

elm creek

Watershed Management Commission

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June 6, 2018

Representatives
Elm Creek Watershed Management Commission
Hennepin County, MN

The meeting packet for this meeting may be found on the Commission's website:
<http://www.elmcreekwatershed.org/minutes--meeting-packets.html>

Dear Representatives:

A regular meeting of the Elm Creek Watershed Management Commission will be held on **Wednesday, June 13, 2018, at 11:30 a.m.** in the Mayor's Conference Room at Maple Grove City Hall, 12800 Arbor Lakes Parkway, Maple Grove, MN.

The **Rush Creek Subwatershed Assessment Core Team**, along with the **Technical Advisory Committee (TAC)**, will meet at 10:00 a.m., prior to the regular meeting. In order to wrap up the Rush Creek Headwaters SWA project we'd like to develop a prioritized list of potential projects and other actions for implementation, as well as hear any further thoughts on additional public input. TAC meeting materials can also be found on the Commission's website. The second draft of the final report is posted at <http://www.elmcreekwatershed.org/rush-creek-swa.html>. It will not be included in the meeting packet.

Also, please update your calendars. The **July 11, 2018** Elm Creek meeting (and possible TAC meeting) have been **rescheduled for 9:00 a.m. to 1:00 p.m.** due to a prior commitment for the meeting room. Pizza will still be served.

Please email Tiffany at tiffany@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

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AGENDA June 13, 2018

TAC Meeting - Rush Creek Subwatershed Assessment.

1. Review Draft Report <http://www.elmcreekwatershed.org/rush-creek-swa.html>.
2. Implementation Strategies.
3. Funding Options.
4. Next Steps.

Regular Meeting.

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. Approve 2019 Operating Budget.*
 - 1) Member Assessments.*
 - c. Approve 2018 CAMP Agreement.*
 - d. Approve 2018-19 USGS Agreement.*
7. New Business.
8. Communications.
9. Education.
 - a. WMWA Update.**
10. Grant Opportunities and Updates.
 - a. Fish Lake Internal Phosphorus Loading Control.
 - b. Rush Creek Headwaters Subwatershed Assessment.
 - c. 319 Small Watersheds Focus Program.**
11. Project Reviews – *also see Staff Report*.*
12. Other Business.
13. Adjourn.

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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.
d.				AR	2015-030	Kiddiegarten Child Care Center, Maple Grove.

*in meeting packet
 **available at meeting

e.					2016-002	The Markets at Rush Creek, Maple Grove.
f.					2016-004	Park Storage Place, Corcoran.
g.					2016-005W	Ravinia Wetland Bank Plan, Corcoran.
h.				AR	2016-026	Faithbrook Church, Dayton.
i.					2016-040	Kinghorn 4th Addition, Rogers.
j.					2016-047	Hy-Vee Maple Grove #1 (Hy-Vee Maple Grove North).
k.				AR	2016-052	The Woods at Rush Creek, Maple Grove.
l.				AR	2017-014	Laurel Creek, Rogers.
m.				AR	2017-016	Territorial Woods, Maple Grove.
n.				AR	2017-017	Mary Queen of Peace Catholic Church, Rogers.
o.				AR	2017-019	Medina Senior Living Community, Medina.
p.				AR	2017-021	Hindu Society of MN Staff Housing, Maple Grove.
q.				AR	2017-029	Brayburn Trails, Dayton.
r.					2017-031	Bass Lake Crossing, Corcoran.
s.				AR	2017-034	Plymouth Memory Care, Plymouth.
t.				AR	2017-037	Corcoran L-80 Lift Station MCES Project 808520, Corcoran.
u.					2017-038	Bass Lake Estates, Corcoran.
v.					2017-039	Rush Creek Apartments, Maple Grove.
w.					2017-044	Reserve at Medina 2nd Addition, Medina.
x.					2017-045	Fish Lake Estates, Maple Grove.
y.					2017-046W	Wessell Property Wetland Delineation, Corcoran.
z.					2017-048W	Ebert Parcel Wetland Delineation, Corcoran.
aa.		E			2017-050W	Ernie Mayer Wetland/floodplain violation, Corcoran.
ab.				AR	2017-051	Mallard South 2nd Addition, Rogers.
ac.					2017-053	Sunrise Solar, Corcoran.
ad.				AR	2018-001	Rush Creek Commons, Maple Grove.
af.	A	E			2018-004	Rush Creek Restoration, Maple Grove.
ag.					2018-005	Sundance Greens, Dayton.
ah.					2018-007	Copper Creek of Nottingham, Maple Grove.
ai.					2018-008	Hayden Hills Golf Course, Dayton.
aj.	A	E			2018-009	Plymouth NW Greenway Trail Phase IV, Plymouth.
ak.					2018-011	Rush Creek Run, Corcoran.
al.					2018-012	Meadows Playfields, Plymouth.
am.					2018-013	Wayzata Elementary School #9, Plymouth.
an.		E			2018-014	Fehn Meadows 2nd Addition, Corcoran.
ao.	A	E			2018-015	Laurel Creek 2nd Addition, Rogers.
ap.					2018-016	Krueger Wetland Delineation, Corcoran.
aq.					2018-017	Larkin Road Wetland Delineation, Corcoran.
ar.					2018-018	Summers Edge Phase II, Plymouth.
as.					2018-019	Fuss Wetland Delineation, Corcoran.
at.					2018-020	North 101 Storage, Rogers.
au.					2018-021	113th Lane Extension/Brockton/101, Rogers.
av.					2018-022	Fernbrook Fields, Maple Grove.
aw.	A	E				Pine Meadows Development, Dayton.

A = Action item E = Enclosure provided I = Informational update will be provided at meeting RPI - 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

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May 9, 2018 Regular and Public Meeting Minutes

I. A **regular meeting** of the Elm Creek Watershed Management Commission was called to order at 11:34 a.m., Wednesday, May 9, 2018, 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; Sharon Meister, Corcoran; Doug Baines, Dayton; Elizabeth Weir, Medina; Fred Moore, Plymouth; Kevin Jullie, Rogers; James Kujawa, Hennepin County Dept. of Environment and Energy (HCEE); Brian Vlach, Three Rivers Park District (TRPD); Jeff Weiss, Barr Engineering; and Judie Anderson, JASS.

Not represented: Maple Grove.

Also present: Todd Tuominen, Champlin; Kevin Mattson, Corcoran; Karen Jaeger and Mark Lahtinen, Maple Grove; and Catherine Cesnik and Ben Scharenbroich, Plymouth.

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

B. Motion by Walraven, second by Weir to approve the **minutes*** of the April 11, 2018, regular meeting. *Motion carried unanimously.*

C. Motion by Walraven, second by Moore to approve the May **Treasurer's Report and Claims*** totaling \$29,505.76. *Motion carried unanimously.*

[The regular meeting was suspended at 11:35 a.m. in order to convene a public meeting.]

II. **Public Meeting - Minor Plan Amendment**.* The proposed Third Generation Plan amendment is for the purpose of updating the Capital Improvement Program (CIP)* to add eight projects and shift funding on two 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.

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)**. Area Hydrologist Kate Drewry 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. No comments were received from any of the other reviewing agencies. 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 11:38 a.m.

B. **Commission Discussion.**

Motion by Weir, second by Walraven to adopt **Resolution 2018-01 Adopting a Minor Plan Amendment**.* *Motion carried unanimously.*

[The regular meeting was reconvened at 11:39 a.m.]

III. **Open Forum.**

elm creek Watershed Management Commission

Regular and Public Meeting Minutes – May 9, 2018

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IV. Action Items.

A. Project Review 2018-008 Hayden Hills Golf Course, Dayton.* This 85 acre golf course is proposed to be developed into 238 single-family residential lots. The original submittal was received March 1 and all materials to complete the application were received on March 23. The proposed project meets the Commission's standards for water quality, runoff rates, and erosion control; however the proposed stormwater ponds will have a direct connection to the groundwater. Staff met with the developer, the engineer, and the City to discuss the project on April 25 and to identify design modifications and/or pre-treatment to the ponds to comply with the Commission's standards. In findings dated May 9, 2018, Staff recommended approval of the project with the following conditions:

1. Developer must provide additional information about the modeling, including additional information about curve numbers used for the modeling and additional explanation about the existing conditions modeling and how the 2-, 10-, and 100-year peak flows are essentially identical.
2. Developer must indicate on Plans where pretreatment sump manhole and baffles are to be constructed and provide typical detail for sump manholes.
3. Developer must provide resolution of potential wetland impacts within the project area and certification that proper mitigation will be provided.

Motion by Moore, second by Weir to approve Staff recommendations with the further conditions that a determination be made regarding the requirement of an operations and maintenance agreement and that the City of Dayton carefully review the expressed drainage concerns. *Motion carried unanimously.*

B. Project Review 2018-011 Rush Creek Run, Corcoran.* This is an existing 65-acre agricultural parcel with a farmstead located on Rolling Hills Road just south of CR 50. The landowner is proposing to subdivide the property into six large residential lots. The site is adjacent to Rolling Hills Road so no grading or street construction is proposed. Based on the Commission's standards, this site must be reviewed for conformance to rules D, F, G, and I. Staff recommends Commission approval of this project per their findings and recommendations dated April 18, 2018, i.e., prior to construction of the access road an approved wetland replacement plan, exemption, or no-loss determination must be obtained from the LGU in charge of administering the Wetland Conservation Act (WCA).

Motion by Moore, second by Weir to approve Staff recommendations with the further conditions that this project follow the guidelines of the Minnesota Extension Service, that the City review each structure according to the City's NPDES requirements, and that City also review the site for conformance with its livestock ordinance. *Motion carried unanimously.*

C. The Meadows Playfield, Plymouth.* (Future project review 2018-012.) The City of Plymouth is reviewing options for a new playfield in the southwest corner of the intersection of Peony Lane and CR 47. Possible options for the site include a multi-use baseball stadium with the capacity to be converted into softball fields, football fields, soccer fields, and more. Also being considered for the site and adjacent to the multi-use fields is a new park and ride to serve the residents of a growing area of Plymouth.

While the City is currently in the concept phase of project development, they are considering the use of innovative best management practices such as porous asphalt, porous pavers, sand filters and more. It is possible this site could be an educational or demonstration site opportunity. In his memo dated April 20, 2018, Derek Asche, Plymouth's Water Resources Manager, is inquiring as to whether Commission has any interest in partnering on improvements to the site either through grant funding or capital improvements and if the Commission has any ideas on innovative best management practices. Included with the memo was a concept plan for the project.

The members discussed various options for BMPs that would improve/enhance the site. Motion by Moore, second by Weir to actively support this project. *Motion carried unanimously.*

RULE D - STORMWATER MANAGEMENT
RULE E - EROSION AND SEDIMENT CONTROL
RULE F - FLOODPLAIN ALTERATION

RULE G - WETLAND ALTERATION
RULE H - BRIDGE AND CULVERT CROSSINGS
RULE I - BUFFERS

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D. Moore presented a **draft 2019 Operating Budget**. * Some things to note:

1. A substantial increase in stream monitoring expenses will occur in 2019 under the USGS and Three Rivers Park District cooperative agreements.
2. There will be off-setting revenue and expense for the Floodplain Modeling project in both 2018 and 2019.
3. A 2.4% increase in member assessments* is proposed.
4. Under the proposed budget, \$43,015 would be retained as unrestricted/unassigned funds.

The Commissioners must adopt their 2019 operating budget at the June 13, 2018 meeting.

E. Floodplain Modeling and Mapping. *Included in the meeting packet is the grant contract between the Dept. of Natural Resources and the Commission for updating and improving floodplain data in the watershed. The contract is in the amount of \$92,773.00 and does not require a local match.

Motion by Weir, second by Walraven to approve the grant contract as described above. *Motion carried unanimously.*

Motion by Weir, second by Walraven to adopt **Resolution 2018-02** Authorizing Acceptance of a Grant from the DNR for Improved Flood Risk Mapping. *Motion carried unanimously.*

V. New Business.

Baines described the latest in the Freshwater Society's Moos Family Speaker Series. On May 9, Jennifer Francis, Ph.D, research professor with the Rutgers Department of Marine and Coastal Sciences, discussed the relationship between extreme weather events and the rapidly warming Arctic. Anderson will request the Freshwater Society to add the Commissioners to their invitation list.

VI. Water Quality.

A. A draft of the **manure management ordinance/policy*** will be transmitted to the member cities for review and comment prior to the next meeting.

B. Vlach will give a presentation of the 2017 **stream monitoring results** at an upcoming meeting.

VII. Grant Opportunities and Updates.

A. Internal Phosphorus Loading Control in Fish Lake project. At last month's meeting Vlach advised the Commissioners of a study being undertaken to determine the binding capacity of alum. A copy of that report, "Effectiveness of a Late-Summer Aluminum Sulfate Application in Binding Hypolimnetic Phosphorus in Fish Lake, MN: Phase 1 Interim Report," was included in the meeting packet.

B. Rush Creek Headwaters Subwatershed Assessment project. * Wenck's May 7 update states that the final report has been circulated for comments. A meeting of the Core Team will be scheduled for late May when the members will review the draft report and identified BMPs. Meetings with the Commission's TAC and the stakeholder focus group will follow.

C. Diane Spector, Wenck Associates, recommended that the Commission consider **submitting another SWA** to the Clean Water Accelerated Implementation Program as it appears from BWSR that this may be the last year it is offered.

D. Included in the meeting packet is an announcement of the **319 Small Watersheds Focus Program**. * The Minnesota Pollution Control Agency (MPCA) is looking for interested watershed organizations to partner with in developing a long-term roadmap to support comprehensive implementation on a small-scale watershed. Selected "Focus Watersheds" will be prioritized to receive four 4-year grant awards to implement a series of projects outlined in the Focus grant workplan, provide a steady source of funding, focus implementation efforts, and achieve measurable water quality improvements on a specific waterbody. Kujawa noted that it appears they are looking for BMPs rather than studies.

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VIII. Education.

A. West Metro Water Alliance (WMWA) Update.* Many topics were discussed at the May meeting, including the Educators as a part of school summer programs, WMWA/native plant sales at Farmers' Markets, WMWA presence at Plymouth Kids Fest on August 2, scheduling of another Chloride Level 1 training, possibility of presence at National Night Out, development of handouts with the websites for different activities listed, and postings on Next Door.

B. Members discussed ways to bolster website visits and newsletter sign-ups.

C. The next **WMWA meeting** is scheduled for 8:30 a.m., Tuesday, June 12, 2018, at Plymouth City Hall.

IX. Communications.

X. 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. 2015-030 Kiddiegarten Child Care Center, Maple Grove.
5. 2016-002 The Markets at Rush Creek, Maple Grove.
6. 2016-004 Park Place Storage Site Plans, Corcoran.
7. 2016-005W Ravinia Wetland Bank, Corcoran.
8. 2016-026 Faithbrook Church, Dayton.
9. 2016-040 Kinghorn 4th Addition, Rogers.
10. 2016-047 Hy-Vee Maple Grove #1, Maple Grove.
11. 2016-052 The Woods at Rush Creek, Maple Grove.
12. 2017-014 Laurel Creek, Rogers.
13. 2017-016 Territorial Woods, Maple Grove.
14. 2017-017 Mary Queen of Peace Catholic Church, Rogers
15. 2017-019 Medina Senior Living Community, Medina.
16. 2017-021 Hindu Society of MN Staff Housing, Maple Grove.
17. 2017-029 Brayburn Trails, Dayton.
18. 2017-030 Brindle Path, Medina.
19. 2017-031 Bass Lake Crossing, Corcoran.
20. 2017-034 Plymouth Memory Care, Plymouth.
21. 2017-035 Weston Woods of Medina PUD.
22. 2017-036 Enclave at Elm Creek, Plymouth.
23. 2017-037 L-80 Lift Station MCES, Corcoran.
24. 2017-038 Bass Lake Estates, Corcoran.
25. 2017-039 Rush Creek Apartments, Maple Grove.
26. 2017-044 Reserve at Medina 2nd Addition, Medina.
27. 2017-045 Fish Lake Estates, Maple Grove.
28. 2017-046W Wessell Wetland Delineation, Corcoran.
29. 2017-048W Ebert Parcel Wetland Delineation, Corcoran.
30. 2017-049W Rolling Hills Wetland Delineation, Corcoran.
31. 2017-050W Ernie Mayer Wetland/floodplain violation, Corcoran.
32. 2017-051 Mallard South 2nd Addition, Rogers.
33. 2017-053 Sunrise Solar Garden, Corcoran.
34. 2018-001 Rush Creek Commons, Maple Grove.
35. 2018-002 Highway 169 Pedestrian Bridge/Trail, Champlin.
36. 2018-004 Rush Creek Restoration Project, Maple Grove.
37. 2018-005 Sundance Greens, Dayton.
38. 2018-007 Copper of Nottingham, Maple Grove.

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- 39. 2018-008 Hayden Hills Golf Course Subdivision, Dayton.*
- 40. 2018-009 NW Greenway Trail Phase IV, Plymouth.
- 41. 2018-010 Greenway West, Plymouth.
- 42. 2018-011 Rush Creek Run, Corcoran.*

B. Adjournment. There being no further business, motion by Weir, second by Moore to adjourn. *Motion carried unanimously.* The meeting was adjourned at 1:23 p.m.

Respectfully submitted,



Judie A. Anderson, Recording Secretary
JAA:tim

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STAFF REPORT

June 6, 2018

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. Revisions have yet to meet the Commission's approval conditions. This project was extended by the City of Rogers earlier this year. It will remain active on the Staff Report.

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. In May 2016 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 conditional approval remains in place. A temporary pipe to drain excess water on the west side of CSAH 101 will be installed by the City of Maple Grove through this site. The permanent pipe was installed under CSAH 101 at the time the road was constructed in 2007, but it was bulk headed on both ends of the ROW. This is being completed because a new development in the northwest corner of this intersection is being considered by the City. (See project 2017-039.)

2016-004 Park Place Storage Site Plans, Corcoran. The applicant is developing 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 is 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 wetland banking withdrawals for 0.24 acres from wetland bank account #15560. A purchase agreement with the Murray Ball Wetland Bank in Greenfield has been processed and certified by BWSR. *This item will be removed from the report and wetland replacement escrows returned.*

RULE D - STORMWATER MANAGEMENT
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RULE I - BUFFERS

Italics indicates new information

indicates enclosure

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. Excess credits of 0.11 acres are proposed to be used on Lennar's Laurel Creek development in Rogers (2017-014). All approval contingencies have been met. Construction on the site began in spring 2017. Vegetation planting and management took place throughout 2017. Beginning in 2018 Barr Engineering will 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. In November 2016 the Commission approved the project conditioned on: 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 wetland-related documentation if wetlands are present. Condition #1 required no action, so has been met. Condition #2 has been met for the current design; however, any future design modifications will require additional review. Conditions #3-6 remain outstanding and are expected to be addressed during final design. Staff has discussed the project with the City and been in contact with the project engineer to receive an update, but no new information has been provided.

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 Avenue for the purpose of constructing a grocery store, fuel station, convenience store and parking facilities. 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 1) receipt, approval, and recordation of an Operations and Maintenance Plan for the pond and the iron-enhanced filtration system, 2) revisions for items relating to buffer requirements and erosion and sediment control as enumerated in the findings, and 3) 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. No new information has been received to date.

