a. Valley Branch Watershed District Hydrologic Boundaries Change Resolution-*page 4*
   b. MIDS Clean Water Fund Grant Final Report-attached-*page 7*

6. New Business
   a. Appointments (Chair, Vice Chair, Secretary, Treasurer)-*page 20*
   b. 2017-2019 Legal and Consulting Services-*page 21*

7. Plan Reviews/Submittals
   a. Stillwater Public Schools Bus Maintenance Facility- Baytown Township (update)-*page 45*
   b. North Main Hotel- Stillwater (update) *page 56*
   c. American Engineering Proposed Redevelopment- Bayport (update) *page 57*

8. Administrator's Report

9. Adjourn

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Regular Meeting of the Middle St. Croix Watershed Management Organization
Bayport Public Library, Bayport, MN
Thursday, December 8, 2016
6:00PM

Present: ; John Fellegy, Baytown Township; Doug Menikheim, City of Stillwater; Nancy Karras-Anderson, City of St. Mary's Point; Dan Kyllo, West Lakeland Township; Administrator Mike Isensee, Administrative Assistant Jenn Radtke

1. **Call to Order – Regular Board Meeting**
   The meeting was called to order by Administrator Mike Isensee at 6:02pm.

2. **Approval of Minutes**
   Motion to approve the November 10, 2016 meeting minutes was made by Mr. Dan Kyllo and seconded by Ms. Nancy Karras-Anderson. Motion carried.

3. **Treasurer's Report**
   a) Report of savings account, assets for December 8, 2016

   b) Approve payment of bills for December 8, 2016

The treasurer's report was presented by Dan Kyllo. The remaining checking account balance is $182,162.08. First State Bank CDs are valued at $32,094.13. The ending balance in the RBC savings account is $48,657.81.

Bills to be approved this month are: Colter Manley $400.26; ECM Publishers, Inc. $47.40; Emmons & Olivier resources $1544.00; Kelly Gutierrez $1,000.00; Kennedy & Graven $194.70; University of Minnesota $1600.00; Washington Conservation District (Administration) $2,188.17; Washington Conservation District (Technical Services) $1,263.00; Washington Conservation District (MIDS) $12,985.50; Washington Conservation District (Lily Lake) $8,807.50.

Mr. John Fellegy moved to approve the treasurer's report and pay the bills presented, Mr. Doug Menikheim seconded the motion, and the motion carried.

4. **Public Comments**
   No public comment was given.

5. **Old Business**
   a) None

6. **New Business**
   a) 2017 Meeting Dates

The MSCWMO Regular Meeting is currently scheduled for 6:00 p.m. the 2nd Thursday of each month at the Bayport Public Library.

In 2016, the MSCWMO Board of Directors did not meet in July or September, due to lack of agenda items. In 2017, staff is recommending March, July and August as tentative meeting dates.

January 12th, 2017
February 9th, 2017
March 9th, 2017- Tentative
April 13th, 2017
May 11th, 2017
June 8th, 2017
July 13th, 2017- Tentative
August 10th, 2017
September 14th, 2017- Tentative
October 12th, 2017
November 9th, 2017
December 14th, 2017

Motion by Mr. John Fellegy, seconded by Ms. Nancy Karras-Anderson, to approve the 2017 MSCWMO Board of Directors Meeting dates.

b) 2017 Review Fees

In 2016 the MSCWMO spent $10,575 providing technical reviews for projects. Project review fees generated $5,150. The MSCWMO budgeted $4,800. Staff recommends maintaining the existing review fee structure for 2016.

Motion by Mr John Fellegy, seconded by Mr. Dan Kyllo, to maintain the 2016 MSCWMO Review Fee schedule for 2016.

7. Cost Share Program

a) Final Payment Request: St. Croix Academy Prep Cost Share

At the May 12, 2016 MSCWMO Regular Meeting, the board approved 75% cost-share assistance not to exceed $1,000.00 for the Sr. Croix Prep Academy Native Prairie Restoration in Bayport. This project, organized by parent volunteers with additional funding provided by the Audubon Society and Pheasants Forever, is restoring 10 acres of prairie. Prairie seeding occurred on October 28th, 2016.

MSCWMO has certified the completion of the prairie seeding and verified actual costs of $10,150.00.

Motion by Mr. Dan Kyllo, seconded by Mr. John Fellegy, to approve final payment St. Croix Preparatory Academy for $1,000 to reimburse costs incurred to install the prairie restoration project.

8. Plan Reviews/Submittals

a) Stillwater Area Public Schools School Bus Maintenance Facility- Baytown Township

This proposed Stillwater Area Public Schools Bus Maintenance Facility is located within the boundaries of the MSCWMO, in Stillwater.

The existing 14.3 acre site consists agriculture area, woods, and small home and out buildings. The proposed development will create 8.04 acres of new impervious surface for the construction of a bus maintenance garage, bus parking area, car parking area, and all associated utilities.

Infiltration is restricted on this site due to karst features identified 10 feet below the infiltration practices. In conformance with the Minnesota Stormwater Manual, underdrains are placed under the infiltration facilities. The proposed project qualifies for MIDS flexible treatment option #1 for 0.55" volume reduction and a 75% reduction in phosphorous.

Information only.

b) North Main Hotel- Stillwater

This proposed Stillwater Hotel and Professional Center is a two-phase project located on North Main Street, within the boundaries of the MSCWMO, in Stillwater.

The existing 1.2 acre site consists of 0.77 acres of impervious surface (0.55 acres of paved parking lot, 0.12 acres of gravel parking lot and 0.1 acre of rooftop). The proposed development will reconstruct and add impervious surface that totals 1.09 acres for the construction of a mixed use hotel and restaurant with 105 parking stalls and a three story office building (phase 2).

Infiltration is prohibited so the proposed project qualifies for MIDS flexible treatment option #2 for 60% reduction in phosphorous.

Information only.

9. Administrator's Report

a) A written report was submitted by Administrator Isensee.
b) The MSCWMO was awarded 2 FY 2017 Clean Water Fund Grants for a total of $121,000.

10. Adjourn

The motion to adjourn was made by Mr. John Fellegy, seconded by Mr. Tom McCarthy.
The motion carried and the meeting was adjourned at 6:30pm.

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MEMORANDUM

TO: Middle St. Croix WMO Board of Managers
FROM: Mikael Isensee, Administrator
DATE: January 12, 2017

5a) Valley Branch Watershed District Hydrologic Boundaries Change Resolution

The Valley Branch Watershed is petitioning the Board of Water and Soil Resources to change it's boundaries based on more accurate data. As part of the process the Watershed obtained resolutions agreeing to the new boundaries from each of the affected communities in the MSCWMO. The final step in the process is to obtain a resolution from the MSCWMO. Staff have reviewed the revised the boundaries and recommends passing the attached resolution.

Resolution attached.

Resolution No. 012017

MIDDLE ST. CROIX WATERSHED MANANAGEMENT ORGANIZATION BOARD OF MANAGERS RESOLUTION SUPPORTING BOUNDARY CHANGE

Manager Click here to enter text. offered the following resolution and moved its adoption, seconded by Manager Click here to enter text.:

WHEREAS, as a result of the recent generation of more precise topographic data, the hydrologic boundaries of the Middle St. Croix Watershed Management Organization can be more precisely ascertained; and

WHEREAS, these improved data and the ongoing subdivision and development of land allow for the Watershed Management Organization's legal boundary to be caused to more closely follow the hydrologic boundary; and

WHEREAS, the purpose of Minnesota Statutes Chapters 103B and 103D is to facilitate water resource management on a watershed basis, and that legal boundaries of watershed management organizations should conform as closely as is practicable to hydrologic boundaries; and

WHEREAS, parcels shown on Exhibit A are proposed to be allocated to either the Watershed Management Organization or the Valley Brach Watershed Management Organization, as best conforms to hydrologic boundaries; and

WHEREAS, the parcels to be allocated to the Watershed Management Organization are contiguous to the Watershed Management Organization, and enlargement of the Watershed Management Organization to include the identified parcels will advance the purposes of Minnesota Statutes Chapters 103B; and

WHEREAS, the Watershed Management Organization and Valley Branch Watershed District jointly notified each affected community within the boundaries of the Middle St. Croix Watershed Management Organization about the proposed boundary change and opportunities for public input were provided by each community through the adoption of resolution supporting the boundary change.

NOW THEREFORE, BE IT RESOLVED the Watershed Management Organization supports the submission of a petition to the Minnesota Board of Water and Soil Resources pursuant to Minnesota Statutes Section 103B.251 to revise the Watershed Management Organization in accordance with Exhibit A.

On the question of adoption of the resolution there were _____ yeas and _____ nays as follows:

	Yea	Nay	Absent
John Fellegy, Baytown Township	☐	☐	☐
Dan Goldston, Bayport	☐	☐	☐
Dan Kyllo, West Lakeland Township	☐	☐	☐
Tom McCarthy, Lake St. Croix Beach	☐	☐	☐
Doug Menikheim, Stillwater	☐	☐	☐
Joseph Paiement, Lakeland	☐	☐	☐
Annie Perkins, Afton	☐	☐	☐
Nancy Karras Anderson, St. Mary's Point	☐	☐	☐
Mike Runk, Oak Park Heights	☐	☐	☐
Brian Zeller, Lakeland Shores	☐	☐	☐

Upon vote, the Chair declared the resolution adopted.

DATED: 1/12/2017

_____
Mikael Isensee, Administrator

* * * * * * * * * * * *

I, , of the Middle St. Croix Watershed Management Organization Board of Managers, hereby certify that I have compared the above resolution with the original thereof as the same appears of record and on file with the Watershed Management Organization and find the same to be a true and correct transcript thereof.

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of _____, 2017.

