### elm creek Watershed Management Commission

ADMINISTRATIVE OFFICE 3235 Fernbrook Lane Plymouth, MN 55447 PH: 763.553.1144 FAX: 763.553.9326 Email: judie@jass.biz www.elmcreekwatershed.org TECHNICAL OFFICE
Hennepin County
Dept. of Environment and Energy
701 Fourth Ave S Suite 700
Minneapolis, MN 55415-1600
PH: 612.348.7338
FAX: 612.348.8532

Email: James.Kujawa@co.hennepin.mn.us

AGENDA REVISED
Regular Meeting
August 14, 2019

- 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 see Status Report.\*
    - 10.o. 2019-021 Brenly Meadows, Rogers.\*
    - 10.p. 2019-022 Comlink Midwest, Corcoran.\*
  - b. Revised Project Review Fee Schedule.\*
  - c. Diamond Lake SWA.\*
  - d. Call for Public Hearing at September meeting.\*
- **5.** Old Business.
  - FEMA Floodplain Mapping. (See Staff Report.)
  - b. Technical Services recap subcommittee meeting.
- **6.** Communications.
- **7.** Education.
  - a. Road Salt Symposium.\*
  - b. WMWA Update.\*\*
- **8.** Grant Opportunities and Updates.
  - a. North Fork Rush Creek SWA Grant Program. (See Staff Report.)
  - b. Fish Lake Alum Treatment Update.
  - c. Elm Creek Stream Restoration Project.\*
  - d. BWSR Clean Water Fund Competitive Grants.
  - e. Hennepin County Opportunity Grants.\*

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

### 10. Project Reviews. (See Staff Report.\*)

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No.					Project No.	Project Name
ag				AR	2013-046	Woods of Medina, Medina.
ah.				AR	2014-015	Rogers Drive Extension, Rogers.
a.					2015-004	Kinghorn Outlet A, Rogers.
ai.				AR	2015-030	Kiddiegarten Child Care Center, Maple Grove.
aj.				AR	2016-002	The Markets at Rush Creek, Maple Grove.
ak.				AR	2016-005W	Ravinia Wetland Bank Plan, Corcoran.
b.					2016-040	Kinghorn 4 <sup>th</sup> Addition, Rogers.
c.					2016-047	Hy-Vee North, Maple Grove.
al.				AR	2017-014	Laurel Creek, Rogers.
am.				AR	2017-017	Mary Queen of Peace Catholic Church, Rogers.
an.				AR	2017-029	Brayburn Trails, Dayton.
d.					2017-039	Rush Creek Apartments, Maple Grove.
e.					2017-050W	Ernie Mayer Wetland/floodplain violation, Corcoran.
f.					2018-014	Refuge at Rush Creek, Corcoran.
ao.				AR	2018-018	Summers Edge Phase II, Plymouth.
g.					2018-020	North 101 Storage, Rogers.
ар.				AR	2018-026	Windrose, Maple Grove.
aq,				AR	2018-028	Tricare Third Addition, Maple Grove.
h.					2018-038	Vincent Woods of Roger.
ar.				AR	2018-044	OSI Phase II, Medina.
i.					2018-046	Graco, Rogers
as				AR	2018-048	Faithbrook Church Phase 2, Dayton.
j.					2019-001	Fernbrook View Apartments, Maple Grove.
at.					2019-002	Parkside Villas, Champlin.
k.			R		2019+015	Timbers Edge, Plymouth.
I.					2019-016	Rogers Retail Development, Rogers.
m.					2019-018	Peony Lake Trailhead, Plymouth.
n.			R		2019-019	Primrose, Rogers.
0.	Α	E			2019-021	Brenly Meadows, Rogers.
p.	Α	E			2019-022	Comlink Midwest, Corcoran.
q.		E			2019-023	99th Avenue Apartments, Maple Grove.
r.					2019-024	Boston Scientific Weaver Lake Road Building 2 East Addition, Maple Grove.

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

#### **11.** Other Business.

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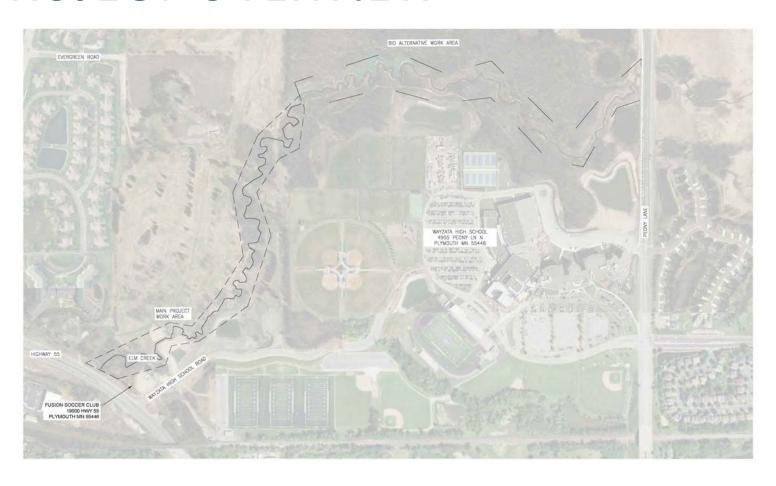


**ELM CREEK RESTORATION** 

Presented by
Ed Matthiesen, PE
Lucius Jonett, PLA
Ben Scharenbroich



# PROJECT OVERVIEW



### WHY – EXISTING PHOTOS



Elm Creek is impaired for excess nutrients.



















