



ADMINISTRATIVE OFFICE: 3235 Fernbrook Lane N • Plymouth, MN 55447  
763.553.1144 • Fax: 763.553.9326

July 8, 2020

Representatives  
Pioneer-Sarah Creek Watershed  
Management Commission  
Hennepin County, Minnesota

*The meeting packet for this meeting  
may be found on the Commission's website:*  
[http://www.pioneersarahcreek.org/minutes--  
meeting-packets.html](http://www.pioneersarahcreek.org/minutes--meeting-packets.html)

Dear Representatives:

A regular meeting of the Pioneer-Sarah Creek Watershed Management Commission will be held Thursday, July 16, 2020, at 6:00 p.m. This will be a **virtual** meeting. To join the meeting, click

<https://zoom.us/j/845974640> or go to [www.zoom.us](http://www.zoom.us) and click **Join A Meeting**. Meeting ID is **845 974 640**

If your computer is not equipped with audio capability, dial into one of these numbers:

+1 929 205 6099 US (New York)  
+1 669 900 6833 US (San Jose)  
+1 253 215 8782 US

+1 312 626 6799 US (Chicago)  
+1 346 248 7799 US (Houston)  
+1 301 715 8592 US

In order to ensure a quorum for the regular meeting, please telephone 763.553.1144 or email me at [amy@jass.biz](mailto:amy@jass.biz) to indicate if you or your Alternate will be attending. It is your responsibility to ascertain that your community will be represented at the regular meeting.

Regards,

Amy A. Juntunen  
Administrator

AAJ:tim

cc: Alternates  
Paul Stewart, Kirsten Barta, HCEE  
Brian Vlach, TRPD  
Joel Jamnik, Attorney  
Diane Spector, Wenck Assocs.

Andrew Vistad, Kaci Fisher, Hakanson-Anderson  
City Clerks  
Met Council  
official newspapers  
MPCA  
BWSR  
DNR

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## **REGULAR MEETING AGENDA**

**July 16, 2020 • 6:00 p.m.**

*The meeting packet can be found on the Commission's website:*

<http://pioneersarahcreek.org/pages/Meetings/>

1. Call to Order.
2. Approve Agenda.\*
3. Consent Agenda.
  - a. June meeting minutes.\*
  - b. Monthly Claims/Treasurer's Report.\*
4. Open forum.
5. Action Items.
  - a. Project Review 2020-005 Newstrum House and Barn, Greenfield.\*
  - b. Projects for unspent funds from Baker Park Ravine project.\*\*
6. Old Business.
7. New Business.
8. Watershed Management Plan. *(also see next page.)*
9. Education.
10. Grant Updates.
11. Communications.
  - a. BWSR article re Baker Park Ravine project\*
  - b. Wenck article re Baker Park Ravine project\*
12. Staff Reports.\*
  - a. BWSR Watershed-based Funding.\*
13. Commissioner Reports.
14. Other Business.
15. Adjournment. (Next scheduled meeting: August 20, 2020.)

**Watershed Management Plan – timeline:**

<b>November 13, 2019</b>	<b>Commission 60-day notice of plan kickoff and request for information</b>
<b>November 21, 2019</b>	<b>Award contract</b>
<b>December-January 2020</b>	<b>Compile data, background work</b>
<b>January 16, 2020</b>	<b>Kickoff meeting</b>
<b>Feb-Mar-Apr</b>	<b>Commission, TAC, CAC meetings, Open House</b>
<b>April 16, 2020</b>	<b>Preliminary draft for informal review</b>
<b>May 21, 2020</b>	<b>Review preliminary comments and revise plan</b>
<b>June 18, 2020</b>	<b>Review final draft plan and authorize start of 60 day review</b>
<b>July 20, 2020</b>	<b>Virtual Public Input Session via Zoom</b>
<b>August 21, 2020</b>	<b>Approximate end of 60-day review</b>
<b>Sept 17, 2020</b>	<b>Public Hearing</b>
<b>Sept-Oct-Nov 2020</b>	<b>Agency review and approval</b>

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## Pioneer-Sarah Creek Watershed Management Commission

ADMINISTRATIVE OFFICE: 3235 Fernbrook Lane N • Plymouth, MN 55447  
763.553.1144 • Fax: 763.553.9326 • judie@jass.biz • www.pioneersarahcreek.org

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### REGULAR MEETING MINUTES

June 18, 2020

1. **CALL TO ORDER.** A regular meeting of the Pioneer-Sarah Creek Watershed Management Commission was called to order at 6:05 p.m., Thursday, June 18, 2020, by Chair Joe Baker via online Zoom.

Present: Mark Workcuff, Greenfield; Joe Baker, Independence; Brenda Daniels, Loretto; John Fay, Maple Plain; Pat Wulff, Medina; John Tschumperlin, Minnetrista; Andrew Vistad, Hakanson-Anderson, Brian Vlach, Three Rivers Park District (TRPD); and Amy Juntunen, JASS.

Also Present: Kyal Klawitter, Greenfield; Scott Johnson, Medina; Steve Christopher, Board of Soil and Water Resources (BWSR); Kris Guentzel and Paul Stewart, Hennepin County Environment and Energy (HCEE); and Diane Spector, Wenck Associates.

2. **AGENDA.** Items 5.d. Final Payout Baker Park Ravine, and 10.a. Unspent Funds from Baker Park Ravine Project were added to the agenda. Motion by Tschumperlin, second by Wulff to approve the agenda as amended. *Motion carried unanimously.*

3. **CONSENT AGENDA.** Motion by Fay, second by Wulff to approve the consent agenda as presented. *Motion carried unanimously.*

a. **May Regular Meeting Minutes.\***

b. **June Monthly Claims/Treasurer's Report.\*** Claims total \$12,411.81.

4. **OPEN FORUM.**

5. **ACTION ITEMS.**

a. **Accept 2019 Audit Report.\*** The 2019 audit found no material issues and that the financials as provided by Staff were fairly represented. Motion by Tschumperlin, second by Wulff to accept the 2019 Audit Report as presented. *Motion carried unanimously.*

b. **Project Review 2020-004 Lake Ardmore Fish Barrier, Medina.\*** As presented at last month's meeting, carp migrate from Lake Independence to Lake Ardmore to spawn. A fish barrier will reduce this migration and help control the carp population, which has water quality benefits for both Ardmore and Independence. The design was reviewed for potential flooding to adjacent structures. The plans include riprap and a concrete pad beneath the barrier to allow access for easy cleanout without erosion issues. Staff recommends approval with no conditions. TRPD will monitor the barrier for effectiveness with a pit tag system after installation. Motion by Fay, second by Baker to approve project review 2020-004 as presented. *Motion carried unanimously.*

c. **Letter of Support.\*** Staff has drafted a letter of support for the Crow River One Watershed One Plan grant application. Motion by Workcuff, second by Daniels to approve the letter as written and authorize Staff to send on behalf of the Commission. *Motion carried unanimously.*

d. **Baker Park Ravine Project Final Payout.** The final walk through occurred in May. The project is considered complete with the proven germination of the plantings. Photos and a drone video will be shown at the July meeting. The overall project was completed approximately \$34,000 under budget. The final pay request totals \$27,490.30. Motion by Fay, second by Wulff to approve the final payout request covering retainage and the final invoice. *Motion carried unanimously.*

Greenfield • Independence • Loretto • Maple Plain • Medina • Minnetrista

\*Included in meeting packet.



6. **OLD BUSINESS.**

7. **NEW BUSINESS** (see Staff Report\*).

8. **WATERSHED MANAGEMENT PLAN.**

a. **Plan-Update.\*** Informal comments received from Hennepin County were reviewed. Suggestions included adding a goal statement regarding developing guidance for landowners regarding drain tile, modifying one statement from “exploring development of a cost share policy” to a more firm “develop a cost share policy,” addressing the documented changes in precipitation patterns, and adding an action to review the livestock policy annually to ensure it conforms with current regulations of other agencies. Motion by Wulff, second by Baker directing Staff to incorporate the four proposed changes/additions as noted above. *Motion carried unanimously.*

b. **Initiate 60-Day Review.** Motion by Wulff, second by Daniels directing Staff to initiate the official 60-day review process. *Motion carried unanimously.*

As part of the 60-Day review process, a public input session is usually required. Due to COVID-19, any session would need to be held virtually. Wulff and Baker noted that they will each post the information in newsletters for Lake Independence and Lake Sarah, respectively. Guentzel and Stewart will reach out to the Ag community. Motion by Fay, second by Wulff to direct Staff to implement an online public input session via Zoom between July 20 and August 14. *Motion carried, Baker abstaining.*

*Working Schedule.*

- 1) ~~May 21, 2020 - Review preliminary comments and revise plan~~
- 2) ~~June 18, 2020 - Review final draft plan and authorize start of 60 day review~~
- 3) August 21, 2020 - Approximate end of 60-day review
- 4) Sept 17, 2020 - Public Hearing
- 5) Sept-Oct-Nov 2020 - Agency review and approval
- 6) Dec-Jan 2021 - Commission adoption

9. **EDUCATION.**

10. **GRANT UPDATES.** There is approximately \$34,000 in **grant funding unspent from the Baker Park Ravine project.** Vlach proposed using those funds, at the same 25% match required for the original project, to fund additional projects within the watershed. A list of potential projects was provided. BWSR has stated that they would be amenable to a time extension to the grant, which currently expires December 31, 2020. Motion by Wulff, second by Tschumperlin to direct Staff and partners to develop these potential projects to use the remaining grant funds. *Motion carried unanimously.*

11. **COMMUNICATIONS.**

The **2020 approved budget** and **member assessments\*** were included in the meeting packet for informational purposes.

