

elm creek Watershed Management Commission

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
PH: 763.553.1144
FAX: 763.553.9326
email: judie@jass.biz
www.elmcreekwatershed.org

TECHNICAL OFFICE
Hennepin County
Dept. of Environment & Energy
701 Fourth Ave S Suite 700
Minneapolis, MN 55415-1600
PH: 612.596.1171
FAX: 612.348.8532
email: Ali.Durgunoglu@co.hennepin.mn.us

June 7, 2017

Representatives
Elm Creek Watershed Management Commission
Hennepin County, MN

*The meeting packet for this meeting may be
found on the Commission's website:
<http://elmcreekwatershed.org/pages/Meetings/>*

Dear Representatives:

A regular meeting of the Elm Creek Watershed Management Commission will be held on **Wednesday, June 14, 2017, at 11:30 a.m.** in the Mayor's Conference Room at Maple Grove City Hall, 12800 Arbor Lakes Parkway, Maple Grove, MN.

The Technical Advisory Committee (TAC) meeting scheduled for May 10, 2017, has been **RESCHEDULED ONE MORE TIME to July 12, 2017.**

Please email Julia at Julia@jass.biz to confirm whether you or your Alternate will be attending the meeting.

Thank you.

Regards,



Judie A. Anderson
Administrator
JAA:tim

Encls: Meeting Packet

cc: Alternates
Joel Jamnik
TRPD

HCEE
Diane Spector
Clerks

BWSR
Met Council
Official Newspaper

MPCA
DNR

Z:\Elm Creek\Meetings\Meetings 2017\06 Notice_reg meeting.doc

elm creek Watershed Management Commission

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
PH: 763.553.1144
FAX: 763.553.9326
Email: judie@jass.biz
www.elmcreekwatershed.org

TECHNICAL OFFICE
Hennepin County
Dept. of Environment and Energy
701 Fourth Ave S Suite 700
Minneapolis, MN 55415-1600
PH: 612.596.1171
FAX: 612.348.8532
Email: Ali.Durgunoglu@co.hennepin.mn.us

AGENDA June 14, 2017

1. Call Regular Meeting to Order.
 - a. Approve Agenda.*
2. Consent Agenda.
 - a. Minutes last Meeting.*
 - b. Treasurer's Report and Claims.*
3. Open Forum.
4. Action Items.
 - a. Project Reviews.*
 - b. Fish Lake Internal Phosphorus Loading Control – Assurance Agreement.
 - 1) Revisions.*
 - 2) Final.*
5. Elm Creek Watershed-wide TMDL.
6. New Business.
7. Communications.
 - a. Hennepin County Memo Recommending Approval of Minor Plan Amendment.*
8. Education.
 - a. WaterLinks June 2017.*
9. Grant Opportunities and Updates.
 - a. Fish Lake Internal Phosphorus Loading Control.
 - 1) MPCA Acceptance Letter.*
 - b. Rush Creek Headwaters Subwatershed Assessment.
10. Project Reviews – *also see Staff Report*.*
11. Other Business.
12. Adjourn.

Z:\Elm Creek\Meetings\Meetings 2017\06 Agenda.docx

*in meeting packet
**available at meeting

Project Reviews. (See Staff Report.*)						
				a.	2013-046	Woods of Medina, Medina.
				b.	2014-015	Rogers Drive Extension, Rogers.
				c.	2015-004	Kinghorn Outlet A, Rogers.
			AR	d.	2015-006	Veit Building Expansion, Rogers.
				e.	2015-013	Wayzata High School, Plymouth.
			AR	f.	2015-020	Strehler Estates, Corcoran.
			AR	g.	2015-030	Kiddiegarten Child Care Center, Maple Grove.
				h.	2016-002	The Markets at Rush Creek, Maple Grove.
				i.	2016-004	Park Storage Place, Corcoran.
				J	2016-005W	Ravinia Wetland Bank Plan, Corcoran.
			AR	k.	2016-014	Balsam Apartments, Dayton.
			AR	l.	2016-018	Cambridge Park, Maple Grove.
			AR	m.	2016-019	Just for Kix, Medina.
			AR	n.	2016-021	Diamond View Estates, Dayton.
			AR	o.	2016-022	AutoZone, Maple Grove.
			AR	p.	2016-026	Faithbrook Church, Dayton.
			AR	q.	2016-038	AutoMotor Plex, Medina.
			AR	r.	2016-039	The Fields at Meadow Ridge, formerly Sands Parcel, Plymouth.
				s.	2016-040	Kinghorn 4th Addition, Rogers.
				t.	2016-047	Hy-Vee Maple Grove #1 (Hy-Vee Maple Grove North).
				u.	2016-052	The Woods at Rush Creek, Maple Grove.
				v.	2017-002	RDO Site Plan, Dayton.
				w.	2017-004W	Cartway Trail, Champlin.
				x.	2017-008	TH 169 Reconstruction, Champlin.
				y.	2017-010W	Nichols Property Wetland Delineation, Corcoran.
				z	2017-011	Crooked Creek Park, Plymouth.
A	E			aa.	2017-012	Minnesota Solar CSG19, Corcoran.
	E			ab.	2017-013W	20417 Larkin Road, Corcoran Wetland Violations, Corcoran.
				ac.	2017-014	Laurel Creek, Rogers.
A	E			ad.	2017-015	Raising Cane's Restaurant, Maple Grove.
	E			ae.	2017-016	Territorial Woods, Maple Grove.
	E			af.	2017-017	Mary Queen of Peace Catholic Church, Rogers.
	E			ag.	2017-018	CR50 Solar Gardens, Corcoran.
				ah.	2017-019	Medina Senior Living Community, Medina.
A	E			ai.	2017-020	Northwest Greenway Trail Phase III, Plymouth.
	E			aj.	2017-021	Hindu Society of MN Staff Housing, Maple Grove.
				ak.	2017-022	CSAH 81 and CSAH101 & 13 Intersection Improvements, Rogers
				al.	2017-023	Midwest Steel Supply, Rogers.
				am.	2017-024	Lil Explorers Daycare, Rogers
					2017-025	
					2017-026	

A = Action item E = Enclosure provided I = Informational update will be provided at meeting RPFI - removed pending further information
R = Will be removed RP= Information will be provided in revised meeting packet..... D = Project is denied AR awaiting recordation

*in meeting packet
**available at meeting

elm creek

Watershed Management Commission

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
PH: 763.553.1144 • FAX: 763.553.9326
Email: judie@jass.biz
www.elmcreekwatershed.org

TECHNICAL OFFICE
Hennepin County
Dept. of Environment and Energy
701 Fourth Ave S Suite 700
Minneapolis, MN 55415-1600
PH: 612.596.1171 • FAX: 612.348.8532
Email: Ali.Durgunoglu@co.hennepin.mn

Regular and Public Meeting Minutes May 10, 2017

I. A **regular meeting** of the Elm Creek Watershed Management Commission was called to order at 11:34 a.m., Wednesday, May 10, 2017, in the Mayor's Conference Room, Maple Grove City Hall, 12800 Arbor Lakes Parkway, Maple Grove, MN, by Chairman Doug Baines.

Present were: Bill Walraven, Champlin; Doug Baines, Dayton; Joe Trainor, Maple Grove; Elizabeth Weir, Medina; Lisa Vertelney, Plymouth; Kevin Jullie, Rogers; Ali Durgunoglu and James Kujawa, Hennepin County Dept. of Environment and Energy (HCEE); Rich Brasch and Brian Vlach, Three Rivers Park District (TRPD); Jeff Weiss, Barr Engineering; and Judie Anderson, JASS.

Also present: Todd Tuominen, Champlin; Brad Martens, Corcoran; Mark Lahtinen and Dave Haas, Maple Grove; Ben Scharenbroich, Plymouth; Andrew Simmons, Rogers; Steve Christopher, Board of Water and Soil Resources; Diane Spector, Wenck Associates; and Sharon Jacobsen, Greenfield.

A. Motion by Walraven, second by Trainor to approve the **agenda**. * *Motion carried unanimously.*

B. Motion by Walraven, second by Weir to approve the **minutes*** of the April 12, 2017 regular meeting. *Motion carried unanimously.*

C. Motion by Weir, second by Walraven to approve the May **Treasurer's Report and Claims*** totaling \$36,120.34. *Motion carried unanimously.*

[The regular meeting was suspended at 11:36 a.m. in order to convene a public meeting.]

II. **Public Meeting for Minor Plan Amendment**.* The Third Generation Plan amendment is for the purpose of updating the Capital Improvement Program (CIP)* to add two projects, remove one project, and shift funding on four projects to future years. The Technical Advisory Committee (TAC) reviewed the changes and supports the minor plan amendment. This amendment does not approve projects for funding, simply the revisions to the CIP as presented.

The Commission received a request from Hennepin County* to extend its review deadline to June 28, 2017. The request was approved by consensus.

A. **Open public meeting.** The public meeting was opened at 11:37 a.m.

1. **One written comment*** was received from the **Minnesota Dept. of Natural Resources (DNR)**, stating, *Our Area Hydrologist, Kate Drewry, has reviewed the revisions to the plan and noted that a number of the projects on the updated CIP involve work within Public Waters. While we support these projects in concept, we encourage early (pre-permit application) coordination with DNR to obtain input during the preliminary design stage.*

2. **Emails** were received from the MN Dept of Agriculture, Metropolitan Council, and BWSR, each stating they had no comments on the amendment. No comments were received from the member cities.

3. **Comments from public.** No one was present from the general public.

4. The **public meeting was closed** at 11:39 a.m.

B. **Commission Discussion.**

Motion by Weir, second by Trainor to adopt **Resolution 2017-01 Adopting a Minor Plan Amendment**.* *Motion carried unanimously.*

[The regular meeting was reconvened at 11:40 a.m.]

III. Open Forum.

Sharon Jacobsen was present to express her concerns regarding the installation of a solar garden in Corcoran adjacent to her property at 4920 Rebecca Park Trail in Greenfield. She stated that on part of the acreage intended for the solar panels are two large wetlands, part of Rush Creek. She is also concerned that wildlife will be negatively impacted by the shiny panels and that drainage off the panels may also impact the area.

Kujawa referenced the email correspondence* to Ms. Jacobsen and a second landowner, Ruth Eliason, sent on May 8, 2017. Because this site plan has not been submitted for the Commission's review, Staff does not know the specifics of the development. He discussed the Commission's rules and standards as they pertained to stormwater management, wetlands and buffers for a development plan review. When and if this project is submitted, Staff will review it in a similar fashion. Kujawa also discussed that the impacts to wildlife and the glare from the panels are not under the purview of the Commission's activities.

IV. Action Items.

A. Project Review 2017-011, Crooked Creek Park, Plymouth. The City is proposing to create a park near Cedar Hollow at 42nd Place North and Walnut Grove Lane. The site is 5.55 acres and 1.85 acres of it will be disturbed to create 0.41 acres of impervious cover. An unnamed tributary to Elm Creek runs through the property. A 36-inch culvert is proposed for the trail crossing over the tributary. Staff reviewed the site plans for compliance with the Commission's stormwater management, drainage alterations, buffers and grading standards. In their findings dated May 10, 2017, Staff recommends approval of the project with no conditions. Motion by Weir, second Vertelney to approve Staff's recommendation. *Motion carried unanimously.*

B. 2018 Operating Budget.* Treasurer Fred Moore worked with Staff to prepare a draft budget for 2018. Anderson detailed the line items and answered Commissioner questions. The budget proposes \$420,445 in general operating expense with \$50,000 designated for special projects and \$35,000 for studies and subwatershed assessments. Project and wetland review fees would result in \$90,000 in revenue; member assessments* would total \$225,000, an increase of 2.415% over the current year; and cooperative agreements and interest income would total \$7,500. \$97,945 would be taken from cash reserves to offset the deficit. Motion by Walraven, second by Weir to approve the 2018 Operating Budget as proposed. *Motion carried unanimously.* Staff will forward the approved budget to the member cities.

C. Motion by Weir, second by Walraven to approve the 2017 Intergovernmental Agreement* between the Commission and Metropolitan Council for the monitoring of Lake Jubert through the Council's **Citizens Assisted Monitoring Program (CAMP)**. *Motion carried unanimously.* Two lakes are included in the 2017 budget for CAMP. If a second volunteer/lake is identified, the agreement will be amended.

D. The Cooperative Agreement with Three Rivers Park District (TRPD)* will expire at the end of 2017. Under this agreement TRPD pays one-eighth or 12.5% of the monitoring costs incurred by the Commission for stream monitoring, stream gauging and lake monitoring on those waterbodies on which TRPD owns a portion of the shoreline. The current agreement spans the years 2013-2017 and \$5,500-\$6,5000 annually. The Commissioners expressed a desire to renew this agreement. Staff will work with TRPD to draft a new agreement.

V. Watershed Management Plan.

The Technical Advisory Committee (TAC) will meet in June to continue discussion of **manure management guidelines**, the **cost-share policy**, and the **rules pertaining to filtration, infiltration and abstraction** during stormwater management review.

VI. Elm Creek Watershedwide TMDL. Approval of the TMDL by the Environmental Protection Agency is expected very soon.

VII. Education.

A. Included in the meeting packet was an **update* of WMWA activities**. The Watershed PREP educators

elm creek Watershed Management Commission

Regular and Public Meeting Minutes – May 10, 2017

Page 3

are doing their final classroom visits for the school year. Because they get requests from some teachers for follow-up, they will be developing some additional lessons and hands-on activities that can be completed by the classroom teachers. WMWA will work with the TAC and cities to get some additional publicity for the program within the schools that have not yet participated in the program.

B. WMWA has also been coordinating with cities and native plant growers and is targeting a variety of events for sponsored native plant sales. Among those in the Elm Creek watershed is Corcoran Country Daze, August 19.

C. The next **WMWA meeting** is scheduled for 8:30 a.m., Tuesday, July 11, 2017, at Plymouth City Hall. Commissioners are encouraged to attend.

VIII. Grant Opportunities and Updates.

A. Internal Phosphorus Loading Control in Fish Lake project. The Board of Water and Soil Resources (BWSR) has informed Staff that an **Assurance Agreement** will be required for this project since the proceeds exceed \$200,000. Included in the meeting packet and the supplemental meeting packet are Brasch's original proposed draft* of the agreement and well as a second draft* showing revisions by the Commission's attorney. This agreement is not acceptable to BWSR.

A committee will meet later this month to further revise the agreement to better meet the expectations of BWSR. The agreement must be signed in June in order to continue with the project.

B. Rush Creek Headwaters Subwatershed Assessment project. In the meeting packet was a copy of a Professional Services Agreement* with Wenck Associates to complete the scope of work for this project along with a copy of Wenck's General Terms and Conditions.* Spector described the tasks that will be undertaken on the project and how the public outreach phase of the project could look. Motion by Weir, second by Trainor to approve the agreement pending review by the Commission's attorney. *Motion carried unanimously.* Christopher announced that the grant work plan was approved today.

IX. New Business.

X. Communications.

XI. Other Business.

A. The following **projects** are discussed in the May Staff Report.* ("W" denotes wetland project.)

1. 2013-046 Woods of Medina, Medina.
2. 2014-015 Rogers Drive Extension, Rogers.
3. 2015-004 Kinghorn Outlet A, Rogers.
4. 2015-006 Veit Building and Parking Lot Addition, Rogers.
5. 2015-013 Wayzata High School, Plymouth.
6. 2015-020 Strehler Estates, Corcoran.
7. 2015-030 Kiddiegarten Child Care Center, Maple Grove.
8. 2016-002 The Markets at Rush Creek, Maple Grove.
9. 2016-004 Park Place Storage Site Plans, Corcoran.
10. 2016-005W Ravinia Wetland Bank, Corcoran.
11. 2016-014 Balsam Apartments, Dayton.
12. 2016-018 Cambridge Park, Maple Grove.
13. 2016-019 Just for Kix, Medina.
14. 2016-021 Diamond View Estates, Dayton.
15. 2016-022 AutoZone, Maple Grove.
16. 2016-026 Faithbrook Church, Dayton.
17. 2016-038 AutoMotorPlex, Medina.
18. 2016-039 Fields at Meadow Ridge, Plymouth.
19. 2016-040 Kinghorn 4th Addition, Rogers.
20. 2016-047 Hy-Vee Maple Grove #1, Maple Grove.

elm creek Watershed Management Commission

Regular and Public Meeting Minutes – May 10, 2017

Page 4

21. 2016-052 The Woods at Rush Creek, Maple Grove.*
22. 2017-002 RDO Site Plan, Dayton.
23. 2017-004W Cartway Trail, Champlin.
24. 2017-005 Creekside Hills, Plymouth.
25. 2017-006 Summers Edge II, Plymouth.
26. 2017-007 Downtown Corcoran Ditch Maint/Cimarron Circle Drainage Maintenance, Champlin.
27. 2017-008 TH169 Reconstruction, Champlin.
28. 2017-009 Maple Grove Senior HS Tennis Court Rehabilitation, Maple Grove.
29. 2017-010W Nichols Property, Wetland Delineation, Corcoran.
30. 2017-011 Crooked Creek Park, Plymouth.*
31. 2017-012 Minnesota Solar CSG19 (Highway 55), Corcoran.
32. 2017-013W 20417 Larkin Road, Corcoran.