2017-031 Bass Lake Crossing, Corcoran. This is two parcels, 48.5 total acres, located north of the intersection of CR 10 and Larkin Road. M/I Homes is proposing to develop the two parcels into 97 single-family residential homes. As proposed, the project will require 0.3303-acre of jurisdictional wetland fill within 5 separate wetland locations. The review will be for compliance with the Commission rules D, G, and I. The Commission approved this project and wetland replacement plan per Staff and TEP recommendations at their November 2017 meeting. All the contingent recommendations have been met. A \$75,000 escrow was placed with the Commission until all the wetland credits have been purchased per the approved wetland replacement plan. *BWSR has certified the WCA banking credit transfer to this project for 0.66 acres of new wetland credits. The escrow for replacement wetlands will be returned to the applicant. This item will be removed from the report.*

2017-038 Bass Lake Estates, Corcoran. This is a proposed residential development consisting of 55 single family lots and one commercial lot on a 40-acre site. The project is located west of the intersection of Bass Lake Road (CR 10) and CR 101. Fifty-five villa-style homes are proposed for the residential portion of the site and a storage facility is proposed for the commercial portion of the site. The Commission reviewed this site for conformance to rules D, E, F, and I. A revised set of plans was submitted on February 14, 2018. *At their March 14, 2018 meeting, the Commission approved Staff's findings dated March 13, 2018 which recommended approval contingent upon the applicant recording the maintenance agreements and easements within 90 days of final plat recording.*

RULE D - STORMWATER MANAGEMENT
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2017-039 Rush Creek Apartments, Maple Grove. This project is located in the southwest quadrant of the intersection of Bass Lake Road (CSAH 10) and Troy Lane (CSAH 101). The project area is 8.2 acres in size and includes two phases of construction. Phase I is 236 apartment units on 6.0 acres located on Lot 1, Block 1, Southwest Crossroads 2nd Addition. Phase II is a future 76-unit apartment building located on 2.2 acres in Outlot C of this development. The Commission will review this project for conformance to rules D, E and I. Findings with no recommendations dated November 15, 2017, were provided to the applicant and City. The applicant requested and was granted an extension of the deadline (per MN statute 15.99) to December 31, 2018.

2017-044 Reserve at Medina 2nd Addition, Medina. An erosion control review of the plans for the final buildout of this addition of the Reserve at Medina project originally approved under permit #2013-002. This addition is located southeast of Hackamore Road and Pinto Drive (CR116), immediately east of the First Addition, and will allow for the construction of 46 new single-family homes. The plans are in conformance with the previously approved project, and require small modifications in order for Staff to complete its administrative review. As of this writing, revised plans have still not been received. Staff has placed an inquiry with the applicant on when these may be expected.

2017-045 Fish Lake Estates, Maple Grove. This is a small subdivision located at the intersection of the Weaver Lake Road entrance ramp to east bound I94 and Fish Lake Road East. The application is considered incomplete because the Commission has not received authorization from the City to proceed with its review. The City has concerns with the lot layout, wetland impacts and stormwater management. No new information has been received as of this report.

2017-046W Wessell Property Wetland Delineation, Corcoran. This is a wetland delineation received for the Commission's review and decision for a 155-acre site located in the northwest quadrant of Hackamore Road and CSAH 116. The WCA application notice has been issued. The application is considered incomplete at this time. Staff met with the delineator on-site and walked the wetland boundaries. Staff requested additional historic aerial photo reviews and the complete report prior to a final decision. Neither have been received.

2017-048W Ebert Parcel Wetland Delineation, Corcoran. This application was submitted without a final delineation report and is considered incomplete. The applicant requested the LGU look at the site prior to freeze up. Once a final report is received Staff will notice the delineation and move forward with the application.

2017-050W Ernie Mayer Wetland/floodplain violation, Corcoran. The Commission was informed of a potential wetland violation occurring on four parcels in Corcoran. Initial site inspection appears to confirm the wetland violation. An access road was constructed from Larkin Road into these parcels. The road appears to be constructed in MN Wetland Conservation Act jurisdictional wetlands within the Rush Creek floodplain. A Technical Evaluation Panel (TEP) met onsite on December 11 to advise the Local Government Unit (the Commission) as to the extent of any violation and the development of a restoration order for any violation that has occurred on this site. An informational meeting with the TEP and applicant was held on January 30, 2018. *Another TEP was held May 22, 2018. Draft findings are included in the meeting packet.*

2017-053 Sunrise Solar Garden, Corcoran. The project proposes to construct a 5 Megawatt Solar Facility on an 80-acre site located northwest of the intersection of County Roads 50 and 19. The project proposes to place solar panels across much of the site, including through several lower quality wetlands and their associated buffers. Otherwise, the site proposes minimal grading to install the panels and associated infrastructure. At their January meeting the Commission approved this project contingent that 1) stormwater easements and buffers are provided over all stormwater features on the site, including a stipulation that no other structures other than the proposed solar panels are allowed for installation in the buffers and wetlands, that 2) an approved O & M agreement is recorded on the land title within 90 days after City approval, and that 3) final signed plans be submitted by the applicant's engineer. Staff has also received a request to modify aspects of the wetland impacts on the site and has considered the request with input from BWSR. Based on input from BWSR, the requested modifications are in conformance with the requirements of WCA, and a *revised wetland Notice of Decision was issued in May.*

2018-004 Rush Creek Restoration Project, Maple Grove. The City is proposing to restore 2,400 feet of Rush Creek just north of Territorial Road adjacent to the Enclave on Rush Creek development. This is within the Three River Parks

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corridor that was obtained when the development was platted. It is being reviewed for compliance to the Commission's grading and floodplain requirements. *Staff has completed its review and will recommend approval at the Commission meeting.*

2018-005 Sundance Greens, Dayton. This site consists of seven parcels totaling 310 acres. Approximately half is the Sundance Golf course and the other half is agricultural land. The applicant is proposing a long term, phased residential development with 665 residential units while maintaining a portion (9 of the 18 holes) of the golf course. Total new impervious area will be 71 acres. The site is being reviewed for Commission Rules D, F, and I. Staff's review and findings dated February 23, 2018 were provided to the City and applicant. Because the plans do not meet the Commission's requirements no recommendations were given. The decision deadline per MN 15.99 was extended by Staff to June 2, 2018 giving the applicant the opportunity to respond to their findings. *An email was sent on May 30 to the applicant and his agent giving notice of the June 2, 2018 deadline. The project will be denied if they do not extend the deadline.*

2018-007 Copper Creek of Nottingham, Maple Grove. This is a 4.03 acre in-fill project in the Nottingham development section of Maple Grove. It is located about 1/4 mile northeast of the intersection of Nottingham Parkway at Bass Lake Road along 73rd Place/Xene Lane cul-de-sac. Nine new single family residential lots are proposed. The current site plans dated February 12, 2018 do not meet the Commission's standards for water quality, abstraction and erosion controls. Staff's review and findings were sent to the City and applicant on March 6. *The decision deadline per MN Statute 15.99 was extended to June 20, 2018. No new information has been received.*

2018-008 Hayden Hills Golf Course Subdivision, Dayton. This is an 85 acre golf course that is proposed to be developed into 238 single family residential lots. The original submittal was received March 1 and all materials to complete the application were received on March 23. The proposed project meets the Commission's standards for water quality, runoff rates, and erosion control; however the proposed stormwater ponds will have a direct connection to the groundwater. *In findings dated May 9, 2018, Staff recommended approval of the project with three conditions: 1) Developer must provide additional information about the modeling, including additional information about curve numbers used for the modeling and additional explanation about the existing conditions modeling and how the 2-, 10-, and 100-year peak flows are essentially identical; 2) Developer must indicate on Plans where pretreatment sump manhole and baffles are to be constructed and provide typical detail for sump manholes; and 3) Developer must provide resolution of potential wetland impacts within the project area and certification that proper mitigation will be provided. The Commission approved Staff's recommendations and further recommended that a determination be made regarding the requirement of an operations and maintenance agreement and that the City carefully review the expressed drainage concerns. The developer has met conditions #2 and #3, and Staff has been in contact with City staff regarding the additional recommendations.*

2018-009 NW Greenway Trail, Phase IV, Plymouth. This section of the Plymouth NW Greenway Trail is a boardwalk and trail that will cross a portion of the Elm Creek floodplain that is adjacent to Peony Lane near Wayzata High School. Staff will review for compliance to the Commission's floodplain and erosion control requirements. Site plans were received March 1. *Staff has completed its review and will recommend approval at the Commission meeting.*

2018-011 Rush Creek Run, Corcoran. This is an existing 65-acre agricultural parcel with a farmstead located on Rolling Hills Road just south of CR 50. The landowner is proposing to subdivide the property into six large residential lots. The site is adjacent to Rolling Hills Road so no grading or street construction is proposed. Based on the Commission's standards, this site must be reviewed for conformance to rules D, F, G, and I. *The Commission approved Staff's findings and recommendations dated April 18, 2018, with the further recommendations that this project follow the guidelines of the Minnesota Extension Service, that the City review each structure according to the City's NPDES requirements, and that City also review the site for conformance with its livestock ordinance. forwarded these recommendations on to the City and applicant. This item will be removed from the agenda.*

2018-012 Meadows Playfields, Plymouth. *Complete plans and signed application were provided to the Commission in May. The proposal is for the development of a playfield with approximately 0.6 acres of new impervious surfaces on a roughly 3-acre site located northwest of Peony Lane and 57th Avenue North, located in the Enclave on the Green*

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development site. Staff is reviewing the application for conformance with Rules D and E of the Third Generation Plan. No recommendation is available at this time.

2018-013 Wayzata Elementary School #9, Plymouth This site is the southwest 24-acre area of a 73-acre parcel. The property was subdivided into a phased 111 residential subdivision on 49 acres last year (ECWMC project 2017-036, The Enclave of Elm Creek) with this area site to be reviewed and approved when submitted. Stormwater was designed and approved by the Commission with both projects as one management system, but the final plans for the school site had not been determined at the time of the Enclave review. The approval for project 2017-036 was contingent upon, a) the school project review and approval or b) an alternative abstraction design be implemented in the residential project. This submittal is for the school project review and approval. The Commission review for the Elementary School site will be for rules D, E, F and I. Site plans dated March 28, 2018 do not meet the Commission buffer, floodplain or erosion control rules. *No new information has been received since that date.*

2018-014 Fehn Meadows 2nd Addition, Corcoran. The site is currently a 63-acre agricultural property located west of Cain Road on CR 117. The applicant proposes to subdivide the site into 14-residential lots. Public road and trail access will impact one wetland basin in two location, totaling 15,687 SF of type 1 wetland impacts. Replacement at a 2:1 ratio in Bank Service Area 7, Major Watershed 18-N.Fork Crow River is proposed. The wetland replacement plan has been noticed per WCA requirements. Comments will be accepted until May 25. *Staff has completed the project review but does not have a recommendation as of this update. The TEP has discussed the wetland replacement plan and is in agreement that the sequencing analysis per WCA requirements is adequate and impacts are justified. They do have a concern about the location of the replacement wetlands. Commission staff also has concerns. Commission guidelines are that 1:1 replacement be in the ElmCreek Watershed area or, if no credits are available, in Hennepin County. TEP concerns are that this site is in wetland bank service area (BSA) 20 and the replacement is proposed in BSA 18.*

2018-015 Laurel Creek 2nd Addition, Rogers. This is an erosion control review of the plans for another phase of the Laurel Creek project originally approved under review #2017-014. This addition is located southeast of Hackamore Road and Pinto Drive (CR116), immediately east of the First Addition, and will allow for the construction of approximately 72 new single-family homes and 64 townhome units, and rough grading for 20 lots in a future phase. *Staff has reviewed the project plans, found them in conformance with the Commission's rules and standards, and granted administrative approval of the plans.*

2018-016W Krueger Wetland Delineation, Corcoran. This is a 1.55 acre parcel located at the northwest intersection of CR101 and Schutte Road. One Type 3 wetland basin was delineated on the parcel on April 27, 2018 by Ag Wetland Services Inc. The project area will be reviewed for wetland boundary and type. The WCA public notice of application expires June 5, 2018. *Staff made a site visit and found the wetland boundary/type to be accurate. An approval notice will be issued after the June 5 deadline, unless questions or concerns from the public notice arise.*

2018-017W Larkin Road Wetland Delineation, Corcoran. This is a 15.7 acre parcel located at 20801 Larkin Road. One Type 2 fresh marsh wetland basin was delineated on the parcel on April 30, 2018 by Anderson Engineering. The project area will be reviewed for wetland boundary and type. The WCA public notice of application expires June 5, 2018. BWSR and Commission Staff made a site visit and found the wetland boundary/type to be accurate. *An approval notice will be issued after the June 5 deadline, unless questions or concerns from the public notice arise.*

2018-018 Summers Edge Phase III, Plymouth. This is a 15 acre parcel located at the northeast corner of the intersection of Brockton Lane and Medina Road. The proposed development consists of 45 single-family homes on a parcel that is currently vacant. *Staff review will be for compliance with rules D, E, and I. Staff is currently reviewing the site plans. If available, Staff will bring forth an update and recommendation at the June meeting.*

2018-019W Fuss Wetland Delineation, Corcoran. This is a 19.5 acre parcel located at 8100 County Road 19. The project area is between the county road right-of-way and a large pole shed approximately 360 feet east of the right-of-way. No other areas were delineated. One type 3 shallow marsh wetland boundary was delineated. During a field review, one additional wetland was determined to be within the limits of the delineation. *Staff contacted the applicant and delineator and requested this wetland be delineated before a final decision is made. Public comments are due by June 8.*

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2018-020 North 101 Storage, Rogers. *This is an existing 3-acre lot in the northwest corner of Highway 101 and CR144. The current land use is a combination of mini-storage units and outdoor storage. The site is proposed for complete demolition and the construction of seven new mini-storage buildings. Site plans must comply with Rules D and E. Because the project is disturbing over 50% of the site area (100% actual), Staff review will be the same as for a new development and stormwater management plans must comply with all impervious areas, not just the new impervious area. Site plans have not been reviewed as of this update. This item will be on the July agenda.*

2018-021 113th Lane Extension/Brockton/101, Rogers *The City of Rogers is proposing to extend 113th Lane to provide a second access to the proposed second phase of the Laurel Creek Development. The proposed road will extend from Brockton Lane to the development entrance. It will include a 4-lane divided roadway from Brockton Lane to the development entrance; an off-road trail north of 113th Lane; and construction of an intersection to meet County turn lane requirements. The project will create 2.13 acres of new impervious surface. The site plans have not been reviewed as of this update. This item will be on the July agenda.*

2018-022 Fernbrook Fields, Maple Grove, *The City of Maple Grove is planning to construct athletic fields in the southwest intersection of 99th Avenue N. and Fernbrook Lane N. This project site is 19 acres in size and will consist of constructing four full-size, multi-purpose athletic fields. Staff site review will be for compliance with the Commission's Rules D, E and I. Site plans have not been reviewed as of this update. This item will be on the July agenda.*

 Pine Meadows Development, Dayton. See enclosed correspondence.

FINAL RECORDINGS ARE DUE ON THE FOLLOWING PROJECTS: *Staff requested updates from the cities on June 6, 2018.*

2015-030 Kiddiegarten Child Care Center, Maple Grove. Approved December 9, 2015. If the City 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.

2016-026 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. Per his August 31, 2017 email, Jason Quisberg has indicated that construction is significantly complete, although some vegetation establishment remains. The City still has an escrow in place which will be held until the maintenance agreement is finalized and recorded. *The maintenance agreement was received by the Commission on June 6, 2018. This item will be removed from the report.*

2016-052 The Woods at Rush Creek, Maple Grove. 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.

2017-014 Laurel Creek, Rogers. At their June 14, 2017 meeting the Commission approved Staff findings dated June 13, 2017, in which they recommended approval of this project with four conditions. All contingency items have been provided with the exception of the O&M agreement which is being negotiated by the City as to whether the City or the HOA will be responsible for the operation and maintenance of the stormwater management facility. In his August 31, 2017 email, Andrew Simmons responded that the O&M agreement is still being negotiated.

2017-016 Territorial Woods, Maple Grove. Approved at the September 13, 2017 Commission meeting contingent upon receipt of an O & M agreement meeting the Commission's rules. The agreement was approved by the City and is in the process of being recorded.

2017-017 Mary Queen of Peace Catholic Church, Rogers. At their June 14, 2017 meeting the Commission granted Staff approval authority pending satisfactory compliance with Staff's findings dated June 16, 2017. All items from the findings have been completed with the exception of the O&M agreement for the stormwater facilities. In his August 31, 2017 email, Andrew Simmons responded that he has the O&M agreement in hand, just awaiting recordation.

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2017-019 Medina Senior Community, Medina. This item was approved at the Commission's September 2017 meeting subject to conditions. All of the conditions have been met with the submission of revised plans, with the exception of the final recordings of the O&M agreements and easements. *On June 6, 2018, city staff reported that the applicant is anticipated to be recording documents and starting construction in the summer.*

2017-021 Hindu Society of MN, Maple Grove. At their June 14, 2017 meeting, the Commission approved this project per Staff's recommendations. All the recommendations have been met with the exception of the O&M plan agreements.

2017-029 Brayburn Trails, Dayton. At their August 2017 meeting the Commission approved Staff's findings dated August 2, 2017 with five conditions. All of the conditions have been met with the submission of revised plans, with the exception of the final recordings of the O&M agreements and easements. *On March 7, 2018, the City reported: Final plat approval has not been granted, easements will be recorded as plats are approved. Ponds will be maintained by the City of Dayton. An agreement, and additional easement, will be required for a water re-use system within one of the ponds (between the City and HOA). This system is not part of the first addition – the timing of said improvements/agreement is unknown. Construction is expected to start in 2018.*

2017-034 Plymouth Memory Care, Plymouth. This project was approved by the Commission at its September 2017 meeting subject to the receipt of an O&M agreement acceptable to the Commission. *On March 2, 2018, city staff reported that this project has not received final approval of plans from the City and they have not heard from the applicant in awhile.*

2017-037 Corcoran L-80 Lift Station, Corcoran. Staff recommended the Commission approve this project contingent upon the project meeting the Commission wetland buffer requirements. This item was approved by the Executive Committee of the Commission in October 2017. Revised plans meet the Commission's buffer requirements with the exception of the final easement recordings. *On March 6, 2018, city staff informed the Commission that they are working with a land surveyor and will complete the recordings before construction is completed.*

2017-051 Mallard South 2nd Addition, Rogers. The Commission approved this project at their January 2018 meeting. The only remaining condition for final approval is the easement and O&M plan recordings on the bio-filtration basin.

2018-001 Rush Creek Commons, Maple Grove. Approved at the February 14, 2018 meeting contingent upon meeting the Commission's operation and maintenance requirements on the stormwater facilities, i.e., all ponds and biofiltration basins must have drainage and utility easements and operation and maintenance agreements over them. These must be recorded on the property title and a copy of the recordings must be provided to the Commission within 90 days after final plat approval.

LOCAL PLANS

Maple Grove Draft Surface Water Management Plan. Staff reviewed the City of Maple Grove's Draft Surface Water Management Plan dated January 2018. Their comments were included in their letter to the City dated March 7, 2018.



May 30, 2018

Jim Kujawa

Advisor to Commission - Elm Creek Watershed Management Organization
Hennepin County Public Works – Dept. of Environment and Energy
701 Fourth Ave. South, Suite 700
Minneapolis, MN 55415

RE: City of Dayton, Pine Meadows Development – Stormwater Outlet

Dear Jim:

A preliminary plat application was submitted for the proposed Pine Meadows development in the northeast area of Dayton. The area of the proposed development is generally low, with soils demonstrating high infiltration rates but having no constructed outlet to serve the area.