12. **STAFF REPORT.\***

a. **May Staff Report.\*** A citizen complaint was received regarding the Protolabs parking lot causing more stormwater in the existing pond. Staff, City Staff, and Baker will review the original project review approval.

HCEE Staff are working on two lakeshore restorations on Lake Independence, a failed grassed waterway and a gully erosion issue that is also on the list of potential projects for the unused grant funds mentioned above.

b. **June Staff Report.\***

c. **BWSR Watershed-Based Implementation Funding (WBIF).** The watershed-based funding work

groups for North and South Fork Crow River have requested that each qualifying entity submit a list of projects for review and consideration for potential funding through the program.

Staff reviewed a list of potential projects in both North Fork Crow and South Fork Crow areas and requested Commissioner input on prioritization. All projects are on the CIP except a recent addition, the Shriners project.

In the South Fork Crow region there are seven proposed projects. Commissioners noted the Whaletail alum treatment should be the highest priority since it is one of the Fourth Generation Plan's primary goals. Lake Rebecca's alum treatment is the second highest priority and the Shriners project would also be high priority. The Commission noted that between those three projects, the TAC should decide which project(s) to submit for funding.

In the North Fork Crow region there are three proposed projects – Dance Hall Creek SWA BMPs, JB Gully stabilization/HR 68, and the Hafften-Schendel-Schwappauff Lakes SWA. While Hafften Lake is impaired, it is viewed as a lower priority for projects since the surrounding area is private land. Dance Hall Creek BMPs was rated as the highest priority, HR 68 moderate, and the SWA as lowest priority. Staff will summarize and use this feedback in future WBIF meetings to move projects forward.

**d. Zurah Shrine Horse Facility.\*** Earlier this spring the Commission, in partnership with Hennepin County and TRPD, met with the Zurah Shrine Horsemen regarding wetland flooding issues. Potential projects have been identified, including hydrological restoration options and BMPs, that can provide more predictable pasturing and feeding conditions while also benefiting natural resources. This project will be added to the Fourth Generation Plan CIP and WBIF list.

### 13. COMMISSIONER REPORTS.

**a. Baker** has shot eight carp in Lake Sarah and Lake Sarah Creek so far this year. The Culyleaf Pondweed (CLP) post treatment in Lake Sarah has been completed and shows great success. An evaluation of Eurasian Water Milfoil (EWM) was completed yesterday showing a few pockets of CLP among the EWM, with the good news that more native vegetation is growing. The cost share application for this year is expected to be around the \$8,000 limit.

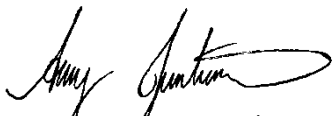
**b. Wulff** noted that the lakeshore restoration at Lakeshore Park is almost complete and looks beautiful although the plantings won't be completed for a few weeks.

### 14. OTHER BUSINESS.

The **next regular meeting** is scheduled for July 16, 2020 and will most likely be held online again via Zoom link <https://zoom.us/j/845974640>.

**15. ADJOURNMENT.** There being no further business, motion by Wulff, second by Fay to adjourn. *Motion carried unanimously.* The meeting was adjourned at 8:59 p.m.

Respectfully submitted,



Amy Juntunen, Recording Secretary  
AAJ:tim

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Pioneer-Sarah Creek Watershed  
Income Statement  
Compared with Budget  
For the Six Months Ending June 30, 2020

	Current Month Actual	Year to Date Actual	Year to Date Budget	Year to Date Variance	2019 YTD
<b>Revenues</b>					
Member Dues	\$ 0.00	\$ 103,800.00	\$ 103,800.00	0.00	\$ 100,000.00
Project Review Fees	300.00	4,100.00	3,000.00	1,100.00	4,050.00
CIP Income	0.00	28,000.00	28,000.00	0.00	28,000.00
Grant-FY19 WS-Based Funding					29,159.00
WCA Adm Fees					150.00
Grant-Baker Park Ravine	0.00	166,400.00	0.00	166,400.00	0.00
Interest and Dividend Income	10.94	2,090.20	4,500.00	(2,409.80)	6,582.59
<b>Total Revenues</b>	<u>310.94</u>	<u>304,390.20</u>	<u>139,300.00</u>	<u>165,090.20</u>	<u>167,941.59</u>
<b>Expenses</b>					
Engineering/Consulting	460.00	3,543.73	23,500.00	19,956.27	5,261.56
Administrative Expense	2,399.83	19,105.62	18,000.00	(1,105.62)	14,558.61
Adm-Project Reviews	98.96	325.71	500.00	174.29	415.84
Adm-CIP Mgmt	0.00	266.92	1,250.00	983.08	158.49
WCA - Admin/Legal Expenses				0.00	32.84
Adm - Tech Support	0.00	0.00	400.00	400.00	
Legal Expense	0.00	31.00	250.00	219.00	46.50
Audit Expense	0.00	0.00	4,500.00	4,500.00	
Insurance	0.00	257.00	260.00	3.00	257.00
Website	253.30	560.91	900.00	339.09	262.35
TAC Meetings	0.00	0.00	2,500.00	2,500.00	
Education	27.30	807.33	2,000.00	1,192.67	556.00
Education-Events	0.00	0.00	500.00	500.00	
Grant Writing	0.00	0.00	500.00	500.00	
Management Plan	5,260.00	24,397.20	20,000.00	(4,397.20)	
Mgmt Plan - Admin	402.69	1,673.66	500.00	(1,173.66)	
Capital Improvement Project	0.00	0.00	14,000.00	14,000.00	
CIP Baker Ravine	31,000.03	342,204.66	0.00	(342,204.66)	636.20
<b>Total Expenses</b>	<u>39,902.11</u>	<u>393,173.74</u>	<u>89,560.00</u>	<u>303,613.74</u>	<u>22,185.39</u>
<b>Net Income</b>	<u>(\$ 39,591.17)</u>	<u>(\$ 88,783.54)</u>	<u>\$ 49,740.00</u>	<u>(138,523.54)</u>	<u>\$ 145,756.20</u>

Pioneer-Sarah Creek Watershed  
Balance Sheet  
June 30, 2020

ASSETS

Current Assets		
Cash-4M Fund	\$	390,671.79
Accounts Receivable		<u>19,820.56</u>
Total Current Assets		410,492.35
Total Other Assets		<u>0.00</u>
Total Assets	\$	<u><u>410,492.35</u></u>

LIABILITIES AND CAPITAL

Total Liabilities		0.00
Capital		
Next Generation Plan Fund	\$	25,000.00
Retained Surplus		278,034.93
CIP Fund		115,505.51
Grant Fund-Baker Ravine		51,576.45
Grant fund - Watershed Based		29,159.00
Net Income		<u>(88,783.54)</u>
Total Capital		<u>410,492.35</u>
Total Liabilities & Capital	\$	<u><u>410,492.35</u></u>

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**Pioneer-Sarah Creek Watershed**  
**Cash Disbursements Journal**  
**For the Period From Jul 1, 2020 to Jul 31, 2020**

Filter Criteria includes: Report order is by Date. Report is printed in Detail Format.