B. Adjournment. There being no further business, motion by Weir, second by Walraven to adjourn.
Motion carried unanimously. The meeting was adjourned at 1:14 p.m.

Respectfully submitted,



Judie A. Anderson
Recording Secretary
JAA:tim

Z:\Elm Creek\Meetings\Meetings 2017\05 Reg and Public Meeting Minutes.docx

elm creek

Watershed Management Commission

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
PH: 763.553.1144
FAX: 763.553.9326
email: judie@jass.biz
www.elmcreekwatershed.org

TECHNICAL OFFICE
Hennepin County
Environment and Energy Dept
701 Fourth Ave S Suite 700
Minneapolis, MN 55415-1600
PH: 612.596.1171 | FAX: 612.348.8532
email: Ali.Durgunoglu@hennepin.us

STAFF REPORT

June 7, 2017

2013-046 Woods of Medina. Medina. This is two parcels totaling 9.5 acres located east of CR 116 and south of Hackamore Road. The site is proposed to be developed into 16 single-family residential lots. On January 13, 2015, the Commission approved this project with two conditions. Although this project has not been constructed, it is still active with the City of Medina and remains approved by the Commission until it becomes inactive with the City.

2014-015 Rogers Drive Extension, Rogers. This project involves improvements along Rogers Drive from Vevea Lane to Brockton Lane. The project is located east of I-94, south of the Cabela development. The total project area is 8.0 acres; proposed impervious surfaces total 5.6 acres. Site plans received July 1, 2014 meet the requirements of the Commission with the exception of the nutrient control. Due to limited options to treat the nutrient loads on the east 1.7 acre portion of Rogers Drive, the Commission approved the site plan contingent upon the City deferring 4.6 lbs. of phosphorus for treatment in future ponding opportunities as the easterly corridor of Rogers Drive develops. 2.3 lbs. will be accounted for in the Kinghorn Spec. Building site plan with 2.3 lbs. still outstanding. This item will remain on the report until the total deferral is accounted for.

2015-004 Kinghorn Outlot A, Rogers. This is a 31 acre site located between the Clam and Fed Ex sites in Rogers on the west side of Brockton Road and I-94. The proposed site will have two warehouse buildings, 275,000 and 26,000 SF in size, with associated parking and loading facilities. The Commission standards require review of stormwater management, grading and erosion controls and buffers. In June 2015 the Commission approved this project with three conditions. Numerous revised plans have been received for Staff review. *This project was extended by the City of Rogers earlier this year (2017). It will remain active on the Staff Report.*

2015-013 Wayzata High School. The Wayzata High School project included additions to the high school building, new and/or expanded parking areas, new driveway, new playing fields, and new and/or modified stormwater ponds. The total disturbance area was approximately 44 acres, of which approximately 22 acres will be new impervious area. The project was approved on July 8, 2015 and construction was completed in 2016. The O&M plan has been completed; however, as of the date of this report, final recording of the plan has not yet been completed. *The engineer for the project has recently contacted Staff to discuss the project as some of the features are not functioning as designed. This results in standing water after heavy rains and runoff overflowing a curb in a way that was not intended. They have asked for approval of modifications to the drainage system to improve drainage. Staff is reviewing the proposal and discussing the modifications with the City.*

2016-002 The Markets at Rush Creek, Maple Grove. This is a proposal to develop 40 acres of a 123-acre planned unit development located in the southwest quadrant of the intersection of CSAH 101 and CSAH 10. County Ditch 16 (Maple Creek) runs along the south property line on this project. The 40-acre project area includes a Hy-Vee grocery store (16.8 acres), a Hy-Vee gas station (2.5 acres) and 11 outlots (18.76 acres). Right-of-way accounts for 2.3 acres. The remaining acreage (83 acres) consists of 5 outlots and right-of-way. The additional outlot areas are not part of the stormwater review for this project but will be reviewed for compliance with the Commission's buffer and floodplain requirements. At their May 2016 meeting, the Commission granted Staff authority to administratively approve the project and report any updates. This project has been placed on hold by Hy-Vee. As long as it remains active with the City, the Commission's approval with conditions remains in place.

2016-004 Park Place Storage Site Plans, Corcoran. The applicant is proposing to develop a 22-acre site in the southwest portion of the city into a multi-unit storage facility with associated access roads, utilities, and stormwater features. This will be an addition to the existing storage facility located west of the proposed project. New wetland permit revisions were approved by the Commission at their July 2016 meeting. New site plan information was received and approved by

the Commission in October 2016. All approval contingencies have been met with the exception of the a). BWSR certification of wetland banking withdrawals for 0.24 acres from bank account #1560. The Commission has a wetland replacement escrow in case this does not occur.

2016-005W Ravinia Wetland Replacement Plan, Corcoran. In February 2016, Lennar Corporation submitted a Wetland Banking Concept Plan for Phase II of the Ravinia Development. This plan was withdrawn in favor of an onsite wetland replacement plan. *At their December 2016 meeting the Commission approved Staff's findings and recommendations dated January 10, 2017. Final wetland impacts will be 1.22 acres. Wetland credits created on site will be 4.01 acres. All contingency items that were part of Commission's approval have been met. Construction on the site is proceeding this spring.* Staff is working with Karen Wold from Barr Engineering to provide monitoring to ensure the replacement meets the performance standards of the approved plans.

2016-040 Kinghorn 4th Addition, Rogers. This is a 13.7-acre parcel located in the northwest corner of the intersection of Brockton Lane and Rogers Drive. An industrial warehouse with 8.8 acres of new impervious area is proposed for the site. The plan includes the use of a NURP pond and a biofiltration basin to meet Commission requirements for rates, water quality and abstraction. The adjacent site is likely to be developed in the near future and some of the stormwater features were oversized to accommodate future development. At their November 2016 meeting the Commission approved the project with the following conditions: 1) approval of only this phase; future phases will need additional review and approval; 2) final modifications to the hydrologic modeling; 3) additional details are provided for a proposed water re-use system; 4) an O&M Plan for the pond and biofiltration basin is completed and recorded on the final plat; 5) modification of the storm sewer system to maximize the area draining to the NURP pond; and 6) receipt and review of any wetland-related documentation if wetlands are present. Condition #1 required no action, so the condition has been met. Condition #2 has been met for the current design; however, any future modifications to the design will require additional review. Conditions #3-6 remain outstanding and are expected to be addressed during final design in Spring 2017.

2016-047 Hy-Vee North Maple Grove. The applicant is proposing to disturb 13 acres of a 20.4-acre site located at the northeast corner of Maple Grove Parkway and 99th Ave (just south of the future Highway 610) for the purpose of constructing a grocery store, fuel station, convenience store and parking facilities. The applicant's engineer was present at the November meeting to request interpretation from the Commission on their 25' average and 10' minimum standard for a buffer when a retaining wall is used to minimize wetland impacts. The Commission felt there had to be some type of mitigating compensation for such a scenario. A revised plan was submitted on December 1, 2016. Staff sent preliminary review comments and requested revisions on December 14. In their findings dated January 10, 2017, Staff recommended approval of this project subject to a) receipt, approval, and recordation of an Operations and Maintenance Plan for the pond and the iron-enhanced filtration system, b) revisions for items relating to buffer requirements and erosion and sediment control as enumerated in the findings, and c) receipt of a signed and dated final plan set. The Commission approved Staff's recommendations at their January 11, 2017 meeting with the additional requirement that the Commission receive and comment on a WCA impact notice.

2016-052 The Woods at Rush Creek, Maple Grove. This project combines five parcels (40 acres total) into 73, single family residential lots. It is located on CR 101 south of the Rush Creek Golf Course and north of the Lord of Life Lutheran Church. The majority of the site drains into Cook Lake which is located immediately west of this development. The Commission's review will be for compliance with the Commission's rules D (stormwater management), E (erosion control), G (wetland alteration) and I (buffer strips). At their March 2017 meeting, the Commission approved staff's findings and recommendations dated February 15, 2017. Outstanding items are the biofiltration pond, O & M plans and recording, and the buffer monument location plans.

2017-002 RDO Dayton Site Plan. This is a commercial development proposal on a 25.6± acre plot located between I94 and Holly Lane. The project will develop the south 16 acres, to create about 7.6 acres of impervious cover. This project was approved with conditions by the Commission at their March 8, 2017 meeting. The City approved the PUD last month. The Applicant's engineer is updating the final construction plans. Final plans should be available for next month's meeting.

2017-004 Cartway Trail Wetland Replacement Plan, Champlin Park and Recreation Dept. This project application was received on February 2, 2017, and determined to be incomplete. Additional floodplain and wetland information

is necessary before it will be considered complete. The applicant was so notified on February 6. *Updated information was received on May 15. The information was still considered incomplete because sequencing (avoidance and minimization) of the wetland impacts has not met the MN WCA or Commission requirements. The applicant was notified of the incomplete status on May 17. No additional information has been received since that time.*

2017-008 TH169 Reconstruction, Champlin. The stormwater review will be done by the West Mississippi WMO because over three-fourths of the work will be done in that watershed. This Commission's review will be for floodplain impacts and mitigation. No WCA jurisdictional wetlands will be impacted by this project. At their March 2017 meeting, the Commission approved the site plans contingent upon receipt of a final signed plan set.

2017-010W Nichols Property Wetland Delineation, Corcoran. This is a 5.2-acre site located in Section 36, Township 119 North, Range 23 West. The site is west of County Road 101. Three wetlands (0.56 acres total) were identified on the property. Public notice for comments is open until May 17, 2017. *A site and office review indicates additional wetland areas and possibly some wetland filling on this site. Before they can make a final decision, Staff requested on May 23 that the applicant provide soil borings and an aerial phot review of the area in question. The deadline for a decision was extended to August 4, 2017.*

2017-011, Crooked Creek Park, Plymouth. The City is proposing to create a park near Cedar Hollow at 42nd Place North and Walnut Grove Lane. The site is 5.55 acres and 1.85 acres of it will be disturbed to create 0.41 acres of impervious cover. An unnamed tributary to Elm Creek runs through the property. A 36-inch culvert is proposed for the trail crossing over the tributary. Site plans were reviewed for compliance with the Commission's stormwater management, drainage alterations, buffers and grading standards. *The project was approved on May 10, 2017, as submitted, and will be removed from the report.*

2017-012. Minnesota Solar CSG19 (Hwy.55) Corcoran. This project proposes to install 5 MW of solar capacity on 33 acres of cropland north of Highway 55 at the border of Corcoran and Greenfield. The north half of the solar array drains to Jubert Lake (headwater of Rush Creek), approximately 2 miles northeast of the site. The south half of the array drains to Lake Sarah approximately 2 miles south of the site. Although this site is in the legal boundary of the ECWMC, Lake Sarah is in the Pioneer-Sarah Creek Watershed. The Commission's review is for compliance to Rule D; stormwater management, Rule E; erosion and sediment control, Rule G; wetland alteration and Rule I; buffer strips. Staff recommends approval conditioned on: 1) Stormwater easements are provided over the filter basin and outlet and 2) An approved O & M agreement is recorded on the land title within 90 days after City approval.

2017-013W 20417 Larkin Rd (PID 2611923340001), Corcoran. Staff was contacted by the DNR Conservation Officer about an unauthorized excavation in a Public Waters Inventory stream and ditching from the stream into a WCA wetland within the subject property. Staff and the DNR staff inspected the site on April 26, 2017, and confirmed the violation. The CO issued Resource Protection Notices for PWI and WCA violations to the property owner and the renter who performed the excavation. Staff also informed the city administrator. *A restoration order was issued to the property owner by the DNR the first week of June.*

2017-014 Laurel Creek, Rogers. *The proposed mixed-residential project will be developed on a 316-acre site located in the southeast corner of Rogers. When all the phases are completed, this fully developed PUD will have 476 residential units (single-homes, villas and townhomes) and one Homeowner's Association building, and will create 63.15 acres of new impervious area. North Fork Rush Creek (County Ditch #21) runs along the south part of the site. Floodplains and wetlands cover about one-third of the site, mostly on the south side. Remaining areas are mostly cropland, and small areas of grass/meadow and woodlands. There are large sod farms on the adjoining west areas. Staff's review will be for compliance to the Commission's Third Generation standards and rules for stormwater management, grading and erosion, wetland buffers and floodplain mitigation. The stormwater management plan will be reviewed for the entire site, for ultimate development conditions. However, the first phase will only grade and develop the single-residential homes, townhomes and the villas located in the central part of the site. Staff is currently reviewing the project and will provide an update at the meeting.*

2017-015 Raising Cane's Restaurant, Maple Grove. *This is a 1.6 acre lot that was platted and rough graded as part of The Grove PUD site development. This PUD was reviewed and approved by the Commission under project 2005-027. The applicant proposes to construct a 3,820 SF building and associated parking facilities. Although not required under*

the approved 2005 PUD plan, the applicant is proposing to construct a filtration basin to accommodate additional runoff volume treatment. Staff review was for compliance to the City's PUD requirements and the Commission's stormwater management approval from project 2005-027. Staff approved the project administratively on June 6, 2017, and will be removed from the report.

2017-016 Territorial Woods, Maple Grove. This is a 21 acre site located at 13763 and 14033 Territorial Road. The north property line is Territorial Road and the south line is County Road 81. The Elm Creek Park Reserve is across Territorial Road from this project. The development is proposing to construct a 98-unit apartment building and 69 townhome units. Staff review is for compliance to the Commission's Rule D (Stormwater management), Rule E (Erosion and Sediment Control), and Rule I, (Buffers). Findings dated May 23, 2017 offer no recommendation to the Commission at this time because the applicant does not comply with the Commission's nutrient load standard, must provide long term filter basin O&M responsibility and must submit additional fees of \$49. The review deadline is July 8.

2017-017 Mary Queen of Peace Catholic Church, Rogers. This is a 5-acre redevelopment of the Mary Queen of Peace Church property located between CR 81, Memorial Drive and John Deere Lane. The proposed project will construct an 18,325 SF building addition to the existing church, including walkway connections and parking lot expansion. Because this work will disturb over 50% (5 acres of 7.8 acres) of the site, stormwater management for the complete site must be provided. No wetlands or floodplains are on this property, so Rule E (erosion and sediment control) is the only other ECWMC standard with which the site plan must comply. Findings dated May 30, 2017 offer no recommendation to the Commission at this time because the applicant does not comply with the Commission's filter basin or erosion control standards. The review deadline is July 14.

2017-018 Sunrise Solar Garder (CSAH 50), Corcoran. This is a wetland delineation determination application only. A technical evaluation panel met on the site on May 26 and requested additional information on two small potential undelineated wetland areas near the farmstead area. The WCA public notice requests comments by June 12, 2017.

2017-019 Medina Senior Community, Medina. Preliminary information was received from the City and initial comments provided. A signed ECWMC application and project submittal from the city were received on June 2, 2017. Staff has not completed its review as of this project.

2017-020 NW Greenway Trail Phase III, Plymouth. The City is proposing to construct Phase III of the Northwest Greenway Trail near Peony Lane N and Cheshire Parkway, approximately one-quarter mile south of County Road 47 in northwest Plymouth. The project consists of 1) a 2,200 foot connector trail between Kimberly Lane N and the Aspen Hollow subdivision, 2) a new 520-foot boardwalk over Elm Creek and its associated wetland/floodplain replacement, 3) a 100-foot boardwalk west of Cheshire Parkway and 4) approximately 620 linear feet of trail connections at the Cheshire Parkway trailhead adjacent to Camelot Park. The project will disturb 2.43 acres. The project is constructing 0.65 acres of new impervious surface area within the Elm Creek watershed. The new impervious surface area is a trail that ranges between eight and twelve feet wide, and has a 5-foot minimum vegetated buffer on both sides, and is, therefore, exempt from the Stormwater Management requirements (Rule D). Staff review will be for compliance to the Commission's Third Generation standards Rule E, Erosion and Sediment Controls, Rule F, Floodplain and Rule H Bridge and Culvert Crossings. Staff recommends approval of the project contingent upon: a) the applicant obtaining a DNR protected waters crossing permit on Trail B and b) LGU wetland replacement plan approval on impacts associated with the trail segments.

2017-021 Hindu Society of MN, Maple Grove. This project are is 1.07 acres and will create 0.38 acres of impervious area to the existing Hindu Temple for staff housing. For stormwater management, the project proposes a biofiltration basin. There are wetlands on the north and east side of the proposed development. There are floodplains as well. The proposed grading is encroaching into the floodplain and the buffer area. The submitted fee is inadequate. Staff sent the preliminary findings to the applicants and the City on June 7, 2017.