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MEMORANDUM

TO: Middle St. Croix WMO Board of Managers
FROM: Mikael Isensee, Administrator
DATE: January 12, 2017

6b) Final Report Summary: Integrating "Minimal Impact Design Standards" Into Local Ordinances

In 2014 the MSCWMO Watershed Management Organization secured a $127,000 Clean Water Fund grant to work with communities in the St. Croix River Basin to voluntarily adopt ordinance revisions to incorporate Minimal Impact Design Standards (MIDS). MIDS are effective and flexible tools designed to manage stormwater quality during new and redevelopment projects. Most importantly, MIDS promotes consistency between communities and watersheds, enhances transparency, streamlines the stormwater review process, and enhances local enforcement tools.

In 2015 and 2016 ordinance revisions were integrated into community ordinance through 67 Community Staff, Planning Commission, and Council meetings and workshops. To date 8 communities have adopted MIDS into local ordinance.

Draft sections of the final report is attached.

Example Motion
Motion Board Member 1, second Board Member 2, approve final report and submit request for final reimbursement of $63,500 for the FY14 Clean Water Fund Grant- Integrating MIDS Into Local Ordinances.

Financial Report

Accelerated Implementation Grant 2014

Grant Title: Integrating MIDS into Local Ordinance and Zoning Code
Grant ID: C14-9221
Organization: Middle St. Croix River WMO

Grant Revenue	Amount
Total Awarded	$127,000.00

Grant Expenditures

Grant Activity Category	Amount
Education/Information	$15,390.00
Administration/Coordination	$2,500.00
Regulations/Ordinances/Enforcement	$109,110.00
Total Spent	$127,000.00
Returned Amount	$0.00
Balance Remaining	$0.00
Percent Spent	100%

This is to certify that the information is a true and accurate representation of the grant program accounts for the Integrating MIDS into Local Ordinance and Zoning Code- Middle St. Croix River WMO. We believe our records are complete and subject to an audit.

_____ _____

OFFICIAL SIGNATURE DATE

Please sign, scan, and upload this form to the attachments tab in eLINK.

If returning program funds, please use the Returned Check form.

Make checks payable and mail to:
Board of Water and Soil Resources
520 Lafayette Road N.
St. Paul, MN 55155

St. Croix Communities Clean Water Project

Integrating **M**inimal **I**mpact **D**esign **S**tandards into local ordinances

Middle St. Croix Watershed Management Organization

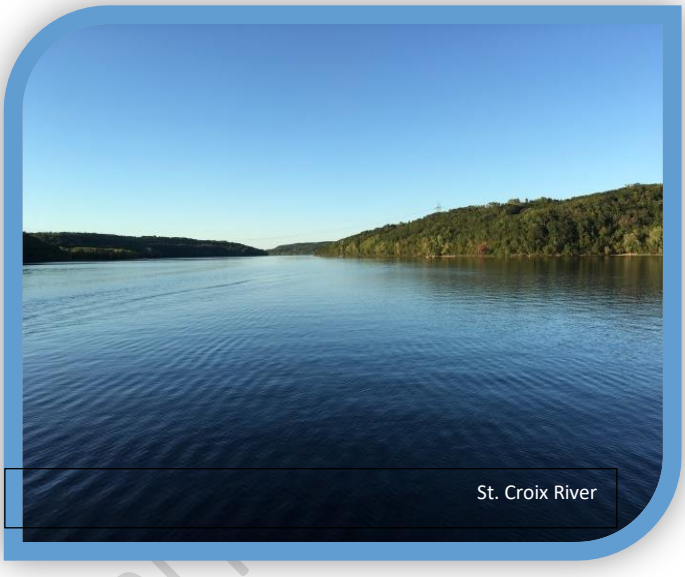
December, 2016

CLEAN WATER LAND & LEGACY AMENDMENT

Contents

Background

Minimal Impact Design Standards (MIDS) represent the next generation of stormwater management in Minnesota. The emphasis today is on keeping the raindrop where it falls in order to minimize stormwater runoff and pollution and preserve natural resources. Low Impact Development (LID) is an approach to stormwater management that mimics a site's natural hydrology as the landscape is developed and preserves and protects environmentally-sensitive site features such as riparian buffers, wetlands, steep slopes, valuable (mature) trees, floodplains, woodlands and highly permeable soils.


St. Croix River

The MIDS project began in 2009 when the Minnesota Legislature directed the Minnesota Pollution Control Agency (MPCA) to develop MIDS deliverables through Minnesota Statute 115.03, subdivision 5c, paragraph c. This statute reads:

"The agency shall develop performance standards, design standards, or other tools to enable and promote the implementation of low impact development and other storm water management techniques. For the purposes of this section, "low impact development" means an approach to storm water management that mimics a site's natural hydrology as the landscape is developed. Using the low impact development approach, storm water is managed on site and the rate and volume of predevelopment storm water reaching receiving waters is unchanged. The calculation of predevelopment hydrology is based on native soil and vegetation".

Upon passage of the legislation, the Minnesota Pollution Control Agency collected input and established a steering committee of representatives for developers, municipal staff, local and state organizations, and public works, and others to prioritize the most important structural and nonstructural best management practices needed for stormwater management. The work group met monthly for three years to review the science and work products of MIDS.

The MIDS products developed through the stakeholder process:

- Performance Goals
- Credit Calculator
- Community Assistance Package (model ordinances)

The strengths of MIDS from a local unit of government perspective:

- Simple volume calculation methodology that provides protection for water resources.
- Flexible and well defined alternatives process for sites with restrictions that either reduce the potential for infiltration or prohibit infiltration.
- Consistent credit calculator

MIDS along the St. Croix

In 2010 A Federal 319 grant was awarded to the Washington Conservation District to develop and pilot the MIDS Community Assistance Package (CAP) in the St. Croix Basin. The grant, matched with local and state funding, developed model ordinances and integrated them in to local ordinance at four communities--Centre City, Chisago, Lindstrom and East Bethel. As part of the grant these communities integrated MIDS into local ordinance.

Ongoing Education for Local Elected Leaders

As part of the MIDS pilot program in the St. Croix Basin, the East Metro Water Resource Education Program (EMWREP) and Non-Point Education for Municipal Officials (NEMO) programs worked extensively with community staff and local elected leaders. Both programs have been working with these groups since 2007 through the annual NEMO Workshop on the Water began. These annual workshops hosted on the St. Croix River bring together local elected and appointed officials and community leaders to build their knowledge of water resource protection and restoration. This sustained effort to provide skills that will assist local elected leaders in making informed decisions has been paramount to the success of MIDS and other water resource protection and improvement efforts along the St. Croix.

Project Description


MIDS Community Assistance Package workshop.

The goal of the St. Croix Communities Clean Water Project was for the Middle St. Croix Watershed Management Organization (MSCWMO) to use the Minimal Impact Design Standards (MIDS) Community Assistance Package (CAP) to assist St. Croix communities adopt MIDS into local ordinance and codes.

The work was guided and executed by the Project Steering Committee:
Mike Isensee, Middle St. Croix Watershed Management Organization
Jay Riggs, Washington Conservation District
Angie Hong, East Metro Water Resources Education Program
Anne Gelbmann, Minnesota Pollution Control Agency
John Bilotta, University of Minnesota Extension, Non Point Education for Municipal Officials
Jay Michels, Emmons and Olivier Resources
Spencer Peck, Emmons and Olivier Resources

Method and Timeline

Outreach to communities regarding the opportunity to participate in the local ordinance and code update process began in the summer of 2013. Presentations at the NEMO Workshop on the Water and at multiple community meetings provided an overview of MIDS, the Community Assistance Package, and the goals of the project.

The project was awarded a Clean Water Fund Accelerated Implementation Grant in 2014. After the grant was awarded and the work plan was signed in 2014, the steering committee met and identified a process for introducing and integrating MIDS into local ordinances. The stakeholder group's goal was to develop a process that provided multiple opportunities for input from community staff, elected officials, and appointed officials.

One of the key components identified at the meeting was the necessity to integrate a legal preview of MIDS to address legal concerns early in the process. Past efforts to integrated MIDS into local ordinance encountered multiple revisions at the end of the process when the Community Attorney reviewed the draft ordinance. This led to delays and a long list of concerns. To address this, the steering committee developed a Legal Preview workshop for community attorneys at the beginning of the process. To enhance the potential of Community Attorneys attending the event, the team allocated funding to reimburse communities for the legal fees charged to attend the meeting. This was also beneficial when introducing MIDS to City Councils and Town Boards. Frequently during those meetings local elected leaders had legal questions and they were easily answered by their community's legal counsel.

In the fall of 2014 letters were sent to communities announcing the grant award, requesting an opportunity to introduce St. Croix Communities Clean Water Project -MIDS to the Planning Commission and Council, and requesting the attendance of their Attorney at a 2 hour "Legal Preview" workshop (Appendix F).

Concurrently, the MSCWMO started a series of meetings with community staff to provide an overview of MIDS and answer questions prior to meeting with local elected leaders. These one to two hour meetings were held with the Administrator, Engineer and Planner.

In December 2014 the Legal Preview Workshop (Appendix F) was conducted by Jean Coleman, MPCA and covered the following topics:

- Overview and benefits of MIDS and the Community Assistance Package.
- Key components of the MIDS CAP: statutory authority, purpose statement, permit review process, MIDS performance goal and calculator, enforcement, fees, financial assurances, subdivision and design review, and review timeline.

After the Legal Preview workshop and after meetings with Community Staff, the MSCWMO began presenting an overview of MIDS and the opportunity to participate in the grant to update local ordinances to Planning Commissions and Councils. To begin the process of auditing the existing ordinance and working with community staff to identify ordinance modifications, the community was required to pass a resolution (Appendix A) declaring their commitment to adopt MIDS into local ordinance.