<b>Date</b>	<b>Check #</b>	<b>Account ID</b>	<b>Line Description</b>	<b>Debit Amount</b>	<b>Credit Amount</b>
7/10/20		51100	Administration	1,107.39	
		51100	Meeting related	573.30	
		51100	Bookkeeping / Audit Prep	341.01	
		58210	Management Plan	105.30	
		51400	Website	206.50	
		57000	Education	68.60	
		51120	Project Reviews	48.41	
		10100	Judie Anderson's Secretarial Service		2,450.51
7/10/20		51300	Insurance	2,732.00	
		10100	League of MN Cities Insurance Trust		2,732.00
7/10/20		58200	4th Generation Mgt Plan	3,720.00	
		10100	Wenck Associates, Inc.		3,720.00
<b>Total</b>				<b>8,902.51</b>	<b>8,902.51</b>



CONNECTING & INNOVATING  
SINCE 1913

# Invoice

Page 1 of 3

**Member Name and Address**

Pioneer-Sarah Creek  
Watershed Management  
Commission  
3235 Fernbrook Lane N.  
Plymouth, MN 55447-5325

**Invoice Date**

06/12/2020

**Agent**

Arthur J Gallagher Risk Management Services Inc  
3600 American Blvd W Ste 500  
Bloomington, MN 55431-4502  
(952)358-7500

**Account Number:** 40000782  
**Account Type:** Property/Casualty Coverage Premium  
**Current Balance:** \$ 2,732.00  
**Minimum Due:** \$ 2,732.00  
**Due Date:** 08/01/2020

Summary of activity since last Billing Invoice	Date	Activity	Account Balance	Minimum Due
See reverse side and attachments for additional information		Previous Invoice Balance	2,618.00	
		Payments Received	-.00	
		Total of Transactions and Fees shown on reverse or attached	2,732.00	
		Current Balance	\$ 2,732.00	\$ 2,732.00

Detach and return this Payment Coupon with your payment

Account Number	Invoice Date	Due Date	Current Balance	Minimum Due	Amount Enclosed
40000782	06/12/2020	08/01/2020	\$ 2,732.00	2,732.00	\$ _____

**Member Name** Pioneer-Sarah Creek Watershed Management Commission

**BILLING INVOICE - Return stub with payment - make checks payable to:**

Mail payment  
7 days before  
Due Date to  
ensure timely  
receipt

League of MN Cities Insurance Trust P&C  
c/o Berkley Risk Administrators Company  
222 South Ninth Street, Suite 2700  
P.O. Box 581517  
Minneapolis, MN 55458-1517

**Invoice**

July 2, 2020

Invoice No: 12004168

Amy Juntunen  
Pioneer-Sarah Watershed Management Comm.  
3235 Fernbrook Lane  
Plymouth, MN 55447



Responsive partner.  
Exceptional outcomes.

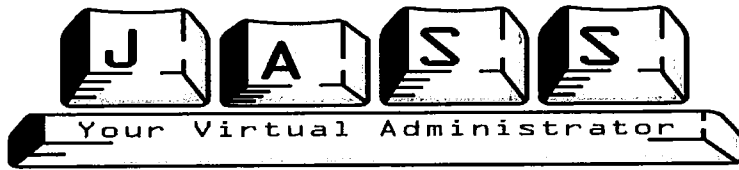
Project Manager Diane Spector

Project B001508-19-008 4th Generation Watershed Management Plan

**Professional Services Through June 30, 2020****Professional Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Spector, Diane	18.60	200.00	3,720.00	
Totals	18.60		3,720.00	
<b>Total Labor</b>				<b>3,720.00</b>
		<b>Total Invoice Amount</b>		<b>\$3,720.00</b>

	<b>Current</b>	<b>Prior</b>	<b>Total</b>
<b>Billing Summary</b>	<b>3,720.00</b>	<b>25,010.70</b>	<b>28,730.70</b>



3235 Fernbrook Lane  
Plymouth MN 55447

Pioneer-Sarah Creek Watershed Management Commission  
3235 Fernbrook Lane Plymouth, MN 55447

July 10, 2020

General Administration					Total Project Area	
Administrative	0.25	60.00	15.000			
Administrative	5.82	65.00	378.300			
Administrative - offsite	1.75	70.00	122.500			
Office Support	7.75	60.00	465.000			
Public storage	1.00	80.08	80.080			
Data Processing/File Mgmt		60.00	0.000			
Archiving		65.00	0.000			
Reimbursable Expense	46.51	1.00	46.510	1,107.390	Administration	
Meeting packets, attendance, Minutes and Meeting follow-up						
Administrative	0.66	60.00	39.600			
Administrative	3.42	65.00	222.300			
Admin - Offsite	3.25	65.00	211.250			
Reimbursable Expense	100.15	1.00	100.150	573.300	Meeting-related activities	
Bookkeeping						
Bookkeeping, budget, audit requests	2.75	65.00	178.750			
Treasurer's Reports	0.67	65.00	43.550			
Audit Prep	1.00	65.00	65.000		Bookkeeping/TRs	
Reimbursable Expense	53.71	1.00	53.710	341.010	Audit Prep	
Management Plan and Amendments						
Administrative		60.00	-			
Administrative	1.33	65.00	86.45			
Offsite		70.00	0.00			
Reimbursable Expense	18.85	1.00	18.85	105.30	Management Plan	
Website						
Weebly hosting - 1 year	44.00	1.00	44.000			
Pages, links, uploads		60.00	0.000			
Administrative	2.50	65.00	162.500	206.500	Website	
Education, Strategic Planning						
Administrative		55.00	0.000			
Administrative		65.00	0.000			
Offsite	0.98	70.00	68.600			
Reimbursable Expense		1.00	0.000	68.600	Education	
Project Reviews						
Administrative		55.00	0.000			
Administrative	0.50	65.00	32.500			
File Management/Archiving		50.00	0.000			
Reimbursable Expense	15.91	1.00	15.910	48.410	Project Reviews	
			2,450.510	2,450.510		



## **2020 Newstrum House & Barn** **Greenfield, Project #2020-00**

**Project Overview:** Stacey Newstrum is proposing to develop a residential lot with a house and horse barn with accompanying pasture area. The residential property is located within the City of Greenfield, and the review was initiated upon their request. The Commission's management plan requires compliance for Erosion Control (Rule E) and Buffer Strips (Rule I).

**Applicant:** Stacey Newstrum, 11035 36<sup>th</sup> Pl N, Plymouth, MN 55411. Phone: 763-370-2879. Email: snewstrum@comcast.net

**Agent/Engineer:** RAM General Contracting, Inc., P.O. Box 660, Winsted, MN 55395. Phone: 320-485-5582. Email: chad@rambuildings.com

### **Exhibits:**

- 1) PSCWMC Request for Plan Review received May 24, 2020.
- 2) Project review fees for project, \$300.00.
- 3) Newstrum Site Plan, dated May 19, 2020

### **Findings:**

- 1) A complete application was received May 24, 2020. The initial 60-day decision period expires on August 24, 2020.
- 2) The applicant proposes to develop a residential lot with a house, horse barn, and horse/livestock pastures.
- 3) The City of Greenfield is the LGU in charge of administering the 1991 Wetland Conservation Act on this site.
  - o No wetlands are proposed to be impacted from this project.

### **Erosion and Sediment Controls (Rule E):**

- 4) Redundant erosion and sediment control BMPs are required for land disturbing activities that occur within or directly adjacent to wetland buffers. Erosion and sediment control devices are required to prevent sediment discharge to adjacent downstream impaired waters.

Land disturbing activities of greater than 1 acre, either individual or part of a larger common plan, require a SWPPP and are required to apply for a NPDES/SDS construction permit.

**Buffer Strips (Rule I):**

- 5) The western edge of the residential lot contains Dance Hall Creek which drains to Lake Sarah. Lake Sarah is currently listed as impaired for nutrients and has a TMDL in place for phosphorus. To control the amount of phosphorus contributed to Dance Hall Creek and Lake Sarah, wetland buffer strips on average shall be 25 feet with a minimum of 10 feet. The Dance Hall Creek Subwatershed Stormwater Retrofit Assessment recommends buffer strips be on average 35 feet.

The applicate shall submit to the member city an executed buffer maintenance plan and agreement for the first two growing seasons following establishment, and provide an escrow or an alternative surety to assure successful vegetation establishment.

- 6) The facility is currently proposing non-production livestock facilities, personal horse boarding. As a result, management of pastures and manure is required. Watershed rules do not allow grazing of wetland buffers. Therefore, exclusionary fencing is required to prevent animals from entering and grazing wetland buffers.
- 7) The applicant will also be required to meet manure management and storage requirements covered by City of Greenfield ordinance 152.071 G for Livestock and Domestic farm animals.