The proposed stormwater design for the development results in a discharge from the site prior to the modelled 100-year event. City and watershed rules require rate control under post developed conditions. However, the city believes an exception from this rule is appropriate for this site for the following reasons:

- The proposed stormwater system (extends and) utilizes an outlet partially constructed in 2007 as part of a City project. The outlet was installed at that time for the purpose of serving future development in the proposed location.
- Said outlet is consistent with the current surface water management (comprehensive plan), which is sized appropriately to serve as an outlet under normal conditions, that is, for discharge during events smaller than the 100-year frequency.
- This piped outlet, once extended, will be a direct connection from this development area to the Mississippi River. Additionally, any bypass flows due to obstruction, or surcharging, would continue overland directly to the river, without raising concern for potential localized flooding.

The City of Dayton is supportive of, and even promotes, extending and utilizing the proposed outlet to serve this area. It is consistent with the City's comprehensive stormwater plan and believed the risk of negative impacts downstream is low.

This letter is to provide the City's position regarding the stormwater design for the proposed Pine Meadows development. It is requested that the watershed considers this information when the review for this development is completed. Please feel free to contact me with questions or concerns. I can be reached at 763-252-6873 or jquisberg@wenck.com.

Sincerely,

Jason Quisberg
Dayton City Engineer

copy: Tina Goodroad, Dayton City Administrator
Alec Henderson, Dayton Associate Planner
Doug Baines, ECWMO Commission Chair

Kent Torge, Wenck Associates
Steve Hegland, Wenck Associates

From: Jason A Swenson <Jason.Swenson@hennepin.us>

Sent: Wednesday, May 30, 2018 4:31 PM

To: Jason Quisberg <jquisberg@wenck.com>; James C Kujawa <James.Kujawa@hennepin.us>

Cc: tgoodroad@cityofdaytonmn.com; ahenderson@cityofdaytonmn.com; shegland@wenck.com; dougbaines@yahoo.com; ktorve@wenck.com; Judie Anderson <Judie@jass.biz>

Subject: RE: Dayton - Pine Meadows development - ECWMO review

Jason,

Thanks for sending this over. We've taken a look at the letter, and as staff do not believe we can approve such a project under the current ECWMC Rules. The basis for that is three fold:

1. If an outlet is provided for something under a 100 year event, where there is no discharge under a 100 year event today (from our understanding), then the project is not in compliance with Rule D. Rule D requires that the site discharge rates be maintained below the existing runoff rates for the 2, 10, and 100 year events in the developed condition. Constructing an outlet below the 100 year elevation would not comply with this requirement.
2. In addition to the runoff requirement, the site must meet the requirement that there is no net increase in TP or TSS discharge from the site in the post developed condition. Construction of an outlet will immediately increase these discharges which are essentially zero (assuming no discharge in a 100 year event today).
3. We don't believe the requirements for providing a landlocked basin are being followed. The rules state that outlets are allowed from Landlocked Basins if (from the rules) they: (1) Retain a hydrologic regime complying with floodplain and wetland alterations. (2) Provide sufficient storage below the outlet run-out elevation to retain back-to-back 100-year, 24-hour rainfalls and runoff above the highest anticipated groundwater elevation and prevent damage to property adjacent to the basin. (3) Do not create adverse downstream flooding or water quality conditions.

At the time the storm sewer line was extended to this area in 2007, all of the above rules were in place in the Elm Creek Watershed, so these are not new requirements imposed by the latest generation watershed plan.

For these reasons, staff will continue to oppose approving a project that does not comply with watershed requirements.

We will have this on the agenda at the June ECWMC meeting to make the commissioners aware of the discussion taking place. We would recommend that the City have a representative on hand to discuss the issue. We also suggest providing any other supporting information in regards to this issue, such as a figure showing the location of the issue.

Let us know if there are questions on our position.

Thanks,

Jason Swenson

Jason Swenson, P.E.

Hennepin County Environment and Energy 612-596-1171 | Jason.Swenson@hennepin.us | www.hennepin.us/environment

From: James C Kujawa
Sent: Wednesday, May 30, 2018 3:16 PM
To: Jason A Swenson <Jason.Swenson@hennepin.us>
Subject: FW: Dayton - Pine Meadows development - ECWMO review

Can you look at this too. Then we can touch bases on it. Maybe get it on the Commission agenda in June if need be.

James C. Kujawa
 Hennepin County Public Works
 Department of Environment and Energy
 701 Fourth Avenue South, Suite 700
 Minneapolis, MN 55415
 Direct Phone: 612-348-7338
 Email: james.kujawa@hennepin.us

From: Jason P. Quisberg <jquisberg@wenck.com>
Sent: Wednesday, May 30, 2018 2:49 PM
To: James C Kujawa <James.Kujawa@hennepin.us>
Cc: tgoodroad@cityofdaytonmn.com; Alec Henderson <ahenderson@cityofdaytonmn.com>; Steve K. Hegland <shegland@wenck.com>; Doug Baines <dougbaines@yahoo.com>; Kent C. Torve <ktorve@wenck.com>
Subject: [External] Dayton - Pine Meadows development - ECWMO review

Jim – Attached is a letter regarding the outlet from the proposed Pine Meadows development in the northern part of Dayton. This is the development we discussed briefly after a meeting in Dayton City Hall several weeks ago. Please review and let us know what questions you have regarding the proposed development and/or the corresponding stormwater outlet. Thank you.

Jason Quisberg, P.E. (MN, ND, NE)
Associate Engineer
jquisberg@wenck.com | D 763.252.6873 | C 612.384.5379
 7500 Olson Memorial Highway | Suite 300 | Golden Valley, MN 55427

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Ernie Mayer TEP Findings May 22, 2018

Background

The Elm Creek Watershed Management Commission is the Local Government Unit (LGU) in charge of administering the 1991 Wetland Conservation Act (as amended) in the City of Corcoran. A cease and desist order (F890599734501) was issued to Mr. Mayers in December 2017.

On Tuesday May 22, 2018 at 11:00 a.m. the Technical Evaluation Panel for the Elm Creek Watershed Management Commission met on site to investigate potential wetland violation(s) that occurred on the following properties in Corcoran 1) 2811923410009, 2) 2811923130002, 3) 2711923220002 4) 2711923230002. All parcels are operated by Ernie Mayer.

TEP members present were;

Ben Carlson (BWSR)
Stacey Lijewski (Hennepin Co. SWCD)
James Kujawa (ECWMC-LGU)
Jason Spiegel, (MN DNR) from approximately 11:00 to 12:35.

Others present were;

Leah Weyandt DNR (Conservation Officer)
Ben Hodapp, (Anderson Engineering)
Kevin Mattson (City of Corcoran) from approximately 11:45 to 12:35.
Jason Swenson (Hennepin County/ECWMC)

The May 22, 2018 TEP was requested because the previous two TEP's determined additional work was warranted during the growing season to determine wetland boundaries and potential wetland drainage from the newer ditch work and draintile pipe observed at the December TEP.

The areas of concern are as follow;

- 1) An access road was constructed in 2017 from Larkin Road, approximately 1,400 feet to the north and east into these parcels. Two additional roads areas were stubbed off the main access road, apparently to gain access to an upland island area to the west of the access road. The southerly road stub is approximately 450' long. The northerly stub is approximately 200' long. The TEP was on site to make a determination of the extent of wetland impacts that occurred from the access road work.
- 2) A newly constructed ditch approximately 1700' long that ends at County Ditch #3 was observed during the TEP in December. The TEP wanted to gather additional information on this ditch and the affects in had on potentially draining wetlands adjacent to it
- 3) Near the south extent of the ditch work, a newer 8" plastic tile outlet pipe was observed during the December visit. The TEP was on site to determine if a drainage system that was not in compliance with the WCA was installed east of the new ditch toward Kalk Road.

Information and Findings

1) Area of Concern #1, Road Access Work;

- a) During the TEP, it was brought to their attention that at the northerly terminus of the new access road, Anderson Engineering conducted a wetland delineation in the fall of 2016. Some of the wetland boundary flags were still present and confirmed to be accurate by the TEP. Because this delineation was done prior the access road construction, and not all of the delineation flags were apparent, the TEP asked for a copy of the wetland delineation report from Ernie Mayers. This could help the TEP establish the wetland boundary and amount of impacts from the new road footprint and other impacted (filled) areas. The request was made via email, May 22nd and the delineation report was received via email, from Mr.

Mayers consultant May 23rd. The TEP decided to use this report to determine the extent of wetland filling that occurred in this area. Based on the road footprint from 2017 aerial photographs and the wetland boundary delineation from Anderson Engineering, the Wetland fill is measured at 5,842 sq. ft. on this area (see exhibit ???). The TEP concluded that this activity occurred without a permit from the LGU and does not comply with the 1991 Wetland Conservation Act (as amended).

- b) At the southerly stub road, soil borings, vegetation observations and hydrology indicators were obtained/observed by the TEP to determine the wetland boundaries at this location of the access road. In the new roadbed itself, soil borings determine approximately 18" of new fill over an old roadbed that had approximately 6' of old fill in it before wetland soils were encountered. The TEP agreed that the old road footprint could be considered non-wetland, but where fill was placed beyond the old roadbed, that would be considered wetland impacts within the limits of the wetland boundary determined in this area. Measurements of the old roadbed width will be determined by historic aerial photo reviews. Some ditching work was observed upstream and downstream of the new roadway culvert installed by Mr. Mayers on this section of road. The TEP felt the ditching work, in its present condition, did not drain the existing wetlands in the area because of the lack of grade on it and the water was backed up from the downstream end of the ditch up to the beginning of it (about 90'). The ditch work stopped approximately 25' downstream of the culvert outlet on the new road. Final wetland boundaries were delineated by GPS by Ben Carlson with BWSR. (see exhibit ???) The TEP concludes that the footprint of the new road, outside of the boundary of the old road footprint is the wetland impacts for this area. The TEP concluded that this activity occurred without a permit from the LGU and does not comply with the 1991 Wetland Conservation Act (as amended). The amount of impact was measured at ????? sq. ft. for this area of the access road (see exhibit ???).
- c) At the entryway access road area, the TEP looked at the vegetation, soils and hydrology to determine the wetland boundaries. Ditching work that appears to be done at the time the road was constructed was also observed along the east side of the road. The TEP determined portions of the roadway was constructed in a wetland. The TEP wanted to determine if the ditch work assisted in partially draining this wetland areas. The ditch section nearest the wetland area was measured at 6' wide by 32" deep. The bottom 18" was freshly dug bare ground and remaining 14" was undisturbed grass/sod from the old ditch elevations. The TEP felt the ditch work did help in draining the wetland and should be restored to its original elevations. If Mr. Mayers could not determine the original elevations, the TEP's general direction was to refill the ditch to the original sod line. Any new work in the ditch should match the existing grade line in the wetland (unless proof can be shown that it was historically deeper) and gradually dig it to 1.0' below the existing sod elevation at the tree line. (See exhibit ?? ?). Final wetland boundaries were delineated by GPS by Ben Carlson with BWSR. (see exhibit ??). The TEP concludes that this activity constitutes a violation of the 1991 Wetland Conservation Act (as amended).

2) Area of Concern #2, Ditch Construction.

- a) The TEP measured the depth of water, depth of ditch and top width of ditch at each power pole along the length of the ditch. (see exhibit ???). Based on the observed soils in the ditch and the observed sod line on both sides of the ditch, the TEP felt the section of the ditch between the existing County Ditch 3 intersection and the 4th power pole south of it was all newly dug ditch. The TEP concluded the new ditch constructed between County Ditch 3 and the fourth power pole south of said ditch (for a distance of ~1,175 feet) has partially or wholly drained adjacent wetlands, including the DNR wetland 420W. Based on site history, aerial photographs and topography maps, they further concluded that the ditch has never connected its total length (1700'). They also concluded the ditch section south of power pole #4 has always flowed into DNR wetland 420W at the current elevation at the base of power pole #4. The TEP concluded that the new ditch connections, the lateral affects created by the ditch being dug deeper and subsequent lower water elevation constitute draining of adjacent wetlands including portions of DNR Wetland 420W.

Discussion The TEP felt that no conclusive evidence of an existing or historic ditch connection between County Ditch 3 and the existing ditch 1,175 feet south of it appear in historic aerial photographs or topographic maps. The Anderson Engineering analysis (see exhibit ???) points to a historic ditch in this area. However, the 1985 Corcoran topography and 2011 LiDAR topography do not indicate this. The TEP

also points to the adjacent fence lines, the roadway parallel to the adjacent power line and the snowmobile trail in the 'hillshade' photo, which show similar photographic signatures that the Anderson analysis points out as ditch signatures. The TEP did not believe this to be good enough evidence, in light of all the other aerial photography and topographic evidence and the ditch signatures on the 'hillshade' photo being similar to other signatures. The TEP did find a 1974 topographic map shows a shallow ditch (1 foot deep plus or minus 1') running from approximately the snowmobile crossing to the overflow swale from the DNR wetland. This ditch length is 370 feet long (see exhibit ??). Another point of evidence that a ditch of any significance (>2.0') did not occur in this area is the new snowmobile access road/culvert over the new ditch. The TEP felt if the old snowmobile trail was in the same location, photographic evidence of a culvert or bridge or similar would show up. This is not the case in the historic photographs, indicating to the TEP that if there was a ditch, it did not need a culvert or bridge for snowmobiles to access both sides of the ditch.

- b) A historic farm ditch runs southeasterly from DNR wetland 420W. This area connected into the main NS section of the new ditch with this new construction work. The TEP measured the newly constructed ditch in the south and east area of the farm. Generally, this ditch varied in depth of 7 feet near the field drive (located about 220' SE of pole #4) to 4'6" deep near the upper (furthest south) end of it. The ditch terminates approximately 500' south and east of DNR wetland 420W. A 15" pipe inlets into it the ditch where it terminates. The newly dug section of this ditch varied from 24 to 36" deeper than the historic sod elevations shown on the side of the ditch (see exhibit #??). Although this was historically ditched in the past, the extent and depth of the ditch appear to be deeper than in any of the past aerial photographs dating back to 1940 and has always drained directly into DNR wetland 420W near power pole #4. This ditch terminated at the natural elevation at its junction with DNR wetland 420W (see exhibit ??) and was never directly connected into County Ditch #3 as it is now.

The TEP believed this ditch is deeper than its historic depth resulting in draining adjacent wetland areas that were previously not drained. They thought the ditch should be restored to its historic elevation and terminate at the existing, undisturbed elevation at DNR wetland 420W at power pole #4. In addition the TEP felt the historic depth of the ditch is at the old sod line plus or minus 1.0' and must be restored to its historic depth. The new ditch depth in this area most likely lent itself to the tile drainage that occurred east of it as discussed in item of concern #3 below.

- 3) Area of Concern #3, 8" plastic tile outlet near south end of new ditch construction.
 - a) During the December TEP site visit a plastic tile outlet was observed at the south end of the new ditch construction (mentioned in item 2b above). Based on historic aerial photos and the national wetland inventory, this area was historically wet and not drained. The drain tile observed appeared to the TEP to be newly constructed (in the last 5 years or so) and if so, is most likely out of compliance with the MN Wetland Conservation Act.
 - b) The TEP walked and measured a tile line that ran from the new ditch, east toward Kalk Road. The TEP observed; a) an 8" tile outlet into the new ditch, b) three 6" surface tile inlets. The western most inlet was 36" deep and connected to an 8" corrugated tile. The middle inlet was also 36" deep, but was connected to a 6" tile line. The easterly most inlet was 30" deep and connected to a 6" tile line. All the water in the tile was flowing west.
 - c) Because this area was not historically drained (see exhibit ??? historic land use and NWI), the TEP believes this tile line to be in violation of the MN Wetland Conservation Act and must be removed.
 - d) During past TEP's Mr. Mayers expressed concern about excess water flows onto this section of farm from road drainage work along Kalk Road completed by the City in recent years. The TEP felt if that is the case, they are okay with an 4" unperforated drain tile installed to pick up this excess water.

Recommendations

The TEP recommends a restoration order be issued to Mr. Mayers with the following requirements.

- 1) Restore ditch to pre-construction elevations or as determined in ditch findings above (see issue item #2 above)
- 2) Remove and restore wetland impacts from the access road construction as determined in road access work (see issue item #1 above) or replace wetland road impacts at a ratio twice the replacement ration otherwise required.
- 3) Disable the existing drain tile and inlets installed between the ditch and Kalk Road (approximately parallel to power pole #5 south of County Ditch by removing the tile and inlets or other methods approved by the LGU.
- 4) The work must be completed by July 30, 2018

elm creek

Watershed Management Commission

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Rush Creek Restoration (Enclave on Rush Creek Phase 3) **Maple Grove, Project #2018-004**

Project Overview: The Rush Creek restoration project is a project to stabilize and restore multiple locations of erosion located on a 2,400 Linear Foot reach of Rush Creek in the City of Maple Grove. The general location of the project is west of Fernbrook Lane, North of Territorial Road, East of Rush Creek Lane, and South of Sundance Boulevard and Orchid Lane located in the Enclave on Rush Creek development. This review will be for compliance with Rules D, E, F, and G.

The project consists of repairing the toe at seven locations on Rush Creek with wood toe and coir wrapped soil lifts. In each of these locations, erosion is currently occurring and the proposed work will protect the toe of the slope and prevent further erosion and destabilization of these slopes. In four additional locations, woody debris has fallen into the creek and created erosion areas by diverting water around the woody debris and into the banks. The project proposes to remove the woody debris from the creek. Removal of the debris will eliminate the source of the erosion, so no coir soil lifts are proposed in these locations.

Applicant: City of Maple Grove, c/o Rick Lestina, 12800 Arbor Lakes Parkway PO Box 1180, Maple Grove, MN 55311. Phone: 763-494-6354. Email: rlestina@maplegrovmn.gov

Agent/Engineer: Stantec Consulting Services, c/o John Smyth, 2335 West Highway 36, St. Paul, MN 55113. Phone: 651-604-4708. Email: johnrsmyth@stantec.com

Exhibits:

- 1) ECWMC Request for Plan Review and Approval received February 5, 2018.
- 2) Project review fee of \$550 received on February 5, 2018.
- 3) Complete plan was received on February 5, 2018.
- 4) Construction plans for the Rush Creek Restoration Project (Enclave at Rush Creek Phase 3), dated 1/10/2018, totaling 16 sheets, including:
 - a. G0.01...Title Sheet
 - b. G0.02...Legend Sheet
 - c. C0.01...Location Plan

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- d. C0.02...Access Plan
 - e. C2.01...Temporary Erosion Control Plan
 - f. C3.01...Site Plan
 - g. C7.01 to C7.08...Cross Sections
 - h. C8.01 to C8.02...Construction Details
- 5.) Joint Application Form for Activities affecting Water Resources in Minnesota (WCA/Corps/DNR application form) dated 1/24/18.
- 6.) Specification Addendum 1, Dated 2/6/18, with 3 sheets

Findings:

- 1) Seven slopes with erosion are proposed to be repaired with wood toe structures and coir wrapped soil lifts to move the stream from the toe of the slopes being eroded. Four woody debris areas are also proposed to be removed from the stream to remove the obstructions directing flow into adjacent banks and creating erosion.
- 2) Rule D: Stormwater Management: The project was reviewed for conformance with this section of the ECWMC rules. Review is required as the project potentially affects the cross section of Rush Creek, and requires a DNR Waters permit for construction.

Detailed hydrologic and hydraulic modeling information were not supplied for review. For a project of this type, where no changes to impervious cover or land use are being made, and no storage areas for rate controls are being affected, submittal of this type of modeling is not necessary.

No abstraction is required as part of this project either, again as no new impervious surfaces are being proposed as part of the project.

As such, the project is in compliance with Rule D, and no changes are necessary to bring the plans into compliance with Rule D.