2017-022 CSAH 81/101/13 Intersection Reconstruction, Rogers. An application has been submitted by the City of Rogers for the reconstruction of the CSAH 81 and CSAH 101&13 intersection. The project will add driving lanes and turning lanes to improve traffic flow and safety. The project will increase the impervious area at the intersection from 7.1 acres to 9.5 acres. Staff review has not been completed as of this report. If available, an update will be provided to the Commission at their meeting.

2017-023 Midwest Steel, Rogers. *This is two existing 3 acre lots in the Rogers Industrial Park located between Highway 101 and James Avenue just north of CSAH 144 (141st Ave.). The applicant is proposing to combine the lots and construct a 53,000 SF warehouse and its associated parking. The Commission will review the project for compliance to its Rule D (Stormwater Management) and Rule E (Erosion and Sediment Control). There is a regional stormwater pond on this parcel that was constructed to treat 69.5 acres of water from the surrounding industrial park. This regional system was approved by the Commission in 2004 as part of project 2004-042, Hwy 101 corridor drainage improvement. Staff review has not been completed as of this update. If available, an update will be provided to the Commission at their meeting.*

2017-024 Lil Explorers Daycare, Rogers. *This is an existing 1.2 acre lot in the WJD II Addition across from the Kohl's Department Store on S. Diamond Lake Road, just west of Highway 101. The applicant is proposing a 11,610 SF 2-story daycare with its associated parking and play area facilities. A regional stormwater pond was constructed to handle this water in 2001. Staff review has not been completed as of this update. If available, an update will be provided to the Commission at their meeting.*

FINAL RECORDINGS ARE DUE ON THE FOLLOWING PROJECTS:

2015-006 Veit Building and Parking Lot Addition, Rogers. Approved on May 13, 2015, pending the SAFL-Baffle weir being covered by an easement and the appropriate operation and maintenance agreement being obtained and recorded with the property.

2015-020 Strehler Estates, Corcoran. Approved on January 10, 2015 contingent upon a conservation easement being recorded on the property title.

2015-030 Kiddiegarten Child Care Center, Maple Grove. This project was approved by the Commission at their December 9, 2015 meeting. If the City of Maple Grove does not take over the operation and maintenance of the underground system and the sump catch basins, an O&M agreement for the underground trench/pond system must be approved by the Commission and the City and recorded with the title.

2016-014 Balsam Apartments, Dayton. Approved April 13, 2016, pending recordation of an Operation and Maintenance agreement with an O&M plan.

2016-018 Cambridge Park, Maple Grove. Approved on July 13, 2016, subject to recorded preservation easements and pond maintenance provided by the City or through an approved operation and maintenance agreement recorded on the property title. Preliminary easements and operation and maintenance agreements for the ponds and preservation areas were received and approved by Commission Staff. Final proof of recording of the documents is still needed.

2016-019 Just for Kix, Medina. Approved June 8, 2016. Awaiting recordation of corrected O & M plan agreement for the bio-filtration basins.

2016-021 Diamond View Estates, Dayton. Approved June 8, 2016, contingent that, if the City of Dayton/homeowners are to maintain the ponds and the bio-filtration basin, an operation and maintenance plan agreement must be submitted for approval to the City and the Commission and recorded within 90 days of the final plat approval.

2016-022 AutoZone, Maple Grove. At their June 8, 2016 meeting, the Commission approved Staff's findings dated June 1, 2016, with the condition of recording an approved O & M Plan within 90 days of the final plat approval.

2016-026 Faithbrook Church, Dayton. Approved August 10, 2016, with the stipulation that an approved O&M plan be recorded with the property within 90 days following final plat approval.

2016-038 AutoMotorPlex, Medina. Approved on October 31, 2016, with conditions. Revised plans were submitted on March 13, 2017. The only remaining condition is the recording of the O&M plan.

2016-039 Sands Parcel (The Fields at Meadow Ridge), Plymouth. This is a 20.5-acre site located on the northeast side of the intersection of CR 47 and Troy Lane North. The site is proposed for a 46 single-family residential home development. The plans were submitted together with the adjacent 2016-041 Bartus site. At its October 12, 2016 meeting, the Commission approved the project conditioned that an O&M plan be recorded within 90 days following the final plat approval.

elm creek

Watershed Management Commission

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
PH: 763.553.1144
E-mail: judie@jass.biz

TECHNICAL OFFICE
Hennepin County Public Works
Department of Environment and Energy
701 Fourth Ave. South, Suite 700
Minneapolis, MN 55415
PH: 612.348.7338
E-mail: james.kujawa@hennepin.us

Minnesota Solar CSG 19, Hwy 55 Project Name **Corcoran, Project #2017-012**

Project Overview: This project proposes to install 5 MW of solar capacity on 33 acres of cropland north of Highway 55, at the border of Corcoran and Greenfield. The north ½ of the solar array drains to Jubert Lake (headwater of Rush Creek), approximately 2 miles northeast of the site. The south ½ of the array drains to Lake Sarah approximately 2 miles south of the site. Although this site is in the legal boundary of the ECWMC, Lake Sarah is in the Pioneer-Sarah Creek Watershed. The Commission's review is for compliance to Rule D; stormwater management, Rule E; erosion and sediment control, Rule G; wetland alteration and Rule I; buffer strips.

Applicant: Potentia Renewables Inc. Attn. Andrew Van Doorn, 200 Wellington Street West, Suite 1102, Toronto ON. Phone; 416-703-1911. Email; avandoorn@potentia Renewables.com

Agent: Blattner Energy Inc., Attn. Casey DuBois, 392 CR 50, Avon, MN 56310. Phone: 320-292-2688. Email; cdubois@blattnerenergy.com

Exhibits:

- 1) ECWMC Request for Plan Review and Approval application with \$10,000 fee submittal, received April 26, 2017.
- 2) Blattner Energy Corcoran, MN Solar, Stormwater Report, by EVS Engineering, dated May 1, 2017.
- 3) Stormwater Pollution Prevention Plan (SWPPP) for Corcoran MN Solar site, dated April 28, 2017.
- 4) Corcoran MN Solar PV Project-5 MW AC, 60% Civil Plan Submittal, by EVS Engineering, dated May 1, 2017;
 - a. Sheet G001, Cover Sheet
 - b. Sheet C001, Construction Notes
 - c. Sheets V001 to V103, Existing Conditions
 - d. Sheets C101 to C103, Civil Site Plans
 - e. Sheets C201 to C203, Grading & Drainage Plans
 - f. Sheet C2014, Cut/Fill Plan
 - g. Sheets C301 to C303, Erosion Control Plan
 - h. Sheets C601 to C603, Site Details
 - i. Sheet L101, Restoration and Vegetation Plan
 - j. Sheet L102, Landscape Plan

Findings:

- 1) A complete application was received April 27, 2017. The initial 60-day review period, per MN Statute 15.99 will expire June 25, 2017.
- 2) Actual project site area will be 32.60 acres. Fee for 32.6 acres, commercial/industrial development project = $32.6 \times \$250 + \$50 = \$8,200.00$. Refund due = \$1,800.00
- 3) The north ½ of the solar array drains to Jubert Lake (headwater of Rush Creek), approximately 2 miles northeast of the site. The south ½ of the array drains to Lake Sarah approximately 2 miles south of the site. Although this site is in the legal boundary of the ECWMC, Lake Sarah is in the Pioneer-Sarah Creek Watershed.

Stormwater Management

- 4) This isn't a conventional project because the areas under and between the panel have little actual ground disturbance and will be vegetated with a native short grass prairie and wildflower seed mix. The solar panel arrangement will create vegetation disconnections between the rows of them providing opportunity for water to be absorbed into the soil between the rows and under the panels. Commission staff used the MPCA, MN Stormwater Manual, *Stormwater management for solar projects and determining compliance with the NPDES construction stormwater permit*, for our guideline to determine stormwater quantity and quality for this project.
 - a. Volume Controls are proposed from disconnection credits allowed by the MPCA stormwater calculator and one filtration basin proposed in the SW corner of the project.
 - i. Based on the MPCA calculator for solar modules, the water quality volume from this site will be 25,943 cubic feet (6.5 acres of new impervious areas)
 - ii. Available storage in this basin will be 26,380 cubic feet.
 - iii. Drawdown will occur in 48 hours.
 - b. Rate controls will occur by change in land use and the filtration basin. Overall peak flows will be as follows;

	2-Year (2.87") Runoff Rate (cfs)	10-Year (4.27") Runoff Rate (cfs)	100-year (7.29") Runoff Rate (cfs)
Pre-Development	103.2	176.2	335.4
Post-Development	73.2	137.7	300.9

- c. Nutrient controls from the increase in impervious areas will be offset by treatment in the filtration basin and the native grass vegetation that disconnects the hard surface between the rows of solar panels.
 - i. Pre-development nutrient loads = 32.6 lbs/year
 - ii. Post development nutrient loads = 24.3 lbs/year

MN Solar, Hwy 55 Project 2017-012
Corcoran
May 17, 2017

Condition (based on 32.6 acres)	TP Load (lbs/yr)*	TSS Load (lbs/yr)**	Required Abstraction (cu. ft.)	Filtered Volume (cu.ft.)	Runoff volume (ac-ft/yr)
Pre-development (baseline)	32.6	2617		N/A	48.9
Post-development without BMPs	31.1	1345		N/A	39.9
Post-development with BMPs	24.3	1003		26,380	39.9
Net Change (baseline compared to post- development w/ BMPs)	-8.3	-1614	+25,943	26,380	-9.0
* TP load based on PondNet model ** Based on TSS model					

- 5) Drainage and utility easements along with an operation and maintenance agreement must be recorded on the title for this property within 90 days after the project is approved by the City of Corcoran. After said recording, the recorded documents must be provided to the Commission. These documents must be approved by the City of Corcoran and the Elm Creek WMC prior to recording.
- 6) Erosion and Sediment Controls. Site plans and SWPPP meet the Commission's erosion and sediment control requirements.
- 7) Wetland Buffer Buffers will be established in the project area under the control of the applicant along the SW corner of the site. The buffer will vary from a minimum of 25' to a maximum of 100' from the wetland edge. The average buffer will be approximately 50 feet. The Commission requires 25' average and 10' minimum.

Recommendation: Approval conditioned on;

- 1) Stormwater easements are provided over the filter basin and outlet and
- 2) An approved O & M agreement is recorded on the land title within 90 days after City approval.

Hennepin County
Department of Environment and Energy
Advisor to the Commission

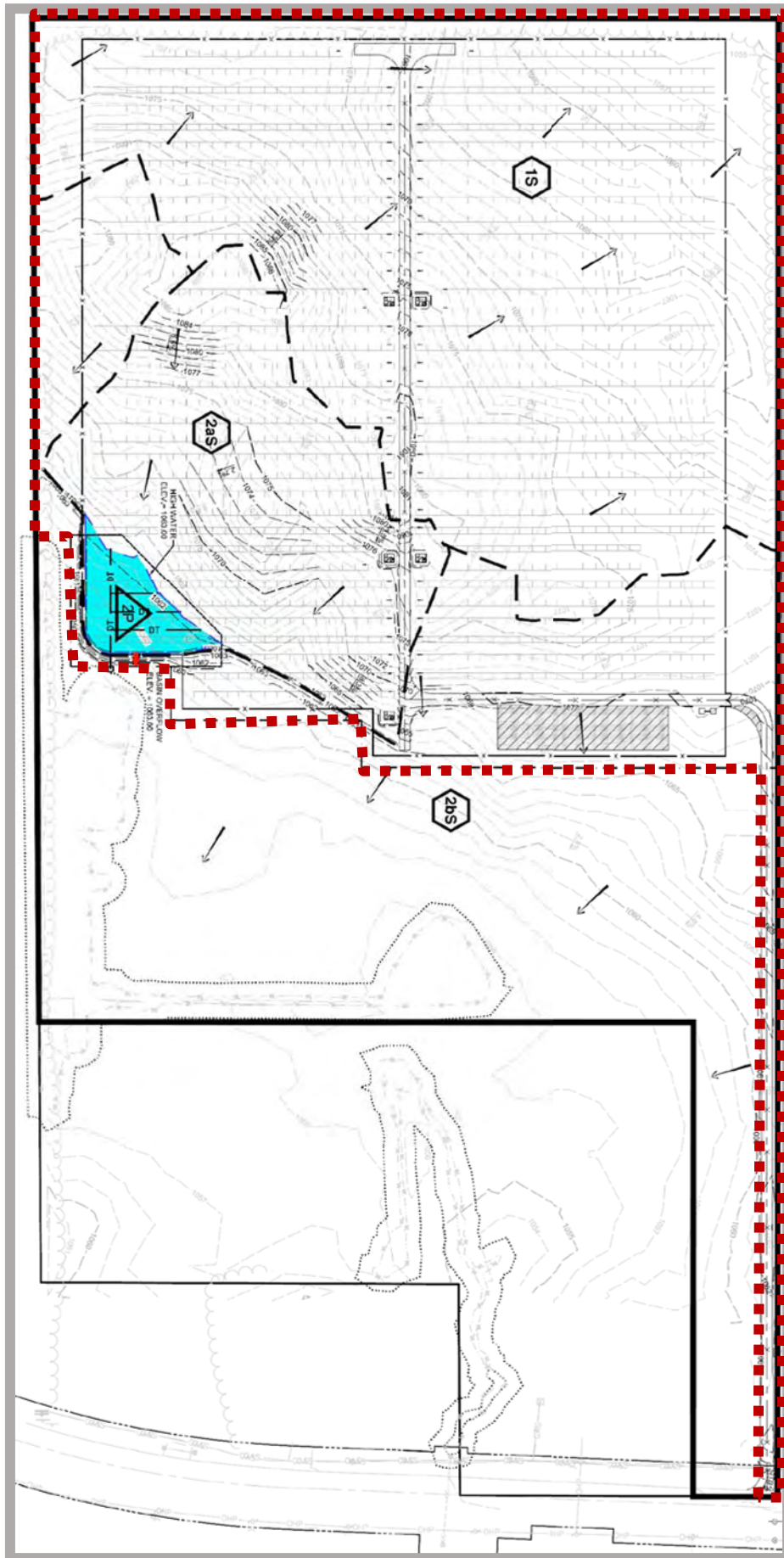

James C. Kujawa

May 17, 2017
Date



MN Solar, Hwy 55 Project 2017-012
Corcoran
May 17, 2017







Minnesota Wetland Conservation Act Restoration Order



REF #

CDO#

RPN#

F890599711602

The Commissioner of Natural Resources hereby orders Christopher Robert Smith and his/hers/its heirs, successors, and assigns to complete restoration of the wetland located at (legal description)PID 2611923340001(SE 1/4 of the SW 1/4 Section 26, T119N, R23W); Hennepin County State of Minnesota.

Name:	Christopher Robert Smith
Address:	20351 Larkin Road, Corcoran, MN 55340.

Findings of Fact: A site visit was conducted at the SE 1/4 of the SW 1/4 of Section 26, T119N, R23W, Corcoran, Hennepin County (PID: 2611923340001) on April 25, 2017, by the Elm Creek Watershed Management Commission technical advisors (Local Government Unit responsible for administering the Wetland Conservation Act), the MN DNR Area Hydrologist and the MN DNR Area Conservation Officer. It was observed that ditching work was done within the DNR protected water course extended into an LGU jurisdictional wetland partially draining this wetland (Wetland Area A). In addition, spoil material excavated out of the DNR protected watercourse was placed into the jurisdictional riparian wetlands along the north bank of the excavated DNR water course (Wetland Area B). The extent of the filling in the LGU wetlands was determined by the freshly excavated soil materials deposited in these wetlands.

This order is issued pursuant to Minn. Stat. § 103G.2372 and MN Rule part 8420.0900.

**VIOLATION OF THIS ORDER IS A MISDEMEANOR
AND A DEED RESTRICTION COULD BE PLACED ON THE PROPERTY.**

You must either:

A. Provide for restoration of the wetland in the manner required by this order. Complete restoration

must be accomplished on or before July 15, 2017; or

Item 04a-ab
EC Project 2017-013W

- B. Submit a complete wetland replacement plan, exemption, or no-loss application to the Elm Creek Watershed Management Commission within 30 days of receipt of this order.

Restoration shall be accomplished by doing the following:

This Restoration Order only applies to the MN Wetland Conservation Act Jurisdictional Wetlands, which are administered by the Elm Creek Watershed Management Commission (the Local Government Unit).

You are required to:

- a) Replace and compact all the excavated soil into the ditch between the DNR protected water course and the LGU jurisdictional wetland (Wetland Area A). The excavated area shall be returned to the pre-excavation ground elevation and vegetation;
- b) Remove all spoil and soil material that has been placed within the LGU jurisdictional wetlands that are adjacent to the DNR protected watercourse (Wetland Area B);
- c) All the disturbed areas and wetlands shall be graded to the original grade and vegetation shall be brought to the original conditions that existed prior to excavation and fill work;
- d) Erosion shall be controlled at all times before, during and after said work;
- e) Restore all potential water flowage areas with MN DOT Low Maintenance Turf seed mix 25-131 and restore all other disturbed areas with MN DOT Wetland Rehabilitation mix 34-171;
- f) Any surplus fill or excavation materials must be removed and disposed to an upland site.