Upon receipt of the resolution, the community ordinance was audited to identify existing stormwater requirements and identify potential insertions, modification and deletions to integrate the components of the MIDS Community Assistance Package into the local ordinance. The results of the audit and recommended modifications were reviewed with Community staff at a 1-3 hour work session. Each community had a slightly different make up of staff, but typically the community staff meeting consisted of the Administrator or Clerk, Engineer and Planner. In many smaller communities, there was also one Town Board or Council Member that participated in the staff level work sessions and meetings. Based on community staff input, the first draft community ordinance was developed. The draft ordinance was then reviewed at a second, and sometimes a third, meeting with Community staff where further modifications were made.

Most communities along the St. Croix had few ordinances or codes directly related to stormwater management. By working with multiple communities of similar size, structure and in many cases, overlapping staff, a common model ordinance evolved that was crafted to meet the specific needs of the St. Croix Communities (Appendix B).

Draft ordinances were transmitted to community staff in October 2015. The transmission included a request for a formal engineering, planning and legal review. Once review results were received and any minor edits completed, the draft ordinances were presented to Planning Commission and City Council. The ordinance team offered a variety of formats and time frames to review the final draft ordinance with each community's elected leaders. Most communities opted for a 30-45 minute Planning Commission and Council joint workshop during the normal Planning Commission scheduled meeting. Other communities requested a brief 5-10 minute overview followed by a 5 -10 minute question answer session. Due to the extensive community

staff input, very few changes were made at the Planning Commission and Council workshops and presentations.

Factors for Success

The MIDS Steering Committee identified three key factors that they felt contributed to the success of this project. The first is the long-term education efforts for local elected leaders. Annual NEMO Workshops on the Water evaluations demonstrate the cumulative success of the 8 years of water resource education for local elected leaders. Next, the early legal preview workshop and multiple meetings to review and discuss MIDS with community staff prior to presentations to Council and Planning Commission added credibility to the proposed work. Often, council and planning commission members would request an opinion from the City Attorney, Planner, Engineer, or Administrator during the introductory presentation. When staff were knowledgeable and supportive of the work, planning commission and council members resolve to conduct the ordinance work was strengthened. Finally, conducting multiple meetings with staff to review draft ordinance language in addition to formal review and comment of the final draft. Since staff crafted the draft ordinance, they could knowledgeably discuss details and considerations with Planning Commission and Council. To help offset the fees from engineering, planning and legal, communities were reimbursed up to $1,100, for additional consulting staff time.

Outcomes

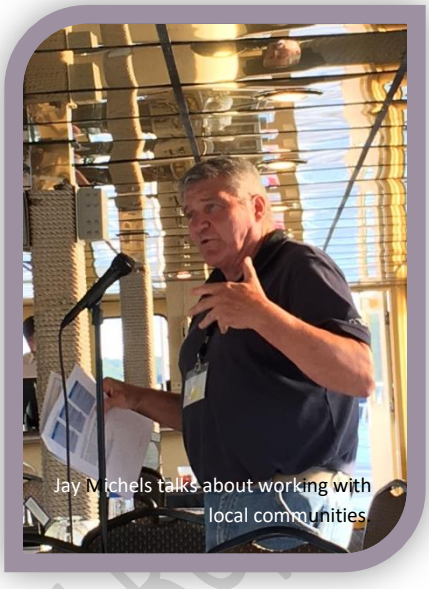
The MIDS St. Croix Community Assistance Package (Appendix B) provides quantifiable standards, clear processes, and defensible enforcement tools for stormwater management. The first step in the ordinance update process was to audit existing ordinances. These audits revealed most communities had stormwater ordinances from previous decades that lacked quantitative standards and well-defined processes for stormwater quality. Table 1.1 identifies a host of common issues identified the local controls of communities along the St. Croix. Additionally, stormwater ordinances were typically dispersed across multiple chapters and sections and were inconsistent with neighboring communities. All of these issues identified during the audit were reviewed with community staff.

Table 1.1: St. Croix Communities Stormwater Ordinance Summary

Community	Ordinance Regulates Stormwater	Quantifiable Performance Standards	Alternatives Process	Standardized Process	Financial Securities	Clear Enforcement Authority
Afton	Yes	No	No	No	No	No-generally, under zoning code, but not for stormwater
Bayport	Yes	Yes – limited to 2-year and 100-year storm	No	No	No –only required for subdivisions	No – under zoning and subdivision codes, but not specific to stormwater
Baytown Township	Yes	Yes – limited to 1-year, 10-year, and 100-year storm	No	No	No –only required for subdivisions	No – under zoning code, but not specific to stormwater
Lakeland	Yes	No	No	No	No	No-generally, under zoning code, but not for stormwater
Lakeland Shores	Yes- but vaguely	No	No	No	No	No-only for zoning and subdivision
Lake St. Croix Beach	Yes – but vaguely	No	No	No	No	No
Oak Park Heights	Yes-with outdated practices (ponds, NURP)	No- multiple, confusing categories	No	No	No-only required for subdivisions	No-only for zoning and subdivision
St. Mary's Point	Yes- ordinance is 3 pages long	No	No	No	No-only part of County subdivision ordinance	No-only for zoning and subdivision
West Lakeland Township	Yes-but very minimally	No	No	No	No-only part of subdivision ordinance	No-only for zoning and subdivision

Quantifiable Performance Standards

Audits of community ordinances revealed all communities lacked quantifiable standards for stormwater quality and many lacked quantifiable standards for rate control. For example, one community's stormwater standard was six sentences which contained qualitative statements such as "qualified individual" must "document" that stormwater facilities are properly designed and installed. Another development must "minimize the extent of disturbed area" and be stabilized "as soon as possible."


Jay Michels talks about working with local communities

Each community's ordinance update incorporates quantitative measures in the St. Croix Communities CAP in Appendix B. These include stormwater rate control for the 1-year, 2-year, 10-year, and 100-year, 24-hour storm events (Section 6.e.), volume control of 1.1 inches of runoff from all new or reconstructed impervious surfaces or 0.55" from new or fully reconstructed linear projects, or 1.1 inches of runoff volume from the net increase in impervious surfaces from the site (Section 6 a.-c.), and State of Minnesota NPDES Erosion and Sediment Control timeframes (Section 6.f.2.). The update ordinance also set consistent triggers for when performance standards must be met (Section 2).

Standardized Process

None of the community ordinances identified a standardized process. During meetings with community staff, this was identified as a high priority. In many communities along the St. Croix, there are multiple overlapping authorities that may require reviews based on the parameters of the project. The Permit Review Process(Section 4) clarifies the authority of the Zoning Administrator to facilitate a pre-application meeting prior to a landowner undertaking design. This step reduces the economic risk of the applicant and allows multiple review authorities the opportunity to clearly identify and discuss components of a potential project that may not meet existing standards.

Alternative Process

Since quantitative standards for water quality did not exist in community ordinances, they also lacked a clear alternatives process for projects that could not meet the standards. This is an important component for communities considering volume control requirements since there are a number of legitimate factors that may inhibit or preclude infiltration on a development site. For communities along the St. Croix, restrictions such as high surficial groundwater, karst, setbacks from wells or septic's shallow, bedrock and project locate within in the Emergency Response Area of a Communities Drinking Water Supply Management Area will occasionally impact the ability to infiltrate stormwater on a site. In these and other clearly defined circumstances, flexible treatment options (Section 6 d.) provide clear and orderly process and

for developers to demonstrate achievable volume and phosphorous load reductions utilizing the MIDS calculator.

The MIDS calculator (Section 5 b.) estimates the stormwater runoff volume reductions for various BMPs based on the MIDS performance goal (1.1 inches of runoff from impervious surfaces) and annual pollutant load reductions for total phosphorus (including a breakdown between particulate and dissolved phosphorus) and total suspended solids (TSS).

Standardizing stormwater Best Management Practices (BMPs) credits simplifies the development review process for community staff and developers. It also allows all non-technical stakeholders to visualize and understand the positive impacts of a particular stormwater best management practice. The objective and verifiable results of the MIDS Calculator improves predictability and reduces community staff workload for stormwater management review, while protecting or improving the quality of local water resources.

Financial Securities and Enforcement Authority

Most communities' ordinances contained general enforcement provisions in zoning, subdivision, or other regulations. As part of the MIDS ordinance update communities now have enforcement provisions and financial securities that are specific to stormwater and erosion control activities (Sections 9 and 10). The securities provisions allow multiple ways for permittees to provide a security and allow flexibility for the community for setting the securities. An important provision of the securities is the requirement that they are replenished within 7 days of notification if they fall below 50% of the required deposit (Section 9 f.). This allows the community to set a lower initial security amount, but have the ability to with-hold inspections or revoke permits if securities are used and need to be replenished.

Stormwater Management Chapter

Community ordinance audits also found that stormwater provisions typically appear in various places, including zoning, subdivision, land development, environmental, and building standards. Some code sections, especially zoning codes, were hundreds of pages long, with several dozen subchapters, sections and subsections. During the update process most communities chose to have stormwater management ordinances integrated into the existing codes as a standalone chapter, or as an addition to an existing chapter. All conflicting or supplemented sections were referenced to the stormwater chapter or deleted. The stand-alone stormwater management ordinance sections create clarity and simplify the review process and requirements for new and redevelopment.

Communities that did not adopt MIDS

Four communities have taken steps to consider the incorporation of MIDS in to local controls. The Cities of Afton, Stillwater, Forest Lake and Washington County did not adopt MIDS within the timeframe of the St. Croix Communities for Clean Water Project, but each is making progress toward potential adoption in the future.

The City of Afton has two watersheds that have jurisdiction within the municipal boundaries: the Middle St. Croix Watershed Management Organization and Valley Branch Watershed District. Both watersheds have adopted MIDS. The City passed a resolution to participate in the Clean

Water Communities Project and adopt MIDS. They have been moving the draft revisions forward and it is anticipated the final ordinance will be adopted in early 2017.