- 3) Rule E. Erosion and Sediment Controls: The proposed disturbed area will exceed 1 acre in size, (approximately 1.34 acres of disturbance) so an erosion control plan meeting NPDES permit requirements, including a SWPPP, is required for this project. The applicant has provided an erosion control plan (labeled a temporary erosion control plan) for the project, and staff finds those contents to generally be in conformance with erosion control plan requirements. However, as presented, it does not fully comply with the requirements of a SWPPP plan as required by the MPCA NPDES Construction Stormwater Permit.
 - a. **A SWPPP plan, meeting the requirements of the MPCA NPDES permit program, is required to be submitted for review and approval.**
- 4) Rule F: Wetland Alteration: The proposed work occurs in and near the Rush Creek channel, and is subject to the permit requirements of the Minnesota DNR permit for work in public waters. In addition, a permit from the US Army Corps of Engineers is required, though the proposed work appears to qualify for a national general permit instead of an individual permit. The proposed project proposed approximately 1010 square feet of fill over its entire length (approximately 1100 feet of the 2400 foot long reach in question. The

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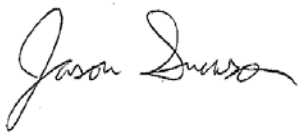
fill will need to comply with the permitting requirements of the Minnesota DNR and Army Corps of Engineers as the agencies responsible for wetland permitting.

- 5) Rule F: Floodplain Alteration: The reach in question is a mapped FEMA floodplain on Rush Creek. The 100 year flood elevations in the reach range from 896.0 to 892.9 feet from upstream to downstream. The placement of woody toe material and coir wrapped soil lifts will constitute fill located in the floodplain as shown in the submitted cross sections. In addition, the slope above the soil lifts will be reshaped to a flatter, more stable slope, and should increase the floodplain area. We also recognize that placement of the wood toe and coir wrapped soil lifts will result in a slight shift in the channel that will likely remove some of any point bars present in the area, slightly offsetting the filling affect. A review of the cross sections supplied appears to show floodplain storage volume is offset, but calculations or tabulations showing this is achieved should be provided.
- a. The applicant should provide a cross section table showing the amount of fill and excavation located beneath the floodplain elevation on the site, and show a net loss of zero storage or an increase beneath the 100 year flood elevation.

Recommendation:

- **Staff Recommends approval of this project with three conditions:**
 - **Submittal of SWPPP meeting the requirements of comment 3a.**
 - **Obtaining all permits required from the Minnesota DNR and US Army Corps of Engineers**
 - **Submittal of information confirming that floodplain storage volume is mitigated.**

Hennepin County
Department of Environment and Energy

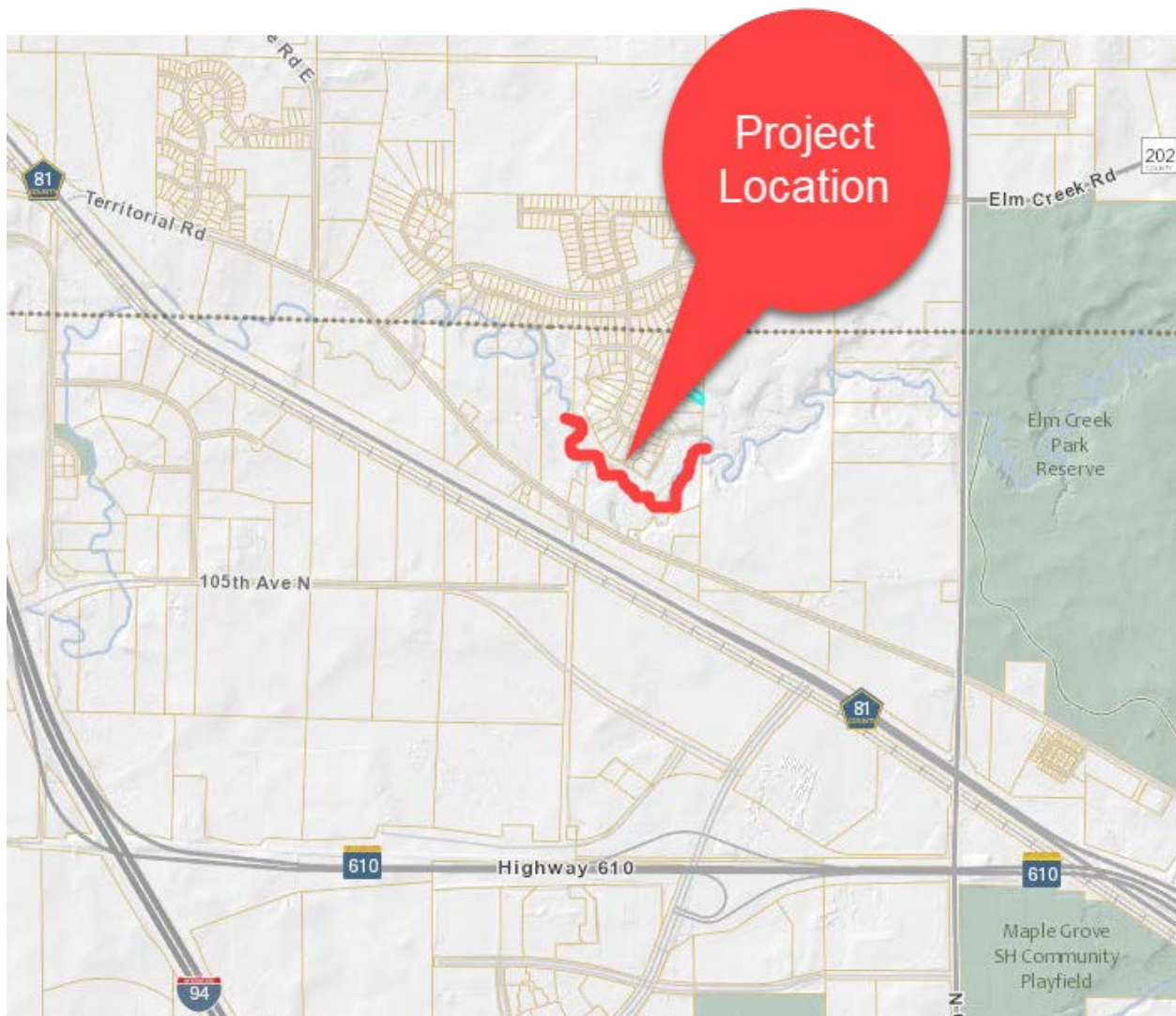


June 7, 2018

Jason Swenson, P.E.
Technical Advisor to the Commission

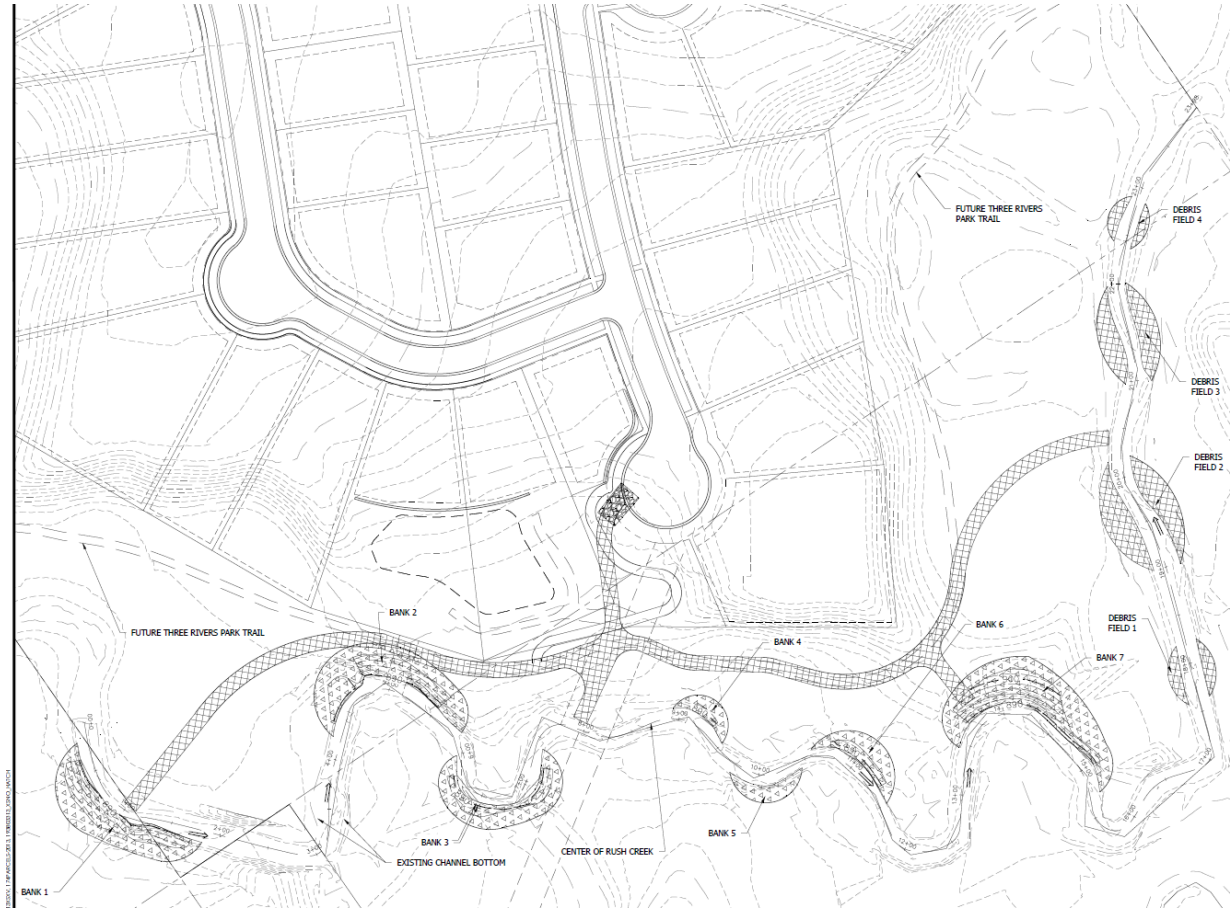
Site Location

Rush Creek Restoration
Maple Grove, Project 2018-004
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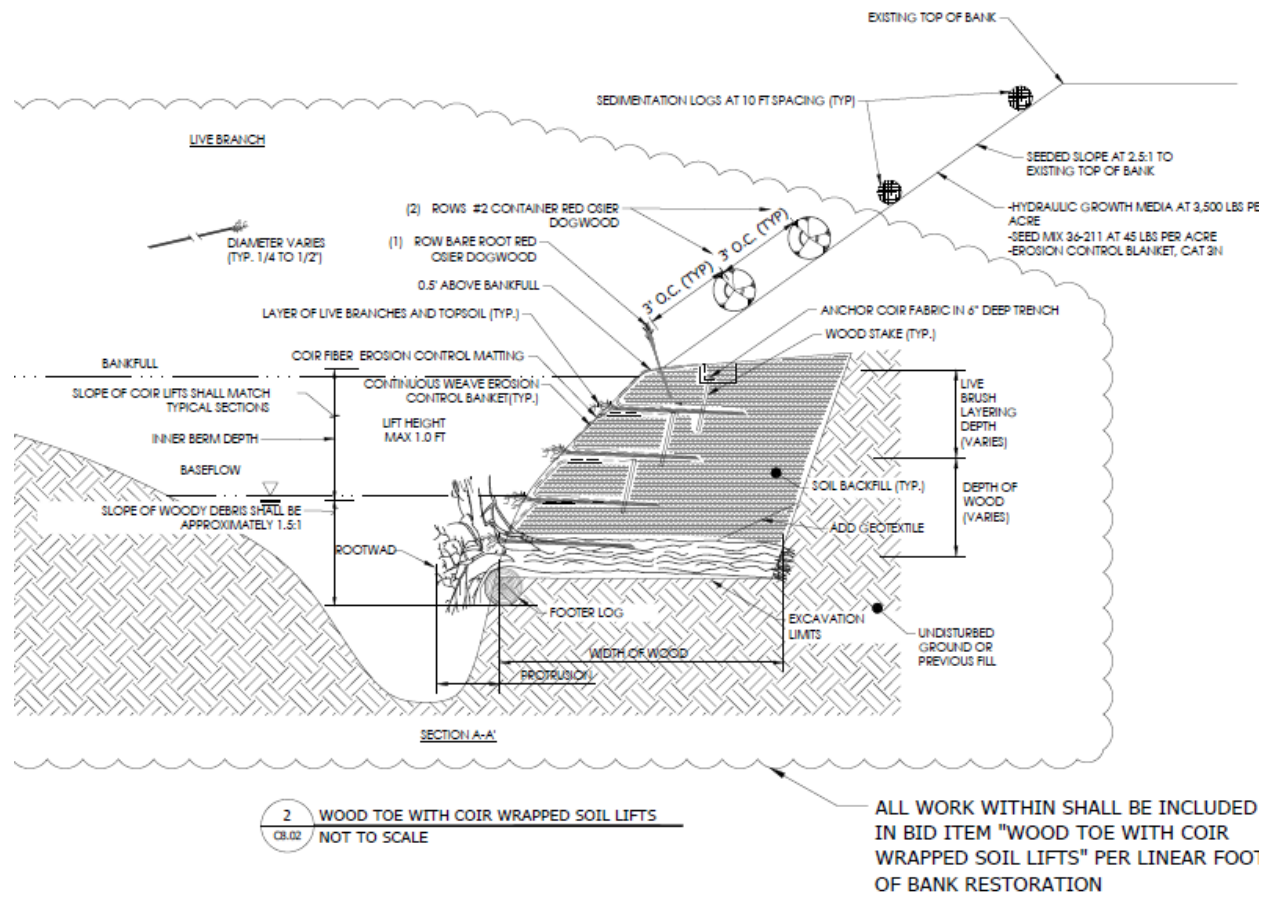
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Site Locations



Rush Creek Restoration
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Detail of Proposed Woody Toe and Coir Wrapped Soil Lift



elm creek

Watershed Management Commission

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Plymouth NW Greenway Trail Phase IV **Plymouth, Project #2018-009**

Project Overview: The Plymouth NW Greenway Trail Phase IV project is a project to construct a segment of trail and boardwalk connecting two existing trail segments located in the City of Plymouth. The proposed project consists of a new 850 foot boardwalk over the south side of the Elm Creek Wetland, approximately 500 feet of new trail on the southwest side of the Elm Creek Wetland, and reconstruction of 250 feet of the Greenway Phase III trail along the southwest side of the Elm Creek Wetland. The general location of the project is between Peony Lane North and Kimberly Lane North, approximately 1/3rd of a mile north of Schmidt Lake Road in Northwest Plymouth.

The proposed work will disturb 0.77 acres, and will result in the construction of 0.44 acres of new impervious cover. Our review will be for compliance to the Commission's 3rd generation standards and rules. The project is subject to Commission Review due to a small portion of the work being located in the floodplain of Elm Creek.

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

Agent/Engineer: SRF Consulting Group, c/o Bob 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 March 1, 2018
- 2) Project review fee of \$150 received on March 1, 2018.
- 3) Complete plan was received on March 1, 2018.
- 4) Overall project narrative, dated February, 2018.
- 5) Disturbed Area Figure, dated February 22nd, 2018.
- 6) Construction plans for the Northwest Greenway Phase IV Trail, dated 2/16/2018, totaling 23 sheets
- 7) Boardwalk Plans, dated February 16, 2018, totaling 10 sheets
- 8) Floodplain fill and mitigation (Cut/Fill Sheets), totaling 4 Sheets
- 9) Flood Hazard Mapping Sheet, Dated April 20, 2007, totaling 1 Sheet

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- 10) Elm Creek 100 Year Frequency Flood Water Surface Profile and Computations, dated 1983, totaling sheets.

Findings:

- 11) All of the work proposed drains directly to wetland adjacent to Elm Creek.
- 12) As proposed, the trail and boardwalks are a linear project that results in the construction of 0.46 acres of new impervious surfaces. However, the trail as proposed is 12 feet wide with at least 5 feet of vegetated space on its entire length. As such, it is exempt from Rule D of the ECWMC.
- 13) Rule F. Floodplains. As proposed, the project will result in impacts to non-floodway portions of the Elm Creek Floodplain as mapped on the 2016 Hennepin County FEMA maps. The floodplain elevation in this area ranges from 935.3 feet (1988 Datum, with 0.2' correction applied to the floodplain models) to 927.0 feet from west to east across the site.

As proposed, the boardwalk will be approximately 850 feet long, approximately 12 feet wide inside of the railing, just over 14 feet wide outside of the railing. The bridge itself is proposed to be constructed of wood, using wood planking and wood railings with a wire mesh inlay in the railing panel. An overlook location is proposed to be constructed with a pergola providing shade. The overlook is projected to extend approximately 25 feet out to the north of the boardwalk, and be approximately 42 feet wide.

The boardwalk itself is proposed to be installed on helical anchors or piles to support the boardwalk itself. Installation of these requires minimal earth disturbance and displaces little volume after completion.

Wood abutments are being built on each end of the boardwalk to transition from the boardwalk back to the ground built trails. The abutments are built in such a way as to minimize floodplain fill.

Overall, approximately 3 cubic yards of fill are proposed with-in the non-floodway portion of the floodplain. 21 cubic yards of mitigation are proposed y changing grading along various portions of the trail. Overall, the project meets ECWMC requirements and increases the floodplain storage available as part of the project.

- 14) Rule G. Wetland Alteration. All WCA impacts proposed for this project are considered temporary in nature (during construction) and thus are exempt from mitigation.
- 15) Rule I. The applicant provided a figure demonstrating that buffer widths of an average of 50 feet wide and a minimum of 25 feet wide are provided between the trail and the top of the bank of Elm Creek. Buffer strips averaging 25 feet wide, and a minimum of 10 feet wide are provided between the edge of the trail and the wetlands, except for in the boardwalk area which has previously been allowed by the Commission.
- 16) Rule E. Erosion and Sediment Controls: The proposed disturbed area will not exceed 1 acre in size, so an erosion control plan meeting NPDES permit requirements, including a SWPPP, is not required for this project. However, the applicant has prepared an erosion control and turf establishment plan that does exceed ECWMC requirements. The erosion control plans include the use of silt fence, including double silt fencing surrounding the

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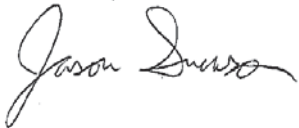
boardwalk installation area, sediment control logs, and seeding using hydroseeding and erosion control blankets where required.

- 17) Rule H. Bridge and Culvert Crossings: Due to the location of this project on the fringes of the wetland complex and not actually crossing Elm Creek itself, and in conjunction with the used of helical piles with minimal impact on flows, staff waived the submittal of detailed hydraulic modeling for this project and determined the project meets ECWMC standards.