**Recommendation:** Recommend Approval with the following contingencies:

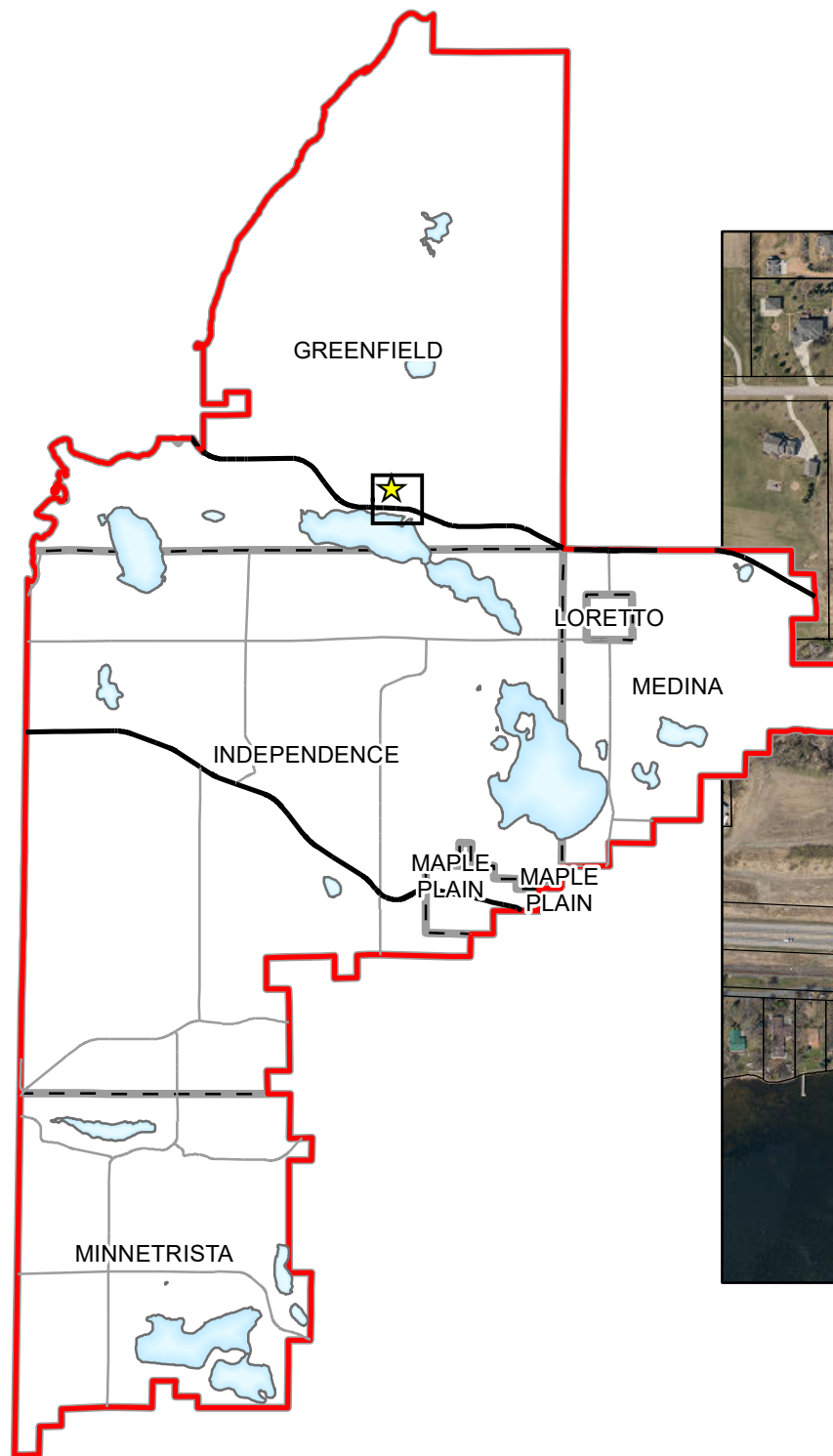
1. A wetland buffer planting and maintenance plan must be provided for areas not in permanent vegetative cover.

Advisor to the Commission



Andrew Vistad, PE

July 9, 2020  
Date









## Pioneer-Sarah Creek Water Management Commission



# Three Rivers' Baker Park ravine work aids Lake Independence water quality



The project taps a \$416,000 Clean Water Fund grant from BWSR.

A project finishing up this spring in Three Rivers Park District's Baker Park Reserve is designed to improve the water quality of Lake Independence. One of Hennepin County's most heavily used lakes, it is impaired for excessive nutrients.

A 2014 subwatershed analysis identified channel erosion in a ravine leading to the lake as a top sediment and phosphorus

contributor. It carried an estimated 277 pounds of phosphorus and 300 tons of sediment — the equivalent of 23 dump truck loads — to Lake Independence annually. Phosphorus feeds the algae that can turn lakes green.

"The lake has always had severe algal blooms," said Brian Vlach, senior water resources manager for Three Rivers Park District.



Baker



Bauerly



Vlach



**Top:** By late May, the re-sloped ravine stabilization in Baker Park Reserve was greening up. Seven species of wildflowers and nine grasses were planted in the dirt covering rock riprap and topped by an erosion control blanket. **Photo Credit:** Wenck Associates  
**Right:** Eric Stay of Minnesota Native Landscapes ran the excavator on Dec. 19, 2019. The project aims to reduce phosphorus-loading to nutrient-impaired Lake Independence by 134 pounds a year at a cost of \$130 per pound. **Photo Credit:** Ann Wessel, BWSR





“The lake is pea-green through portions of the summer due to algal blooms,” Vlach said.

The \$520,000 Pioneer-Sarah Creek Watershed Management Commission ravine stabilization, which came in \$34,000 under budget, will accomplish an estimated 15% of the phosphorus reduction needed to meet Minnesota Pollution Control Agency water-quality standards.

Despite the algae, 832-acre Lake Independence remains a primary attraction in the metro park that saw well over a half-million visitors in 2018. The WMC deemed Lake Independence a high-priority sentinel lake, based partly on its high visibility and recreational use.

“The reduction of phosphorus in Lake Independence will clearly lead towards improved water quality and most notably water clarity,” said

Joe Baker, chairman of the Pioneer-Sarah Creek WMC.

The stabilization is a first step to reduce external phosphorus loading. To accomplish its long-term goal of increasing the lake’s clarity to 8 to 12 feet, the WMC is considering a future alum treatment to address internal phosphorus loading.

Lake Independence attracted more than 27,100 swimmers to the park’s two beaches, launched nearly 15,600 boaters from its public access and drew more than 3,400 anglers to its shore in 2018, the most recent year for which Metropolitan Council data are available.

“It has been a very good fishing lake,” Vlach said. A community of fish houses pops up during the winter. Anglers target crappies in early spring, walleye in the summer, and muskies well into the fall.



*The Minnesota Board of Water and Soil Resources’ mission is to improve and protect Minnesota’s water and soil resources by working in partnership with local organizations and private landowners.*  
**[www.bwsr.state.mn.us](http://www.bwsr.state.mn.us)**

“It’s been a good muskie fishery in the past. There’s some big muskies in there. A lot of people have had success,” Vlach said.

A technical adviser to the WMC, Three Rivers coordinated the project. Minnesota Native Landscapes of Otsego was the contractor. Wenck Associates of Maple

Landscape architect Seth Bossart, left, of Wenck Associates, discussed the Baker Park Reserve ravine stabilization with project foreman Nate Bauerly of Minnesota Native Landscapes. At bottom left is one of the rock grade-control structures installed in the main channel and two tributaries.

**Photo Credit:** Ann Wessel, BWSR

Plain handled project design and construction administration.

Work was made possible by a \$416,000 Clean Water Fund grant from the Minnesota Board of Water and Soil Resources. A \$59,500 Hennepin County Opportunity Grant from the county’s Environment and Energy Department, plus \$44,500 cost-share among the WMC, park district, Lake Independence Citizens Association and the cities of Independence and Medina covered the balance.

“Clean Water Funds by all



means enable a project like this,” Baker said “The cities of Independence, Medina and a small part of Maple Plain as the cities of benefit just really would not have the funds for that. We’ve had great support from BWSR as well as Hennepin County and Three Rivers Park District to ultimately pull the funding together.”

Construction finished in mid-February.

Touch-up seeding is planned in a few spots, and the park district will plant shrubs to discourage people from entering the ravine. But little evidence of construction remained this spring, as native wildflowers and grasses emerged from erosion control blankets covering the dirt-topped structures and re-sloped banks.

“The site looks very good,” Seth Bossert, a landscape architect and project inspector with Wenck, said after a late-May visit. “We had good germination rates of the seed. It was probably 4 to 6 inches tall, so it’s starting to look more emerald-colored.”

Native plants — seven species of wildflowers and nine grasses — were planted in the dirt covering rock riprap and topped by an erosion control blanket. In mid-December, the



*The project will curb how much phosphorus enters Lake Independence by about 15% of the reduction needed to meet Minnesota Pollution Control Agency water-quality standards. Photo Credit: Wenck Associates*

Minnesota Native Landscapes crew was installing riprap and re-sloping the ravine’s banks, moving downstream toward the lake. Newly constructed rock cross-vanes, which serve as grade-control structures, stood out against the snow.

The project was designed so park visitors won’t see a trace of construction.

Originally slated for the previous winter, the 2,200-foot channel stabilization was delayed in order to obtain a U.S. Army Corps of Engineers permit, required because of the project’s scope. Vlach said the delay resulted in more lead time and therefore lower bids.

Pending BWSR approval, the projected surplus could be used to fund smaller

projects within the 7,632-acre watershed. Those might include native plantings in Baker Park rain gardens, Lake Independence shoreline restorations, a carp barrier on the Ardmore Channel or erosion control projects elsewhere in the watershed.

The grant expires in December 2020.

The Hennepin County Environment and Energy Department is developing other cost-share and locally funded projects within the watershed. Department staff provide technical assistance and support to Pioneer-Sarah Creek WMC, operate a grant program, and conduct landowner outreach.

“We want to be able to demonstrate that we

can deliver projects and there’s a lot of interest from landowners in this area,” said Karen Galles, Land and Water Unit supervisor.

This season, staff is developing a project to stabilize and curb ice-related erosion affecting 65 feet of a 400-foot Lake Independence shoreline property. Two more projects affecting Lake Independence could be installed next year.

Conversations with landowners about potential conservation projects continue.

Nearly 500 private landowners’ properties drain directly to Lake Independence or to Lake Ardmore, which are connected by a channel. About half are lakeshore or suburban; half are rural residential or agricultural.