Attachments are a part of this document (*check one*) ☒ Yes ☐ No

The enforcement authority shall rescind this order if the landowner obtains approval for an after-the-fact replacement plan, exemption determination, or no-loss determination from the Elm Creek Watershed Management Commission. The contact person is James Kujawa at (612)348-7338. If an after-the-fact approval is not received, the landowner/responsible party must restore the wetland as specified in this order. Upon completion of the restoration required by this order, the landowner must contact Stacey Lijewski at the Hennepin County County Soil and Water Conservation District (612)348-9938 and request that a Certificate of Satisfactory Completion be issued.

If you choose to appeal the terms or conditions of this order, a written request must be submitted to the Minnesota Board of Water and Soil Resources (BWSR) Executive Director within 30 days of receiving this order, along with a minimum filing fee of \$500. If a written request and filing fee is not submitted to BWSR within 30 days, this restoration order shall become final.

Instructions for filling out Restoration Order (RO):

(Fill in your specific County information and save this form as your template.)

1. Cease and Desist Order (CDO) or Resource Protection (RPN) number, if applicable. If no CDO or RPN was issued, enter N/A.
2. Enter full name.
3. Location: Give legal description, GPS coordinates, and/or address of the impacted wetland violation. Make sure you double-check the location description for accuracy. Do not count on the CDO or RPN to be correct.
4. Enter County and County #. Example: *Mille Lacs (48)*
5. Full name, date of birth (DOB), and mailing address of the person receiving the restoration order.
6. Findings of Fact: Be specific and detailed. List type of wetland, size and type of impact area, what the violation was.

Example: A site visit was conducted at the location described above on 9/11/05 by the Mille Lacs County Technical Evaluation Panel (TEP). A determination was made that approximately 32,000 square feet (footprint) of fill was placed in a Type 2 wetland. The fill is approximately 1 foot deep throughout most of the impacted area. The fill consisted of Class 5 gravel and cement. The fill appears to be part of a road. The entire wetland basin is 3.5 acres. The fill was placed without an approved replacement plan and no exemption would apply to this type of impact.

7. Date: Provide a date to restore; make no less than 31 days, but it depends on what the violation is.
Larger violations may require more than 31 days; or the time of year (spring too wet) might require a longer time frame. Remember, the enforcement officer can grant an extension if needed; but try to keep these moving.
8. Enter the official office information that would receive an After-the-Fact Replacement Plan.
9. Date for the individual to submit a replacement plan application. This should be about 21 days, however the time of year and other factors could come into play to provide a longer time.
10. Restoration completion: Again, be very specific and detailed and always include "restore to pre-altered condition".

Example: You must restore the wetland to its pre-altered condition. This shall be accomplished by removing all of the fill material located in the wetland boundary as shown in the aerial photo down to original soil level. The fill must be removed to an upland site. No additional excavation is allowed. Once the fill material has been removed to an upland site, you must seed the exposed area with XXXX. You must use best management practices while accomplishing the restoration order. You must contact the SWCD Office upon completion of the restoration.

11. Attachments: List all of the attachments. If yes, you need to list what they are and be specific.
12. Enter Local Government Unit (LGU) office name.
13. Name of LGU contact.
14. LGU area code and telephone number.
15. Name of SWCD contact.
16. County of SWCD office
17. SWCD area code and telephone number.

When you are done with the order, it must be given to a Water Resources Enforcement Officer (WREO), Conservation Officer (CO), or other licensed peace officer for serving.

Order
Prepared by

Stacey Lijewski
Signature

Stacey Lijewski
Printed Name

5-31-17
Date

Order
Served by

Conservation Officer Signature

Badge # Printed Name

Date

Officer Issuance Record: ☐ in person; or ☐ by certified mail on ____ / ____ / ____
[Date]

Distribute Copies To:

DNR Conservation Officer
DNR Water Resources Enforcement Officer
BWSR Wetland Specialist
Local Government Unit (LGU)
Soil and Water Conservation District (SWCD)
Landowner

Appeal and fee can be mailed to:

Minnesota BWSR
Executive Director
520 Lafayette Road North
St. Paul, MN 55155



Blue Bonnet Dr

WETLAND A

MN WCA
JURISDICTIONAL
WETLANDSDITCH
EXCAVATION
AREASPOIL
PILES

WETLAND B

SPOIL
PILES

MN DNR PUBLIC WATER COURSE

WCA-LGU Wetland Restoration Order (PID: 26-11923340001)

- Replace and compact all the excavated soil into the ditch between the DNR protected watercourse and the LGU jurisdictional wetland (Wetland Area A). The excavated area shall be returned to the pre-excavation ground elevation and vegetation;
- Remove all spoil and soil material that has been placed within the LGU jurisdictional wetlands that are adjacent to the DNR protected watercourse (Wetland Area B);
- All the disturbed areas and wetlands shall be graded to the original grade and vegetation shall be brought to the original conditions that existed prior to excavation and fill work;
- Erosion shall be controlled at all times before, during and after said work;
- Restore all potential water flowage areas with MN DOT Low Maintenance Turf seed mix 25-131 and restore all other disturbed areas with MN DOT Wetland Rehabilitation mix 34-171;
- Any surplus fill or excavation materials must be removed and disposed to an upland site.

0 250 500 Feet

elm creek

Watershed Management Commission

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
PH: 763.553.1144
E-mail: judie@jass.biz

TECHNICAL OFFICE
Hennepin County Public Works
Department of Environment and Energy
701 Fourth Ave. South, Suite 700
Minneapolis, MN 55415
PH: 612.348.7338
E-mail: james.kujawa@hennepin.us

Raising Cane's, Maple Grove Parkway

Maple Grove, Project #2017-015

Project Overview: This is a 1.6 acre lot that was platted and rough graded as part of The Grove PUD site development. This PUD was reviewed and approved by the Commission under project 2005-027. The applicant proposes to construct a 3,820 sq. ft. building and associated parking facilities. This review will be for compliance to the City of Maple Grove PUD requirements and the Commission's 2nd Generation Stormwater Management Plan.

Applicant: Raising Cane's Restaurant LLC-Attn. LuAron McCormack, 6800 Bishop Road, Plano, TX, 75024. Phone: 972-769-3364. Email: lmccormack@raisingcanes.com

Agent: Kimley-Horn & Associates, Attn. Trisha Sieh, 2550 University Avenue West, Suite 238N, St. Paul, MN 55114. Phone: 651-643-0470. Email: trisha.sieh@kimley-horn.com

Exhibits:

- 1) ECWMC Request for Plan Review and Approval, received June 2, 2107.
- 2) Review fees for 1.6 acres commercial, new development received May 26, 2017, \$550.00.
- 3) Raising Cane's Civil Construction Plans dated May 25, 2017.
 - a. Sheets C-010, Cover Sheet
 - b. Sheet 1 of 1, Land Title Survey
 - c. Sheet C-100, Demolition & Phase I Erosion Control Plan
 - d. Sheet C-101, Phase II Erosion Control Plan
 - e. Sheet C-102, Erosion Control Details
 - f. Sheet C-200, Site Plan
 - g. Sheet C-300, Grading and Drainage Plan
 - h. Sheet C-400, Utility Plan
- 4) ECWMC project 2005-027 The Grove/Ruppert PUD findings dated June 23, 2005.
- 5) Stormwater Memo with Geotechnical Report dated May 25, 2017 from Kimley-Horn to ECWMC

Findings:

- 1) A complete application was received on May 31, 2017. The initial 60-day review period per MN Statute 15.99 expires July 30, 2017
- 2) Based on email correspondence from the City of Maple Grove planner, Peter Vickerman, the City of Maple Grove determined The Grove PUD falls within the confines of MN Statute 462.358 Subd. 3c, development approval extension for planned or staged development projects (PUD's):
 - a. The City has determined that the Grove PUD plat has been extended, and the Commission's project review should fall under the stormwater management plan that was approved by the City at the time of the plat and as extended to the current date.
 - b. The stormwater management plan approval for project 2005-027 was based on the Commission's 2nd Generation Plan which required the proposed drainage to be directed to on-site regional ponds. Proposed drainage is directed to east into the regional pond system east of this lot, per the original plan approval. This water flows north and east approximately 1.6 miles to Elm Creek at HWY-610.
 - c. Stormwater rates and nutrient controls must be based on 75% or less impervious cover for site development. Proposed impervious cover is 67%, including the 0.34 acres of driveways and access roads that are already constructed.
 - d. A filtration basin is proposed for the southwest side of the property. Although not required by the approved PUD plan, this basin will provide about 2,300 cubic foot of filtration treatment for the runoff originating on this site before it is routed to the regional pond system on the east.
- 3) Erosion and sediment controls: Silt fence is recommended upstream of the filtration basin until the pavement is established.

Decision: The grading plan meets the standards. The site plan and the stormwater meets the original PUD criteria.

Staff administratively approves the plan.

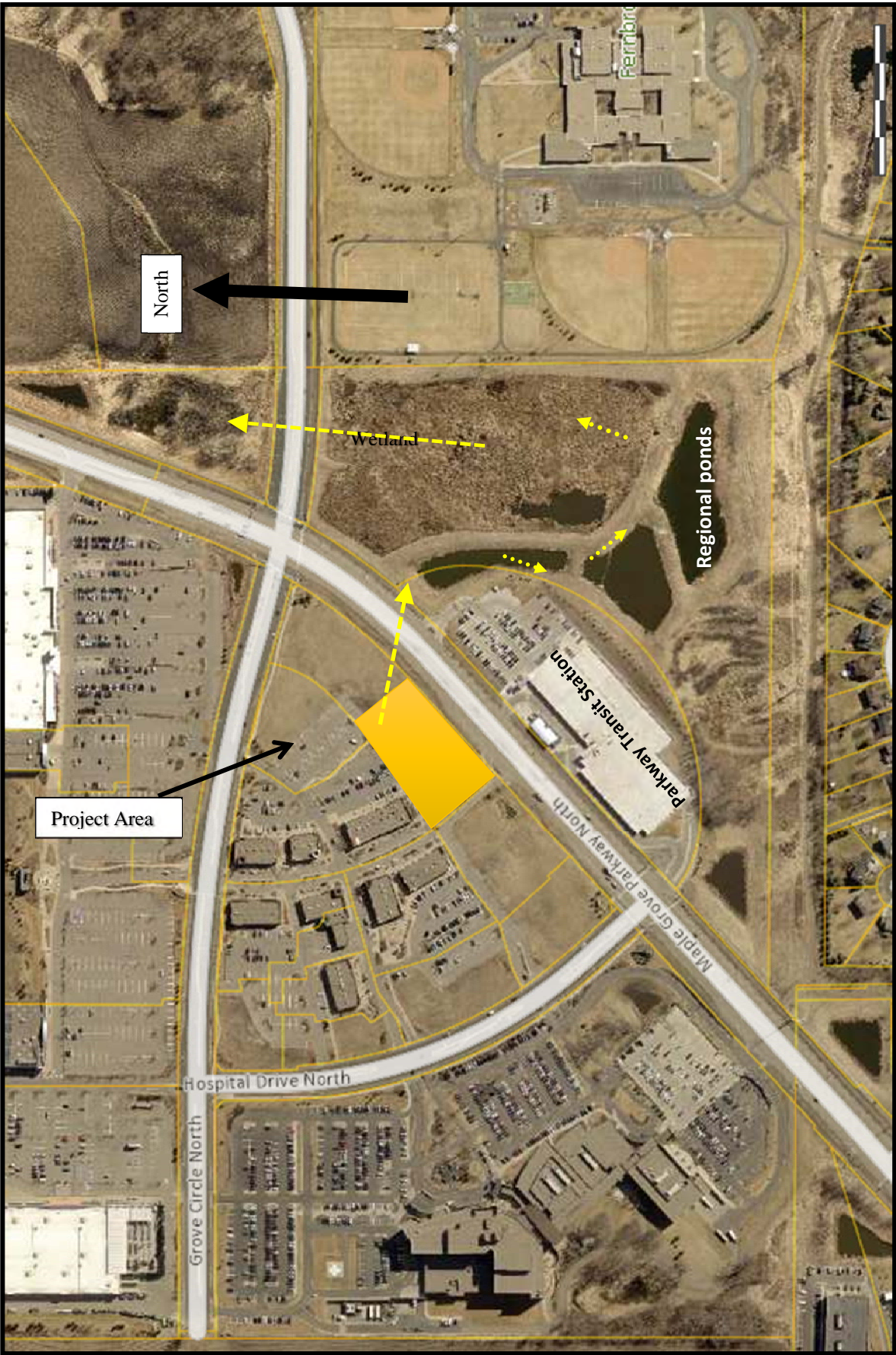
Hennepin County Public Works
Department of Environment and Energy



James Kujawa
Advisor to the Commission

June 6, 2017

Raising Cane's, Maple Grove Parkway (2017-015)
Maple Grove
June 6, 2017
Page 3 of 3



elm creek

Watershed Management Commission

Item 04a-ae

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
PH: 763.553.1144
E-mail: judie@jass.biz

TECHNICAL OFFICE
Hennepin County Public Works
Department of Environment and Energy
701 Fourth Ave. South, Suite 700
Minneapolis, MN 55415
PH: 612.348.7338
E-mail: james.kujawa@hennepin.us

Territorial Woods **Maple Grove, Project #2017-016**

Project Overview: This is a 21 acre site located at 13763 and 14033 Territorial Road in Maple Grove. The north property line is Territorial Road and the south line is County Road 81. The Elm Creek Park Reserve is across Territorial Road from this project. The development is proposing to construct a 98 unit apartment building and 69 townhome units. Our review will be for compliance to the Commission's Rule D (Stormwater management), Rule E (Erosion and Sediment Control), and Rule I, (Buffers).

Applicant: Trident Development LLC, 3601 18th St. South, St. Cloud, MN 56301. Phone: 320-258-4438. Email: rogerf@tridentdevelopmentmn.com

Agent/Engineer: Carlson McCain Inc, Attn. Joe Radach, 3890 Pheasant Ridge Drive, NE, Blaine, MN 55449. Phone: 763-489-7900. Email: jradach@carlsonmccain.com

Exhibits:

- 1) ECWMC Request for Plan Review and Approval and Project fee of \$2,100, received May, 9, 2017.
- 2) Territorial Woods Preliminary Plat, Page 1 of 3 dated 4/28/17
- 3) Territorial Woods Existing Conditions, Page 2 of 3 dated 4/28/17.
- 4) Territorial Woods Preliminary Site Construction Plans dated 4/28/17
 - a. Sheet C1, Title Sheet
 - b. Sheet C2, Existing Conditions and Removal Plan
 - c. Sheets C3 to C3.3, Site and Utility Plan
 - d. Sheets C4 to C4.3, Grading, Drainage, & Erosion Control Plan
 - e. Sheets C5 & C5.1, Stormwater Pollution Prevention Plan
 - f. Sheet C6, Tree preservation Plan
 - g. Sheets C7 & C8, Details
 - h. Sheets L1 & L2, Landscape Plan

Findings:

- 1) A complete site plan was received May 9, 2017. The initial 60-day review period for a decision, per MN Statute 15.99, expires on July 8, 2017.
- 2) This site drains south to a small creek system that flows east approximately 3400 feet before entering Elm Creek.
- 3) Project fees due = \$49. Electronic plan submittal has not been provided.

Stormwater Management

- 4) Two filtration ponds will be used to manage stormwater from the new site development.
- 5) Existing impervious area is 0.675 acres. New impervious area will be 8.275 acres for a net increase of 7.6 acres.
- 6) Rate controls meet the Commission's flow requirements. Rates before and after construction are as follows:

	2-yr (cfs)	10-yr (cfs)	100-yr (cfs)
Pre-Development Rates	13.4	30.3	67.2
Post-Development Rates	8.8	25.9	56.7

- 7) No information was provided for pre or post development phosphorus loads. Staff's initial calculations estimate (PondNet) pre-development phosphorus loads at 10.3 lbs/year and post development loads at 14.0 lbs/year. This does not meet the Commission's standards.
- 8) No information was provided for pre or post development TSS. Staff's estimates (MIDS) are; Pre-development TSS load= 1417 lbs/year. Post-development TSS load = 170 lbs per year. This will meet the Commission's standards
- 9) Abstraction volume required for 1.1" of runoff over new impervious area will be;
 $7.6 \times 1.1 / 12 \times 43,560 = 30,350$ cubic feet (0.7 ac. ft.).
 - a. Filtration volume available in two sand filter ponds = 0.72 acre feet
 - b. Draw down for both ponds will be 46.7 hours.