Recommendation:

- **Staff Recommends approval of this project with no conditions.**

Hennepin County
Department of Environment and Energy

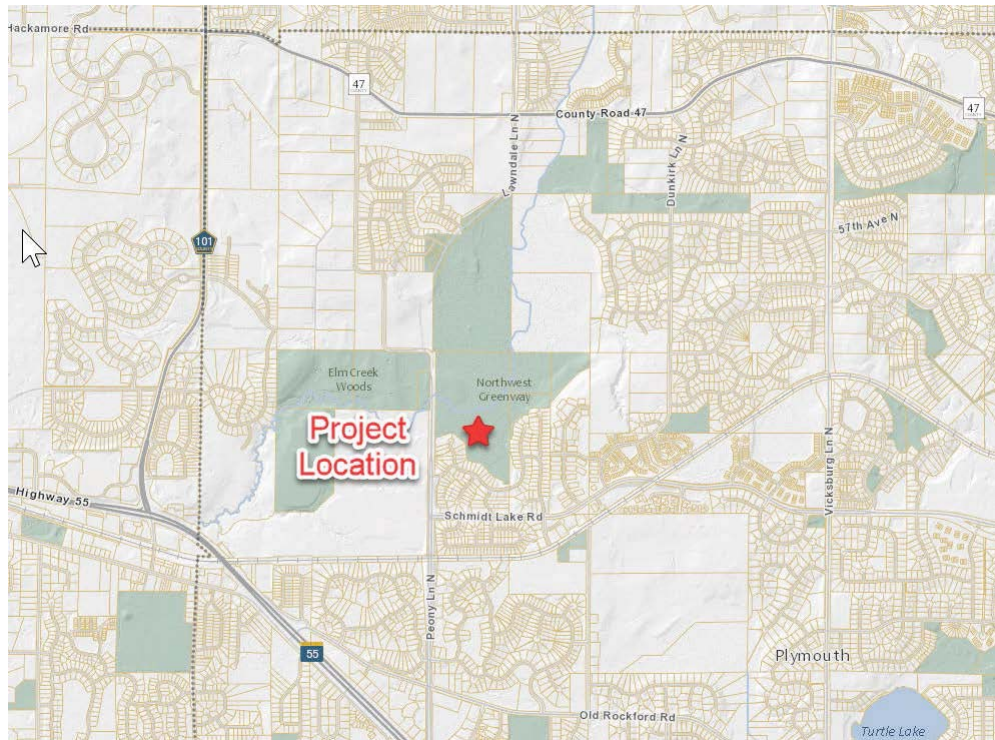


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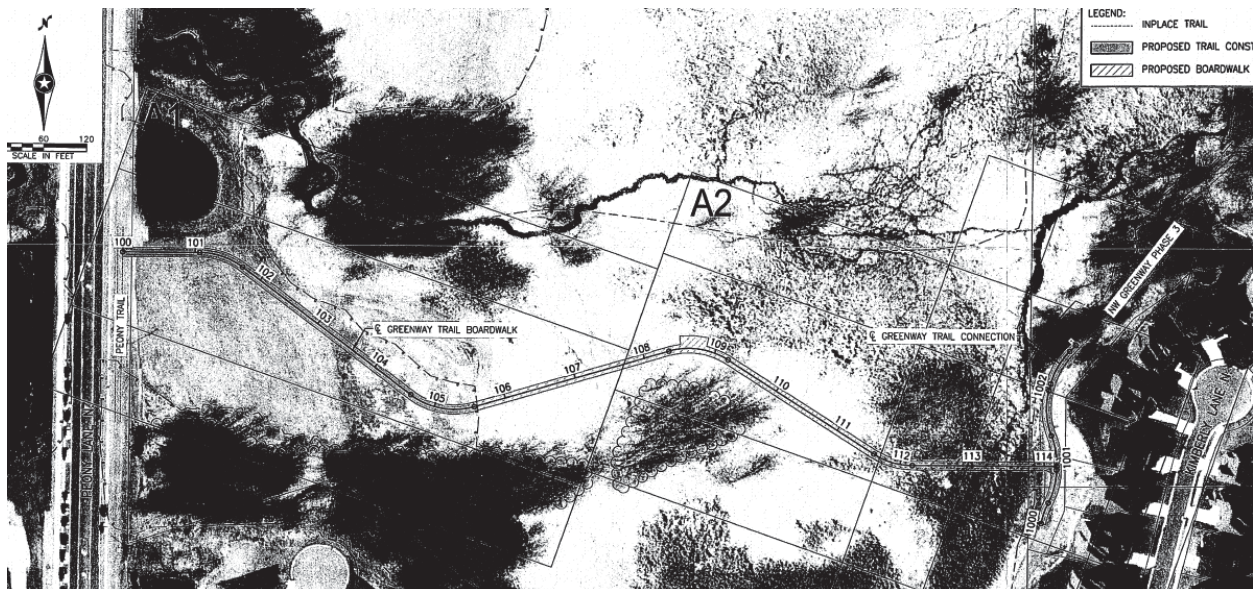
Jason Swenson, P.E.
Technical Advisor to the Commission

NW Greenway Trail Phase IV
 Plymouth, Project 2018-009
 May 24, 2018

Site Location Map



Trail Segment



elm creek

Watershed Management Commission

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Fehn Meadows 2nd Addition **Corcoran, Project #2018-017**

Project Overview: This is a 63-acre agricultural parcel located south of CR 117 about ¼ mile west of Cain Road. Rush Creek is located along the south property line of this site. The development project will result in the construction of 14 new family residential lots and approximately 2900 linear feet of new street construction. The ECWMC will review this site for compliance to Rules D (Stormwater Management), E (Erosion and Sediment Control), F (Floodplain), G (Wetland Alteration) and I (Buffer Strips)

Applicant: Rains Properties, Chris Rains, 624 Central Avenue, Osseo, MN 55369. Phone: 612-599-0372. Email: chris@rainsproperties.com

Agent/Engineer: Civil Engineering Site Design. Scott Dahlke, P.O. Box 566, Monticello, MN 55362. Phone: 612-619-8625. Email: sdahlke@civilesd.com

Exhibits:

- 1) ECWMC Request for Plan Review and Approval, received April 24, 2018.
- 2) Fehn Meadows 2nd Addition Site Plans dated April 17, 2018
 - a. Sheet C0, Project Location Plan
 - b. Sheets C1.1 to C1.4, Preliminary Plat
 - c. Sheets C2.1 to C2.3, Grading and Drainage Plans
 - d. Sheets C3.1 to C3.3, Storm Sewer Utility Plan
 - e. Sheet C4, Street Profile Plan
 - f. Sheet C5, Storm Water Pollution Prevention Plan
 - g. Sheets C6.1 to C6.2, Details Plan
 - h. Sheet C7, Resource Inventory Plan.
- 3) Fehn Meadows 2nd Addition Drainage Analysis dated April 17, 2018.
- 4) Draft Homeowners Declaration of Covenants and Easements, no signatures
- 5) Sheet 1 of 1, Topography Survey for Rains Property dated August 10, 2017.
- 6) Septic Soils Data
- 7) Soils Site Characterization, Pheasant Run Project, dated July 20, 2017.
- 8) Wetland Conservation Act
 - a. MN Joint Application for Activities Affection Water Resource in MN for Fehn Meadows Second Addition, dated April 16, 2018.
 - b. ECWMC WCA Notice of Application for sequencing and wetland replacement plan dated April 27, 2018.

Findings:

- 1) A complete application was received April 24, 2018. The initial 60-day decision period per MN Statute 15.99 expires June 23, 2018.
- 2) This site area and resources require a project review for the following rules and standards per the ECWMC 3rd Generation Stormwater Management Plan, Appendix C. Rule D (Stormwater Management), Rule E (Erosion and Sediment Control), Rule F (Floodplain), Rule G (Wetland Alteration) and Rule I (Buffer Strips)
- 3) The existing site is 62.9 acres in size and consists of approximately 52 acres of cropland and 10.3 acres of wetlands/woodland/grassland.
- 4) The proposed site will be developed into 14 single-family residential lots with approximately 4.85 acres of new impervious areas, 20.3 acres of open/preservation areas, 38.4 acres of lot area and 4.0 acres of right-of-way areas. Four (4) new stormwater ponding basins are proposed to collect the majority of the street and front yard water from the site.
- 5) Two wetland impacts will occur on one basin, filling 15,687 sq. ft. 31,374 sq. ft. of wetland banking credits are proposed to be purchased to mitigate the impacts.
- 6) Approximately 620 cubic yard of floodplain filling will occur. Excavating 915 cubic yards in the floodplain will mitigate for the filling.

Stormwater Management

- 7) The main portion of the property drainage flows to a series of low areas and wetland basins on site which are drain tiled for farming practices to a large wetland complex along the west side of the property. This wetland then drains south via a drainage ditch along the west property line before outleting into Rush Creek.
- 8) Storm water will be collected by storm sewer from the street, driveways, and front lawns and routed to four filtration basins. 3.12 acres of 4.85 acres of new impervious areas will be routed into the four basins.
- 9) 4.85 acres of new impervious areas will need 0.44 ac. ft. (19,366 cubic feet) of abstraction. SWMP accounts for 0.81 ac. ft. (35,652 cubic feet) of filtered volume.
- 10) It appears that the drain tile in each basin will not function as intended. The tile and its corresponding outlet elevations do not drain. As an example, Basin 3 (basin 41 in the HydroCAD model) drain tile elevation is proposed at 919.5 (1.5' below basin surface), but the outlet control to the basin is set at 921.0. This will keep the basin amended soil medium areas saturated without draining down between storm events.
- 11) Basin volume estimates should include 30% porous area in the amended soil areas.
- 12) Drawdown between storm events should be analyzed by the capacity of the drain tile or assumed drawdown for the surface area of the basin surface, whichever is less.
- 13) Details on each filter basin is necessary.
 - a. Drain tile and cleanout locations will be required on the plans
 - b. Underdrains must be constructed with Schedule 40 or SDR smooth wall PVC pipe (or a similar pipe and corresponding 'n' value) at least 6" in diameter.
 - c. Minimum 3" #57 (3/4-1") stone around the pipe
 - d. Minimum 2" chocking stone (1/2" minus)
 - e. Minimum 0.5% pipe slope
 - f. One underdrain for every 1000 sq. ft. of surface area.

- g. Include at least 2 observation /cleanouts for each underdrain, one at the upstream end and one at the downstream end.
 - h. Cleanouts should be at least 4 inches diameter vertical non-perforated schedule 40 PVC pipe, and extend to the surface. Cap cleanouts with a watertight removable cap.
 - i. For underdrains that daylight on grade, include a marking stake and animal guard
 - j. Avoid filter fabric. (Pipe socks may be needed for underdrains imbedded in sand. If pipe socks are used, then use circular knit fabric)
 - k. Use solid sections of non-perforated PVC piping and watertight joints wherever the underdrain system passes below berms, down steep slopes, makes a connection to a drainage structure, or daylights on grade.
 - l. Filter basin sequencing must be very specific as it relates to your site. The basin sequencing must ensuring the basin is constructed or reconstructed after the site has permanent stabilization established or the plan must state how it will be protected during the interim (perimeter silt fence alone is not adequate)
- 14) We require two sump manholes on Basins 1, 2 and 3 and SAFL Baffle (or similar) weirs on the last MH above all four basins. In lieu of sump manholes/SAFL Baffles, a forebay can be constructed at the inlet to each basin.
- 15) No Phosphorus or TSS calculations are provided with the stormwater management plans.
- a. Staff estimates pre-development phosphorus loads at 53 lbs/year and post development loads at 20.8 lbs/year.
 - b. Staff estimates pre-development TSS loads at 4105 lbs/year and post development at approximately 1,450 lbs/year.
- 16) Stormwater summary is as follows;

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)	53	4,105	19,366	N/A	
Post-development without BMPs	26.1	1,752	19,366	N/A	
Post-development with BMPs	21.8	1,450		35,652	
Net Change	-31.2	-2,655	N/A		

- 17) Rate controls meet the Commission's standards. They are as follows:

	2-yr (cfs)	10-yr (cfs)	100-yr (cfs)
Pre-Development West	50.4	92.8	187.5
Post-Development West	30.3	64.9	149.1
Pre-Development South	31.0	55.6	110.2
Post-Development South	17.2	36.1	91.9

Grading, Erosion and Sediment Controls

- 18) Final construction of the filter basins shall not begin until the site is stabilized.
- 19) Provide channel protection measures (ditch block/bio-rolls or similar) in the area being graded between the road and basin 1.
- 20) Although surface drainage appears to be adequately address, numerous subsurface drain tiles exist on the site. Please address how these will be disabled or maintained so existing and future drainage will not be affected.

Wetlands

- 21) The Commission in August of 2015 approved the wetland delineation.
- 22) The applicant is proposing to build a 60' wide public street access and associated sidewalk that would cross and impact approximately 13,695 square feet of the narrowest portion of Wetland 1. A second impact to Wetland 1 of 1,992 sf is proposed to accommodate pedestrian walking trail across Wetland #1 to access the preserved upland open space "island" surrounded by Wetland 1. Wetland 1 is a Type 1, seasonally flooded basin that has been historically farmed in normal years.
- 23) The replacement wetland is proposed to be purchased at a 2:1 ratio (31,374 sq. ft.) in wetland banking area 7. (Area 7 runs from Hennepin County to Lake Mille Lacs to Glenwood to Olivia)
 - a. The replacement plan does not mention where it will take place in Bank Service Area 7.
 - b. The Commission has a policy to replace at least 1:1 of the replacement ratio in the Elm Creek Watershed or, if not available in the watershed, in Hennepin County.
 - c. Comments will be received on the replacement plan application until May 25th.
 - d. A summary of the WCA Technical Evaluation Panel comments and findings will be provided to the Commission.
 - e. A wetland replacement plan escrow of \$45,000 will be required from the applicant.

Buffers

- 24) The Commission standards require 25' average and 10' minimum buffers on all wetland basins and 50' buffer along Rush Creek (above the ordinary high water level of the creek)
 - a. All wetland basins show 30' wetland buffers.
 - b. Rush Creek must have a 50' buffer established above the ordinary high water elevation or 25' from the fringe wetland area along the creek, whichever is greater. Based on the plat drawings, the buffer area along the creek on lot 12 will not meet the 50' requirement.
 - c. Buffer monumentation must be provided on the upland edge of the buffer. Signage appears to be approximately 15' from the buffer edge.
 - d. Drainage and utility easements do not encompass the wetland buffer areas on lots 3, 4, 5, Outlot B or the stormwater basins on lots 12 and Outlots A and B.
 - e. Native grass seed must be specified on the buffer plantings.

Floodplains;

- 25) The Rush Creek Floodplain runs along the west and south portions of this development. The base flood elevation (1% flood chance) is 919.0 (1929 NGVD) on the west side of the site and decreases to 917.0 at the SE corner of the property.

Fehn Meadows 2nd Addition, Corcoran
 2018-017
 May 15, 2018

- 26) Flood Zone Impacts will equal 620 cubic yards for road and trail construction along outlot
 A. Compensatory excavation will be 915 cubic yards in filter basin 2.
 27) All proposed low floor elevations are 2' or more above the BFE to Rush Creek.

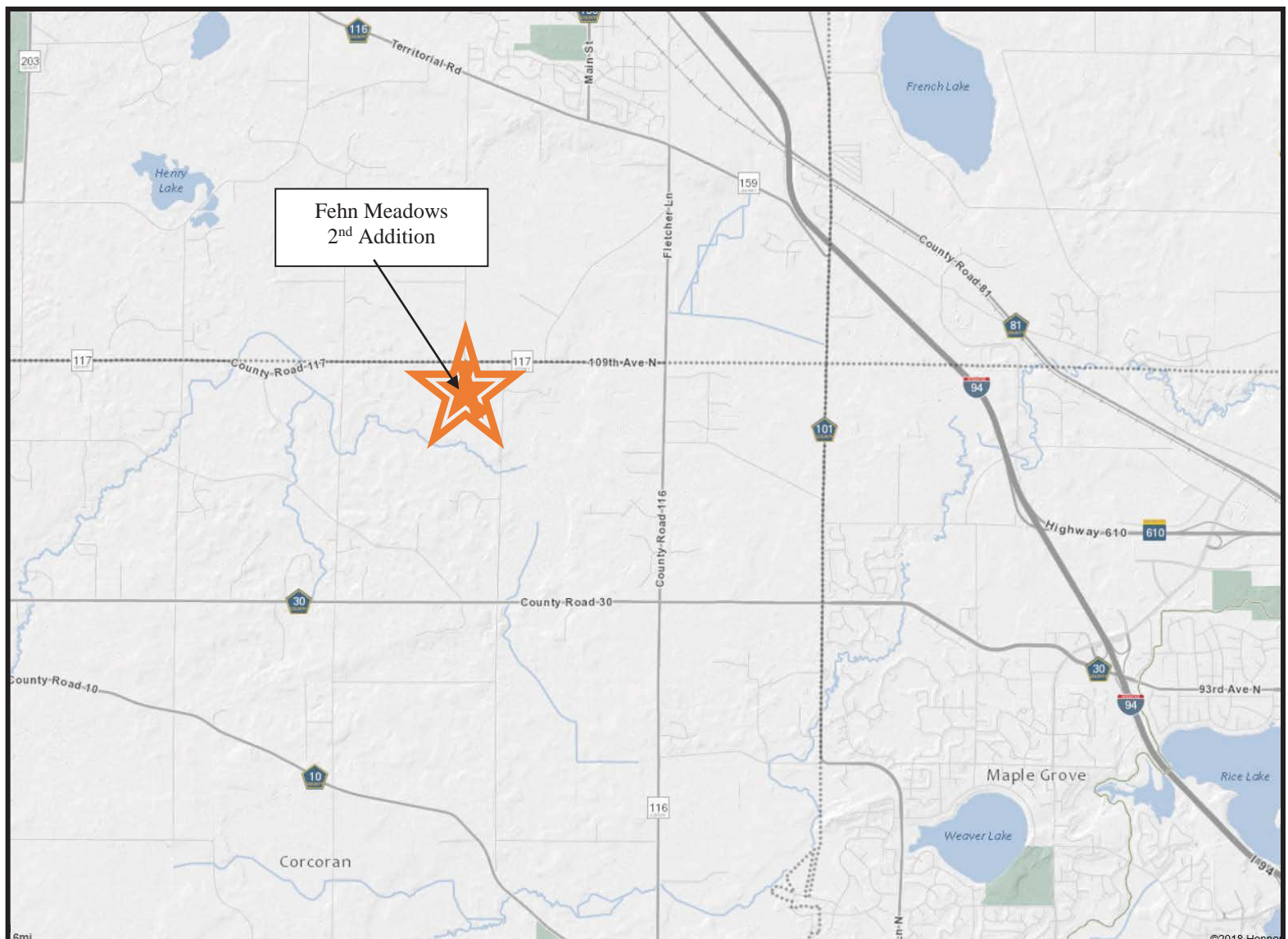
Recommendation: None at this time.