The City of Stillwater has three watersheds that have jurisdiction within the municipal boundaries: the Middle St. Croix Watershed Management Organization, Brown's Creek Watershed District and Carnelian-Marine-St. Croix Watershed District. The City of Stillwater completed draft revisions of their engineering standards to incorporate MIDS in 2015, but did not adopt those revisions because Brown's Creek WD did not adopt MIDS. During the Brown's Creek Watershed District 2016 Watershed Management Plan Update, the Board of Managers requested the Watershed Engineer to conduct a comparison of MIDS with the current watershed standards. The comparison revealed that in most new development scenarios the MIDS new development standard provided less volume control than the current Brown's Creek Watershed standards that were established to protect and restore the Brown's Creek cold water fishery. In 2017 Brown's Creek will be will be updating their rules. During this process they will consider, with the City of Stillwater, MIDs standards for portions of the watershed not discharging to Brown's Creek and re-evaluating their redevelopment standards for the entire watershed.

The City of Forest Lake is located within the jurisdiction of the Forest Lake Comfort Lake Watershed District (FLCLWD). The CLFLWD currently has volume control standards. In 2015 the St. Croix Communities Clean water Program team initiated discussions with the CLFLWD regarding MIDS and equivalency to their existing standards. These discussions have continued and in 2017 the CLFLWD will consider portions of MIDs for some components of the stormwater rules while maintaining more stringent standards as needed to meet the water quality goals for specific lakes. Once the watershed completes the rule update process they will provide assistance to the City of Forest Lake to integrate MIDS and revised watershed standards into the local ordinance.

Historically Washington County has maintained official controls to regulate physical land development in collaboration with unincorporated areas of the County. Minimum stormwater controls, last revised in 1998, are located in Chapter 3 Subdivision Regulations, Section 10 Engineering Standards. During initial discussions with the County to update Section 10, it was discovered the County had initiated a process to transfer land use regulation back to the local units of government in unincorporated areas, with the exception of shoreland areas which will remain a collaborative process between the County and Local Unit of Government. That process is currently ongoing. Washington County is considering adopting MIDS as the stormwater control criteria in shoreland areas. Additionally, they will encourage unincorporated areas to adopt the St. Croix MIDS Community Assistance Package as part of their local ordinance updates to regulate physical development of their community.

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: Mikael Isensee, Administrator
DATE: January 12, 2017

6b) 2017 MSCWMO BOARD APPOINTMENTS

In 2016 the MSCWMO Board Appointments were as follows: Brian Zeller, Chair; Joe Paiement, Vice Chair; Dan Kyllo, Treasurer; Nancy Karras-Anderson, Secretary. 2017 Nominations and appointments are requested.

2016 MSCWMO Review Fees

Motion by Board Member 1, seconded by Board Member 2, to appoint _____ Chair, _____ Vice Chair, _____ Treasurer, _____ Secretary for 2016.

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: Mikael Isensee, Administrator
DATE: January 12, 2017

6a) 2017-2019 Legal and Consulting Services

The MSCWMO is required to post every two years for our engineering and legal consulting services. The attached Request for Proposals was posted in the Stillwater Gazette at the end of November 2016. Letters of intent were received by our current consulting firms:

Legal- Kennedy & Graven, Chartered
Engineering- Emmons and Olivier Resources

The letters of intent are presented for board consideration.

Example Motion
Motion by Board Member 1, second by Board Member two, to select Emmons and Olivier Resources and Kennedy & Graven, Chartered to provide engineering and legal services for the MSCWMO from 2017-2019.

Middle St. Croix

Request for Letters of Interest Proposals—Professional Services for Legal, Engineering and Technical Consulting Services

NOTICE IS HEREBY GIVEN that pursuant to Minnesota Statues Annotated 103B.227, Subd. 5, the Middle St. Croix Watershed Management Organization (MSCWMO) hereby solicits Letters of Interest Proposals for legal, engineering and technical consulting services for fiscal years 2017 and 2018. The MSCWMO's 2017 operating budget is $132,770 and the annual capital projects budget is approximately $50,000.

Letters should include a brief description of the company and the experience of the individual(s) proposing to perform services for the Commission. Letters of interest proposals shall be in a sealed envelope clearly marked, "MSCWMO – Letter of Interest Proposal." The Board of Managers will review the letters and reserves to itself the right to take such action as it deems in its best interests. All Letters of Interest Proposals shall be submitted on or before December 30, 2016 electronically or in paper to:

Administrator Mikael Isensee

MSCWMO – Letter of Interest Proposal

455 Hayward Avenue

Oakdale, MN 55128

misensee@mnwcd.org

Proposal for 2017 - 2018 Engineering Consulting Services

Document Component Specs

Text: Staples • multipurpose paper, 24 lb. text – 50% post-consumer fibers, FSC Certified.
Back Cover: Neenah Paper • Esse • Texture, Sapphire • 100 lb. cover • 30% post-consumer fibers, Green Seal® Certified
Wire Binding: Manufactured using recycled high carbon steel

December 31, 2016

Mr. Mikael Isensee, Administrator
Middle St. Croix Water Management Organization
455 Hayward Ave.
Oakdale, MN 55128

Subject: MSCWMO – Letter of Interest Proposal

Dear Mikael:

It is with great pleasure that we submit our Letter of Interest Proposal to provide engineering services to the MSCWMO for fiscal years 2017 and 2018. We welcome the opportunity to build on and continue with the work and relationships we have developed with the MSCWMO Communities through our involvement with the MIDS Ordinance Project over the past two years.

This is an exciting time for the MSCWMO, a watershed filled with history - embracing a rapidly changing future. EOR is perfectly positioned to help lead this effort. We are intimately involved in water management throughout the St. Croix Basin, currently providing engineering services to the Browns Creek, Carnelian Marine-St. Croix, and Comfort Lake Forest Lake Watershed Districts and well as the Chisago Lakes Lake Improvement District. We are a part of the fabric of the community. Most of our staff live, work and play in the St. Croix Valley. We hope to guide the future protection and improvement of our watersheds.

Building on our long term working relationship, I will be acting as the Client Representative, drawing from the experience of our EOR Staff as the need arises. Kevin Biehn will lead our Design Group; Jason Naber will provide his expertise in wetland and natural resource protection; and Dr. Meghan Funke will work closely with Pat Conrad on water quality projects. The depth and experience of this group in watershed engineering within the St. Croix Valley is extensive and unrivaled.

Again, thank you for the opportunity to work with the MSCWMO through the next two years, we look forward to the challenge! Please feel free to contact me with any questions.

Sincerely,

Jay Michels
Partner, Senior Project Manager

COMPANY BACKGROUND

Firm Profile

Emmons & Olivier Resources, Inc. (EOR)

Is a collaborative group of environmental and design professionals passionate about protecting our waters, restoring healthy ecosystems, and enhancing our community's unique sense of place. We are an employee owned, multi-disciplinary water resource-based firm that specializes in:

- water-resources engineering, watershed planning, and modeling
- environmental compliance, biological surveying, and restoration
- sustainable site design, planning, and landscape architecture

History

Formed in 1997, Brett Emmons & Cecilio Olivier recognized the critical need for sustainable, alternative approaches to resources management that would provide long-term, holistic solutions. Having developed many unique applications and advanced sustainable technologies, EOR continues to monitor and refine our designs to address multiple functions.

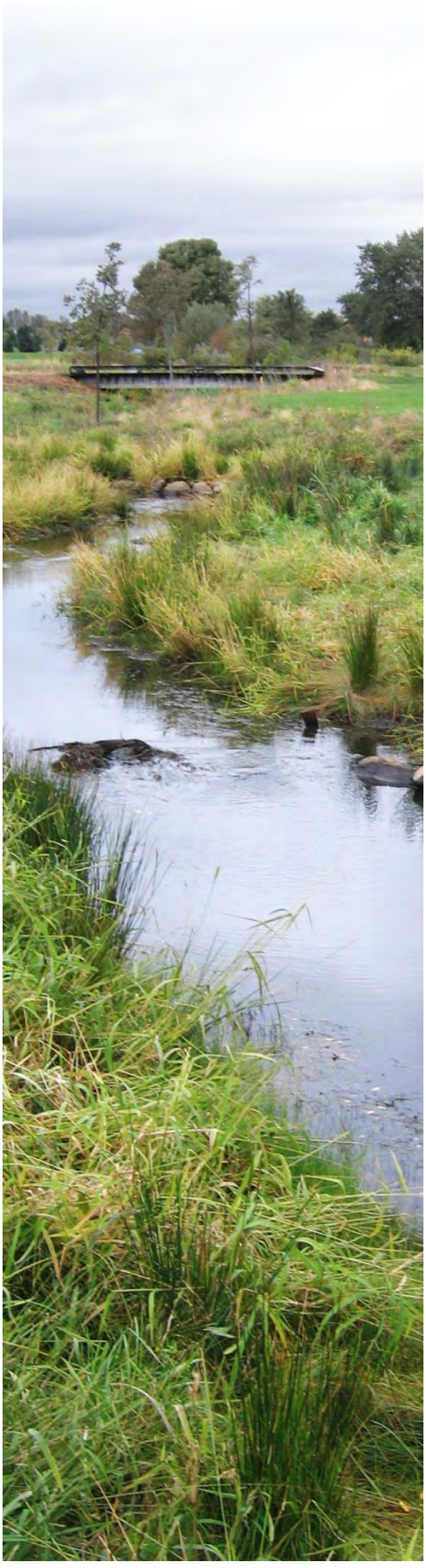
Approach

At EOR, scientific study and design are inherently intertwined in the pursuit of sustainability. The analytical and creative richness of our solutions derives from this characteristic integration and results in the highest social, environmental, and economic returns for our clients.