Condition (based on 17.0 acres)	TP Load (lbs/yr)	TSS Load (lbs/yr)	Abstraction (cu. ft.)	Filtration (cu. ft.)	Annual Volume (ac. ft.)
Pre-development (baseline)	10.3	1417	N/A		11.9
Post-development without BMPs	31.6	3254	30,350	0	24.0
Post-development with BMPs	14.0	170		31,365	0
Net Change	+3.7	-3084	30,350	31,365	+12.1


- 10) The entity responsible for the long term operation and maintenance of the ponds and filter basins must be identified. If it is the City of Maple Grove, an email to that effect must be provided to the Commission. If not, an O & M plan agreement between the City and the property owner must be approved by the Commission and recorded on the property title within 90 days of final plat approval.
- 11) Wetland buffers meet the Commission's standards of 10' minimum/25' average on this site. Actual required = 30,840 sq. ft. vs 31,040 provided.
- 12) SWPPP plan identifies this site as draining to Rush Creek. It actually drains to Elm Creek, south and east of the project. Erosion and sediment control plans meet the Commission's standards otherwise.

Recommendation:

None at this time.

- Nutrient loads do not meet the Commission's standards of post development loads being equal to or less than pre development loads.
- Pond and filter basin long term O&M responsibility must be identified per item 9.
- Project fees and electronic submittal required per item 3.

Hennepin County
Department of Environment and Energy
Advisor to the Commission


James C. Kujawa

May 23, 2017
Date

elm creek

Watershed Management Commission

Item 04a-af

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
PH: 763.553.1144
E-mail: judie@jass.biz

TECHNICAL OFFICE
Hennepin County Public Works
Department of Environment and Energy
701 Fourth Ave. South, Suite 700
Minneapolis, MN 55415
PH: 612.348.7338
E-mail: james.kujawa@hennepin.us

Mary Queen of Peace Catholic Church **Rogers, Project #2017-017**

Project Overview: This is a 5 acre redevelopment of the Mary Queen of Peace Church property located between CR 81, Memorial Drive and John Deere Lane in Rogers. The proposed project will construct an 18,325 sq. ft. building addition to the existing church, including walkway connections and parking lot expansion. Because this work will disturb over 50% (5 acres of 7.8 acres) of the site, stormwater management for the complete site must be provided. No wetlands or floodplains are on this property, so Rule E (erosion and sediment control) is the only other ECWMC standard the site plan must comply with.

Applicant: Mary Queen of Peace Catholic Church, Father Michael C. Kaluza, 21304 Church Avenue, Rogers, MN 55374. Phone: 763-428-2585.

Agent/Engineer: Anderson Engineering of MN, Gary Johnson, 13605 1st Ave. North, Plymouth, MN. 55441. Phone: 763-412-4012. Email; gjohnson@ae-mn.com

Exhibits:

- 1) ECWMC Request for Plan Review and Approval received May, 15, 2017. Fees for 4.99 acres of institutional redevelopment >50% of the site area disturbed received.
- 2) Stormwater Management Plan, Mary Queen of Peace Reconstruction Project, by AE-MN dated May 2, 2017
- 3) Preliminary Site Plans, Mary Queen of Peace Catholic Church, dated May 2, 2017.
 - a. Sheet C1, Site Layout Plan
 - b. Sheet C2, Existing Conditions Plan
 - c. Sheet C3, Demolition Plan
 - d. Sheet C4, ROW Vacation and Easement Plan
 - e. Sheet C5, Grading Drainage & Erosion Control Plan
 - f. Sheets C5.1 & C5.2, SWPPP
 - g. Sheet C6, Utility Plan
 - h. Sheets C7 & C8, Civil Details
 - i. Sheet L1, Landscape Plans
 - j. Sheets A1 & A2, Floor and Elevation Plans.

Findings:

- 1) A complete application was received May 15, 2017. The initial 60-day review period, per MN Statute 15.99, expires July 14, 2017.
- 2) This site generally drains north and west before entering Fox Creek which flows into the Crow River approximately ½ mile west of Interstate 94. The distance from the project

site to the Crow River is approximately 2.8 miles. No changes to the drainage pattern will occur.

- 3) This site is a reconstruction project disturbing more than 50% of the site (4.9 acres disturbed/Site area = 7.8 acres) That triggers a stormwater management review on the complete site (7.8 acres) and an erosion and sediment control review for the disturbed area. Unless otherwise informed by the City of Rogers (LGU for the WCA) no wetlands are located on this site, so the buffer rule is not triggered.

Stormwater Management

- 4) A stormwater filtration basin is proposed to provide rate controls, abstraction, and no net increase in total phosphorus or total suspended solids from pre-development conditions.
- 5) Rate controls will meet the Commission's standard as follows;

	2-Year (2.87") Runoff Rate (cfs)	10-Year (4.27") Runoff Rate (cfs)	100-year (7.29") Runoff Rate (cfs)
Pre-Development	23.0	38.3	70.9
Post-Development	19.0	32.2	61.3

- 6) Phosphorus and TSS controls will meet the Commission's standards as follows;

	Phosphorus (lbs/yr)	TSS (lbs/yr)
Pre-Development	9.4	1710
Post-Development	8.6	1366

- 7) Actual abstraction/infiltration will not occur on this site due to high clay content soils with less than 0.2 inches/hour of infiltration rates. Due to the existing site conditions, credits for preservation of undisturbed forests and grasslands or for additional buffers were not considered.
- 8) The filter basin is proposed to provide extended detention for 1.1" volume required for abstraction/infiltration over the new impervious areas (2.58 acres).
 - a. 10,300 cubic feet of volume is produced from the design rainfall event.
 - b. Because there is no grade on the designed subsurface drain pipe of the basin, the assumption of 1.63"/hour of filtered water must be proven in the design information based on a 6" flat corrugated drain tile system. It might be advantages' to extend the tile line to CB10 to provide adequate grade on this drainage system.
 - c. One 2' sump in the last CB to the inflow water of the basin is not considered adequate pretreatment. Additional pretreatment will be required.
 - d. Cleanouts for the drain tile must be provided and shown on the site plan.
 - e. The long term operation and maintenance of the filter basin must be addressed by the applicant. If the City of Rogers agrees to this, the Commission must be informed by the city. If the applicant is responsible, an agreement signed by the City and applicant must be approved by the Commission. Said agreement must be recorded on the property title within 90 days of final plat approval or site plan approval by Rogers.
 - f. A drainage and utility easement is required on the filter basin.

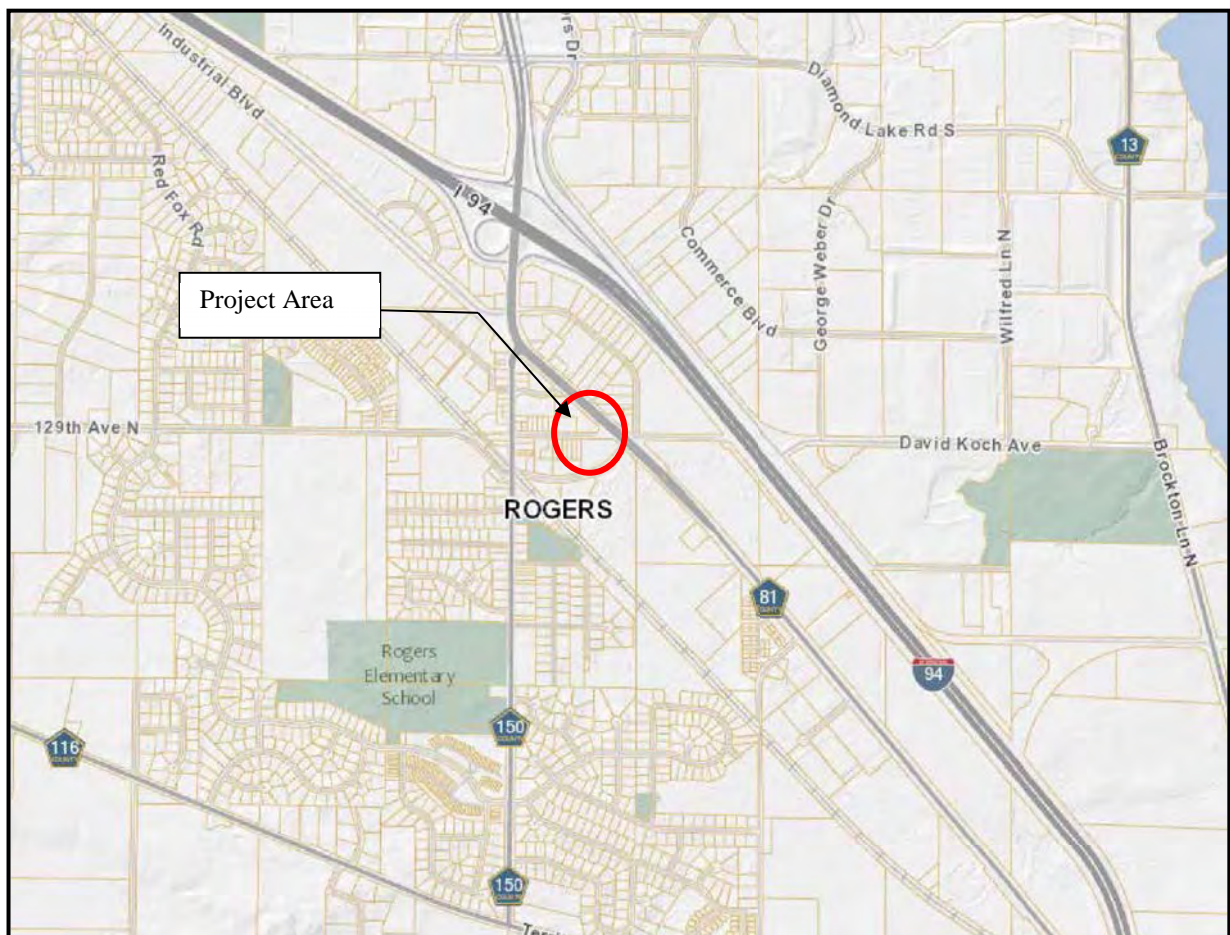
- 9) Erosion and Sediment Controls must include the following items;
- Construction sequencing for the filtration basin and temporary sediment pond..
 - Identification of a temporary sediment pond.
 - We recommend a topsoil berm be constructed along the NE side of the site during the initial site grading. This would divert the construction water from the complete site to CB 10. A temporary sediment basin can be constructed in that vicinity.

Recommendation: None at this time. Items 8 and 9 must be addressed to meet the Commission's standards.

Hennepin County
Department of Environment and Energy
Advisor to the Commission

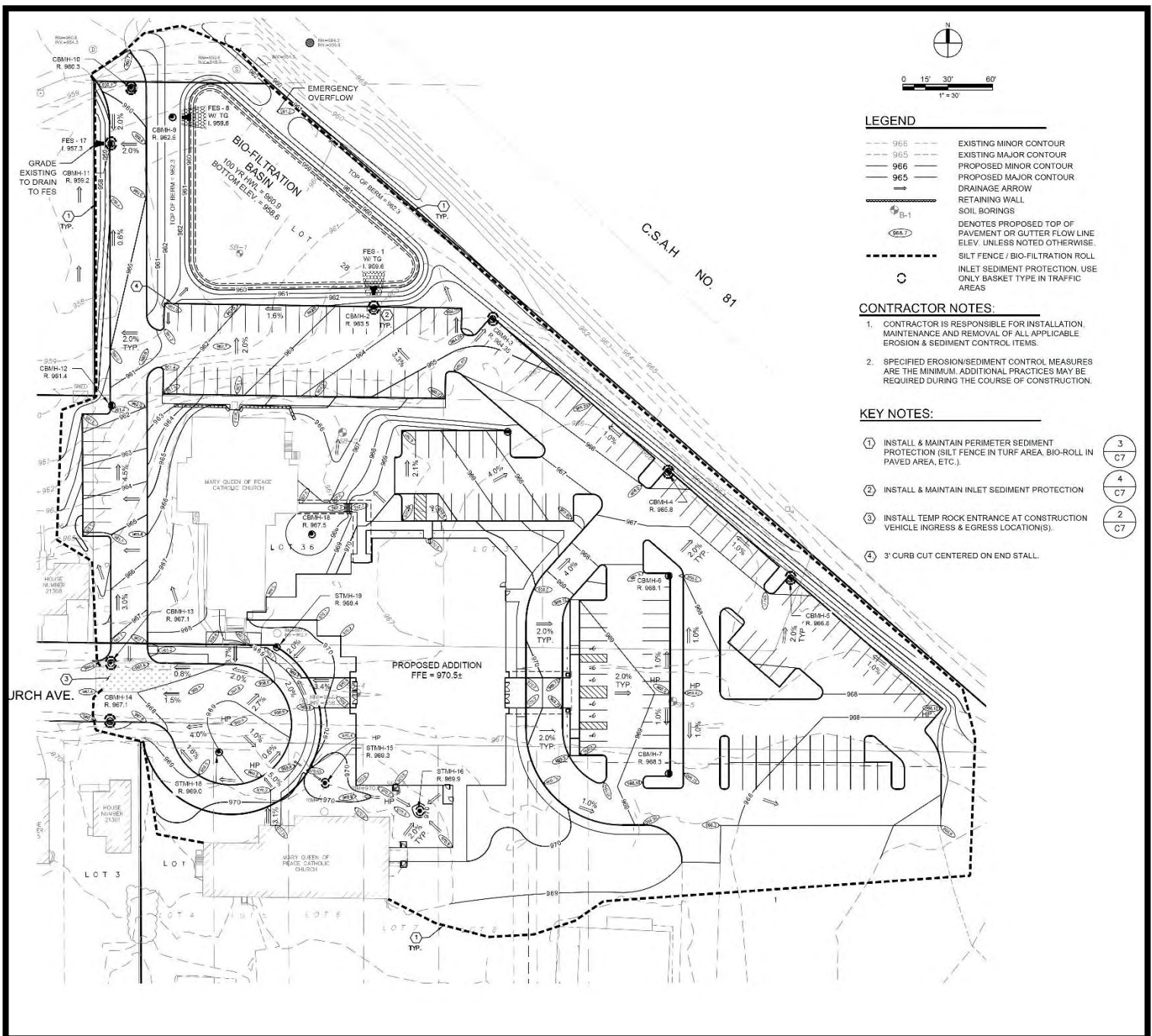

James C. Kijawa

May 30, 2017
Date





Grading Plans



Minnesota Wetland Conservation Act

Notice of Application

Local Government Unit (LGU) Elm Creek Watershed Management Commission	Address c/o JASS 3235 Fernbrook Lane, Plymouth, MN 55447
---	--

1. PROJECT INFORMATION

Applicant Name Sunrise Energy Ventures, Joe Tierney	Project Name Corcoran CR 50 Solar Garden	Date of Application May 17 2017	Application Number 2017-018W
---	--	---	--

Type of Application (check all that apply):

<input checked="" type="checkbox"/> Wetland Boundary or Type Sequencing	<input type="checkbox"/> No-Loss	<input type="checkbox"/> Exemption	<input type="checkbox"/>
<input type="checkbox"/> Replacement Plan	<input type="checkbox"/> Banking Plan		

Summary and description of proposed project (attach additional sheets as necessary):

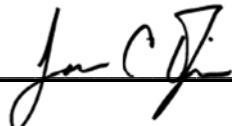
The proposed project includes construction of a solar garden on primarily the cropped portion of an 80 acre parcel located north of County Road 50, west of County Road 19. This report includes both offsite (desktop) resources and on-site data collection. A review of historical aerial imagery in accordance with the BWSR cropland hydrology determination methods revealed the presence of wetland signatures within the cropped portion of the property in addition to the mapped National Wetland Inventory wetlands that intersect the property. An onsite, Level 2 delineation was conducted to determine the actual extent of all wetland boundaries (including farmed wetlands) on the site 5/2/17.