### SUMMARY OF PROPOSED PROJECT

### **Goals:**

- 1. Reduce phosphorous and total suspended solids levels as part of the reductions needed to satisfy TMDL requirements.
- 2. Incorporate stream restoration and water quality components that will improve dissolved oxygen and the index of biotic integrity in the likelihood of additional biotic TMDL requirements coming in the near future.
- Approximately 0.8 miles of Elm Creek between Highway 55 and Wayzata High School will be restored and stabilized.

### SUMMARY OF PROPOSED PROJECT

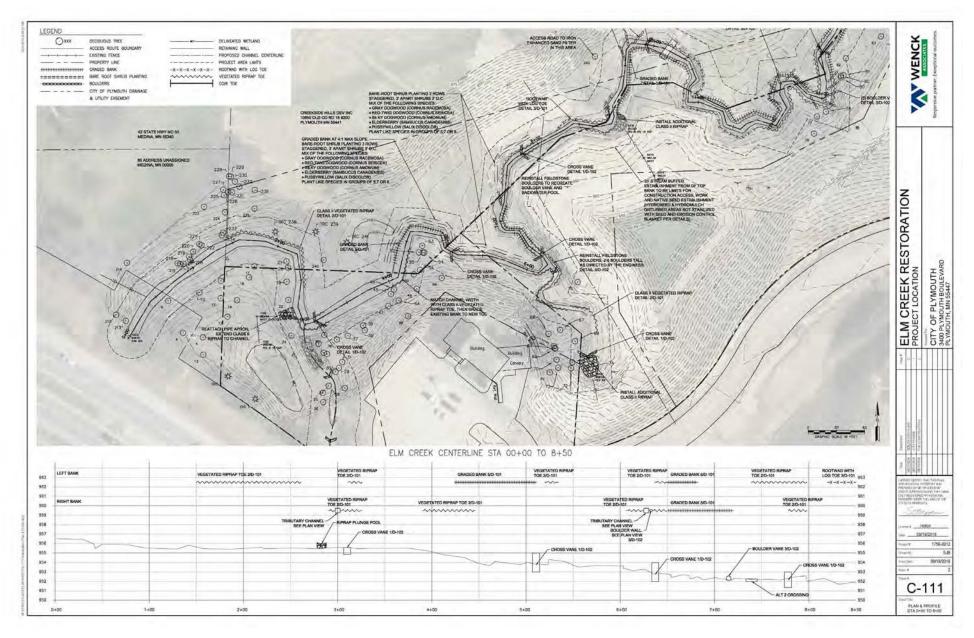
### **Treatments:**

- 1. **Grade Control Structures** install cross vanes with boulders and locally available rock to stabilize the channel grade and provide in-stream habitat and re-aeration.
- 2. **Vegetated Buffer Improvement** implement selective tree thinning in areas to increase grass and forb cover on the streambanks to improve stability.
- **3. Toe Protection** stabilize the outer banks of the naturally meandering stream with vegetative riprap, rootwads and log toes for resistive flow protection to redirect stream flow away from the toe.
- **4. Native floodplain vegetation** in disturbed areas within the 100-year floodplain to improve soil holding capability with deep rooted vegetation.