Mission + Values

we care for the earth and its inhabitants

- we collaborate with environmentally conscious customers
- we attract passionate, creative professionals
- we work in an aspiring and healthy environment
- we foster a culture of ownership
- we support the communities we serve
- we believe now is the time to act



Services + Awards

Water

floodplain management • geologic and hydrogeologic investigations • groundwater modeling, planning, and mgmt • hydrologic and hydraulic modeling • lake and wetland mgmt. plans • policy & ordinance development • stormwater management and outreach • stream assessment, restoration, and monitoring • TMDL and watershed protection studies • water quality monitoring and modeling

Ecology

ecological restoration design • environmental compliance • environmental planning and management • invasive species documentation • vegetation assessment and classification • wetland regulatory activities • wildlife surveys and monitoring

Community

campus and community planning • civil design, construction mgmt, and land surveying • green infrastructure • low impact development & conservation design • parks & trails planning • public participation, input, and project awareness • sediment control and conservation practices • sustainable site design (SITES) & LEED strategies • sustainability planning

Awards

- 2016 FIDIC International Consulting Engineer Merit Award
- 2016 Freshwater Society Clean Water Champion Award
- 2015 ACEC-National Excellence in Engineering Grand Award
- 2015 MN-ACEC Grand Water Resources Award
- 2014 MN-ASLA People's Choice Award
- 2013 MN-ACEC Research Award
- 2012 MN-ASLA Communication Design Award
- 2011 MN-ASLA Landscape Architect Award
- 2010 MN-ACEC Consulting Award
- 2010 WI -ASLA Landscape Architect Award
- 2010 Environmental Initiative Award
- 2010 MN-ACEC Water Resources Grand Award + Nat'l. Finalist
- 2008 and 2004 MAWD Watershed Project of the Year
- 2008 Innovation Award
- 2007 Sustainable St. Paul Award
- 2006 Environmental Award of Excellence
- 2006 #1 Nationally Ranked State Stormwater Manual

Team

Dedicated to protecting water resources, restoring healthy ecosystems, & in enhancing our community's unique sense of place, EOR's multi-discipline team forms the core of our approach. Representing several educational backgrounds and various areas of expertise through years of experience, EOR's diverse team provides a synthesis of knowledge that serves to benefits our clients and their projects.

Education + Expertise

Degrees

- Water Resource + Civil Engineering
- Agricultural + Bio-systems Engineering
- Geological Engineering
- Environmental Engineering
- Mining + Mechanical Engineering
- Water + Natural Resources Sciences
- Forestry + Plant Physiology
- Ecology (freshwater, forest, environmental)
- Biology (aquatic, conservation, environmental)
- Environmental Design
- Landscape Architecture
- Architecture

Specialties

- Stormwater Best Management Practices
- Natural Resources Management & Planning
- Watershed, Water Quality and Quantity Modeling
- Total Daily Maximum Load Studies (TMDLs)
- Environmental Compliance (EAW, EIS, SEIS,)
- Sustainable Site Development + Low Impact Design
- Fluvial Geomorphology & Stream Stabilization
- Eco-Restoration and Conservation Management
- Sustainability Planning
- Watershed Planning and Rules Development
- Field Surveying (rare plants, threatened species, etc.)
- Educational and environmental signage
- Geographic Information Systems

EOR TEAM MEMBERS

w a t e r | e c o l o g y | c o m m u n i t y

EOR Team Members

Carl K. Almer, LEED AP BD+C

Role: Water Resources Engineer

Carl Almer has 20 years of experience as a water resources engineer. He currently serves as District Engineer for 2 metro watershed districts. He specializes in stormwater BMP identification, feasibility assessment & prioritization, LID design, stream assessment & restoration, hydraulic /hydrologic and water quality modeling, watershed rule development, & watershed district planning. Carl is also experienced in lake & stream water quality and quantity monitoring and modeling. Carl has performed over a 1,500 development plan reviews and has authored or advised on several watershed rules. Serving watershed districts for his entire career, Carl's comprehensive knowledge and experience base makes him an excellent advisor on all aspects of watershed district purview.

Kevin Biehn, ASLA, CPESC, LEED AP BD+C

Role: Landscape Architect

Kevin has 20 years of experience as a landscape architect and stream specialist, which affords him the opportunity to exercise his analytical and artistic sensibilities. Kevin has managed a diversity of challenging projects including the 1.6 million dollar Harriet Island Park Rehabilitation, the Rice Creek Meander Restoration - one of the largest stream restoration projects in the Midwest, and Organic Valley's LEED Certified Headquarters.

Sonya Carel, RA, LEED AP

Role: Architect/Visual Communications

With 19 yrs. of experience in architecture and visual communications, Sonya has served as a project designer and manager on many projects throughout Minnesota. As an architectural liaison, Sonya understands and aids the collaborative process required of architects, landscape architects, and engineers in developing successful and sustainable projects. Sonya's design skills also serve in the development of public education materials and in creating graphic-identity packages for our clients' programs. With a background in limnology, Sonya comprehends issues critical to EOR and our client's - uniquely enabling her to graphically emphasize, support, and present complex ideas and detailed information with excellent clarity and skill.

Pat Conrad

Role: Natural Resources Specialist

Patrick Conrad has 25 years of experience in water resource mgmt., including watershed administration, wetland assessment, water quality modeling, and TMDL project mgmt. An excellent project manager, Pat has led several regional TMDL and Lake Mgmt. Planning projects. He has managed the development of several Watershed Mgmt. Plans including facilitating the stakeholder involvement process.

Camilla Correll, PE
Role: Water Resources Engineer
Camilla Correll is a Water Resources Engineer with 19 years of experience who specializes in stormwater infiltration, integrated watershed management, and sustainable engineering design. Camilla's detailed knowledge and extensive experience in the development of various watershed management plans, watershed rulemaking, and application of low impact development techniques have allowed her to successfully implement innovative stormwater and watershed management plans, all supported by her rigorous scientific approach and thorough research. Her excellent communication skills & ability to facilitate and lead large, multiple interest group discussions have led to her success as an efficient project manager for EOR.

Kyle Crawford, EIT
Role: Civil Engineer

Kyle Crawford is a Water Resources Engineer with 4 years of broad experience in civil engineering, stormwater management and ecosystems restoration. He is well versed in design and assessment platforms (ArcGIS, HydroCAD, Bentley FlowMaster, CulvertMaster, and AutoCAD Civil 3D. Kyle has been directly involved in a wide range of projects in stormwater conveyance design, stormwater management plans, residential and commercial site design, and implementation of eco-restoration. These projects have utilized his background in land and construction surveying, civil engineering design, erosion and sediment control and construction observation.

Brett H. Emmons, PE, ENV SP, LEED AP
Role: Water Resources Engineer
Brett H. Emmons is a founding principal of EOR with 29 years of experience in Civil & Water Resources Engineering. Natural resources mgmt., preservation, and planning – with an emphasis on innovative stormwater management techniques has been his specialty. Brett has been instrumental in developing EOR as a regional leader in low impact design and sustainability planning. Brett has led the planning & design of various projects ranging from small residential efforts to large multi-million dollar projects. He is experienced in leading project teams involving multiple consultants, public interest groups, and various government committees at every jurisdictional level.

Ryan M. Fleming, PE
Role: Water Resources Engineer
Ryan Fleming is a Water Resources Engineer with 15 years of experience specializing in water quantity and quality modeling and infrastructure design. Ryan has been involved on design projects ranging from large scale bank stabilization to infrastructure retrofitting for water quality improvement. He has been involved with hundreds of development plan reviews–including erosion and sediment control evaluation, surveys, and inspection. Ryan's depth in modeling & field inspections allows him to develop efficient and lasting project outcomes.

Meghan Funke, PhD.

Role: Limnologist

Meghan earned a Ph.D. from the Univ. of Minnesota studying nutrient cycles in lakes and wetlands, and has completed over 10 years of field and research experience in aquatic ecology. She also has a general understanding of architecture and engineering from her undergraduate degrees in architecture and civil engineering.

Meghan applies her broad expertise to various water quality and stormwater management projects. She is the technical lead for all of the lake and stream diagnostic, Total Maximum Daily Load, and Restoration and Protection projects at EOR. She also provides water quality expertise to EOR watershed, lake and stream implementation projects.

In addition, she has experience working with stakeholders and the public to identify the causes of biological impairments, inventory non-point & point pollution sources, & to develop nutrient load allocation and reduction scenarios. As a scientific team member, Meghan's technical training in environmental engineering and research experience in limnology contribute to an integrated understanding of aquatic health and water resources management at EOR.

Greg Graske, PE

Role: Water Resources Engineer

Greg Graske is a water resources engineer with 17 years of experience in engineering design, hydrologic/hydraulic modeling, watershed planning and plan review. As a watershed district engineer, Greg is responsible for a wide variety of water resources engineering projects, from design and implementation to compliance reviews, construction scheduling, and project budgeting. His well-rounded engineering experience helps contribute to a thorough knowledge base that has enabled Greg to find cost effective solutions to many complex engineering projects and programs.

Stuart Grubb, PG

Role: Hydrogeologist

Mr. Grubb has 24 years of experience in environmental consulting and has served as the lead senior hydrogeologist and project manager for large, multi-disciplinary environmental permitting projects and regional groundwater studies. He has worked extensively with ground-water infiltration and recharge both on local and regional scales. Mr. Grubb has designed stormwater infiltration basins & modeled aquifer recharge for water resource management organizations.

Britta Hansen, PLA

Role: Landscape Architect

Britta has 6 years of experience as a landscape architect and project manager creating responsible solutions for public spaces, recreational areas, and school campuses. Britta specializes in master planning and site design including the integration of sustainable site amenities such as bicycle parking, pedestrian paths, permeable pavers, rain gardens, and native plantings. In addition Britta is a trained visual artist who frequently creates visual renderings and graphic presentation materials for public input processes as well as educational and interpretive signage for water quality improvement projects. Britta's educational graphics focus on presenting technical BMP information in a user-friendly, simple, and visually attractive manner.