“The two staff added thanks to capacity funds have been the first boots-on-the-ground landowner assistance staff that (Hennepin County) has had in many years,” Galles said of the rural conservationists hired within the past three years.

Three Rivers’ continued water-quality monitoring and a re-evaluation of the TMDL will help to determine where in the watershed to focus next.



**From left:** Bluestem grass was used in the erosion control blanket. After a Dec. 19, 2019, construction meeting, a group from Wenck Associates, contractor Minnesota Native Landscapes, the Pioneer-Sarah Creek Watershed Management Commission, the park district and BWSR toured the site. Devan Maruska of Minnesota Native Landscapes staked an erosion control blanket. The ravine stabilization involved 1,800 feet in the main channel, plus 400 feet in two tributary ravines. Photo Credits: Ann Wessel, BWSR



SUMMER 2020  
**WATERSHED NEWS**

*a Wenck publication*





# WATERSHED NEWS SUMMER 2020

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# STAFF SPOTLIGHT

## ANNA MUNSON, PE



Anna joined Wenck’s water team in December 2019. With over 10 years of experience in municipal wastewater and drinking water and a specialty in biosolids and energy recovery, Anna brings a diverse skillset to Wenck.

After five years living in Seattle and another five working as a stay-at-home mom, Anna now lives in the Twin Cities with her husband and three children. Anna and her family are avid outdoor enthusiasts; last summer the family of five took two canoes up to the Boundary Waters for an unforgettable trip (and unforgettable mosquito bites).

They enjoy a yearly road trip together to a beautiful destination. This year they hope to make it to Acadia National Park in Maine.

Anna is an active committee member of the Water Environment Federation and is a Section Chair for Central States Water Environment Association. She is regularly involved in the American Water Works Association, an organization focused on improving water quality and supply. As Anna continues to expand her work at Wenck, she looks forward to working more with industrial wastewater and municipal drinking water clients.



# TECH HIGHLIGHT

## DAYTON EROSION CONTROL INSPECTION APP

For those that have done erosion and sediment control inspections, you know the drill. Walking the site with your plan set, taking photos and notes as you go. When you get back to the office you download all your photos, go through your marked-up site plan, review your notes, and start writing your report. For those lucky enough to do subdivision developments, you also get to try to identify the exact lot and block number, which are rarely marked on site. Is this Phase 1 Block 2 Lot 14?

Fumble through reporting no more! Wenck has taken on an exciting new project. The Water Resources group has developed an erosion and sediment control inspection application using ESRI’s Survey123 and an ArcGIS online web map. The app uses an inspection form based on the MPCA’s Construction Site General Permit, MPCA site compliance guidance, and years of staff experience. The form incorporates field dependencies so we can create a flexible form that can be used at all kinds of sites and will adjust depending on the inspection type. Customized question requirements and drop-down fields help inspections be consistent across multiple inspectors.

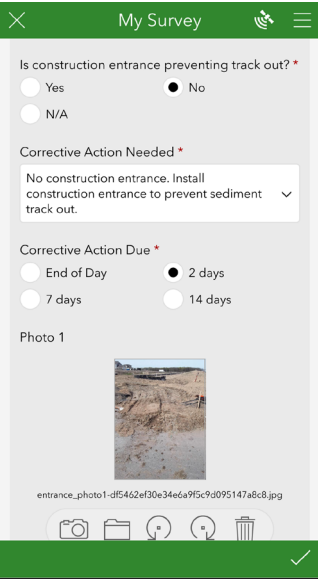
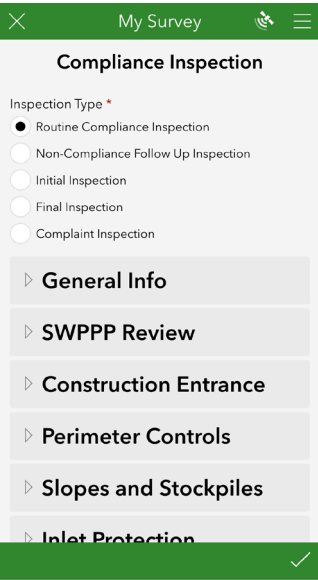
With an ArcGIS online web map, we’ve incorporated georeferenced site plans, so when you are onsite you know exactly where you are. Best of all, with geotagged photos, you can also get an exact location of where your photos are taken.

To bring everything together, we are using ESRI’s feature reports to automate the inspection report process. Now with a push of a button, all your inspection information, comments, and photos are plugged directly into a report template.

When construction season is in full swing, things get busy! The time saved with this new tool will allow you to inspect more sites, have more time for follow up, and spend more time in the field instead of typing up reports.

What’s next? Wenck is developing a workflow to markup site plans directly in the field and automate the incorporation of a marked-up site plans into the report.

Please contact Nico Cantarero at [ncantarero@wenck.com](mailto:ncantarero@wenck.com) for more information





# IN THE WEEDS

## COMO LAKE HERBICIDE TREATMENT

Maintaining the ecological health of lakes in urban areas can be a challenge. Excess nutrients like phosphorus and nitrogen from the surrounding area, and the presence of aquatic invasive species can lead to a lake with turbid water and low plant and animal diversity.

Wenck and Capitol Region Watershed District (CRWD) are working together using a partner-driven, structured adaptive management framework to restore Como Lake to a healthy, diverse, and native plant dominated lake.

Como Lake is an urban, shallow lake located in the CRWD in St. Paul, MN. Excess phosphorus from both internal and external sources contribute to summer algae blooms, and an invasive plant, curly-leaf pondweed, is the dominant species of vegetation in the lake. Curly-leaf pondweed grows in high density and outcompetes native vegetation, reducing habitat for animals and making recreation on the lake difficult.



Wenck's Rena Weis pulls up vegetation from the lake bottom

Wenck and CRWD worked together to develop and implement an aquatic vegetation management plan. As results from these initial management activities trickle in, Wenck will work closely with CRWD to assess their success and adapt management strategies to improve water quality for all to enjoy.

Please contact Joe Bischoff at 763.252.6829 or via email at [jbischoff@wenck.com](mailto:jbischoff@wenck.com) for more information.



Photo courtesy of en.wikipedia.org

The figure below shows the long-term restoration goal for lake vegetation in Como Lake

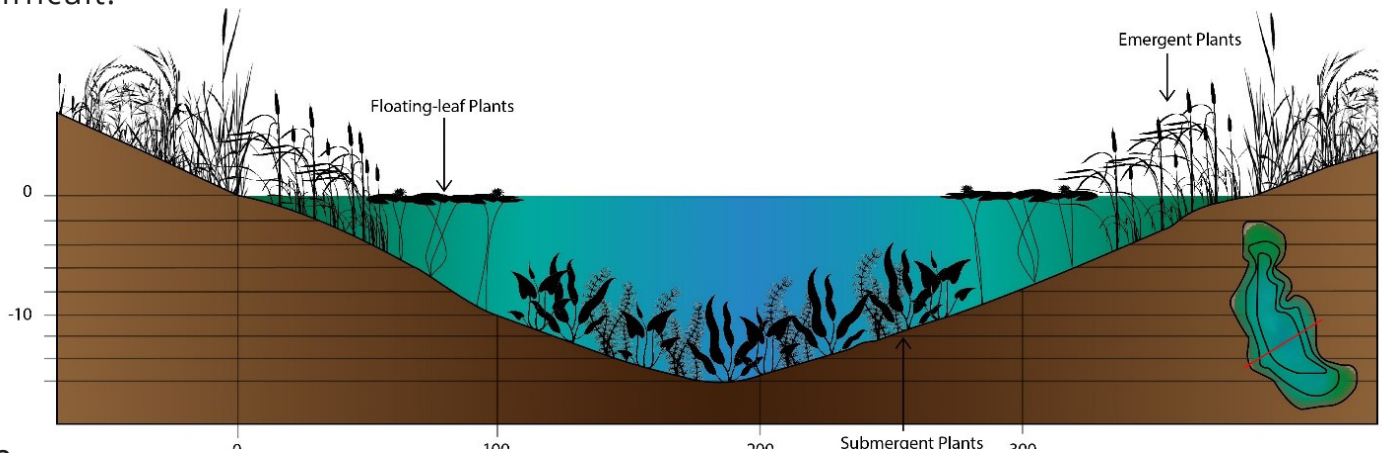


Photo courtesy of <http://www.dinklagefeedyards.com>

Cattle feed yard runoff can pose a threat to water quality and present challenges to companies working to meet regulatory standards because the runoff can carry excess nutrients and bacteria from animal waste. Feed yard runoff can have substantial impacts on nearby surface waters and underlying aquifers. Over the last 15 years, Wenck has partnered with Dinklage Feed in Torrington, Wyoming to address their water quality concerns and permit compliance associated with their cattle feed yard. Wenck has assisted with:

- Groundwater monitoring and sampling
- Runoff containment design
- Permit compliance
- Construction observation

Initial work included developing a design for relining one of Dinklage's large runoff containment ponds and completing a Site Assessment Report to evaluate the water quality for the aquifer underlying the site area. The pond relining included developing a liner design using a bentonite soil mix that will meet the minimum permeability requirements for permit compliance and collecting samples from the constructed liner. Wenck also reviewed groundwater sample data that had been collected over the last 10 years to determine if the feed yard was affecting the aquifer underlying the site area. A summary report was submitted to the Wyoming Department of Environmental Quality Water Quality Division (WQD) detailing the results of the groundwater study and providing recommendations to update and modify the Sampling Analysis Plan (SAP) for the monitoring well network located at the feed yard.