Hennepin County
 Department of Environment and Energy
 Advisor to the Commission

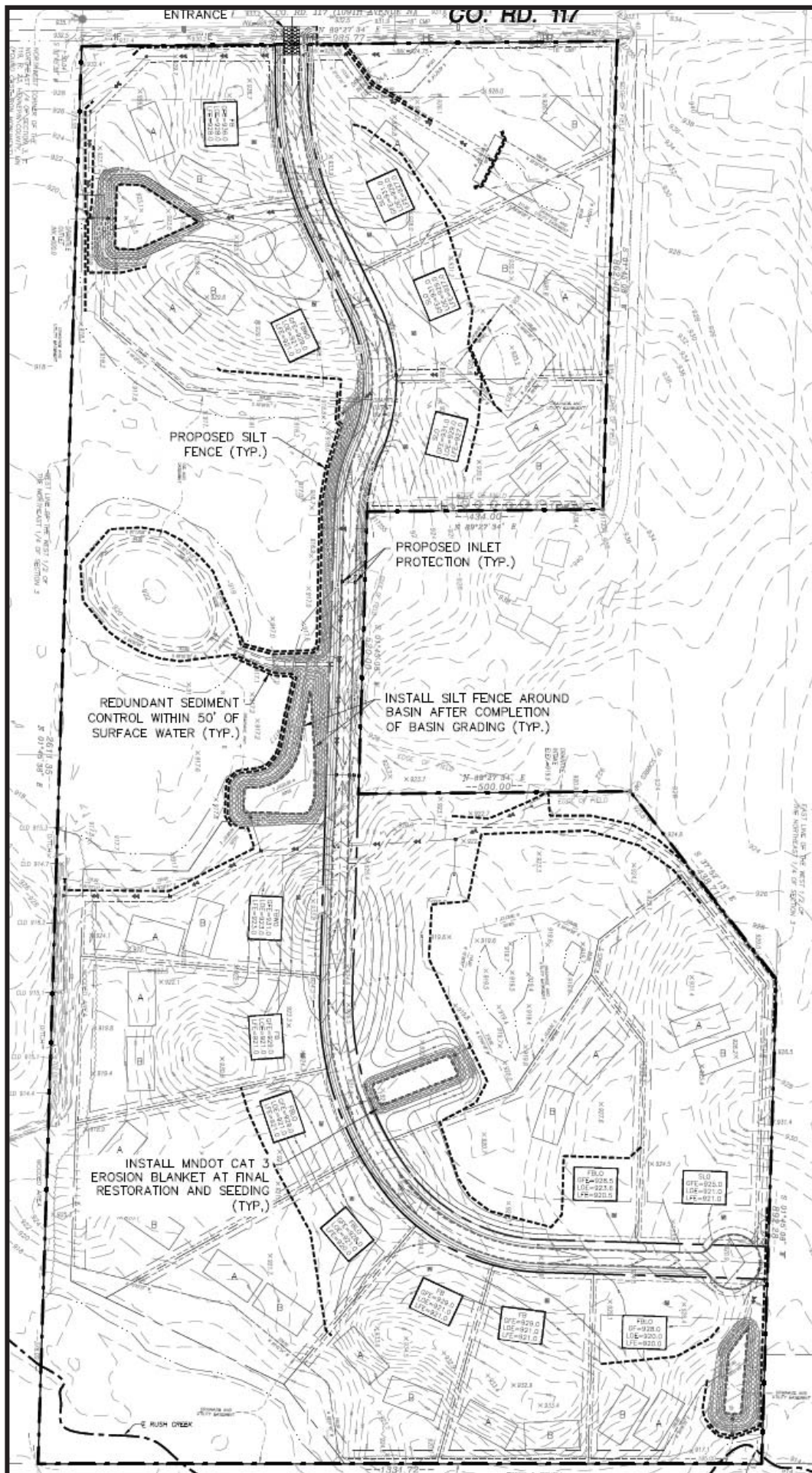


May 15, 2018
 Date

Location Map







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
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Department of Environment and Energy
701 Fourth Ave. South, Suite 700
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PH: 612.596.1171
E-mail: jason.swenson@hennepin.us

Laurel Creek 2nd Addition **Rogers, Project #2018-015**

Project Overview: The Laurel Creek 2nd Addition is a project construct the next phase of the Laurel Creek Development located in the City of Rogers. The original Laurel Creek project was permitted under Elm Creek Project Number 2017-014, which was approved by the ECWMC at its meeting on June 14, 2017. The proposed project consists the grading of lot pads and street and utility construction to support the construction of 72 new single family home units, 64 new townhome style units in 10 separate buildings, and the rough grading for approximately 20 future phase single family lots (these are staff counts based on the plans and may differ slightly from the actual number). The general location of the project is located southwest of I-94 and Territorial Road (CR 159) and Brockton Lane (CR 101).

The entire Laurel Creek project was for the entire 316 acre site and 476 residential units and one homeowners association building. The entire development was reviewed and approved with the initial approval, with the developer electing to construct the project in phases. The developer constructed an initial phase after approval. The proposed work for the second phase will disturb approximately 33.5 acres, and will continue to fill out the entire development's total new impervious coverage of approximately 61 acres of new impervious through all phases of the development. Our review will be for compliance to the Commission's 3rd generation standards and rules regarding erosion control (Rule E) and to check with compliance with the originally approved plans.

Applicant: Lennar, c/o Paul Tabone, 7599 Anagram Drive, Eden Prairie, MN 55344. Phone: 952-249-3086. Email: paul.tabone@lennar.com

Agent/Engineer: Pioneer Engineering, c/o Nick Polta, 2422 Enterprise Drive, Mendota Heights, MN 55120. Phone: 651-681-1914. Email: npolta@pioneereng.com

Exhibits:

- 1) ECWMC Request for Plan Review and Approval received April 25, 2018.
- 2) Project review fee of \$1,205 received on April 25, 2018.
- 3) Complete plan was received on April 25, 2018.
- 4) Construction plans for the Laurel Creek 2nd Addition, dated 2/12/2018, totaling 29 sheets, including:

Laurel Creek 2nd Addition
 Rogers, Project 2018-015
 May 30, 2018

- a. G1.0...Cover Sheet
- b. G1.1...Legend Sheet
- c. G2.0...Development Plan - Overall Layout
- d. G2.1-G2.6...Development Plan - Plan Sheets
- e. G3.0...Grading Plan – Overall Layout
- f. G3.1-G3.6...Grading Plan – Plan Sheets
- g. G3.7...Grading Plan – Temporary Basin Outlet Construction
- h. G4.1-G4.6...Erosion Control Plan Sheets
- i. G5.1-G5.4...Grading Details
- j. W1.1-W1.2...Wetland Buffer Plan
- k. L1-L4...Landscape Plan
- l. T1-T2...Tree Preservation Plan
- m. S1...Seeding Plan

Findings:

- 1) The entire development was initially approved under ECWMC permit #2017-014. This included review and approvals for conformance with ECWMC Rule D (Stormwater Treatment), Rule E (Erosion and Sediment Control), Rule F (Floodplain Alteration), Rule G (Wetland Alteration), and Rule I (Buffer Requirements)
- 2) The plans as submitted for the Second Phase are in conformance with the plans as approved for the overall development. As such, this review is an administrative review for conformance with Rule E (Erosion and Sediment Control) only.
- 3) As part of the first phase of construction, a temporary pond (TP 700) and outlet were approved. As part of this phase of development, the existing temporary outlet will be removed and replaced with a different temporary outlet. The details for the proposed revision remain in conformance with the approvals for this temporary pond.
- 4) Rule E. Erosion and Sediment Controls: The proposed disturbed area will exceed 1 acre in size, (approximately 33.5 acres of new disturbance in addition to Phase 1) so an erosion control plan meeting NPDES permit requirements, including a SWPPP, is required for this project. As part of the initial review and approval of the overall project, a SWPPP plan meeting NPDES permit requirements for the entire site was reviewed and approved. The erosion control plans include the use of silt fence, including double silt fencing surrounding wetlands, and seeding and mulching disturbed areas. As proposed, the plans are in conformance with ECWMC requirements for Rule E, and are in conformance with the original approved plans for the site.

Recommendation:

- **Staff Recommends approval of this project with no conditions.**

Laurel Creek 2nd Addition
Rogers, Project 2018-015
May 30, 2018

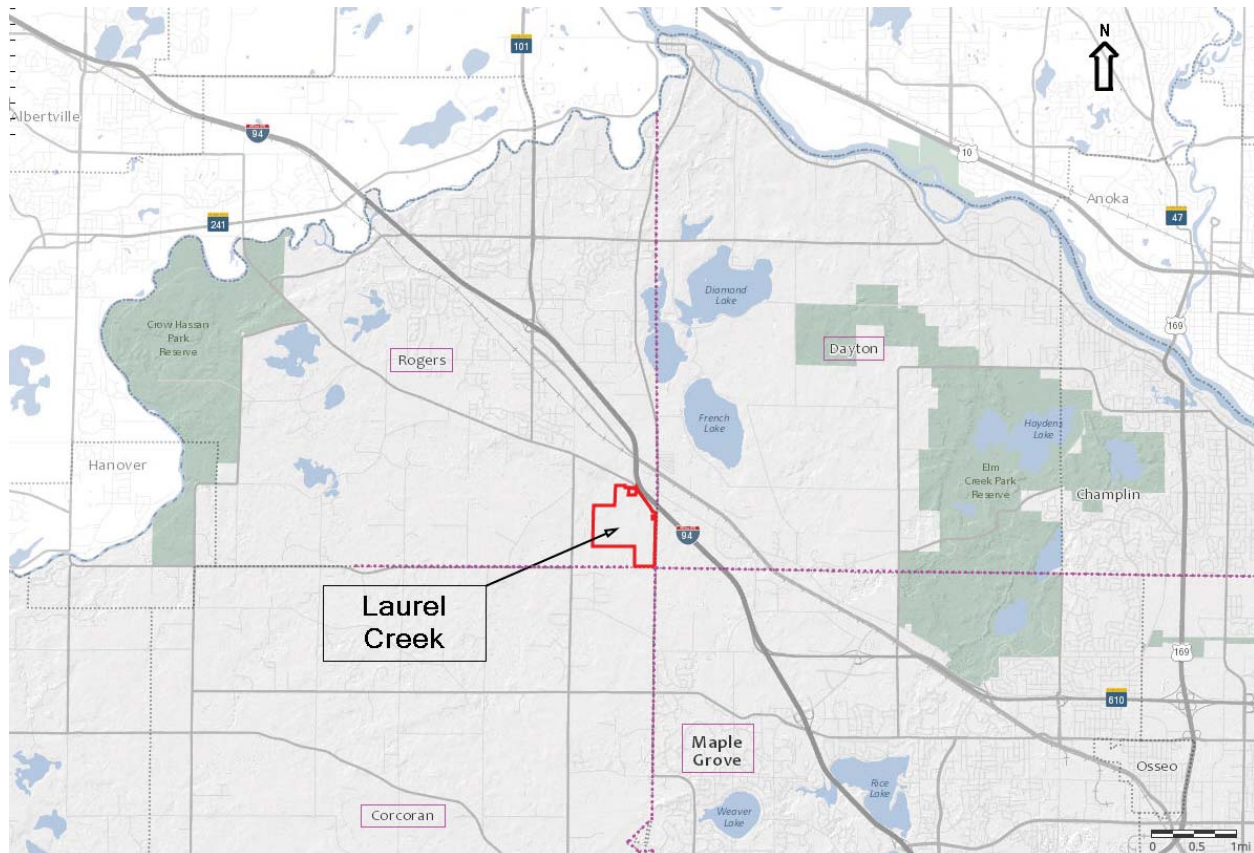
Hennepin County
Department of Environment and Energy

Jason Swenson

May 30, 2018

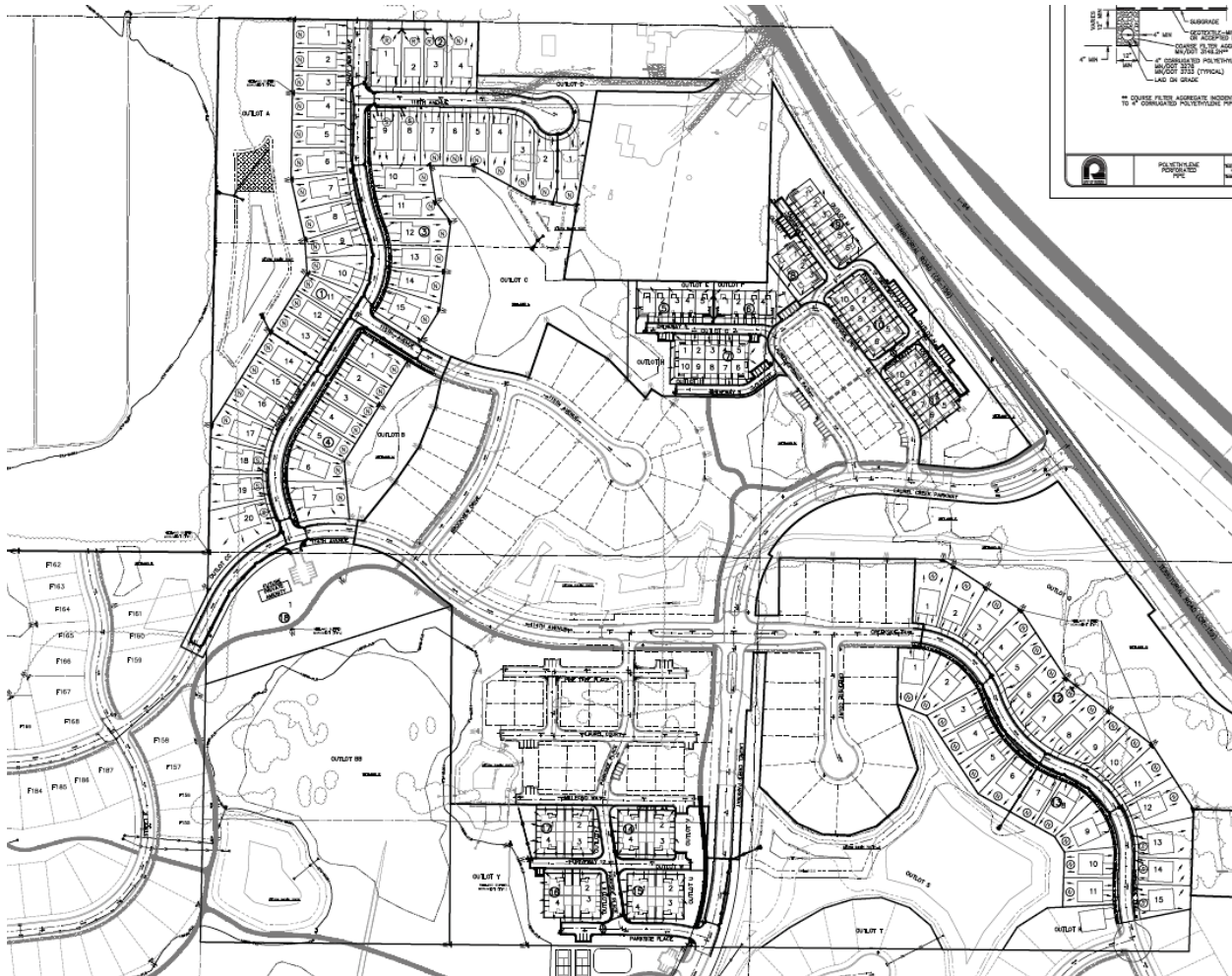
Jason Swenson, P.E.
Technical Advisor to the Commission

Site Location



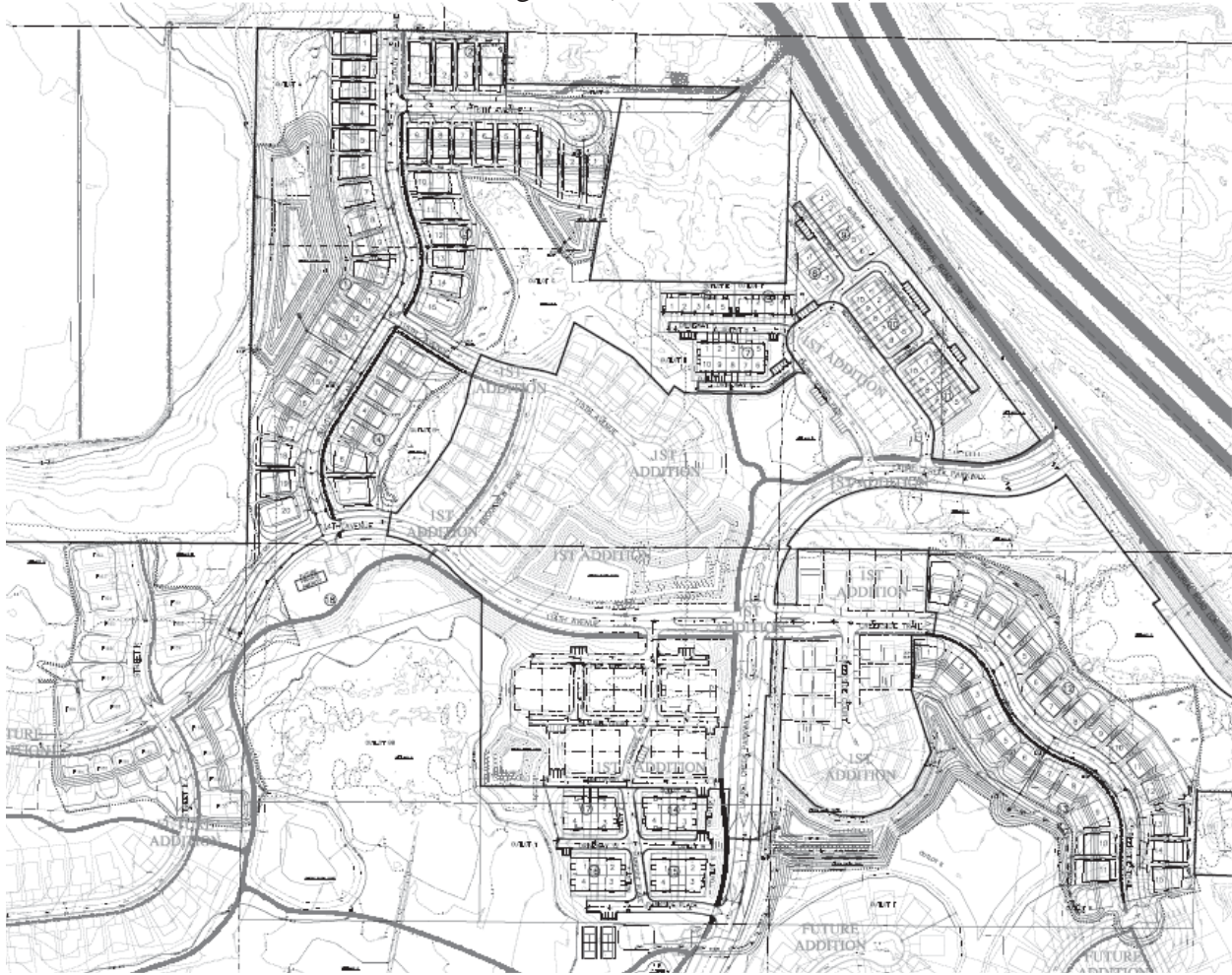
Laurel Creek 2nd Addition
Rogers, Project 2018-015
May 30, 2018

Site Plans Showing Phase 2
(Area to be graded includes all lots with numbers)



Laurel Creek 2nd Addition
Rogers, Project 2018-015
May 30, 2018

Site Grading Plan (Overall for Phase 2)