Etoile Jensen, GISP

Role: GIS Management

Etoile is a GIS Professional with over 30 years of experience specializing in cartography, photogrammetry, database design, data compatibility and conversion, and GIS spatial analysis. Using her extensive experience in natural resources mgmt., transportation planning and civil/water resources engineering, Etoile applies her skills to cartographic map design and layout, GIS analysis, data collection, and preforms data conversion / compatibility for the variety of software products used. She is proficient in database design, spatial integration and geodatabases. Etoile also develops Story Maps, implements quality control procedures and uses ModelBuilder to expedite geoprocessing in ArcMap. Having coordinated multiple project data requirements, data application and geoprocessing needs, Etoile provides GIS support to variety of different projects and client types including both government agencies and private industry.

Paula Kalinosky, EIT

Role: Water Resources Engineer

Paula Kalinosky is a water resources engineer with 12 years of science & engineering- related experience. Paula's work includes stormwater modeling, development review assistance, TMDL studies, water quality monitoring and assessment, and street sweeping management. The later was the focus of Paula's research in graduate school. As part of her master's thesis she developed a spreadsheet application tools to aid in the estimation of potential nutrient recovery through street sweeping. Paula's technical background includes experience with water quality laboratory and field methods, spatial analysis (GIS), programming (VBA), statistical analysis (R, Statistica), and water treatment.

Derek Lash, PE, CPESC

Role: Civil Engineer & Erosion Control Specialist

Derek Lash is a Civil Engineer and Erosion Control Specialist with 19 years of experience in the design, documentation, and management of civil engineering projects including transportation, low impact development design, stormwater management, and wetland restoration. Derek's strong background in geotechnical engineering, erosion control, and wetland ecology provide a depth of knowledge to EOR's multiple engineering, site design, water quality, and ecorestoration projects.

As a project manager, Derek has served as a representative for several projects ranging in scale from local neighborhood-based efforts to watershed-wide initiatives, including federally funded and regulated projects as well.

Mike Majeski

Role: Biologist

Mike Majeski has 14 years of experience as a biologist with a focus on wildlife and aquatic ecology. His work includes stream assessment and design, water quality studies, biological monitoring, and wildlife surveys. Mike has managed a variety of projects including invasive species detection and management, rare species surveys, stream habitat enhancements, large scale water quality monitoring and flow studies, and stressor identification.

Jay Michels, CPESC

Role: Stormwater Mgmt. & Erosion Control Specialist

Jay Michels is a Certified Professional in Erosion and Sediment Control with over 35 years of experience in construction management, erosion control, and stormwater management. The emphasis of his work is in Low Impact Development and stormwater pollution prevention. His experience in planning, design, and construction management includes projects ranging from residential and commercial development to shoreline and streambank stabilization; from highway and golf course construction to prairie and wetland restoration.

Jay has also served as a program adviser to a number of communities and state agencies in the development of stormwater programs, regulations, and ordinances. He is a proven leader and an outspoken advocate for erosion and stormwater education and a key member on any project which involves the need for well-coordinated public outreach and educational program campaigns.

Jay is also a successful grant writer and administrator having received over $750,000 in grant funding for the development of educational programs and shoreline stabilization projects.

Jason Naber, WDC

Role: Biologist

Jason Naber has 27 years of experience in natural resource management and ecological restoration. He has been the project lead for several resource management plans, Watershed Restoration and Protection Strategies (WRAPS) and a One Watershed- One Plan. He is very familiar with environmental regulatory programs, wetland banking and routinely conducts rare species surveys. Jason is an experienced project facilitator. He is an effective communicator and is frequently invited to give technical presentations and participate in educational seminars.

Cecilio Olivier, PE

Role: Water Resources Engineer

Cecilio has over 30 years of experience in stormwater engineering and design, integrated watershed management and hydrologic, hydraulic & water quality modeling. Cecilio has performed extensive municipal Civil Engineering work including planning, feasibility assessment and design of water distribution, storm sewer and sanitary sewer infrastructure.

Cecilio's education in Mining, Mechanical & Environmental Engineering, enable him to be an effective PM and technical lead for Mining Environmental Review projects. Cecilio has provided technical expertise in many stormwater-related litigation cases including affidavits, trials, depositions, expert reports and third party reviews. Cecilio's extensive knowledge base, client experience, leadership skills, and ability to address and solve client's concerns, have led to the establishment of EOR as a firm recognized for its innovative and quality work.

Joe Pallardy

Role: Biologist

Joe Pallardy has more than 6 years of experience in water and natural resource management, watershed modeling, wetland regulation, & water quality and quantity monitoring. Joe's areas of expertise include GIS Terrain Analysis, water quality modeling (HSPF), TMDL studies and Watershed Restoration and Protection Strategies (WRAPs), and agricultural BMP prioritization. In addition to Joe's water quality experience, he has more than eight years of field experience having performed natural resource inventories, aquatic plant identification, and wetland delineations throughout Minnesota.

Steven L. Pellinen, PE

Role: Senior Design & Development Engineer

Steve has over 35 years of experience in landform and water resources engineering, specializing in site development for private and municipal entities in urban and suburban settings. Though well-grounded in design fundamentals and permit requirements, Steve's design approach favors creative and innovative problem solving and is particularly well-suited to challenging sites.

Whenever possible, Steve likes to incorporate sustainable and LID (Low Impact Design) practices, especially with respect to storm water management. Integrated practices include site planning and layout, grading and utilities, and all aspects of above and below ground storm water treatment, including harvesting and reuse.

Brian Rucker

Role: Civil Engineer

A recent graduate of NDSU's Civil Engineering program, Brian has experience in civil engineering, transportation, and site planning while interning at MN/DOT. He specializes in the construction documentation and oversight implementation of civil engineering and transportation projects, including stormwater conveyance for the development of management plans.

Olivia Sparrow, P. Eng., ENV SP

Role: Water Resources Engineer

Olivia Sparrow is a Water Resources Engineer with 5 years of experience in water resources modeling, stormwater systems design, stormwater management, and monitoring. She specializes in hydrologic and hydraulic modeling and has experience in SWMHYMO, HEC-RAS, PC SWMM, Miduss, Gawser, Visual OTTHYMO, and CulvertMaster. Her work has been used in designing new watercourse crossings, in assessing the flood impacts of rehabilitating watercourse crossings, and in designing stormwater management systems. A proven team leader, Olivia has been active in leading peers and coordinating engineering efforts abroad, as well as having facilitated public stakeholder groups.

Michael Talbot, EIT

Role: Water Resources Engineer

Michael Talbot has 9 years of experience as an academic researcher and water resources engineer. He specializes in the construction of hydrologic, hydraulic and water quality models, particularly where applied to assessing the performance of BMPs in urban and agricultural landscapes. Michael has experience with myriad modeling platforms, notably EPA-SWMM, XP-SWMM, and SWAT, along with pre- and post-processing techniques such as terrain analysis and sensitivity & uncertainty analysis. His work has been used in applications ranging from the design of critical stormwater infrastructure to the performance evaluation of LID practices.

Team Credentials

- 7 Professional Engineers
  4 Engineers in Training
- 1 Professional
  Landscape Architect
- 1 Registered Land Surveyor
- 1 Registered Architect
- 1 Professional Wetland
  Delineator
- 1 Professional Geologist
- 3 Certified Erosion/
  Sediment Control Specialists
- 13 Professionals with
  Master degrees or higher
- 5 LEED Accredited
  Professionals
- 10 Professionals with
  10-19 years of experience
- 11 Professionals with
  over 20 years of experience

ACADEMIC COLLABORATORS:

Jim Almendinger, PhD.

Role: Sr. Research Scientist, water resources modeling

Jim has 26 years of experience specializing in land-water interactions and water resources modeling, his current work focuses on human impacts to the environment at the watershed scale, in particular the use of the Soil and Water Assessment Tool (SWAT) to infer changes in non-point source loading of sediment and nutrients from land-use change.

Chris Lenhart, PhD.

Role: Research Scientist, water resources and wetlands

Chris has 20 years of years of experience specializing in stream restoration, fluvial geomorphology, agricultural land mgmt., and related water quality concerns, Chris combines his extensive background in academic research & applied resources mgmt. in developing programs to addressing water resource issues.

Joseph Magner, PhD.

Role: Senior Water Resources Scientist

Joseph Magner has over 30 years of experience as a water resources scientist, educator and consultant. He was the Principal Research Scientist for the Minnesota Pollution Control Agency's Impaired Waters Program and the chief architect of the 2013 codified Watershed Restoration & Protection Strategy (WRAPS). Dr. Magner also provided senior leadership for the development of the hydrologic components of the non-point source mgmt. plan, and the development of the Clean Water Partnership Program.

Jason Ulrich

Role: Water Resources Scientist

Jason Ulrich is a current PhD. student and research fellow at the Univ. of Minnesota with 18 years of programming, scientific research, and modeling experience. Jason's academic specialization is based on his strong programming and database background used in the development of detailed models for the documentation, analysis, implementation, restoration, and management of streams and rural, agricultural-based watersheds.