Wenck continues to work with Dinklage Feed yard to observe construction of an expansion area and a new runoff collection pond.

Please contact Marty Jones via email at [mjones@wenck.com](mailto:mjones@wenck.com) for more information.



Spring 2020 - Relining of runoff pond





Credit: Loppet Facebook

Theodore Wirth Regional Park is a recreation hot spot located within the cities of Minneapolis and Golden Valley, Minnesota. Owned and operated by the Minneapolis Park and Recreation Board (MPRB), it provides diverse summertime recreational facilities including multi-use trails, 18-hole and par-3 golf courses, and winter recreation facilities including cross country ski trails and tubing and sledding hills.

To support these year-round activities, a pump house supplies water to the golf irrigation system as well as snowmaking infrastructure operated by the Loppet Foundation during winter months. The existing pump house was installed in the early 1990's and the pumping and electrical equipment was past its original design life.



Old end suction centrifugal pumps

Wenck was hired to design and oversee the construction of the pump house improvements, which updated the aging equipment to provide increased reliability and reduced maintenance needs. The project included the demolition of the old pump skid, electrical service upgrades, installation of a new booster pump station with vertical turbine pumps (which provide increased reliability and efficiency compared to the old end suction centrifugal booster pumps), and addition of a roof hatch to the existing pumphouse for installation, access, and maintenance of the pumps.



Pump house interior post-demo



## THEODORE WIRTH PARK GRAND OPENING CEREMONY

The project required close coordination between multiple stakeholders on the project, including MPRB golf and Loppet staff, to minimize disruption to operations and fit the project timeline within the short transition window between golf and ski seasons.

Please contact Pete Daniels at 763.252.6838 or via email at [pdaniels@wenck.com](mailto:pdaniels@wenck.com) for more information.



Credit: Loppet Facebook



New pump skid fully installed



New vertical turbine pump being installed through the new roof hatch



# GOING UNDERGROUND

## MINNESOTA STORMWATER RESEARCH GRANT

Incorporating stormwater management infrastructure into site design can be a challenge in urban areas where space is limited. Underground sand filters have emerged in the Twin Cities as a solution to this problem because they free up above-ground space, maximizing developable area. Runoff flows through the sand filters before discharging through draintile below. The filter retains particles and other pollutants, cleaning the stormwater as it moves through. When sand filters are effective, they clog with fine particles and require maintenance; however, not much is known about maintenance requirements and effectiveness of underground sand filters that are harder to access than their above-ground counterparts.

As underground sand filters become common practice in the Twin Cities, it's important that engineers, planners, and scientists understand their effectiveness in removing pollutants in stormwater, especially as the infrastructure ages. With a Minnesota Water Resources Center Stormwater Research Grant from the Stormwater Research Council and the Clean Water, Land, and Legacy Amendment, Wenck hopes to answer the questions...

- Are systems being maintained?
- Are systems meeting performance goals?
- What is the expected lifespan of an underground filtration system?
- How often should maintenance be performed?
- Should these systems continue to be considered a viable water quality BMP?



Wenck and our partners will identify underground sand filters for monitoring. Water quality and water level data will be collected from each filter to understand pollutant removal, infiltration capacity, and maintenance requirements of each filter.

Sand filter monitoring will begin this summer with initial results released by the end of 2020.

Please contact Todd Shoemaker via email at [tshoemaker@wenck.com](mailto:tshoemaker@wenck.com) for more information about this project.

This project was supported by the Minnesota Stormwater Research and Technology Transfer Program administered by the University of Minnesota Water Resources Center through an appropriation from the Clean Water Fund established by Minnesota Clean Water Land and Legacy Amendment and from the Minnesota Stormwater Research Council. For more information about the Center and the Council, visit <https://www.wrc.umn.edu/projects/storm-waste-water>

For more information about the Minnesota Clean Water, Land and Legacy Amendment, visit <https://www.legacy.mn.gov/about-funds>



Water Resources Center  
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Pioneer-Sarah Creek Watershed Management Commission (PSCWMC) covers about 70.5 square miles in Hennepin County, Minnesota with the goal to enhance water resources within the watershed. In 2018 PSCWMC partnered with Three Rivers Park District (TRPD) and received a Clean Water Land and Legacy fund grant to stabilize the Baker Park ravine in Maple Plain. Baker Ravine is located on the western side of the TRPD Baker Park campground. Heavy tree canopy around the ravine caused insufficient ground vegetation leading to erosion. Water flowing from the adjacent landscape through the ravine was eroding and depositing sediment into Lake Independence, which is an Impaired Water for excess nutrients.

The Baker Ravine Stabilization project is the first major construction project for PSCWMC. Wenck assisted throughout the project by identifying the original problem, designing a cost-effective solution, administering bidding, and consistent attentive construction oversight. The project came in ten-thousand dollars under budget.

The estimated pollutant removal of the project is 134 pounds of phosphorous annually. Vegetation monitoring for germination will be conducted in 2020 and TRPD will continue to monitor the water quality just upstream of the inlet to Lake Independence into the future.

Please contact Seth Bossert via email at [sbossert@wenck.com](mailto:sbossert@wenck.com) for more information.





# IN THE CLASSROOM

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## UNIVERSITY OF WYOMING - CIVIL ENGINEERING CAPSTONE PROJECT

Dylan Wade and Victor Anderson assisted the UW Civil Engineering department to develop and deliver a capstone design project that closely mirrored a major design project underway at Wenck Associates: Leavitt Reservoir Expansion Project. The students were to design an enlargement of an existing irrigation reservoir and associated infrastructure. The capstone project engaged all disciplines of civil engineering students; geotechnical, structural, transportation, environmental, and hydraulics and hydrology. The students were given actual project data and were asked to develop designs for each project component, which included a wetland mitigation site, supply system, embankment, spillway and outlet works, visitor center, and access roads.



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## MEMORANDUM

**TO:** Pioneer-Sarah Creek Watershed Management Commission  
**FROM:** Andrew Vistad, Hakanson-Anderson  
Paul Stewart, HCEE  
**DATE:** July 9, 2020  
**SUBJECT:** Staff Report

- 1. 2016-05 Proto Labs Parking Lot Expansion, Maple Plain.** The Commission approved this project contingent upon three conditions. One condition remains open - receipt of an Operation and Maintenance agreement on the biofiltration basin per Staff findings dated September 6, 2016. The agreement has been signed but remains to be recorded on the property title.
- 2. 2017-03 Equestrian Facility (Bel Farms) Independence.** This is a 16.5-acre rural residential parcel located approximately 500 feet north of the intersection of CR6 and Nelson Road. The owner is proposing to construct a new garage/apartment, horse stall barn, indoor arena, outdoor arena, six grass and four sand paddocks for horses. Because this project disturbs greater than 1.0 acre and creates 3.1 acres of additional impervious area, it triggers the Commission's review for Rules D and E. Staff provided grading and erosion control approval contingent upon (1) the applicant assuming the risk and responsibility for any changes to the site plans necessary for final Commission approval and (2) the City of Independence approving a grading permit. In September 2017 the Commission approved the Stormwater Management Plan contingent upon receipt of an approved long-term pond/basin O&M plan between the landowner and City, to be recorded on the land title. No new information has been received.
- 3. 2017-05 Ostberg Equestrian Facility, Independence.** This is a 40-acre agriculture parcel located just southwest of the intersections of CSAH 6 and Game Farm Road. The owner is proposing to construct a new home, two garages, a horse stall barn, indoor arena, outdoor ring, eight horse paddocks and an access drive off of CSAH 6. The project will disturb 7 acres during construction and create 1.69 acres of new impervious areas. Because this project disturbs more than 1.0 acre and creates 1.7 acres of additional impervious area, it triggers the Commission's review for Rules D and E. There are also two wetlands that have been delineated on this site, so the Commission wetland buffer requirements (Rule I) are triggered. The project was approved by the Commission at their November 2017 meeting contingent upon receipt of an approved long-term pond/basin O&M plan between the landowner and the City, to be recorded on the land title. This information has not yet been received.
- 4. 2018-010 Chippewa Estates, Loretto.** This is a 1.54-acre parcel located in the far northeast corner of Loretto on Chippewa Road. The project is proposing to subdivide the lot into four single family residential lots and triggers the Commission's review for Rules D and E. At their August 16, 2018 meeting, the Commission approved Staff findings with three conditions regarding the operations and maintenance plan, sequencing, and retrofitting of the pond. The only remaining item necessary for final approval is the Operation and Maintenance agreement on the stormwater system. If the City chooses not to maintain the filter system, the applicant must provide an O&M maintenance plan that is acceptable to the City and the Commission and must be recorded on the title to the property.
- 5. 2018-017 Crow River Overlook, Greenfield.** This is a 42-acre agriculture parcel located on CR 10 just north of 84th Avenue. Approximately 38 acres are east of CR 10 and 4 acres are located west of CR 10 along the Crow River. The applicant proposes to subdivide the property into an 8 large lot residential development. Lot sizes will range from 2.85 acres up to 10.1 acres. One cul-de-sac street will be constructed for access to the lots, with one street platted for future access to the property east of this project. One additional outlot will remain on the west side of CR 10. This project was reviewed for Rules