2. APPLICATION REVIEW AND DECISION

Signing and mailing of this completed form to the appropriate recipients in accordance with 8420.0255, Subp. 3 provides notice that an application was made to the LGU under the Wetland Conservation Act as specified above. A copy of the application is attached. Comments can be submitted to:

Name and Title of LGU Contact Person James C. Kujawa Technical Advisor to the Commission	Comments must be received by (minimum 15 business-day comment period): June 12, 2017; 4:30 PM
Address (if different than LGU)	Date, time, and location of decision: June 12, 2017, 5:00 p.m. 701 4th Ave. S., Suite 700 Minneapolis, MN 55415
Phone Number and E-mail Address 612-348-7338 James.kujawa@hennepin.us	Decision-maker for this application: <input checked="" type="checkbox"/> Staff <input type="checkbox"/> Governing Board or Council

Signature: _____



Date: May 17, 2017

3. LIST OF ADDRESSEES

- ☒ **SWCD TEP member: (email only) Stacey. Lijewski@co.hennepin.mn.us**
- ☒ **BWSR TEP member: (email only) Ben Meyer (ben.meyer@state.mn.us).**
- ☐ LGU TEP member (if different than LGU Contact):
- ☒ **DNR TEP member: Kate Drewry: kate.drewry@state.mn.us**
- ☒ **DNR Regional Office (email only) Becky.Horton@state.mn.us**
- ☐ WD or WMO (if applicable):
- ☒ **Applicant: (email only) Joe Tierney, joe@sunrisenrg.com**
- ☒ **City of Corcoran: Brad Marten bmartens@ci.corcoran.mn.us**
- ☒ **Members of the public who requested notice (notice only) Jason Naber, jnaber@eorinc.com**
- ☒ **Corps of Engineers Project Manager (notice only) Melissa.M.Jenny@usace.army.mil**
- ☐ **BWSR Wetland Bank Coordinator (wetland bank plan applications only)**

4. MAILING INFORMATION

- For a list of BWSR TEP representatives: www.bwsr.state.mn.us/contact/WCA_areas.pdf
- For a list of DNR TEP representatives: www.bwsr.state.mn.us/wetlands/wca/DNR_TEP_contacts.pdf
- Department of Natural Resources Regional Offices:

<u>NW Region:</u>	<u>NE Region:</u>	<u>Central Region:</u>	<u>Southern Region:</u>
Reg. Env. Assess. Ecol. Div. Ecol. Resources 2115 Birchmont Beach Rd. NE Bemidji, MN 56601	Reg. Env. Assess. Ecol. Div. Ecol. Resources 1201 E. Hwy. 2 Grand Rapids, MN 55744	Reg. Env. Assess. Ecol. Div. Ecol. Resources 1200 Warner Road St. Paul, MN 55106	Reg. Env. Assess. Ecol. Div. Ecol. Resources 261 Hwy. 15 South New Ulm, MN 56073

For a map of DNR Administrative Regions, see: http://files.dnr.state.mn.us/aboutdnr/dnr_regions.pdf

- For a list of Corps of Project Managers: www.mvp.usace.army.mil/regulatory/default.asp?pageid=687
or send to:
-

US Army Corps of Engineers
St. Paul District, ATTN: OP-R
180 Fifth St. East, Suite 700
St. Paul, MN 55101-1678

- For Wetland Bank Plan applications, also send a copy of the application to:
Minnesota Board of Water and Soil Resources
Wetland Bank Coordinator
520 Lafayette Road North
St. Paul, MN 55155

5. ATTACHMENTS

In addition to the application, list any other attachments:

- ☒ **delineation report by EOR dated 5/8/17**
- ☐
- ☐

elm creek

Watershed Management Commission

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
PH: 763.553.1144
E-mail: judie@jass.biz
www.elmcreekwatershed.org

TECHNICAL OFFICE
Hennepin County Public Works
Department of Environment and Energy
701 Fourth Ave. South, Suite 700
Minneapolis, MN 55415
PH: 612.596.1171
E-mail: james.kujawa@hennepin.us

Plymouth NW Greenway Phase III **Plymouth, Project #2017-020**

Project Overview: The City of Plymouth is proposing to construct Phase III of the Northwest Greenway Trail near Peony Lane N and Cheshire Parkway, approximately one-quarter mile south of County Road 47 in Northwest Plymouth. The project consists of 1) a 2,200 foot connector trail between Kimberly Ln. N and the Aspen Hollow subdivision, 2) a new 520-foot boardwalk over Elm Creek and its associated wetland/floodplain replacement, 3) a 100-foot boardwalk west of Cheshire Parkway and 4) approximately 620 linear feet of trail connections at the Cheshire Parkway trailhead adjacent to Camelot Park. The project will disturb 2.43 acres. The project is constructing 0.65 acres of new impervious surface area within the ECWMC. The new impervious surface area is a trail that ranges between eight and twelve feet wide, and has a 5-foot minimum vegetated buffer on both sides, and is therefore exempt from the Stormwater Management requirements (Rule D). Our review will be for compliance to the Commission's 3rd generation standards Rule E, Erosion and Sediment Controls, Rule F, Floodplain and Rule H Bridge and Culvert Crossings

Applicant: City of Plymouth, c/o Diane Evans, 3400 Plymouth Boulevard, Plymouth, MN 55447. Phone: 763-509-5201. Email: devans@plymouthmn.gov.

Agent/Engineer: SRF Consulting Group, Robert Leba, One Carlson Parkway North, Suite 150, Plymouth, MN 55447. Phone; 763-475-0010. Email; bleba@srfconsulting.com

Exhibits:

- 1) ECWMC Request for Plan Review and Approval received on May 16, 2017.
- 2) Project review fee of \$1,050.00 received on May 16, 2017.
- 3) Construction Plans for City of Plymouth, Northwest Greenway Trail, Phase III, dated March 27, 2017
 - a. 65 of 65 sheets
- 4) Alternate Bid Index, dated March 27, 2017
 - a. 11 of 11 sheets
- 5) Project Location Maps, no date
 - a. Figures 1, 2 and 3 of 3
- 6) Floodplain Mitigation Plan, hand drawn overlays dated April 26, 2017
 - a. Mitigation Concept, sheets 1 & 2 of 2 (original sheets 24 and 25 of 65)
 - b. Floodplain Fill Cross Sections, sheets 1 & 2 of 2 (original sheets 53 and 54 of 65)
 - c. Compensatory Storage Cross-sections, sheets 1 & 2 of 2 (original plan sheets 66 and 67 of 96)
- 7) Elm Creek WMC Permit Application project narrative (2 of 2 sheets) by SRF dated April 2017.

CHAMPLIN • CORCORAN • DAYTON • MAPLE GROVE • MEDINA • PLYMOUTH • ROGERS

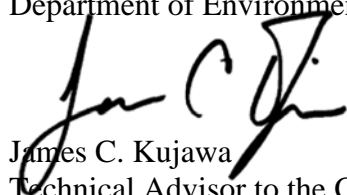
Findings:

- 8) A complete application was received on May 16, 2017. The initial 60-day review period expires July 16, 2107.
- 9) Rule F. Floodplain Alteration. During the construction of the approaches to the boardwalk over the Elm Creek 376 cubic yards of fill will be placed in the floodplain. An existing ditch above the OHWL of the floodplain will be excavated to create 565 cubic yards of mitigation within the floodplain. This will result in a net increase of floodplain storage in this project area of 189 cubic yards. This will meet the Commission floodplain rules.
- 10) Rule G. Wetland Alteration. City of Plymouth is the Local Government Unit administering the Wetland Conservation Act of Minnesota. Any wetland impacts and mitigation must be permitted by them.
- 11) Rule E. Erosion and Sediment Controls. Erosion and Sediment Control meets the Commission's requirements:
- 12) Rule D. Stormwater Management. The new impervious surface area is a linear trail that ranges between eight and twelve feet wide, and has a 5-foot minimum vegetated buffer on both sides, and is therefore exempt from the ECWMC Stormwater Management requirements.
- 13) Rule H. Bridge and Culvert Crossings. The boardwalk across the Elm Creek wetland/floodway will be constructed on helical anchor piers spaced in pairs 20 feet apart. There will be 25 pier sections used to cross the corridor. Staff has determined the boardwalk over Elm Creek meets the Commission's following criteria for crossing the creek;
 - a. It retains adequate hydraulic capacity to pass and maintain the 100 year flow and profile.
 - b. The existing base flow conditions will be similar after construction.
 - c. Water quality will not be adversely impacts.
 - d. It represents a minimal impact solution
 - e. Minimal creek velocities (<0.5fps) and the pier placement will minimize any future scour, erosion and sedimentation.
 - f. No FEMA FIS profile change will occur from this work.
 - g. A DNR permit for crossing the creek has been applied for.

Recommendation:

Staff recommends approval of the project contingent upon; a) the applicant obtaining a DNR protected waters crossing permit on Trail B and b) LGU wetland replacement plan approval on impacts associated with the trail segments.

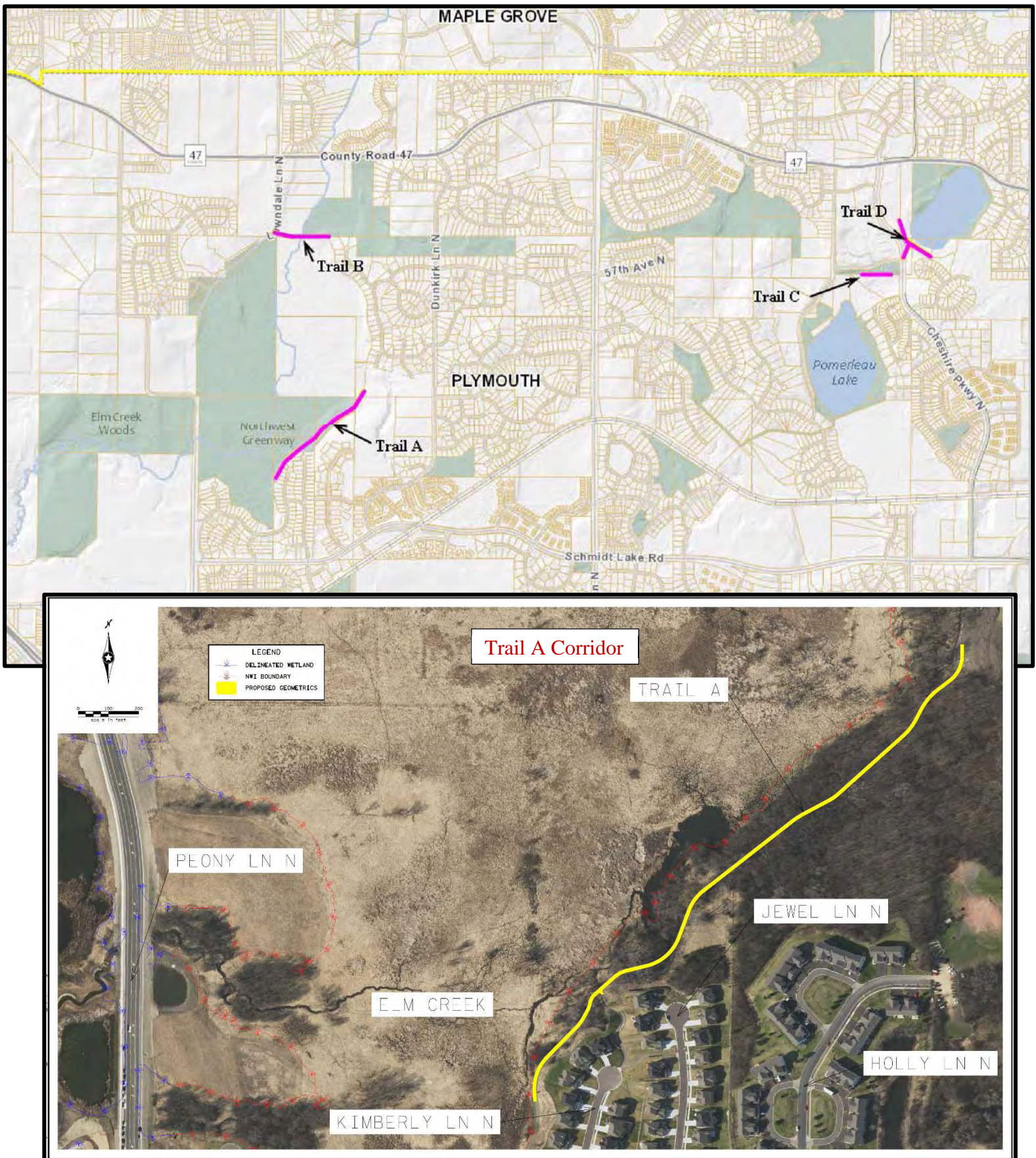
Hennepin County
Department of Environment and Energy

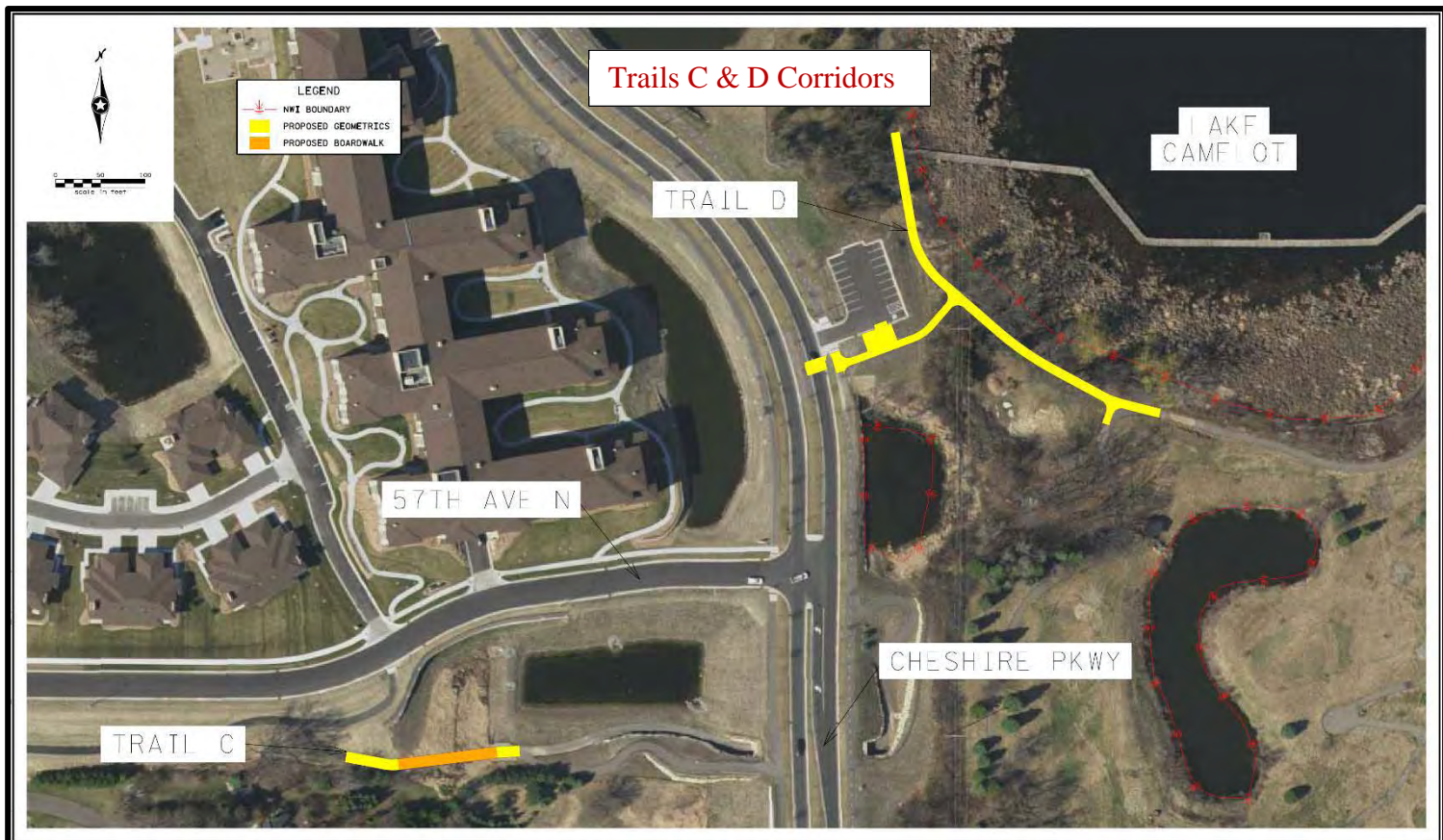
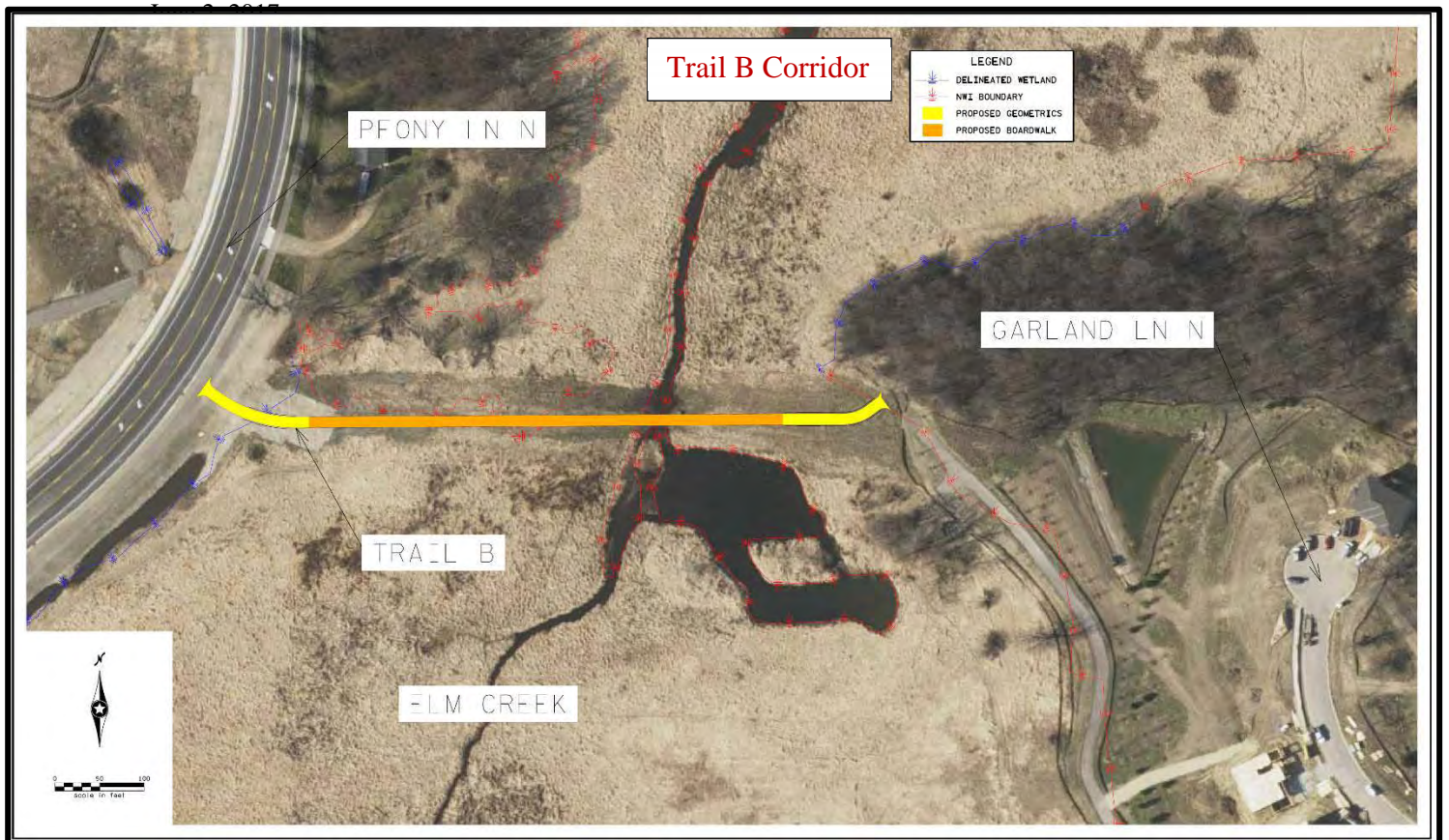