EOR Team Summary

Staff *(alphabetical by last name)*	Advanced Degree	MN Registration and / or Certification	Yrs. Exp.	SERVICE AREAS											
				1	2	3	4	5	6	7	8	9	10	11	12
				Watershed, Subwatershed & Water Resource Mgmt. & Planning	Lake, Wetland & Stream Restoration & Mgmt.	H/H & Water Quality Modeling & Analysis	Urban SW BMP Design & Construction Management	Culvert Design, Repair, Installation	Bank Erosion Design & Repair	Dam/Control Structures	Water Resources Permitting	Geographic Info Sys. (GIS)	Education & Outreach	Landscape Design & Installation	Carp Barriers
Dr. Almendinger	PhD.		25		X	X									
Carl K. Almer			20	■	X	X	■	X	X	X	■		X		X
Kevin Biehn	Master's	PLA, CPESC	20		■		X		■			X		■	
Sonya Carel	Master's	RA, CID	19									X	X		
Pat Conrad			25	X	X										
Camilla Correll	Master's	PE	19	X							X				
Kyle Crawford		EIT	4				X	X	X	X					X
Brett Emmons	Master's	PE	29	X						■	X				X
Ryan Fleming		PE	15			X	X	X		X	X				
Meghan Funke	PhD.		10	X	■	X									
Greg Graske		PE	17							X	X				■
Stu Grubb	Master's	PG	25	X		X					X				
Britta Hansen	Master's	PLA	6												
Etoile Jensen		GISP	30+									■			
Paula Kalinosky	Master's	EIT	12		X	X	X						X		
Derek Lash		PE, CPESC	19		X		■	X		X				X	
Chris Lenhart	PhD.	RLA	20		X				X					X	
Joseph Magner	PhD.		30+	X	X								X		
Mike Majeski			14		X				X					X	
Jay Michels		CPESC	36								X		■		
Jason Naber		WDC	27	X	■				X						
Cecilio Olivier	Master's	PE	30			■	X	■		■	X				X
Joe Pallardy			6	X	X	X					X				
Steve Pellinen		PE	35+				X	X	■					■	
Brian Rucker			2		X		X								
Olivia Sparrow		P. Eng., ENV SP	4	X		X		X							
Mike Talbot	Master's (student)	EIT	8			X		X			X	X			
Jason Ulrich	PhD. (student)		18	X		X									

KEY: ■ = **service area lead(s)** **X = key personnel**

EOR 2017 Hourly Fee Schedule

Classification	Hourly Rate (*)
Professional 1	$96.00
Professional 2	$118.00
Professional 3	$143.00
Professional 4	$161.00
Technician 1	$69.00
Technician 2	$82.00
Technician 3	$99.00
Principal Partner	$195.00
Support Staff	$63.00

Professionals:
Includes licensed and nonlicensed engineers, landscape architects, geologists, scientists, surveyors, field professionals, and geospatial professionals with bachelor's or advanced degrees.

Technicians:
Work requires a combination of basic scientific knowledge and manual skills which can be obtained through two years of post high school education, such as is offered in technical schools, community colleges, or through equivalent on-the-job training.

Principal Partners:
Officers and departmental managers at the highest level of EOR staff classification performing technical and quality control supervision.

Support Staff:
Non-manual clerical work performed by office administrators, administrative assistants, bookkeepers, messengers, office helpers, and clerks.

Additional Notes:

- *Reimbursable expenses (Reproduction, Printing, Duplicating, Mileage at current government rates, DGPS equipment, field supplies, use/rental of special equipment, etc.) will be billed at cost.*
- *Subcontracted services will be billed at cost plus 15% to cover overhead expenses.*
- *Expert witness trial and deposition testimony will be billed at the above hourly rates times 1.5.*
- *Payment is due upon receipt of invoice. If the invoice is not paid within thirty (30) days after invoice date, Client will also pay a finance charge thereon of 1.5 percent or the maximum rate allowed by law, whichever is less, for each month thereafter or portion thereof that an invoice remains unpaid.*

(*) Rates reviewed and adjusted on an annual basis.

Kennedy & Graven CHARTERED

Offices in
Minneapolis
Saint Paul
St. Cloud

470 U.S. Bank Plaza
200 South Sixth Street
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1-320-240-8200

November 22, 2016

Mikael Isensee, Administrator
MSCWMO – Letter of Interest Proposal
455 Hayward Avenue
Oakdale, MN 55128

RE: Response to Request for Proposals for Legal Services

Dear Mike:

Please accept this letter as the proposal of Kennedy & Graven, Chartered to continue to provide legal services to the Middle St. Croix Watershed Management Organization ("MSCWMO").

I. KENNEDY & GRAVEN, CHARTERED QUALIFICATIONS

Kennedy & Graven has made a commitment to the representation of public bodies as a mainstay of its practice. More than 90% of the revenues of the firm are derived from the practice of municipal law. We currently serve as city attorney for civil matters for the following 38 cities: Belle Plaine, Brooklyn Center, Brooklyn Park, Cokato, Cottage Grove, Crystal, Faribault, Franklin, Hopkins, Independence, Kenyon, Lake City, Lake Elmo, Lauderdale, Mantorville, Maplewood, Medina, Minnetrista, Mound, Mounds View, Nerstrand, New Brighton, New Prague, Oak Grove, Oakdale, Osseo, Pine Island, Rice, Richfield, Robbinsdale, Rosemount, Sandstone, Shakopee, Tonka Bay, Victoria, Wahkon, Watson, and West Concord.

We also represent a large number of housing and redevelopment authorities, economic development authorities, port authorities, charter commissions, towns, joint powers organizations, watershed management organizations, school districts, and other special purpose political subdivisions as general counsel. We have represented a large number of Minnesota cities as special counsel on specific projects on a broad range of municipal law matters. These have included Minneapolis, St. Paul, the Minneapolis Park and Recreation Board, and St. Anthony as well as Bloomington, Burnsville, Duluth, Minnetonka and scores of others.

Over the years we have developed considerable experience in nearly all of the legal issues faced by cities and other units of local government. The experience of the firm that relates most directly to the work of the MSCWMO is our practice in the representation of joint powers watershed management organizations, which include the Lower Rum River Watershed Management Organization, the Bassett Creek Watershed Management Commission, the Shingle Creek Watershed Management Commission, the Mississippi Watershed Management Organization, the Vadnais Lakes Area Watershed Management Organization, and the West Mississippi Watershed Management Commission. However our ability to provide services to such organizations is significantly enhanced by our experience in serving other governmental clients. As city attorney for a large number of municipalities and special counsel for many others, we advise our clients on the full range of local government issues on a daily basis. Additionally, the firm is nationally recognized as approving bond counsel. In this connection, we have given approving opinions and provided services relating to municipal finance matters (including financing of storm sewer facilities and county ditches) for several hundred cities, counties, school districts, and other such organizations throughout the state and, to a lesser extent, outside of the state of Minnesota.

This experience has not only allowed us to develop considerable experience in all matters relating to the activities of WMO's, but has given us a good understanding of the problems and concerns of cities. We believe that this understanding has helped in continuing a harmonious relationship between our WMO clients and their member cities and avoiding the problems and conflicts that can occur between cities and watershed districts. We take pride in the firm's broad understanding of the legal, economic, and political environment facing the public sector in Minnesota.

II. PROJECT TEAM QUALIFICATIONS

We follow a team approach in representing our clients so that the considerable expertise and experience of all of the 28 attorneys of the firm can be brought to bear on the problems or issues of any one client. However, we propose that I, Troy Gilchrist, would be primarily responsible for the work for the MSCWMO. I have been practicing law since 1992. My practice is devoted exclusively to representing local government clients. I am currently the attorney for the Shingle Creek Watershed Management Commission, the Bassett Creek Watershed Management Commission, the Lower Rum River Watershed Management Commission, the Mississippi Watershed Management Organization, the Middle St. Croix Watershed Management Organization, the Vadnais Lakes Area Watershed Management Organization, and the West Mississippi Watershed Management Commission. I am the City Attorney for the cities of Brooklyn Center, Crystal, Mound, Rice, Wahkon, and Watson, I have provided special services to others cities at the request of the League of Minnesota Cities, serve as the Town Attorney or Special Counsel to over 250 towns across the state, and I represent the Lake Minnetonka Conservation District as well as economic development authorities.

Although my work for other joint powers WMOs is most directly related to the legal needs of the MSCWMO, my representation of cities, towns, and of the Lake Minnetonka Conservation District has given me the opportunity to be involved in many other ways in surface water management issues, the Wetland Conservation Act, public contracting, the state open meeting law, local land use issues, joint powers organizations, financing of public improvements, intergovernmental relations, environmental law and public liability for storm water damages.

For the 15 years prior to joining Kennedy & Graven in 2006, I was the Director of Operations and General Counsel for the Minnesota Association of Township Insurance Agency and an attorney with the Minnesota Association of Townships. During that time I conducted training sessions, drafted articles, memos, and risk management materials for elected officials on legal matters, represented towns before state agencies and the legislature, and established and ran the self-insurance programs for towns.

III. RATES

For 2017, we propose to charge a rate of $177 per hour for attorneys, $97 per hour for clerks, and $102 per hour for paralegals. The attorney rate has been in place without change since at least 2012. For 2018, we propose to increase each of those rates by $3.

IV. INSURANCE

The firm maintains coverage in the amount of $5,000,000 for professional liability and in excess of that amount (including umbrella coverage) for general commercial liability.

V. CONCLUSION

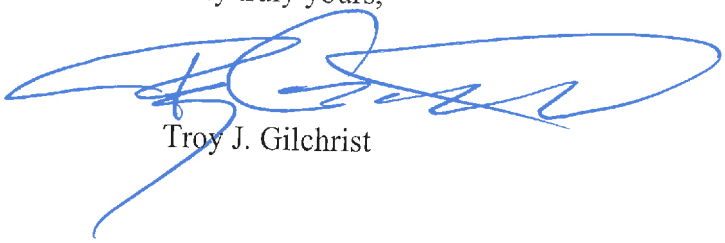
If we can provide you with any additional information that would be helpful to you in selecting legal counsel, please do not hesitate to give me a call.

We would be happy to provide references on request. However, we would also encourage you to feel free to call representatives of any of the watershed management organizations or the city managers or administrators of any of the cities noted above that we represent as legal counsel, about the services provided by our firm.

We believe that Kennedy & Graven is uniquely suited to serve the MSCWMO. We know of no other firm that has the depth and breadth of experience in representing local government units in Minnesota as Kennedy & Graven, and we pride ourselves in providing quality service to our public clients.