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RULE D - STORMWATER MANAGEMENT

RULE E - EROSION AND SEDIMENT CONTROL

RULE F - FLOODPLAIN ALTERATION

*Language in red indicates current updates*

\* indicates enclosure

RULE G - WETLAND ALTERATION

RULE H - BRIDGE AND CULVERT CROSSINGS

RULE I - BUFFERS

D, E, F and I. Staff findings of January 16, 2019 were approved by the Commission at their January 17, 2019 meeting. Approval was contingent upon (1) an Operation and Maintenance agreement with city or HOA, (2) planting and seeding plans for the biofiltration basins and buffer areas that fall into the cropland areas that require seeding and (3) typical emergency overflow details noted on the plans. Items 2 and 3 have been completed; Staff are awaiting the O & M agreement.

**6. 2019-03 John Sega 9255 CR 6, Independence.** This is an existing 78-acre parcel located on CR 6 about one-quarter mile east of the county border. The owner is proposing to construct a new indoor riding arena, parking, drive lanes, future hay barn, shed and hot-walker ring. Because this project disturbs greater than 1.0 acres and creates 1.1 acres of additional impervious area, it triggers the Commission's review for Rules D and E. At their August meeting, the Commission approved this project conditioned on receipt of a long-term O & M plan meeting Commission requirements and recorded on the land title with a copy provided to the Commission.

**7. 2019-05 Green Acres East, Greenfield.** This is a six-lot residential subdivision proposed on 34 acres at Schendel Lake Drive and Pioneer Trail. Initial findings found the site plans did not meet the Commission's requirements. An updated wetland replacement plan was received on August 1 and re-noticed per WCA public notice requirements. An updated site plan was received on August 6. In their findings dated September 13, 2019 Staff recommended approval contingent upon (1) an operations and maintenance plan being developed for the infiltration basins and approved by the City of Greenfield and the Commission. The O & M plans must be recorded on the property titles on lots 4, 5 and 6 (unless an HOA will be responsible, then it will be required in the HOA deed documents) and (2) no wetland impacts can occur until (a) wetland replacement credit purchases from BWSR Bank Accounts 1546 and 1542 have been certified by BWSR or (b) a \$21,500 cash or letter of credit escrow is received by the Commission. This plan was originally approved with conditions by the Commission at the September 19, 2019 meeting.

The developer submitted significant site plan changes in October, removing wetland impacts and reducing the number of lots from six to three plus an outlot. An infiltration basin will still be installed on the outlot to mitigate future impervious surface. Because the plan revision is a reduction of the previously approved plan, Staff administratively approved the project contingent on the original requirement, an O&M agreement for the infiltration basin recorded on the property deed or association documents. No wetland impacts can occur from this project and any future wetland impacts will need to be reviewed by the WCA LGU to be approved.

**8. 2019-08 Adams Pest Control, Medina.** Adam's Pest Control is planning to expand their current Medina facility. This property is located on the north side of State Highway 55, just west of Willow Drive. The entire parcel is 46-acres, but only the southern portion (Lot 1-26.6 acres) is being proposed for development at this time. This site plan consists of two new buildings which includes an office building and a warehouse/maintenance building with parking. This project will disturb 10.9 acres and create 4.6 acres of new impervious areas. The Commission's stormwater management plan requires compliance with Rules D, E, F and I. At their November meeting, the Commission approved this project conditioned on an O&M plan for the basins being recorded on the title and provided to the Commission; construction sequencing details for the filter basins meeting Commission requirements; and wetland buffer planting and maintenance plans being provided for areas not in permanent vegetative cover.

**9. 2020-001 Nike Storage Site, Minnetrista.** Park Place Storage is proposing the redevelopment of two existing lots totaling 12.27 acres. The lots are located in Minnetrista along Nike Road west of County Road 92. The proposed site plan consists of six storage unit buildings with paved parking. Commission's stormwater management plan requires compliance with Rules D and E.

10. **2020-002 CSAH 15 Culvert Replacements, Minnetrista.\*** Hennepin County is proposing to replace culverts along CSAH 15 within Minnetrista. The existing CMP culverts would be replaced with RCP pipe. Due to the inlet locations, culvert 6 operates as an overflow for culvert 7 and is unlikely to discharge at full capacity. It is proposed to remove culvert 6. The Commission's stormwater management plan requires compliance with Rules D and E.

11. **2020-003 Ardmore Avenue Culvert Replacement, Medina.** The city of Medina is proposing to replacing the culvert underneath Ardmore Avenue. The existing CMP culvert is to be replaced with a plastic culvert. To match existing hydrology and prevent downstream erosion the grade of the pipe was reduced. The Commission's stormwater management plan requires compliance with Rules D.

12. **2020-004 Lake Ardmore Fish Barrier.** Three Rivers Park District is proposing to build a fish barrier between Lake Ardmore and Lake Independence. The fish barrier will consist of aluminum grating mounted in galvanized steel supports. The purpose of the barrier is to prevent mature carp from spawning in Lake Ardmore. To facilitate easy cleaning a concrete slab is proposed upstream from the barrier. Erosion and scour protection is provided with riprap. The Commission's stormwater management plan requires compliance with Rules D and E.

13. **2020-005 Newstrum House & Barn.\*** The City of Greenfield requested a site review for a proposed residential lot. The lot consists of a house, horse barn, and horse pastures. The lot is located just north of Lake Sarah along Dance Hall Creek. Provided plans do not indicate that enough impervious area will be created to require stormwater management. The site contains 2 wetlands 1 of which will require the buffer strip to be vegetated. The Commission's stormwater management plan requires compliance with Rules E and I.

#### RURAL CONSERVATIONIST UPDATES

**Buffer Law:** Only one parcel remains out of compliance, staff are working with the landowner on getting a whole parcel plan together.

**Landowner Outreach/Cost Share:** *Cost share (all projects in pre-design or design phase and subject to change):*

**4635 Lake Sara Road, Independence:** Design complete for a rock chute to stabilize a drainageway and allow the landowner access across his property. Design under review by Wright Soil and Water Conservation District Agricultural Engineer. KG

**Maple St, Independence (recently purchased, undeveloped property on Lake Independence):** met with landowner and have assessed the property as a good candidate for a lakeshore restoration as there is significant evidence of sediment erosion (primarily by waves) along shore. Recently completed a site survey. NRCS engineer will visit with staff to determine next steps, most likely a winter project for access issues. DNR hydrologist is being brought in for some pre permitting conversations. Design forthcoming but need to consult DNR first. KB/KG

**5375 Pete Drive, Independence:** met with landowner and have assessed the property as a good candidate for a lakeshore restoration as there is significant evidence of sediment erosion along shore. Preliminary design complete and working with DNR on permitting needs. Anticipated late summer/early fall installation. Includes both ice damage repair and native plantings on the shoreline. KB/KG

**Wetlands south of Lake Independence:** survey team is being brought in on a project where the wetlands are connected by a channel that keeps flooding/eroding. Considering basically an engineered swale with pollinator/wetland plants to slow the erosion and benefit wildlife. KB

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RULE D – STORMWATER MANAGEMENT

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RULE I – BUFFERS



**2015 Budd Street Independence:** Cost share installed in 2004 needs to be reevaluated. Landowner reported that water levels and velocity in the past year have caused out-of-bank erosion in rock-armored areas and gully in grass waterway. Site visit was completed on May 1, 2020. Significant channel erosion has occurred in the grass waterway that was installed in 2004. Volume and debris coming down the gully have caused backups at spillway. Flowage changes course during heavy volume events, flowing overland through a farm field. Severe cutting in the grass waterway has resulted in the flow path changing course and now does not empty into the sediment pond. The water velocity has also washed out the rock crossing. Landowner and Hennepin County will be working on a cost-share project for waterway stabilization. We will be seeking resource assistance from the City of Independence, City of Maple Plain (upstream) and PSCWMO. This gully is a main thoroughfare for the drainage of Maple Plain and Northside Park to Pioneer Creek and Mn DNR Public Water 393W. Landowner has expressed concern about drainage work currently happening at the park and its effect on the longevity of the gully stabilization. See photos of unnamed gully and drainage boundary in May Staff Report. PS