James C. Kujawa
Technical Advisor to the Commission

June 2, 2017

SITE LOCATION





Typical Boardwalk/Helical Pier Construction in Wetland



elm creek

Watershed Management Commission

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane
Plymouth, MN 55447
PH: 763.553.1144
E-mail: judie@jass.biz
www.elmcreekwatershed.org

TECHNICAL OFFICE
Hennepin County Public Works
Department of Environment and Energy
701 Fourth Ave. South, Suite 700
Minneapolis, MN 55415
PH: 612.596.1171
E-mail: ali.durgunoglu@hennepin.us

Hindu Society-Staff Housing (corrected) **Maple Grove, Project #2017-021**

Project Overview: This is an expansion project for adding 6 staff housing on the existing Hindu Temple property. The proposed addition will disturb 1.07 acres and add about 0.38 acres of new impervious cover. The size of the project barely exceeds the threshold level for plan review, however, there are wetlands and floodplains on the site. The floodplain elevation is 912.3 ft (NGVD 1929) as established by the ECWMC and FEMA. The plan will be reviewed for grading, wetland buffers and floodplain management.

Applicant: Hindu Society of Minnesota – c/o Balu Iyer, 10530 Troy Lane N, Maple Grove, MN 55311. Phone: 612-723-7784. Email: iyerx002@gmail.com.

Agent: Sambatek – c/o Kevin Clark, 12800 Whitewater Drive, Suite #300, Minnetonka, MN 55434. Phone: 763-476-6010. Email: kclark@sambatek.com.

Exhibits:

- 1) ECWMC Request for Plan Review and Approval received May 19, 2017.
- 2) Project review fee of \$103.50 on May 19, 2017. (Total due is \$200.00 per City of Maple Grove, please see the correct fee schedule.)
- 3) Preliminary Stormwater Management Plan (May 15, 2017), prepared by Sambatek (Jessica Andersen & Eric Luth, PE, unsigned); hardcopy only.
- 4) Preliminary site Development Plans for Staff Housing (received on May 19, 2017), signed by Eric Luth, PE, May 15, 2017; hardcopy only.
 - C1.01 Title Sheet
 - C2.01 Existing Conditions
 - C3.01 Site Plan
 - C4.01 Grading Plan
 - C7.01 Storm Water and Utility Plan
 - L1.01 Landscape Plan
 - L2.01 Planting Details

Findings:

- 5) The fee submitted was insufficient. The correct fee is \$200. Additional fee of \$96.50 must be submitted to the administrative office. The correct fee is calculated based on Institutional Redevelopment (Hindu Temple), plus the floodplains. The initial 60-day

review period will start when the full fee is submitted. Regardless of the fee due, staff started the technical review.

- 6) Rule F. Floodplain Alteration. The site is at the confluence of North Fork and South Fork Rush Creeks. The base flood elevation at this site is established at 912.30 feet (NGVD 1929 datum). The proposed grading shows impact to the floodplain storage. Either the grading should be revised to eliminate the floodplain impact or a floodplain storage mitigation plan should be submitted.
- 7) Rule G. Wetland Alteration. City of Maple Grove is the Local Government Unit administering the Wetland Conservation Act of Minnesota. No wetlands impacts are proposed.
- 8) Rule I. Buffer requirements. There are wetlands within close proximity of the project. Elm Creek WMC Buffer Rules requires the establishment of buffer strips on wetlands. Buffer strips on wetlands shall be an average 25 feet wide and a minimum of 10 feet wide. Additionally, buffer areas disturbed by grading operations must be finish graded to a slope of 6:1 or less or an increase in width of five (5) feet for each one (1) foot decrease in horizontal width (i.e., a 25 required foot buffer width at a 5:1 slope must be 30 feet wide, 4:1 must be 35 feet wide, and 3:1 must be 40 feet wide.) Buffer markers are required at every 200 feet along the buffer edge or where the buffer edge changes alignment. Please refer to the Commission's rules on buffers for further detail and vegetation management within buffers.
- 9) Rule E. Erosion and Sediment Control will meet the Commission's requirements.
- 10) Rule D. Stormwater Management will be provided by the proposed bio-filtration basin. Please provide more details about the bio-filtration basin (e.g. typical cross section, soil mix specification, clean-out locations, long-term operation and maintenance plans, etc.). Utility, drainage and access easements for the bio-filter must be shown.
- 11) Stormwater rate, volume and quality control. The site is too small to get a reliable estimate of the pre- and post-development quantities. Nevertheless, the applicant provided the following values for the treatment of the proposed 0.38 acres of impervious cover. These treatment levels would meet the Commission's standards.
 - a) Rate Control: The post-development stormwater runoff rates for the 2-, 10- and 100-year events meet the standards and are shown below:

Storm Event	Existing Discharge Rate (cfs)	Proposed Discharge Rate (cfs)
2-year	2.40	1.39
10-year	4.70	4.65
100-year	9.78	9.75

- b) Volume analysis: The volume abstraction requirement for 1.1" of runoff from 0.38 acres of new impervious surface is about 1,500 cubic feet. Soils are not conducive for infiltration. The proposed bio-filter will provide about 1,590 cubic feet of filtration.

- c) Water quality and nutrient analysis: Existing total suspended sediment (TSS) and total Phosphorus (TP) loads are 236 and 1.07 pounds per year, respectively. The post-development TSS and TP loads are 78 and 0.64 pounds per year, respectively.

Recommendation:

No recommendation is available at this time.

- **The revisions for the following items must be submitted for review and approval:
Items under 5, 6, 8 and 10.**

Hennepin County
Department of Environment and Energy



June 7, 2017

Ali Durgunoglu, P.E., Ph.D.
Technical Advisor to the Commission

Clean Water Fund Grant Project Assurance Agreement

Elm Creek WMC Internal Phosphorus Loading Control: Fish Lake, Hennepin County

WHEREAS:

- Fish Lake (MDNR ID# 27-0118) is a 238-acre lake located in Maple Grove, MN., with a public access provided through Fish Lake Regional Park, and
- Fish Lake is included on the MPCA's 303 (d) list as impaired for aquatic recreation due to excessive nutrients, and
- Fish Lake was included in the watershed restoration and protection strategies (WRAPS) and total maximum daily load (TMDL) study completed by the Elm Creek Watershed Management Commission (ECWMC) in 2015 and approved by the MPCA on December 16, 2016, and
- The WRAPS/TMDL studies identified internal loading as comprising 70% of the total phosphorus load affecting surface water quality in the lake and
- The WRAPS/TMDL included a recommendation to treat the lake with alum to reduce the internal load by at least 310 lbs./yr. to enable the lake to achieve the applicable Minnesota lake eutrophication standards, and
- The alum dosing options and recommendations for Fish Lake were prepared by Bill James, a nationally recognized scientist at the University of Wisconsin-Stout, using state-of-the art field and lab methods and summarized in "Alum Dosage Considerations for Fish Lake, Hennepin County, Minnesota. February 2013."
- The Elm Creek Watershed Management Commission, in partnership with Three Rivers Parks District, the City of Maple Grove, and the Fish Lake Area Residents Association (FLARA) submitted a grant application to secure up to \$200,000 in Clean Water Funds to fund an alum treatment of the lake, and
- A CWF grant of \$200,000 was awarded to the ECWMC to support the alum treatment, and
- As a condition of release of those funds, BWSR is requiring a statement of project assurance that the alum treatment funded by the CWF grant will be effective at reducing internal loading in Fish Lake by at least 310 lbs./yr. so the lake meets the applicable Minnesota lake eutrophication standards for a 20-year period as per the grant application.

NOW THEREFORE, the ECWMC agrees to lead a supplemental internal load control project without the aid of additional CWF grants under the following conditions:

1. Fish Lake fails to meet the lake eutrophication standards as outlined in MPCA's Guidance Manual for Assessing the Quality of Minnesota Surface Waters for Determination of Impairment: 305(b) Report and 303(d) List-2016 Assessment and Listing Cycle (Section VIII, C.2b 2nd paragraph, first sentence on pg. 41) for two consecutive years or three years out of a five consecutive year period, and
2. The failure identified in 1.) above is due to a decrease in the effectiveness of the alum treatment funded through CWF to achieve the internal phosphorus load reduction (310 lbs./yr.) cited in the approved TMDL for Fish Lake, and

3. Any supplemental treatments will only be undertaken as allowed by state and federal regulations, and
4. Any necessary supplemental efforts to address alum treatment effectiveness issues outlined in 1.) and 2.) above will continue as necessary for 20 years after the effective date of the CWF grant agreement (i.e., through April 5, 2037), and
5. In administering this project assurance agreement, BWSR will take into account the degree to which factors beyond the control of the local government units involved (such as climate change) are significant drivers of any unacceptable decrease in the effectiveness of the alum treatment.

The ECWMC also agrees to conduct annual monitoring of Fish Lake as necessary to track surface water quality so it can be compared to state eutrophication standards for total P, chlorophyll a, and water clarity. The ECWMC will also assure monitoring takes place to track the effectiveness of the alum treatment in reducing sediment release of phosphorus as per the management objectives of the TMDL and CWF grant.

ELM CREEK WATERSHED MANAGEMENT COMMISSION

Doug Baines, Chair

Date

Judie A. Anderson, Executive Secretary

Clean Water Fund Grant Project Assurance Agreement

Elm Creek WMC Internal Phosphorus Loading Control: Fish Lake, Hennepin County

WHEREAS:

- Fish Lake (MDNR ID# 27-0118) is a 238-acre lake located in Maple Grove, MN., with a public access provided through Fish Lake Regional Park, and
- Fish Lake is included on the MPCA's 303 (d) list as impaired for aquatic recreation due to excessive nutrients, and
- Fish Lake was included in the watershed restoration and protection strategies (WRAPS) and total maximum daily load (TMDL) study completed by the Elm Creek Watershed Management Commission (ECWMC) in 2015 and approved by the MPCA on December 16, 2016, and
- The WRAPS/TMDL studies identified internal loading as comprising 70% of the total phosphorus load affecting surface water quality in the lake and
- The WRAPS/TMDL included a recommendation to treat the lake with alum to reduce the internal load by at least 310 lbs./yr. to enable the lake to achieve the applicable Minnesota lake eutrophication standards, and
- The alum dosing options and recommendations for Fish Lake were prepared by Bill James, a nationally recognized scientist at the University of Wisconsin-Stout, using state-of-the art field and lab methods and summarized in "Alum Dosage Considerations for Fish Lake, Hennepin County, Minnesota. February 2013."
- The Elm Creek Watershed Management Commission, in partnership with Three Rivers Parks District, the City of Maple Grove, and the Fish Lake Area Residents Association (FLARA) submitted a grant application to secure up to \$200,000 in Clean Water Funds to fund an alum treatment of the lake, and
- A CWF grant of \$200,000 was awarded to the ECWMC to support the alum treatment, and
- As a condition of release of those funds, BWSR is requiring a statement of project assurance that the alum treatment funded by the CWF grant will be effective at reducing internal loading in Fish Lake by at least 310 lbs./yr. so the lake meets the applicable Minnesota lake eutrophication standards for a 20-year period as per the grant application.

NOW THEREFORE, the ECWMC agrees to lead a supplemental internal load control project without the aid of additional CWF grants under the following conditions:

1. Fish Lake fails to meet the lake eutrophication standards as outlined in MPCA's Guidance Manual for Assessing the Quality of Minnesota Surface Waters for Determination of Impairment: 305(b) Report and 303(d) List-2016 Assessment and Listing Cycle (Section VIII, C.2b 2nd paragraph, first sentence on pg. 41) for two consecutive years or three years out of a five consecutive year period, and
2. The failure identified in 1.) above is due to a decrease in the effectiveness of the alum treatment funded through CWF to achieve the internal phosphorus load reduction (310 lbs./yr.) cited in the approved TMDL for Fish Lake, and

3. Any supplemental treatments will only be undertaken as allowed by state and federal regulations, and
4. Any necessary supplemental efforts to address alum treatment effectiveness issues outlined in 1.) and 2.) above will continue as necessary for 20 years after the effective date of the CWF grant agreement (i.e., through April 5, 2037), and
5. In administering this project assurance agreement, BWSR will take into account the degree to which factors beyond the control of the local government units involved (such as climate change) are significant drivers of any unacceptable decrease in the effectiveness of the alum treatment.

The ECWMC also agrees to conduct annual monitoring of Fish Lake as necessary to track surface water quality so it can be compared to state eutrophication standards for total P, chlorophyll a, and water clarity. The ECWMC will also assure monitoring takes place to track the effectiveness of the alum treatment in reducing sediment release of phosphorus as per the management objectives of the TMDL and CWF grant.

ELM CREEK WATERSHED MANAGEMENT COMMISSION

Doug Baines, Chair

Date

Judie A. Anderson, Executive Secretary



Hennepin County
Public Works

Environment and Energy Department
701 Fourth Avenue South, Suite 700
Minneapolis, Minnesota 55415-1842

612-348-3777, Phone
612-348-8532, Fax
hennepin.us/environment

Date: May XX, 2017

To: Board of Commissioners

From: Rosemary Lavin, Director

RE: Recommendation to approve the amendment to the Elm Creek Watershed Management Commission's Watershed Management Plan

The purpose of this memo is to inform the county board of staff's review and recommendations to approve a proposed minor plan amendment to the Elm Creek Watershed Management Commission's (ECWMC) watershed management plan (Plan).

Staff Review and Recommendations

Staff reviewed ECWMC's proposed minor plan amendment and found it to be consistent with the Surface Water Management section of the Hennepin County 2030 Comprehensive Plan Update and the Hennepin County Natural Resources Strategic Plan.

The ECWMC held a public hearing regarding the proposed minor plan amendment at its regular meeting on May 10, 2017. **The ECWMC has received no public comment on its proposed amendment.**

Staff recommends approval of the proposed minor plan amendment to the ECWMC's Watershed Management Plan.

Background

The ECWMC is located in the northern part of the county and includes portions of the cities of Champlin, Corcoran, Dayton, Maple Grove, Medina, Plymouth and Rogers (Figure 1).

The ECWMC has proposed a minor plan amendment to revise the Plan's Capital Improvement Program (CIP). Pursuant to Minnesota Statutes Section 103B.231, subd. 7, ECWMC forwarded the proposed amendment to the county for review and action on water quality and quantity projects in the CIP where it may seek to certify funding to implement the water quality and quantity projects under Minnesota Statutes Section 103B.251.

The amendment will add two new water quality projects to the Plan's CIP, shift the schedule and funding of four other water quality projects already in the CIP, and remove one project that is already in the CIP. The projects are described in the following paragraphs.

New projects

1. The Elm Creek Stream Restoration Reach D (Plymouth) will restore approximately 3,850 linear feet of Elm Creek through the former Elm Creek Golf Course property. The project will widen the channel and the meander of the stream, and incorporate bioengineering techniques, rock

veins, and native vegetative buffers. The estimated cost of the project is \$850,000 with the ECWMC share being \$212,500 (to be levied for in 2018).

2. The Cowley-Sylvan Connections BMPs (Rogers), will install iron-enhanced filtration benches and increase the vegetative buffer along the channel between Sylvan and Cowley lakes. The project will reduce phosphorus loads entering Cowley Lake. The estimated cost of the project is \$300,000 with the ECWMC share being \$75,000 (to be levied for in 2018).