Elm Creek Watershed Management Commission - Proposed 2019 Operating Budget

	A	B	C	D	AC	AE	AQ	AR	AS	AT	AU	AV	AW
3					2014 Final	2015 Final	2016 Final	2017 Budget	2017 Final	2018 Budget		Proposed 2019	
4	GENERAL OPERATING BUDGET												
5	Operating Expenses												
6		Administrative			69,923	75,616	84,998	90,000	86,212	90,000		90,000	
7		Watershed-wide TMDL Admin			6,904	43,240	1,432			2,500	implementation	1,500	
8		Grant Writing				0		5,000	0	4,000		4,000	
9		Website			1,755	2,569	3,794	6,000	1,807	6,000	add Facebook	5,000	
10		Legal Services			377	464	1,041	2,000	0	2,000		2,000	
11		Audit			4,500	4,500	4,500	5,000	4,500	5,000		5,000	
12		Insurance		(dividend 2017 = \$487)	3,014	2,349	3,456	3,800	2,355	3,900		3,900	
13		Contingency			0	0		2,000	983	1,000		1,000	
14			Subtotal		86,473	128,738	99,221	113,800	95,857	114,400		112,400	
15		Project Reviews											
											HCEE reimbursement (lines 16 and 22) = 2.5% increase		
16			Technical - HCEE		72,000	88,509	77,820	98,000	90,970	95,000		97,400	
17			Technical - HCEE - Floodplain modeling							46,386		46,386	
18			Technical Support - Consultant		7,666	13,408	9,780	15,000	8,424	12,000		15,000	
19			Admin Support		11,318	8,731	12,310	11,000	13,425	14,000		15,000	
20				Subtotal	90,984	110,648	99,910	124,000	112,819	167,386		173,786	
21		Wetland Conservation Act											
22			WCA Expense - HCEE		10,145	11,889	12,834	12,000	12,178	17,750		18,200	
23			WCA Expense - Legal		290	0	0	500	512	500		500	
24			WCA Expense - Admin		1,645	917	1,127	2,000	1,680	1,500		2,000	
25				Subtotal	12,080	12,806	13,961	14,500	14,370	19,750		20,700	
26		Water Monitoring											
27			Stream Monitoring										
													proposing biennial contract
28			Stream Monitoring - USGS		19,830	19,750	20,874	24,177	24,177	24,900	40,000	41,000	
29			Stream Monitoring - TRPD									6,225	
30			Extensive Stream Monitoring			6,000	6,120	7,000	7,120	7,600		650	
31			DO Longitudinal Survey			0	0	500	500	1,000			
32			Gauging Station - Elec Bill		181	197	210	220	206	250		250	
33			Rain Gauge Network			0	0	100		100		100	
34			Lake Monitoring										
35			Lake Monitoring - CAMP		950	400	480	1,200	200	720		760	
36			Lake Monitoring - TRPD		3,600	3,000							
37				Sentinel Lakes			3,100	2,470	2,325	3,300		8,100	
38				Additional lake			0	618	775	825		1,500	
39				Aquatic Vegetation Surveys			0	1,029		1,100		325	
40	v		Source Assessment					2,000		0			
41	v		Watershed-wide TMDL - Followup - TRPD				13,600	10,000	668	5,000		2,500	
42			Wetland Monitoring - WHEP		4,000	4,000	4,000	4,000	4,000	4,000		4,000	
43			Stream Health - SHEP		6,000	6,000		0	Program no longer offered				
44				Subtotal	34,561	39,347	48,384	53,314	39,971	48,795		65,410	

Elm Creek Watershed Management Commission - Proposed 2019 Operating Budget

	A	B	C	D	AC	AE	AQ	AR	AS	AT	AU	AV	AW
3					2014 Final	2015 Final	2016 Final	2017 Budget	2017 Final	2018 Budget		Proposed 2019	
45		Education											
46			Education - City/Citizen Programs		1,060	917	3,261	4,000	4,066	4,000		4,000	
48			WMWA General Admin		3,750	9,750	3,750	4,000	3,750	4,000		5,000	
49			WMWA Implementa Activities incl Watershed PREP		6,000		6,000	6,000	6,000	6,500		6,500	
51			R Garden Workshop/Intensive BMPs		3,000	1,700	2,114	2,000	2,294	2,000		2,000	
52			Education Grants			1,000		2,000	225	2,000		1,000	
53			Macroinvertebrate Monitoring-River Watch		6,000	6,000	3,000	6,000	5,000	3,000		3,000	
54			Ag Specialist										
55				Subtotal	19,810	19,367	18,125	24,000	21,335	21,500		21,500	
60		Management Plan											
61			Plan Amendments		3,953	9,165	1,699	5,000	1,370	2,000		2,000	
62			Local Plan Review					2,000		8,000	Due 12/2018 Consider \$10,000/set-aside beginning 2020		
63			Contribution to 4th Generation Plan										
64				Subtotal	3,953	9,165	1,699	7,000	1,370	10,000		2,000	
65		CIPs, Grants, Special Projects, Studies											
66			Capital Outlay - CIPs - Ad Valorem				246,157	249,000	2,244	490,000		462,500	
67			Grants						212,076				
68			Projects ineligible for ad valorem			2,608		50,000		50,000		50,000	
70			Upper and South Metro Miss TMDL		0			0		0		0	
72			Studies, Subwatershed Assessments		5,806	684	6,484	35,000	4,000	35,000		35,000	
74				Subtotal	5,806	3,292	252,641	334,000	218,320	575,000		547,500	
77		Contingency				0		0		0		0	
78				Subtotal	0	0	0	0	0	0		0	
79	Total Op Exp (lines 14,20,25,44,55,64,74,78)				253,667	323,363	533,941	670,614	504,042	956,831		943,296	
80													

Elm Creek Watershed Management Commission - Proposed 2019 Operating Budget

	A	B	C	D	AC	AE	AQ	AR	AS	AT	AU	AV	AW
3					2014 Final	2015 Final	2016 Final	2017 Budget	2017 Final	2018 Budget		Proposed 2019	
81	Revenue												
82		CIPs - Ad Valorem				131,570	249,866	249,000	494,330	490,000		462,500	
83		Grant Revenue							125,140				
84		Floodplain Modeling								46,386		46,386	
85		Project Review Fees			98,670	75,705	62,192	100,000	78,125	80,000		80,000	
86		Water Monitoring - TRPD Co-op Agmt			5,170	6,000	5,133	6,500	5,036	6,500		5,000	
87		BMP Implementation											
88		WCA Fees			4,990	2,500	7,850	8,000	4,700	10,000		5,000	
89		Forfeited/Reimbursed Sureties, Reimbursement from LGUs			1,113	1,485	840	0	2,289	0		4,000	
90		Membership Dues			203,000	209,000	215,360	219,700	219,700	225,000	2.415% increase	230,400	2.40% increase
91		Watershed-wide TMDL				12,680							
92		Interest Income			77	83	915	100	5,921	250		2,500	
93		Dividend Income					2,014			750		500	
94		Miscellaneous Income											
95													
96				Total Operating Revenue (lines 81-93)	313,020	439,023	544,170	583,300	935,241	858,886	0	836,286	
97				Surplus (Deficit) (lines 79, 96)		115,660	10,229	87,314	431,199	97,945	0	107,010	
98													
99	Assets												
100		Cash and investments			381,876	517,502	524,931		959,050				
101		Restricted cash					46,000		150,571				
102		Accounts Receivable			5,820	12,680	1,596		10,262				
103		Total Assets			387,696	530,182	572,527		1,119,883				
104													
105	Liabilities and Fund Balances												
106		Accounts payable			29,791	56,617	42,733		54,320				
107		WCA Escrows					46,000		150,571				
108		Total Liabilities			29,791	56,617	88,733		204,891				
109													
110	Fund Balances												
111		Restricted for CIPs				125,342	129,048		621,135				
112													
113		Asssigned for projects, studies			75,220	34,316	62,832		143,832				
114		Assigned for other					1,000		0				
115													
116		Unrestricted/unassigned fund balances			282,685	313,907	290,914		150,025			43,015	
117					357,905	348,223	354,746		293,857				
118													
119		Total Fund Balances			357,905	473,565	483,794		914,992				
120													
121		Total Liabilities and fund balances			387,696	530,182	572,527		1,119,883				
122													

Elm Creek Watershed Management Commission
Proposed 2019 Member Assessments

2017	2016 Taxable Market Value	2017 Budget Share		Increase over Prev Year		
		%age	Dollars	%age	Dollars	
Champlin	410,505,694	3.85%	8,458.23	-3.24%	-283	
Corcoran	709,731,668	6.66%	14,623.61	0.77%	112	
Dayton	501,487,424	4.70%	10,332.86	3.60%	359	
Maple Grove	5,651,956,239	53.01%	116,455.30	0.42%	486	
Medina	891,170,325	8.36%	18,362.05	6.82%	1,172	
Plymouth	905,845,273	8.50%	18,664.42	6.92%	1,208	
Rogers	1,592,062,304	14.93%	32,803.53	4.08%	1,286	
Totals	10,662,758,927	100.00%	219,700.00	2.02%	4,340	
2018	2017 Taxable Market Value	2018 Budget Share		Increase over Prev Year		
		%age	Dollars	%age	Dollars	
Champlin	435,155,559	3.82%	8,593.96	1.60%	136	
Corcoran	742,511,061	6.52%	14,663.98	0.28%	40	
Dayton	563,384,729	4.95%	11,126.38	7.68%	794	
Maple Grove	5,908,582,953	51.86%	116,689.62	0.20%	234	
Medina	950,777,365	8.35%	18,777.07	2.26%	415	
Plymouth	1,108,795,705	9.73%	21,897.80	17.32%	3,233	
Rogers	1,683,675,595	14.78%	33,251.20	1.36%	448	
Totals	11,392,882,967	100.00%	225,000.00	2.41%	5,300	
2019	2018 Taxable Market Value	2019 Budget Share		Increase over Prev Year		
		%age	Dollars	%age	Dollars	
Champlin	482,451,066	3.96%	9,131.64	6.26%	538	
Corcoran	805,284,845	6.62%	15,242.10	3.94%	578	
Dayton	657,235,681	5.40%	12,439.89	11.81%	1,314	
Maple Grove	6,195,629,078	50.90%	117,268.32	0.50%	579	
Medina	1,017,473,342	8.36%	19,258.32	2.56%	481	
Plymouth	1,218,746,394	10.01%	23,067.93	5.34%	1,170	
Rogers	1,795,887,426	14.75%	33,991.82	2.23%	741	
Totals	12,172,707,832	100.00%	230,400.00	2.40%	5,400	

Contract No. 18R014

**INTERGOVERNMENTAL AGREEMENT BETWEEN THE
METROPOLITAN COUNCIL AND THE
ELM CREEK WATERSHED MANAGEMENT ORGANIZATION**

THIS AGREEMENT is made and entered into by and between the Metropolitan Council (the "Council") and the Elm Creek Watershed Management Organization (the "Watershed"), each acting by and through its duly authorized officers.

THE ABOVE-NAMED PARTIES hereby agree as follows:

I. GENERAL SCOPE OF AGREEMENT

The Council and the Watershed agree to undertake a volunteer lake monitoring study in order to provide an economical method of broadening the water quality database on lakes in the Twin Cities Metropolitan Area.

II. SPECIFIC SCOPE OF SERVICES

2.01 Lake Monitoring Program. The Watershed and the Council agree to jointly undertake a volunteer lake monitoring program as specified below:

- a. General Purposes of Program. The volunteer lake monitoring program involves the use of citizen-scientist volunteers to monitor lakes in the Twin Cities Metropolitan Area. The volunteers will collect surface water samples which will be analyzed for total phosphorus (TP), total Kjeldahl nitrogen (TKN), and chlorophyll-a (CLA). In addition, the volunteers will measure surface water temperature, water transparency, and fill out a monitoring form that describes the lake and weather conditions at the time of the monitoring event. Lakes will be visited from April through October of 2018 (the "Monitoring Period") for the number of times and at the approximate intervals specified in paragraph (b) below. Each lake will be sampled at the location as indicated on the site location map provided by the Council. The Council will arrange for chemical analysis of the samples either through its own laboratory or an outside laboratory.
- b. Specific Lakes Involved. The following lakes and specific lake site(s) listed below will be involved in the Council's Citizen-Assisted Lake Monitoring Program (CAMP) in 2018.

Lake name	DNR ID#	Number of monitoring events	Approximate monitoring interval	Quantity of new kits
Jubert	27-0165	8 to 14	Biweekly	0

2.02 Watershed Responsibilities. The Watershed agrees that it will have sole responsibility for:

- a. Recruiting volunteers (who have access to a boat) to monitor the lakes the Watershed wishes to involve in the program as listed in section 2.01(b) above.
- b. Providing the Council and/or volunteers with needed lake information such as lake bathymetric maps and access locations.
- c. Paying for the laboratory analysis cost of the samples collected by volunteers which cost is included in the amounts specified in Article III below.
- d. Ensuring that the volunteers participate in the training program and follow CAMP methods and procedures.
- e. Ensuring that the volunteers fill out a monitoring form during each monitoring event.
- f. Picking up the samples and the lake monitoring forms from their volunteers and delivering those items to the Watershed's central storage location. The Watershed will be responsible for providing the central storage location. The central storage location can be a Council facility, but the Watershed will be required to deliver the samples and monitoring forms to this facility. The samples are required always to be frozen.
- g. Storing its volunteers' samples until picked up by Council staff. The samples are required always to be frozen.
- h. Maintaining, storing, and restocking its monitoring kits.
- i. Delivering and picking up its monitoring kits to and from their volunteers.

2.03 Council Responsibilities. The Council agrees that it will:

- a. Organize the survey.
- b. Provide training for the volunteers.

- c. Pick up the samples and lake monitoring forms from the Watershed's central storage location and deliver them to the laboratory at approximately 2-month intervals starting in June.
- d. Review the results of the monitoring data.
- e. Prepare a final report containing the physical, chemical, and biological data obtained during the Monitoring Period and a brief analysis of the data.
- f. Provide quality control by collecting lake samples from random lakes involved in the volunteer program. The resulting parameter values will then be compared to the volunteers' results to determine if any problems exist involving the volunteer's monitoring activities and what should be done to correct the problem.
- g. Provide and deliver to the Watershed the expendable monitoring items (e.g. sample containers, labels, filters, aluminum sheets, zip-style plastic bags, and lake monitoring forms). The expendable monitoring items will be delivered in the weeks preceding the start of the monitoring season. The cost of the expendable monitoring items is included in the annual participation fee.

III. COMPENSATION; METHOD OF PAYMENT

3.01 Payment to Council. For all labor performed and reimbursable expenses incurred by the Council under this agreement during the Monitoring Period, the Watershed agrees to pay the Council the following amounts per lake site listed in section 2.01(b). The participation fee will be billed for the contracted amount regardless whether the volunteer collects samples from or monitors a lake site fewer times than the contracted quantity.

Number of Monitoring events	Participation Fee (excludes monitoring equipment)
8 to 14	\$550
1 to 7	\$280

For lake sites requiring monitoring equipment, the cost for a kit of monitoring equipment is \$150 per kit.

3.02 Payment Schedule. Payment of the total amount owing to the Council by the Watershed shall be made by October 30, 2018. An invoice specifying the amount owed by the Watershed will be sent under separate cover.

3.03 Additional Analyses. The total amount specified in paragraph 3.01 does not include the cost of any additional analyses requested by the Watershed, such as analysis of bottom samples. The Council will carry out any such additional analyses at the request of the Watershed and subject to the availability of Council resources for carrying out such analyses. The Council will bill the Watershed after the end of the Monitoring Period for any such additional analyses at the Council's

actual cost, and the Watershed will promptly reimburse the Council for any such costs billed. The costs for additional analyses are provided in Exhibit A.

3.04 Replacement of Durable Equipment. The total amount specified in paragraph 3.01 does not include the cost of replacing durable monitoring equipment, such as thermometers, Secchi disks, filter holders, hand pumps, graduated cylinders, sampling jugs, forceps, and tote boxes. The Council will provide and deliver durable monitoring equipment that needs replacement upon request from the Watershed. The Council will bill the Watershed for any such replaced durable monitoring equipment at the Council's actual cost, and the Watershed will promptly reimburse the Council for any such costs billed.

IV. GENERAL CONDITIONS

4.01 Period of Performance. The services of the Council will commence on April 1, 2018, and will terminate on March 30, 2019, or following work completion and payment, whichever occurs first.

4.02 Amendments. The terms of this agreement may be changed only by mutual agreement of the parties. Such changes will be effective only on the execution of written amendment(s) signed by duly authorized officers of the parties to this agreement.

4.03 Watershed Personnel. Judie Anderson, or such other person as may be designated in writing by the Watershed, will serve as the Watershed's representative and will assume primary responsibility for coordinating all services with the Council.

Judie Anderson
Elm Creek Watershed Management Organization c/o JASS, Inc.
3234 Fernbrook Lane
Plymouth, MN 55447

4.04 Council's Contract Manager. The Council's Contract Manager for purposes of administration of this agreement is Brian Johnson, or such other person as may be designated in writing by the Council's Regional Administrator. The Council's Contract Manager will be responsible for coordinating services under this agreement. However, nothing in this agreement will be deemed to authorize the Contract Manager to execute amendments to this agreement on behalf of the Council.

Brian Johnson
Metropolitan Council
2400 Childs Road
St. Paul, MN 55106
651-602-8743

4.05 Equal Employment Opportunity; Affirmative Action. The Council and the Watershed agree to comply with all applicable laws relating to nondiscrimination and affirmative action. In particular, the Council and the Watershed agree not to discriminate against any employee, applicant for employment, or participant in this study because of race, color, creed,

religion, national origin, sex, marital status, status with regard to public assistance, membership or activity in a local commission, disability, sexual orientation, or age; and further agree to take action to assure that applicants and employees are treated equally with respect to all aspects of employment, including rates of pay, selection for training, and other forms of compensation.

4.06 Liability. Each party to this agreement shall be liable for the acts and omissions of itself and its officers, employees, and agents, to the extent authorized by law. Neither party shall be liable for the acts or omissions of the other party or the other party's officers, employees or agents. Nothing in this agreement shall be deemed to be a waiver by either party of any applicable immunities or limits of liability including, without limitation, Minnesota Statutes, sections 3.736 (State Tort Claims) and chapter 466 (Municipal Tort Claims).

4.07 Copyright. No reports or documents produced in whole or in part under this agreement will be the subject of an application for copyright by or on behalf of the Council or Watershed.

4.08 Termination of Agreement. The Council and the Watershed will both have the right to terminate this agreement at any time and for any reason by submitting written notice of the intention to do so to the other party at least thirty (30) days prior to the specified effective date of such termination. In the event of such termination, the Council shall retain a pro-rata portion of the amounts provided for in Article III, based on the number of monitoring events occurring for each lake before termination versus the total monitoring events specified for each lake. The balance of the amounts will be refunded by the Council to the Watershed.

4.09 Force Majeure. The Council and the Watershed agree that the Watershed shall not be liable for any delay or inability to perform this agreement, directly or indirectly caused by, or resulting from, strikes, labor troubles, accidents, fire, flood, breakdowns, war, riot, civil commotion, lack of material, delays of transportation, acts of God or other cause beyond reasonable control of Council and the Watershed.

4.10 Audits. Pursuant to Minn. Stat. Section 16C.05, Subd. 5, the books, records, documents, and accounting procedures and practices of Provider relative to this agreement shall be subject to examination by the Watershed and the State Auditor. Complete and accurate records of the work performed pursuant to this agreement shall be kept by provider for a minimum of six (6) years following termination of this agreement for such auditing purposes. The retention period shall be automatically extended during the course of any administrative or judicial action involving the Watershed regarding matters to which the records are relevant. The retention period shall be automatically extended until the administrative or judicial action is finally completed or until the authorized agent of the Watershed notifies Provider in writing that the records need no longer be kept.

4.11 Relationship of Parties and their Employees. Nothing contained in this agreement is intended, or should be construed, to create the relationship of co-partners or a joint venture between the Council and the Watershed. No tenure or any employment rights including worker's compensation, unemployment insurance, medical care, sick leave, vacation leave, severance pay, retirement, or other benefits available to the employees of one of the parties, including

indemnification for third party personal injury/property damage claims, shall accrue to employees of the other party solely by the fact that an employee performs services under this agreement.

4.12 Severability. If any part of this agreement is rendered void, invalid or unenforceable such rendering shall not affect the remainder of this agreement unless it shall substantially impair the value of the entire agreement with respect to either party. The parties agree to substitute for the invalid provision a valid provision that most closely approximates the intent of the invalid provision.

IN WITNESS WHEREOF, the parties have caused this agreement to be executed by their duly authorized representatives on the dates set forth below. This agreement is effective upon final execution by, and delivery to, both parties.