**2772 Becker Road Independence:** HR 65 Page 68 in Lake Sarah and Lake Independence Stormwater Retrofit Analysis. Evaluation gully and high water in wetland. Multi landowner involvement to visually inspect private ditch running from Becker Road to Lake Independence. Landowners involved had given verbal authorization for inspection once site visit restrictions are lifted. Site visit was completed on May 1, 2020. Significant erosion to the banks of the unnamed stream, sediment collection in HR 65 wetland. Landowner and Hennepin County will be working on a cost-share project for bank stabilization. We will be seeking resource assistance from the city of Independence and PSCWMO. We have had contact with all landowners surrounding HR 65 except home on Providence Curve and the Providence Homeowners Association. First contact letters will be sent out in June if needed. Upstream from 2772 Becker homeowners will be contacted though a letter (addresses 2815-3050 Becker Road) First contact letters will be sent out in June if needed. See photos of unnamed stream and drainage boundary in May Staff Report. PS

**8590 Co Rd 6 Independence Windsong Farm Golf Club:** Grass waterway project completed and signed off. Hennepin County and Windsong worked together using the State Cost Share program to design and build a grass waterway that directly drains to Fox Lake. See attached photos in May Staff Report. PS

**Unassigned address, Marsh Land Properties LLC PID 2411824320015:** Landowner inquired about Proto Lab parking lot addition storm drainage using stormwater pond on property, who holds the OM and how to get help for erosion. See map erosion areas highlighted in red in May Staff Report. PS

**5590 Lake Sarah Height Dr, Independence: JB Gully, HR67 & HR68 page 69 Lake Sarah and Lake Independence Stormwater Retrofit Analysis.** Site visit on May 1, 2020 to look at road wash-out and unnamed stream (JB gully). Identified that field crossing was cleaned at HR 67 and 68 and opened up flow. Due to site constraints of the unnamed stream restoration, will need more analysis. HR67 and HR68 show potential for restoration and flow control structure. PS

**3045 Lakeshore Ave Medina:** Evaluation for shoreline stabilization. PS

**Zuhrah Shrine Horse Facility.** Earlier this year, Hennepin County (Karen Galles, Paul Stewart and Kristine Maurer), Office of Commissioner Jeff Johnson (Danny Nadeau), Three Rivers Park District (Brian Vlach) and Pioneer Sarah Creek Watershed Commission Chair (Joe Baker) met with Zuhrah Shrine Horsemen Ranch Manager (Steve Pool) and Zuhrah Shrine Horsemen Board Members for a working session to explore solutions to the wetland flooding. The goals are to provide the Zuhrah Shrine Horsemen more predictable pasturing and feeding conditions year-to-year, while also benefitting natural resources. Next steps will be to look at hydrologic restoration options, BMPs for the pasture and a farm management plan. A follow-up meeting where additional information will be presented on wetland banks and other wetland

restoration approaches will be scheduled. The Zuhrah Shrine Horsemen also agreed to work with County staff on getting their wetland complex formally delineated. Restoration Order for wetland violation was completed. Now options listed above can start evaluation.

Project Number	Entity Requesting Funding (Grantee)	Name of Project	Project Description	Water Resource	Grant Funds Requested (\$) *	Non-State Match (\$)	Total Project Costs (\$)	Additional Comments
1	PSCWMC	Shriners BMP Implementation and Regional Hydrologic Restoration	This project will improve hydrologic and nutrient management on the large Shriners property directly upstream of Lake Rebecca. The goals are to provide the Zuhrah Shrine Horsemen more predictable pasturing and feeding conditions year-to-year, while also benefitting natural resources. Proposed BMPs include a hydrologic management structure, waterways, and a denitrifying bioreactor, and a farm management plan.	Lake Rebecca - Currently not impaired but without treatment will be added to 303d list again. Delisted in the	\$112,500	\$37,500	\$150,000	PSCWMC identified priority = High
2	PSCWMC	Whaletail South Alum Treatment	The purpose of the project is to significantly reduce the sediment phosphorus release during anoxic conditions through the application of aluminum sulfate in South Whaletail Lake. The reduction of phosphorus internal loading in South Whaletail Lake will significantly improve the in-lake water quality conditions. The control of internal load in South Whaletail Lake is necessary to achieve the MPCA inlake water quality standards.	Pioneer Creek	\$225,486	\$75,160	\$300,646	PSCWMC identified priority = High
3	PSCWMC	Lake Rebecca Alum Treatment	The purpose of the project is to reduce the sediment phosphorus release during anoxic conditions through the application of aluminum sulfate in Rebecca Lake. The reduction of phosphorus internal loading in Rebecca will be necessary to ensure that the lake continues to meet the MPCA water quality standards. Lake Rebecca had an alum treatment in 2010/2011 to reduce the internal loading of sediment phosphorus release. The overall effectiveness of the alum treatment has been reduced overtime, and a bump treatment will be needed to ensure that	Crow River	\$168,750	\$56,250	\$225,000	PSCWMC identified priority = High/Moderate
4	PSCWMC	Lake Independence Area BMPs	The City of Independence had previously completed a subwatershed assessment for that part of the city that is tributary to Lake Independence. The report identified 64 potential BMPs, including wetland restorations, hydrologic restorations, gully stabilizations, residential rain gardens, grassed waterways, and other practices to reduce phosphorus and sediment loading to the lake. Most of these are on private property. This project is to provide cost share for those practices as willing landowners become available	Lake Independence	\$115,000	\$38,000	\$153,000	PSCWMC identified priority = High/Moderate
5	PSCWMC	CSAH 12/CR92 Supplemental BMPs	Hennepin County and MNDOT are working jointly to improve safety along CSAH12 at its intersection with County Road 92. Stormwater BMPs, specifically two ponds, will be implemented to treat runoff from new impervious surface created with this project. This CIP proposes to install additional BMPs, specifically at least one iron-enhanced sand filter or spent-lime filter, to better treat dissolved phosphorus and other pollutants prior to discharge into Robina Creek. This project only includes BMPs that go above-and-beyond permit requirements.	Pioneer Creek	\$75,000	\$25,000	\$100,000	PSCWMC identified priority = Moderate

6	PSCWMC	Spurzem Area BMPs	Completion of a subwatershed assessment to identify upland and water resource restoration opportunities in areas draining to Spurzem Creek at its outlet to Lake Independence is expected to be completed in 2021. This project would implement the most cost-effective of those practices yet to be identified.	Lake Independence	\$75,000	\$25,000	\$100,000	PSCWMC identified priority = Low
7	PSCWMC	Pioneer Creek @ Pagenkopf Road Carp Barrier	The project is to install a carp barrier on Pioneer Creek at the downstream end of the culvert located at Pagenkopf Road. A carp movement study indicated that fish are moving in large numbers in the spring through Pioneer Creek to access shallow lakes located downstream of Lake Independence to spawn. A barrier would (1) prohibit carp movement from moving back and forth between Lake Independence and the downstream shallow lakes through Pioneer Creek at Pagenkopf, and (2) provide an opportunity to remove carp at the barriers in the spring to reduce overall biomass	Pioneer Creek	\$56,250	\$18,750	\$75,000	PSCWMC identified priority = Low
8	CCWMO	Turf to Native Program	Project will covert 10 acres of turf or crop land to native prairie in the South Fork Crow River Watershed District. 3 project sites have been identified that equals 12 acres of potential native prairie restoration. Costs include construction, establishment, and 3 year maintenance of the site.	South Fork Crow River (AUID 07010205-508) has impaired Aquatic Life, Aquatic	\$60,000	\$10,000	\$70,000	Changes to infiltration rates is based upon "Evaluation of Turf-Grass and Prairie-Vegetated Rain Gardens in a Clay and Sand Soil, Madison, Wisconsin, Water Years 2004-08" (Selbig, William, 2010)
9	Carver County SWCD	Eagle Lake SWA	This project will look at 26 possible sites across the Eagle Lake Lakeshed, with BMPs that include Conservation Tillage, CRP Buffer Strips, Rock Inlet, Grassed Waterways, and Water and Sediment Control Basins.	Eagle Lake (AUID 10-0121-00) has impaired Aquatic Consumption and Aquatic	\$60,000	\$10,000	\$70,000	Eagle Lake 10 year TP average is trending down compared to the overall summer average.
10	CCWMO	Watertown Streambank Restoration Feasibility Study and Top Projects	Complete a feasibility study that identifies areas along the South Fork Crow River through the City of Watertown that are failing, identifies cost benefits, and rank potential projects. Remaining funds will be used to complete the top projects	River (AUID 07010205-508) has impaired Aquatic Life, Aquatic	\$50,000	\$10,000	\$60,000	
11	CCWMO	Stormwater Retorfits in Untreated Urban Areas	The project will target untreated areas in the Cities of Mayer, Watertown, and Norwood Young America that discharge to the South Fork Crow River. Funding will result in a mix of hydrodynamic separators and biofiltration basins that are currently discharging untreated stormwater downstream.	South Fork Crow River (AUID 07010205-508) has impaired Aquatic Life, Aquatic	\$80,000	\$10,000	\$90,000	
12								
13					\$1,077,986			
* Grant funds necessary to implement the project, understanding it may not be possible to receive this full amount through WBIF								