At Kennedy & Graven, our commitment to representing local government units represents not only an interest in such work but a firm belief that the work of local government units is important. We would very much appreciate being given the opportunity to continue to serve as legal counsel to the MSCWMO.

Very truly yours,



Troy J. Gilchrist

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: Mikael Isensee, Administrator
DATE: January 12, 2017

8 a) Stillwater Area Public Schools Bus Maintenance Facility- Baytown Township

The proposed Stillwater Area Public Schools Bus Maintenance Facility is located within the boundaries of the MSCWMO, in Baytown Township.

The existing 14.3 acre site consists agriculture area, woods, and a small home andout buildings. The proposed development will create 8.04 acres of new impervious surface for the construction of a bus maintenance garage, bus parking area, car parking area, and all associated utilities.

The attached final review results were submitted to Baytown Township.

Information only.

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION
455 HAYWARD AVENUE OAKDALE, MINNESTOA 55128
Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org

December 28, 2016

Sherri Buss, Planner
Baytown Township
4020 McDonald Drive
Baytown Township, MN 55082

RE: Stillwater School Bus Maintenance Facility

Dear Ms. Buss,

The Middle St. Croix Watershed Management Organization (MSCWMO) received required submittal items on November 18, 2016 and resubmittals on December 14, 2016 and December 20, 2016 for the proposed Stillwater School Bus Maintenance Facility, located within MSCWMO boundaries and in the Township of Baytown. The proposed project qualifies for full review under the MSCWMO 2015 Watershed Management Plan (WMP).

The project, as revised, contains sufficient information to determine conformance with the Policies and Performance Standards contained within Section 7.0 of the 2015 MSCWMO Watershed Management Plan.

The MSCWMO recommends approval of this project with the following two conditions:

1. Submit the executed maintenance agreement.
2. Submit confirmation that there are no wetlands on the site.

The enclosed checklists contain 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

Cc: Jim Studenski, Township Engineer
John Fellegy, MSCWMO Board Manager
Gregory A. Buchal, P.E., Project Manager, Larson Engineering

Enclosures

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION
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PROJECT REVIEW

MSCWMO Project Review ID: 16-018

Project Name: Stillwater School Bus Maintenance Facility

Applicant: Stillwater Area Public Schools

Purpose: Construction

Location: 3547 Stagecoach Tr. N.

Review date: 12/28/2016

Recommendation: Approval with 2 Conditions: Submit the executed maintenance agreement. Submit confirmation that there are no wetlands on the site.

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

☒ Evidence of ownership for the project site

☒ 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. **Missing**

☒ 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).

☒ 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 signed maintenance agreement, which may be in the format of Appendix K, or other form approved by the city or township.

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.* ***Lists VBWD in Narrative***

Narrative

☒ Identify the person knowledgeable and experienced who will oversee the implementation of the SWPPP; the installation, inspection, and maintenance of the BMPs.

a. Identifies the person who will oversee the BMP inspection and maintenance.

b. Identify the training requirements are satisfied.

c. Inspections performed once every 7 days.

d. Inspections performed within 24 hours of a rain event greater than 0.5 in/24 hours.

e. Inspection and Maintenance records include:

i. Date and time of inspection.

ii. Name of person(s) conducting inspections.

iii. Finding of inspections, including the specific location where corrective actions are needed.

iv. Corrective actions taken (including dates, times, and party completing maintenance activities).

v. Date and amount of rainfall events greater than 0.5 in/24 hours.

vi. Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, or by a weather station that is within one mile or by a weather reporting system.

vii. Requirements to observe, describe, and photograph any discharge that may be occurring during the inspection.

viii. All discovered nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs within 24 hours after discovery, or as soon as field conditions allow.

☒ Describes procedures to amend the SWPPP and establish additional temporary ESC BMPs as necessary for site conditions.

☒ Describes the installation timing for all Erosion Sediment Control (ESC) Best Management Practices (BMPs).

☒ Describes final stabilization methods for all exposed areas.

☒ Methods used to minimize soil compaction and preserve topsoil must be described.

☒ Describes dewatering technique to prevent nuisance conditions, erosion, or inundation of wetlands?

☒ Identifies any specific chemicals and the chemical treatment systems that may be used for enhancing the sedimentation process on the site, and how compliance will be achieved with the permit requirements.

☒ Describes pollution prevention management measures ; **(References MPCA Permit)**

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

☒ *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 14 days (or 7 days Appendix A).

b. Wetted perimeters of ditches stabilized within 200 feet of surface water within 24 hours.

c. Pipe outlets have energy dissipation within 24 hours of connecting.

☒ Locations and types of all temporary and permanent Sediment Control BMPs.

a. Sediment control practices established on down gradient perimeters and upgradient of any buffer zones.

b. All inlets are protected.

c. Stockpiles have sediment control and placed in areas away from surface waters or natural buffers.

d. Construction site entrances minimize street tracking?

e. Plans minimize soil compaction and, unless infeasible to preserve topsoil.

f. 50 foot natural buffers preserved or (if not feasible) provide redundant sediment controls when a surface water is located within 50 feet of the project's earth disturbances and drains to the surface water.

☒ Tabulated quantities of all erosion prevention and sediment control BMPs.

☒ Stormwater flow directions and surface water divides for all pre- and post-construction drainage areas.

☐ Locations of areas not to be disturbed (buffer zones).

☒ Location of areas where construction will be phased to minimize duration of exposed soil areas.

NA *Blufflines are protected from construction activities in urban (40 foot buffer) areas and rural areas (100-foot buffer).*

LAKE, STREAM AND WETLAND BUFFERS

NA A buffer zone of unmowed natural vegetation is maintained or created upslope of all water bodies (wetlands, streams, lakes). **NA**

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**

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. **NA**

STORMWATER MANAGEMENT *[A checked box indicates compliance]*

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

Rate and Flood Control Standards

☒ The peak rate of stormwater runoff from a newly developed or redeveloped site shall not exceed the 2-, 10-, and 100-year 24-hour storms with respective 2.8, 4.2, and 7.3-inch rainfall depths with MSCWMO approved time distribution based on Atlas 14 for existing and proposed conditions. The runoff curve number for existing agriculture areas shall be less than or equal to the developed condition curve number. The newly developed or redeveloped peak rate shall not exceed the existing peak rate of runoff for all critical duration events, up to and including the 100-year return frequency storm event for all points where discharges leave a site during all phases of development.

☒ Predevelopment conditions assume "good hydrologic conditions" for appropriate land covers as identified in TR−55 or an equivalent methodology. Runoff curve numbers have been increased where predevelopment land cover is cropland:

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

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

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

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

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

Volume Control Standards

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

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

Volume Retention Required (cu. ft.)	Volume Retention Provided (cu. ft.)
350,514 sf * 0.55 = 16,065 cu. ft. **Total Required 16,065 cu. ft.**	See MID Calculator Results

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 demonstrates removal of volume and 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.

The following conditions exist that prohibit infiltration of stormwater on the site

a. Areas where vehicle fueling and maintenance occur.- Filtration basin with gate valve proposed. .

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

Setback	**Minimum Distance (ft)**
Property line	10
Building foundation*	10
Private well	35
Public water supply well	50
Septic system tank/leach field	35
*Minimum with slopes directed away from the building	

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

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

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. The maximum water depth for bioretention stormwater volume is 1.5”

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. The maximum water depth for infiltration basin volume control management facilities above ground with vegetation is 4.0 feet.

☒ Appropriate soil borings have been conducted that meet the minimum standards.

a. A minimum of one boring was conducted at the location of the infiltration facility for facilities up to 1,000 ft²; between 1,000 and 5,000 ft², two borings, between 5,000 and 10,000 ft², three borings and greater than 10,000 ft² 4 borings plus an additional boring for every 2,500 ft² beyond 12,500 ft²
b. Soil borings extend a minimum of five feet below the bottom of the infiltration practice. If fractured bedrock is suspected, the soil boring goes to a depth of at least ten feet below the proposed bottom of the volume control facility.
c. A minimum of three feet of separation to the seasonal water table and/or bedrock.
d. Identify unified soil classification.

☒ The least permeable soils horizon identified in the soil boring dictated the infiltration rate.

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

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

☒ Filtration system designed to remove at least 80% of total suspended solids

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.

☒ 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

☐ 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. **NA**

RECOMMENDATION: Approval with 2 Conditions

Submit the executed maintenance agreement.
Submit confirmation that there are no wetlands on the site.

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: Mikael Isensee, Administrator
DATE: January 12, 2017

8 b) North Main Hotel- Stillwater

This proposed Stillwater Hotel and Professional Center is a two-phase project located on North Main Street, within the boundaries of the MSCWMO, in Stillwater.

The existing 1.2 acre site consists of 0.77 acres of impervious surface (0.55 acres of paved parking lot, 0.12 acres of gravel parking lot and 0.1 acre of rooftop). The proposed development will reconstruct and add impervious surface that totals 1.09 acres for the construction of a mixed use hotel and restaurant with 105 parking stalls and a three story office building (phase 2).

Infiltration is prohibited so the proposed project qualifies for MIDS flexible treatment option #2 for 60% reduction in phosphorous.

Technical staff conducted an initial review on December 1 and requested model modifications necessary to complete the review. At the writing of this memo, modifications have not been submitted.

Information only.

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MEMORANDUM

TO: Middle St. Croix WMO Board of Managers
FROM: Mikael Isensee, Administrator
DATE: January 12, 2017

8 c) American Engineering Redevelopment, Bayport

On December 21st the MSCWMO received an application for the proposed redevelopment of an industrial property located within in the boundaries of the MSCWMO at 201 2nd Avenue South, Bayport.

Technical staff reviewed the submittals and requested additional information prior to conducting a full review.

Information only.