**ELM CREEK WATERSHED MANAGEMENT
ORGANIZATION**

Date _____

By _____

Name _____

Its _____

METROPOLITAN COUNCIL

Date _____

By _____

Name _____

Water Resources Assistant Manager

EXHIBIT A

Metropolitan Council Environmental Services Laboratory Prices for Additional Analyses		
Parameter	Laboratory Code	Price (per sample)
Nutrients (TP & TKN)	NUT-AHLV	\$15.25
Chlorophyll	CLA-TR-CS	\$15.50
Phosphorus	P-AHLV	\$15.25
Chloride	CL-AV	\$15.75
Ortho-phosphorus	ORTHO-AV	\$15.50
Hardness	HARD-AV	\$7.25
Alkalinity	ALK-AV	\$13.50
Sulfate	SO4-ICV	\$13.50
Metals (Cd, Cr, Cu, Pb, Ni, Zn)	MET-MSV	\$36.00
Individual metal/mineral (e.g. Fe)	XX-MSV	\$6.00 (per element)
A parameter not on this list		Contact the Council's Contract Manager for specific pricing.

U.S. Geological Survey
In Cooperation with
The Elm Creek Watershed Management Commission

Summary of Data Program for 2018 Fiscal Year (October 1, 2017 through September 30, 2018)

The U.S. Geological Survey will operate a streamgage for computation of streamflow, and collect and analyze water-quality samples manually and by automated sampler. Provisional and approved data will be published at http://waterdata.usgs.gov/mn/nwis/nwisman/?site_no=05287890.

Streamflow computation

A streamgage will be maintained and operated. Discharge measurements will be made to define changes to the stage-discharge relation over the range of flows that occur in order to compute an accurate record of streamflow.

Manual samples

Twelve manual samples will be collected using USGS protocols to obtain samples representative of the stream cross section. Samples will be collected approximately monthly to represent the variations in hydrologic conditions that occur during the year. Physical measurements and laboratory analyses of chemicals to be determined are listed in Table 1.

Automatic samples

A refrigerated automatic sampler will be used to collect 8 composited samples of runoff events. Composite samples will be discharge-weighted and collected during increasing or peak streamflow, when many selected concentrations are expected to be greatest. Samples will be analyzed for the same constituents as manual samples (table 1), excluding volatile suspended solids, water temperature, and dissolved oxygen. Automated sampling will focus on spring-snowmelt (after ground frost and sampler line thaw), and on rainfall runoff, when much of the annual load of many constituents are transported. To minimize nutrient degradation, samples will be processed within 48-72 hours of initial sample collection. The rising limb of hydrographs can exceed 72 hours at Elm Creek, so samples from such rises may be split to minimize nutrient degradation. Consequently, 8 samples may be analyzed in less than 8 runoff events. **If there are opportunities to sample more events, additional auto-samples may be authorized by ECWMC with an amended agreement at a cost of \$1,250 per composite sample.** One quality-assurance sample will be collected to assess cleaning techniques or analytical replication. Program costs are shown in Table 2.

Table 1. Laboratory analyses and physical measurements to be determined at Elm Creek near Champlin, MN

Laboratory Analyses	
Nutrients	Chemical oxygen demand
Total phosphorus	Dissolved chloride
Dissolved phosphorus	
Total ammonia plus organic nitrogen	Physical Measurements
Dissolved ammonia nitrogen	Water temperature (excluding auto-samples)
Dissolved nitrite plus nitrate nitrogen	Specific conductance
Total suspended solids	pH
Volatile suspended solids (excluding auto-samples)	Dissolved oxygen (excluding auto-samples)

Table 2. Program for Federal Fiscal Year 2018

Activity	Total Cost	ECWMC Share	USGS Share
Gaging-station operation, maintenance and daily discharge computation	\$16,510	\$8,650	\$7,860
Water-quality sampling and chemical analyses	\$22,290	\$11,780	\$10,510
Extra automated sample collected after FY16 close (Sept. 23-26, 2016)	\$1,230	\$1,230	\$0
TOTAL Fiscal Year 2018	\$40,030	\$21,660	\$18,370

Attachment 1

U.S. Geological Survey

Summary of Data Program for 2019 Fiscal Year (October 1, 2018 through September 30, 2019)

Details for program components for FY2019 are essentially the same as for FY2018 except where noted.

Streamflow computation

Workplan same as FY2018.

Manual samples

Workplan same as FY2018 and Table 1.

Automatic samples

Workplan same as FY2018 and Table 1, except that if **there are opportunities to sample more events, additional auto-samples may be authorized by ECWMC with an amended agreement at a cost of \$1,280 per composite sample**. One quality-assurance sample will be collected to assess cleaning techniques or analytical replication.

Program costs for FY19 are shown in Table 3.

Table 3. Program for Federal Fiscal Year 2018

Activity	Total Cost	ECWMC Share	USGS Share
Gaging-station operation, maintenance and daily discharge computation	\$16,840	\$8,820	\$8,020
Water-quality sampling and chemical analyses	\$22,740	\$12,020	\$10,720
TOTAL Fiscal Year 2019	\$39,580	\$20,840	\$18,740

Summary of Data Program for 2018 - 2019 Fiscal Year (October 1, 2017 through September 30, 2019)

Table 4 summarizes the combined program for both FY 2018 and 2019.

Table 4. Combined Program for Federal Fiscal Years 2018-2019

Activity	Total Cost	ECWMC Share	USGS Share
Gaging-station operation, maintenance and daily discharge computation	\$33,350	\$17,470	\$15,880
Water-quality sampling and chemical analyses	\$44,910	\$23,800	\$21,230
Extra automated sample collected after FY16 close (Sept. 23-26, 2016)	\$1,230	\$1,230	\$0
TOTAL, Fiscal Years 2018-2019	\$79,610	\$42,500	\$37,110

Technical Memo



To: Elm Creek WMO TAC/Commissioners

From: Diane Spector, Wenck Associates, Inc.
Jeff Strom

Date: June 6, 2018

Subject: Rush Creek Headwaters SWA Draft Report and Next Steps

A draft of the Rush Creek Headwaters SWA Report was previously distributed to the TAC for review. We received a few comments and have incorporated them into this second draft, which is posted at <http://www.elmcreekwatershed.org/rush-creek-swa.html>. We've also provided more detail in the final section, including identifying the high priority projects across the Study Area (see attached Tables 2 and 3 and Figure 1). At the June 13, 2018 TAC meeting we will present an overview of the report findings and discuss next steps.

Implementation Strategies

As you move into implementation, there are several potential strategies that could be followed. An important factor will be who will take the lead in implementation efforts.

- Undertake projects as willing landowners approach the Commission or cities.
- Identify areas for intensive outreach.
- Focus on a particular Management Unit and undertaking several BMPs in a given area to make a significant improvement.
- Focus on certain BMPs, for example, really promote ATIs in the Study Area because they are so inexpensive and cost effective, or undertake some wetland restorations because they can achieve significant load reductions.

Funding Options

There are several options for implementation funding. One or more priority actions could be packaged into a Clean Water Fund grant application. That would require a 25% match, which could be assembled from the CIP county capital levy and other funds that might be identified from other sources. The CWF application period will likely be July-August 2018.

Another source of funds might be the new 319 Small Watersheds Focus Program through the MPCA. That agency intends to select about 10 small watersheds across the state to provide four-year grants (eligible to be renewed three more times for up to 16 years) to provide long term, stable funding for implementation. These funds would require a 40% match. The first 10 focus watersheds will be selected in June 2018. The MPCA would need to be notified immediately of your interest. The MPCA has stated that these will be another selection process in 2019.

Another strategy to consider is to work with the County to develop a program to levy a fixed amount per year into a segregated account to create a pool of funds to be used for implementation by willing landowners.

Additional Subwatershed Assessments

We have been told by BWSR staff that 2018 may well be the last year that Accelerated Implementation Grants will be offered as part of the Clean Water Fund grant program. Other areas of the watershed will also benefit from SWAs as well. We are aware that Dayton is interested in a SWA of the Diamond Lake lakeshed. Figure 2 shows a few potential SWAs that could be considered.

Both of these subwatersheds are a little more developed than the Rush Creek Headwaters Study Area, and would require some urban modeling and BMP identification as well as agricultural BMP identification. Our rough cost estimate to complete the Diamond Lake SWA including obtaining lake sediment cores and a fish survey is \$52,000. Our rough cost estimate to complete the South Fork Rush SWA is about \$59,000. AIP grants must be matched 25%, and the Commission's cost share policy for SWAs is that the Commission will contribute 75% and the cities 25%. Table 1 shows those estimated figures.

Table 1. Estimated cost to complete SWAs and potential funding sources.

	Diamond Lake	S Fork Rush
Total Estimated Cost	\$52,000	\$59,000
Grant	41,600	47,200
Commission Match	10,400	11,800
-City Match	2,600	2,950
-Commission Match	7,800	8,850

Next Steps

Following the TAC and Commission meeting we will revise the draft report to incorporate comments. The Commission may wish to host a focus group meeting of people who attended the Open House and expressed an interest in further involvement, potentially inviting other key stakeholders as well.

Table 1. Summary of identified priority practices by Management Unit.

Practice	Parameter	Management Unit					
		Upper Rush Creek	Lake Jubert	Lower Rush Creek	South Tributary	Lake Henry	Tilton's
Alternative Tile Intakes	Count	17	11	15	40	2	5
	Total Const. Cost	\$66,300	\$45,900	\$59,100	\$159,000	\$10,700	\$14,700
	Total P removed	73 lbs/yr	61 lbs/yr	56 lbs/yr	172 lbs/yr	20 lbs/yr	5 lbs/yr
Bioreactors	Count	4	2	3	3	0	1
	Total Const. Cost	\$46,300	\$21,700	\$27,100	\$32,900	--	\$11,000
	Total P removed	19 lbs/yr	10 lbs/yr	7 lbs/yr	10 lbs/yr	--	2 lbs/yr
Grassed Waterways	Count	12	5	11	18	2	3
	Total Const. Cost	\$102,300	\$48,200	\$79,000	\$142,800	\$14,800	\$25,100
	Total P removed	112 lbs/yr	60 lbs/yr	63 lbs/yr	206 lbs/yr	41 lbs/yr	13 lbs/yr
Saturated Buffers	Count	10	1	7	6	1	4
	Total Const. Cost	\$81,900	\$8,000	\$57,800	\$48,200	\$8,400	\$32,700
	Total P removed	40 lbs/yr	3 lbs/yr	22 lbs/yr	17 lbs/yr	5 lbs/yr	6 lbs/yr
Wetland Restorations	Count	18	11	16	43	2	5
	Total Const. Cost	\$962,000	\$828,000	\$974,000	\$3,140,000	\$102,400	\$161,000
	Total P removed	271 lbs/yr	104 lbs/yr	236 lbs/yr	720 lbs/yr	41 lbs/yr	9 lbs/yr

Table 2. Summary of identified priority practices in the Study Area.

Rank	BMP ID	Management Unit	BMP Type	Estimated Benefits			Construction Cost	20-Year Life Cycle Cost	Delivery Potential
				Storage (acre-ft)	TSS (tons/yr)	TP (lbs/yr)			
	Top practices in terms of load reduction (TP)								
1	WR-3	South Tributary	Wetland Rest.	126.8	156.9	202.8	\$713,900	\$867,300	High
2	WR-5	Lower Rush Creek	Wetland Rest.	33.1	117.4	97.1	\$167,900	\$197,900	High
3	GW-15	South Tributary	G. Waterway	0.0	47.4	84.1	\$17,700	\$66,200	Med
4	WR-1	South Tributary	Wetland Rest.	17.8	62.4	80.7	\$70,000	\$74,700	High
5	DP-26	South Tributary	Wetland Rest.	9.7	579.3	77.3	\$101,700	\$110,000	High
6	DP-81	Lower Rush Creek	Wetland Rest.	5.3	219.8	60.9	\$97,000	\$104,800	High
7	DP-61	Upper Rush Creek	Wetland Rest.	4.4	229.5	54.3	\$81,600	\$88,000	Med
8	WR-4	Upper Rush Creek	Wetland Rest.	20.0	46.8	48.5	\$119,800	\$140,200	High
9	DP-58	Upper Rush Creek	Wetland Rest.	6.5	248.6	39.6	\$118,000	\$127,800	Med
10	GW-2	South Tributary	G. Waterway	0.0	20.6	36.6	\$11,100	\$36,800	Low

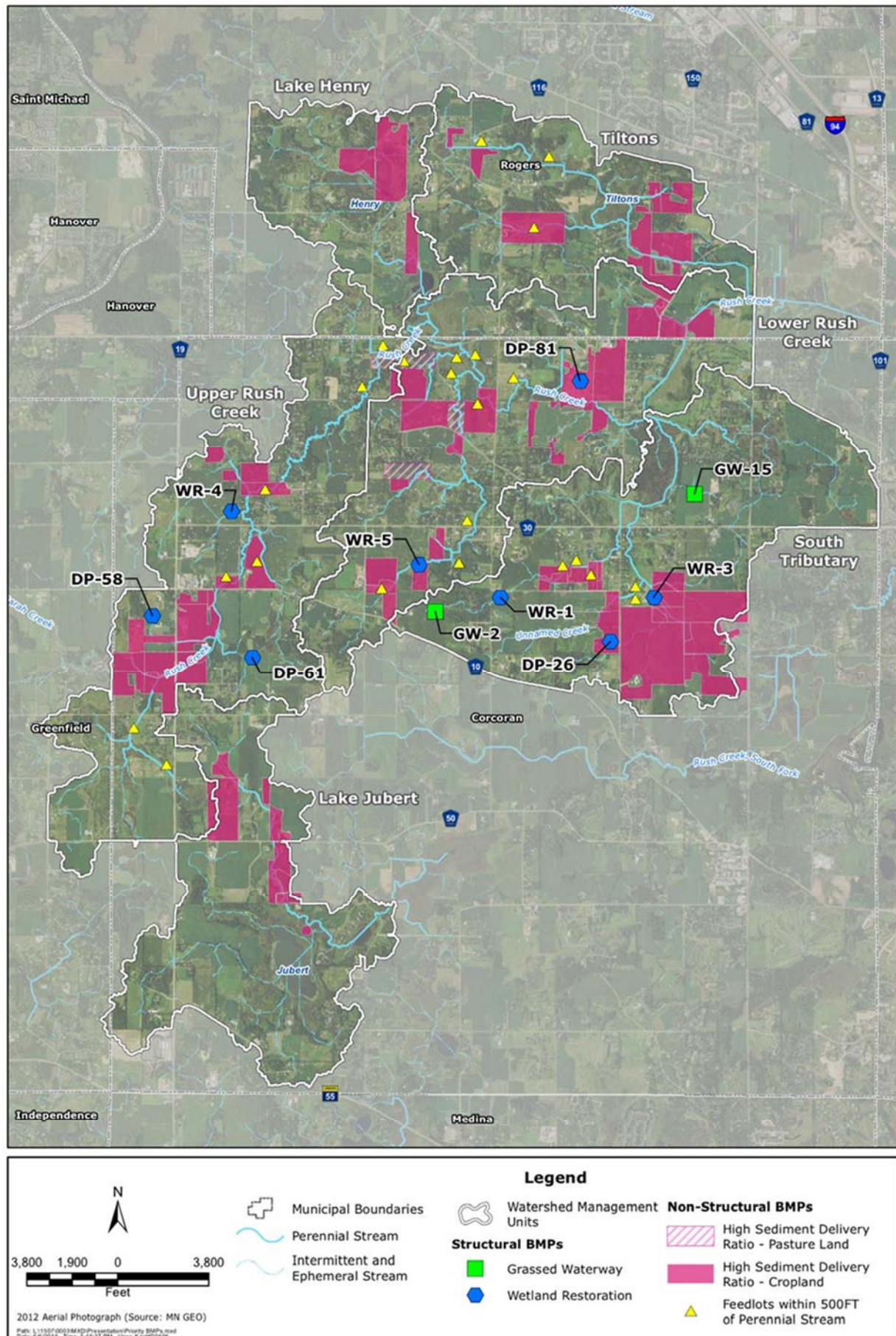


Figure 1. Priority projects and practices in the Study Area.

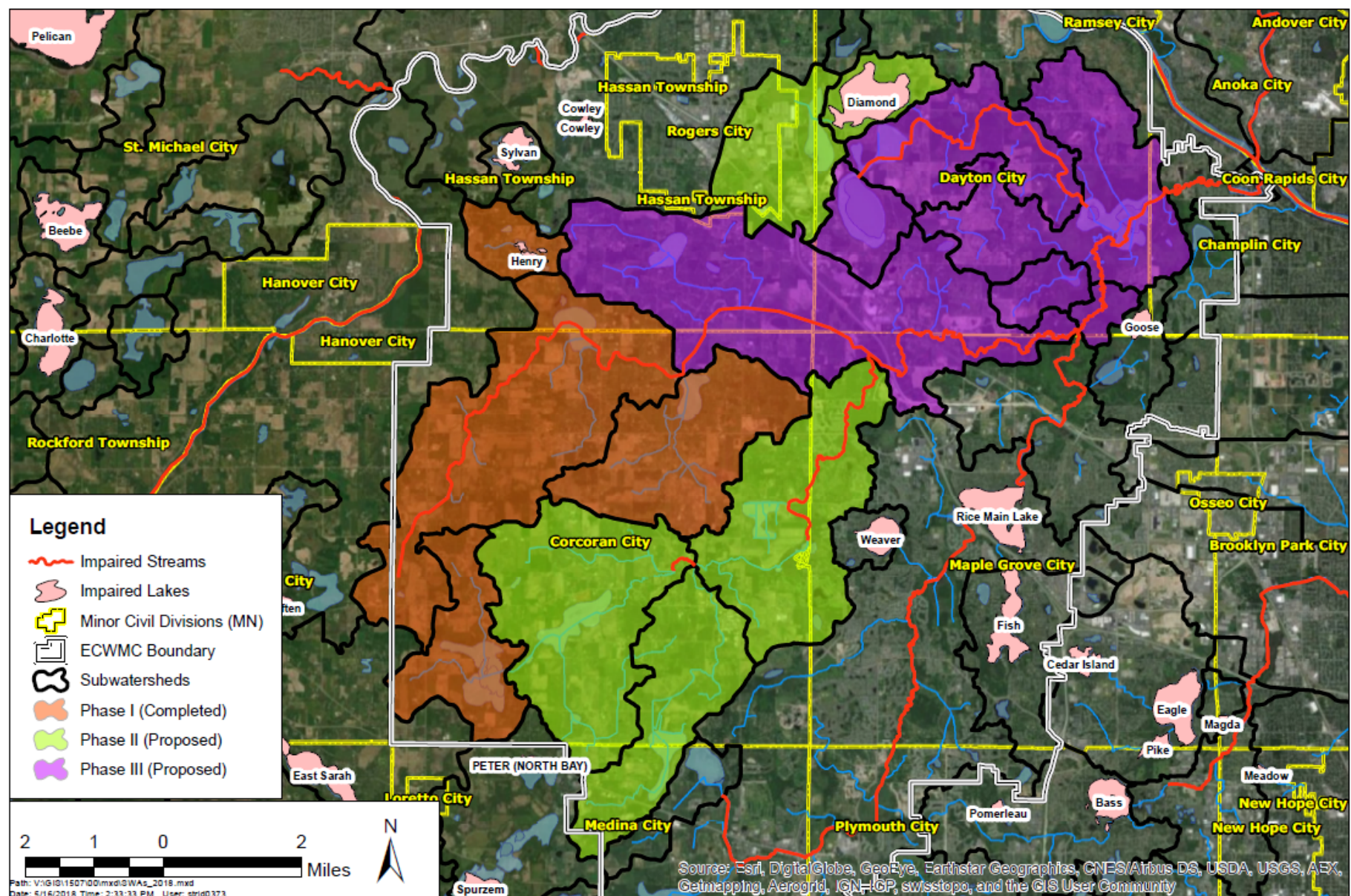


Figure 2. Potential future Subwatershed Assessment areas.