Revise projects already in CIP

1. Change the schedules and funding for the following projects:
 - a. Fox Creek at South Pointe (Rogers), the future \$22,500 for ECWMC's share will shift from 2017 to 2019.
 - b. Stone's Throw Wetland (Corcoran), the future \$112,500 for ECWMC's share will shift from 2017 to 2018.
 - c. Ranchview Wetland Restoration (Maple Grove), the future \$250,000 for ECWMC's share will shift from 2017 to 2018.
 - d. Agricultural Best Management Practices Cost-Share Program, \$50,000 annually, will shift from 2017 to 2020-2024.

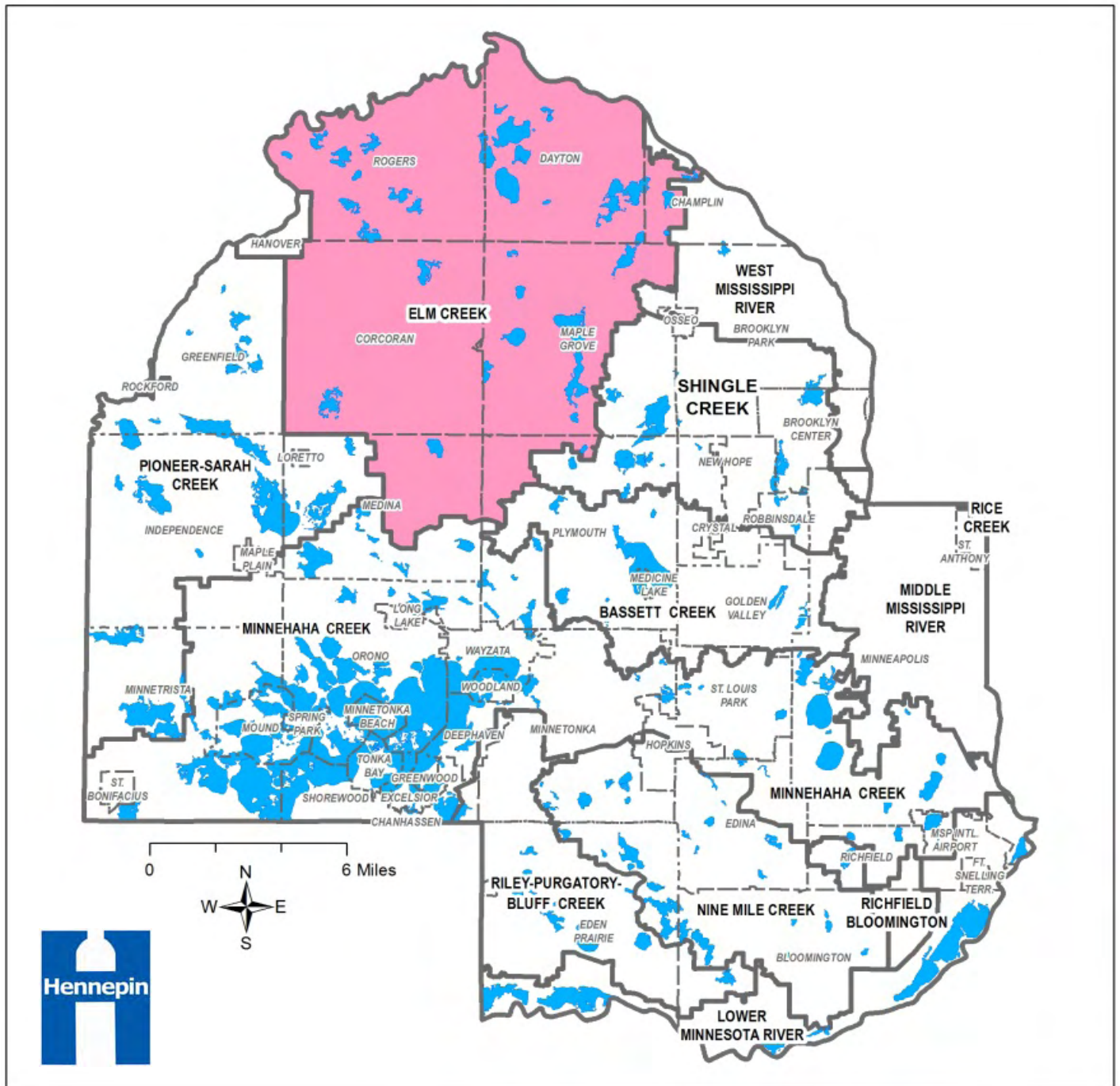
Remove projects

1. Stonebridge Storm Sewer Retrofit (Maple Grove) project is being removed at the request of the City of Maple Grove.

Please contact Karen Galles at (612) 348-2027 with questions.

cc: David Hough
Carl Michaud

Figure 1. Elm Creek Watershed Location



Judie Anderson

From: West Metro Water Alliance [West_Metro_Water_Alliance@service.govdelivery.com]
Sent: Tuesday, June 06, 2017 8:34 AM
To: judie@jass.biz
Subject: Water Links June 2017



JUNE 2017

ABOUT WATER LINKS

[Water Links](#) provides monthly updates from the West Metro Water Alliance (WMWA). Water Links features news, events, project updates and tips related to water quality issues.

IN THIS ISSUE

- [Pledge to Plant for pollinators and clean water](#)
- [Metro Blooms project in a north Minneapolis neighborhood gaining ground](#)
- [Plymouth Creek restoration means less pollutants flowing to Medicine Lake](#)
- [Twin Lake carp are on the move](#)

ABOUT WMWA

WMWA is a working group of agencies with a common interest in water quality and stormwater management. The group collaborates on various projects related to education and outreach on water quality issues.

WMWA partners include:

Pledge to Plant for pollinators and clean water



Bring color, beauty, and pollinators to your yard with native plants and flowers!

The West Metro Water Alliance is urging the public to Pledge to Plant for Pollinators and Clean Water. Adding native (wildflower) plantings, raingardens, and shoreline plantings to landscapes increases pollinator corridors/habitat and protects lakes and streams by capturing and filtering runoff. The project's goal is to persuade landowners to plant 10,000 native plantings of any size to protect pollinators and our 10,000 lakes by 2020.

Why Pledge to Plant?

Stormwater runoff is the leading water quality threat to our urban lakes and streams. Turf grass, a.k.a. "green concrete," and impervious surfaces such as streets and parking lots prevent water from infiltrating into the ground, which results in increased polluted stormwater runoff reaching lakes and streams. Native plants, or plants indigenous to the region, are well-adapted to local conditions. They also generally have longer root systems - sometimes up to 16 feet - so they absorb and filter water running off the land and mimic pre-settlement landscapes. These long-rooted plants can even break up clay soils and improve drainage. And even better, these deeply rooted plants don't need as much water after they are established.

Besides protecting and conserving water, native plants support pollinators. Native wildflowers provide higher quality nectar and pollen to insects than cultivated varieties

[Bassett Creek watershed](#)

[Elm Creek watershed](#)

[Shingle Creek & West
Mississippi River watersheds](#)

[Hennepin County](#)

[Three Rivers Park District](#)

[Freshwater Society](#)

Several cities

SIGN UP

Please forward this email to interested individuals and encourage them to sign up.

[Sign up!](#)

CONTACT US

[Email WMWA.](#)

("cultivars") that are most popular at nurseries. In 2015, American beekeepers lost 40 percent of their colonies. Monarch butterfly populations are struggling, and research suggests other pollinators are also suffering serious declines due to loss of habitat and overuse of pesticides. Many of the native plants that are most nutritious to pollinators are as attractive as non-native flowers. Planting natives not only helps protect water quality, it helps to restore lost pollinator habitat

How to get started

Visit [WMWA's website](#) to make your pledge, and check out our partner [Blue Thumb](#), whose handy website makes it easy to navigate this new way of approaching your yard. There you will find all the resources needed to plan, purchase and plant a pollinator and water-friendly garden. The plant selector allows you to search by color, sun requirements, time of bloom, height, and more. And if you are not a do-it-yourselfer, Blue Thumb has partners that are native plant nurseries, landscapers, designers, installers and hardscape producers committed to using native plants. There are also how-to videos, cost-calculators, workshops, available speakers, grants and more.

Metro Blooms project in a north Minneapolis neighborhood gaining ground

Metro Blooms, a nonprofit organization that promotes gardening for environmental protection, is partnering with the Bassett Creek Watershed Management Commission, the Minneapolis Park and Recreation Board, and others to implement the "Northside Neighborhood Engagement & Opportunities in Clean Water Initiatives Project" in the Harrison Neighborhood of Near North, Minneapolis.



This large project aims to engage neighborhood property owners, residents, and other stakeholders in identifying opportunities for stormwater management on private property, which may include backyards, driveways, alleyways and boulevards. The project also involves recruiting and employing neighborhood youth and young adults, providing native habitat for pollinators, improving water quality, and creating pedestrian-friendly community spaces along sidewalks.

Through this program, Metro Blooms engages entire blocks of property owners, both residential and commercial, to install stormwater best management practices. The project uses the principles of sustainable development, paying close attention to the preservation of limited and costly resources, reducing waste, and preventing air, water, and soil pollution.

Demonstration projects and community involvement

In 2016, Phase I of the project got underway when Redeemer Lutheran Church on Glenwood Avenue served as the demonstration site for a large Blooming Boulevards project.

Phase II of the project is getting underway this year and involves targeted community engagement. This is accomplished by working with current residents of the Harrison Neighborhood Association and the Glenwood Revitalization Team to ensure that their voices, community vision, and goals are met for a livable and holistic community that is resistant to displacement, environmental racism, and climate change. Block captains in the Harrison Neighborhood are being recruited to host block parties. Interested business owners and neighbors can then learn about stormwater best management practices and the impact that their participation will have on their property, on our water resources and the community's overall health and well-being.

Sustainable landscaping for these projects is intentionally designed to be both attractive and in balance with the local climate and environment. The alternative turf designs selected will create habitat, be functional, cost-efficient, visually pleasing, environmentally friendly, and mow-able.

Finally, as a component of a career pathways initiative, an on-the-job Sustainable Landcare Inspections & Maintenance Field Training & Certification program is being piloted with the youth and young adults from Youth Outdoors Programs and local contractors.

Project partners

The Bassett Creek Watershed Management Commission recently received a \$100,000 grant from the Metropolitan Council for this project and a \$134,000 Clean Water Fund grant from the Minnesota Board of Water and Soil Resources. Other partners on this project include the Minnesota Pollution Control Agency, Center for Prevention Blue Cross Blue Shield, Conservation Corps MN Youth Outdoors and the Minneapolis Park and Recreation Board.

Plymouth Creek restoration means less pollutants flowing to Medicine Lake



Plymouth Creek streambanks will be restored to reduce erosion and improve water quality in the creek and in Medicine Lake through a project by the Bassett Creek Watershed Management Commission and the City of Plymouth.

The Bassett Creek Watershed Management Commission (BCWMC), in cooperation with the City of Plymouth, are investigating ways to reduce pollutants like phosphorus and suspended solids from flowing into Medicine Lake. The lake has been on the list of impaired waters since 2014 because of too much nutrients like phosphorus, which creates nuisance levels of algae. Although several projects in the lake's watershed have been completed by the city and the BCWMC over the last 10 years, pollutant levels in the lake are still too high.

One way to reduce phosphorus and suspended solids from reaching the lake is to restore the banks of streams like Plymouth Creek that lead to Medicine Lake. A project to do just that is underway along the creek in Plymouth Creek Park and downstream of Fernbrook Road to Annapolis Lane. This 2,500-foot stretch of creek will get some much needed repair and restoration that will reduce phosphorus contributions to the creek (and hence the lake) by 50 pounds per year and will reduce suspended solids by 90,000 pounds per year. In-stream and near-stream habitat will also be improved through this project.

Restoration techniques will include planting vegetation like willows and grasses to stabilize streambanks, installing some rock riprap along banks, and installing rock cross vanes within the stream to channel erosive flows to the middle of the stream. Construction of the restoration project is expected this winter.



The BCWMC recently received a \$50,000 grant from Hennepin County and a \$400,000 Clean Water Legacy grant from the Minnesota Board of Water and Soil Resources for this project. [Learn more and get project updates.](#)

Twin Lake carp are on the move



Tracking carp in Twin Lake by the Shingle Creek Watershed Management Commission.

Managing and improving water quality in shallow lakes can be a challenge, especially if there are too many common carp and other bottom-feeding fish present. Feeding by these fish disrupts and destroys rooted aquatic plants, creates turbid water, and releases phosphorus into the water that is then used by algae to thrive.

Monitoring carp in the Twin Lake system

Twin Lake in Crystal, Brooklyn Center and Robbinsdale is a three-lake system with a carp problem. The Shingle Creek Watershed Management Commission is in the midst of a multi-year project to manage the carp population in the system. The first step is understanding the size of the population, where they congregate, and how and where they move around.

In fall 2016, 40 carp were captured and implanted with radio transmitters. The carp are periodically tracked using a hand-held antenna, and a ground-based antenna monitors if fish are leaving the lake system through Ryan Creek.

Understanding the movement of carp

Over the winter months there were significant changes in the carps' location within the lakes. As expected, carp were located in large dense schools in deeper water habitats in the dead of winter (January). As conditions began to warm and watershed runoff began to move water under the ice (February), the carp were located in moderate depth areas in the lake and/or areas where stormwater inputs were likely bringing in warmer, oxygenated waters. In March and April, data was gathered only one week apart and showed large changes in the locations of carp. In general, the carp appear to be schooling in shallow waters and are likely preparing for spring spawning. Successful recruitment and spawning likely occurs in shallow wetlands and/or stormwater ponds.

An early ice out and limited spring flooding likely kept the carp within the chain of lakes, however, as the waters continue to warm and with the advent of spring rains, the carp appeared ready to move into their spawning habitats soon. Tracking efforts are occurring more frequently in hopes to capture the timing and location of spring spawning migrations and locations.

More information about the project and maps showing the changing locations of the marked carp can be found [here](#).

SUBSCRIBER SERVICES:

[Unsubscribe/update preferences](#) | [Contact Hennepin](#) | [GovDelivery help](#) | [Register for Citizens Academy](#)

INTERACT WITH HENNEPIN COUNTY:





Minnesota Pollution Control Agency

SENT ELECTRONICALLY 06/06/2017

Mr. Rich Brasch
Three Rivers Park District
Field Operations Center
12615 County Road 9
Plymouth, MN 55441

RE: Fish Lake Alum Treatment

Dear Mr. Brasch:

The purpose of this letter is to confirm that the Minnesota Pollution Control Agency (MPCA) has reviewed the requested application of alum to Fish Lake (DNR # 27-0118) in the fall of 2017 and an additional alum application scheduled for the fall of 2019 to reach the desired overall dose. The treatment protocol discussed in *Alum Treatment for Fish Lake* (March, 2017) is acceptable to MPCA. Three Rivers Park District and/or its partners should alert local Minnesota Department of Natural Resources (DNR) staff and citizens as soon as possible before the planned treatment to avoid confusion during the application.

MPCA understands that pH will be monitored during application to insure that the lake pH does not drop below 6.0. The *Alum Treatment for Fish Lake* letter also states that the alum treatment will be stopped if the lake pH drops below 6.5 or any adverse impacts to fish are observed. These are obvious requirements of alum treatments that may have not been clearly stated in previous alum treatment approval letters.

MPCA would like to receive any reports that Three Rivers Park District and/or its partners generate as they continue their regular water quality monitoring efforts for surface waters impacted by this treatment. Also, please consider submittal of data to MPCA's EQUIS database. This will allow MPCA staff and others to follow-up on the effectiveness of the treatment in subsequent years. For forms and information, see the webpage at: <http://www.pca.state.mn.us/index.php/water/water-monitoring-and-reporting/surface-water-data/surface-water-data-submittal-review-and-reports.html#data-submittal>.

In the past, DNR issued permits authorizing alum treatments of lakes with concurrence from MPCA. Currently, MPCA reviews alum treatments. This letter is being provided in lieu of a permit, although permits are required for lakes with continuous alum treatments or inlet treatments of stormwater. Also, the Municipal Separate Storm Sewer System (MS4) permit regulates the use of alum and ferric chloride in stormwater contained within the conveyances and structural stormwater BMPs of the MS4. The MS4 does not cover the use of these chemicals in receiving waters.

MPCA standards and watershed staff work together to address external load reductions that are either occurring or planned. Many times, the goals for the water body cannot be met with only the use of in-lake treatment chemicals. External load reductions, including, but not limited to, reducing urban runoff and restoring vegetative buffers are also necessary. Without external reductions, the long-term effectiveness of in-lake treatments may be reduced.

If you have additional questions, please feel free to contact me at dennis.wasley@state.mn.us or 612-749-9569 or Elise Doucette at elise.doucette@state.mn.us or 651-757-2316.

Sincerely,

Dennis Mark Wasley

Environmental Analysis and Outcomes Division

Minnesota Pollution Control Agency