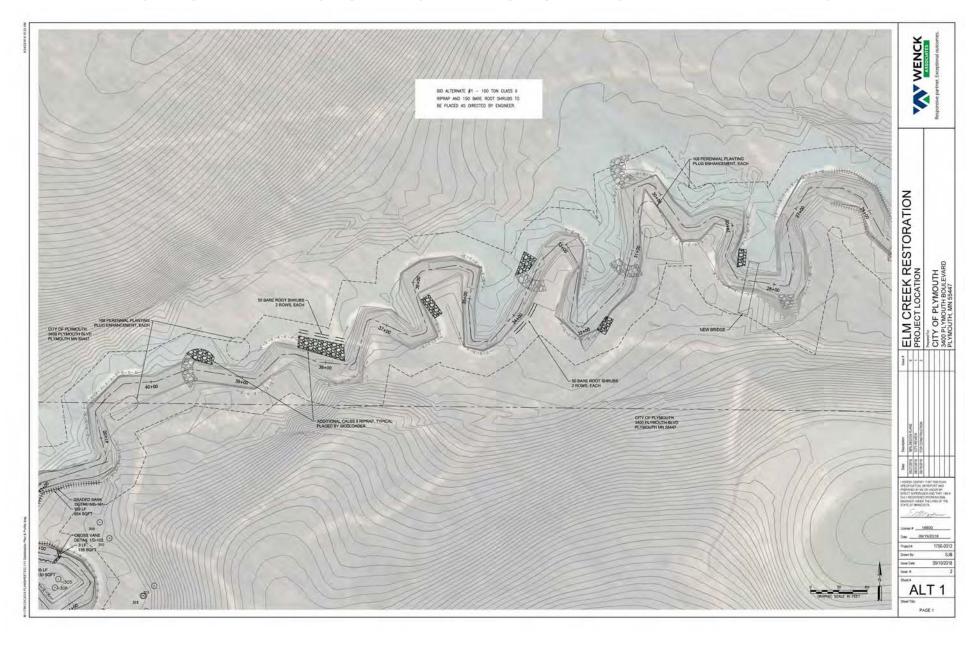
### POLLUTANT REMOVAL ESTIMATES

- Streambank Stabilization
  - TSS: 82 Tons/Year
  - TP: 32 lbs/Year
- Passive Iron Enhanced Filter
  - TP Load of 33 lbs/yr and a removal of about 25 lbs/yr (77% removal efficiency)

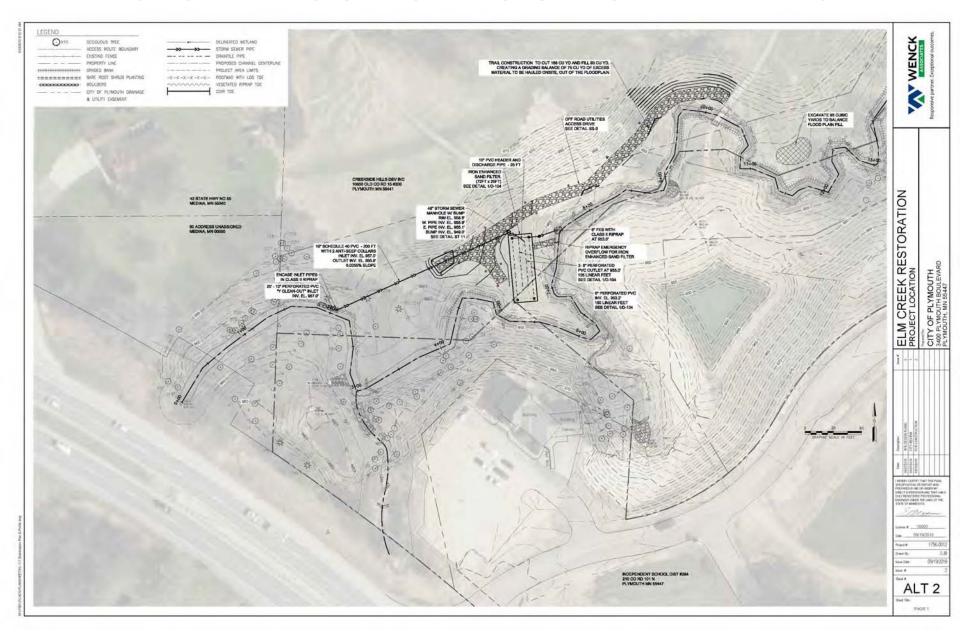
### DESIGN - CONSTRUCTION PLANS



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### DESIGN - CONSTRUCTION PLANS



# WHAT IT LOOKED LIKE DURING CONSTRUCTION





01/08/2019

04/09/2019

### **CONSTRUCTION PHOTOS**





02/19/2019

12/26/2019

### **CONSTRUCTION PHOTOS**





01/08/2019

12/26/2019

# WHAT IT LOOKS LIKE NOW



05/30/2019







05/30/2019

05/30/2019





05/30/2019

06/13/2019





06/25/2019

06/25/2019



08/09/2019





08/09/2019



## REMAINING SCHEDULE

Schedule							
Winter Channel Construction Started	12-14-2018						
Winter Channel Construction Completed	02-27-2019						
Spring Restoration Completed	05-14-2019						
Iron Enhanced Sand Filter Construction Started	06-03-2019						
Iron Enhanced Sand Filter Construction Completed	06-13-2019						
Construction Finished	06-25-2019						
Ongoing Vegetation Establishment & Warranty							
Fall 2019 Walkthrough	October 30, 2019						
Spring 2020 Walkthrough	June 30, 2020						
Fall 2020 Walkthrough	October 30, 2020						
Project Finished	October 30,2020						

### **CONSTRUCTION COST**

### **Pre-Bid Estimate:**

- \$775,000 combined based bid
- \$28,000 Bid Alt. #1 Touchup Downstream Improvements
- \$131,000 Bid Alt. #2 Iron Enhanced Filter
- \$934,000 total

### **Construction Contract (Following Bidding):**

- \$445,362.00 combined based bid
- \$16,187.00 Bid Alt. #1 Touchup Downstream Improvements
- \$90,905.00 Bid Alt. #2 Iron Enhanced Filter
- \$7,593.30 Change Orders
- \$560,047.30 total

### **Actual Spent = \$585,749.32**

# QUESTIONS





Responsive partner. Exceptional outcomes.