

## VLAWMO TECHNICAL COMMISSION MEETING

**8:00 AM May 8, 2024**

Vadnais Heights City Hall, Council Chambers, 800 County Road E East, Vadnais Heights, MN 55127

Action items: 🗨️

- I. Call to Order – 8:00am – Chair Tessier
- II. Approval of Agenda 🗨️
- III. Approval of Minutes (April 10, 2024) 🗨️
- IV. Administration & Operations
  - A. May Financial Report and Consider Authorization for Payment – Phil 🗨️ p. 9
- V. Projects
  - A. East Vadnais Lake Subwatershed Resiliency Study Report - Lauren p. 17 & 19
  - B. Spent Lime Project Update - Dawn p. 17 & 25
  - C. Tamarack Alum RFQ Update - Dawn p. 17
  - D. Watershed Management Plan April 24 Meeting Update - Dawn p. 17
  - E. Pleasant Lake Carp Removal Update - Dawn p. 18
  - F. Wilkinson Deep-water Wetland Project Update - Dawn p. 18
  - G. Birch Lake: BLID Article Sharing - Dawn p. 18 & 28
- VI. Commissioner Reports
- VII. NOHOA
- VIII. Ramsey Soil & Water Conservation Division
- IX. St. Paul Regional Water Services
- X. Public Comment
- XI. Next meetings: TEC: June 12, 2024, Board Meeting: June 26, 2024
- XII. Adjourn 🗨️

### Upcoming Events: Visit [vlawmo.org/events](https://vlawmo.org/events)

Landscape Revival: Native Plant Expo & Market

June 1

**Vadnais Lake Area Water Management Organization  
Technical Commission (TEC) Minutes  
April 10, 2024  
Vadnais Heights City Hall, Council Chambers  
800 County Road E East, Vadnais Heights, MN 55127**

**Commission Members Present:**

Gloria Tessier	Gem Lake (GL)
Nick Ousky	Vadnais Heights (VH)
Susan Miller	City of North Oaks (NO)
Andy Nelson	City of Lino Lakes (LL)
Jami Philip	White Bear Township (WBT)
Terry Huntrods	City of White Bear Lake (WBL)

**Absent:** None

**Others in attendance:** Phil Belfiori, Brian Corcoran, Lauren Sampedro, Nick Voss (VLAWMO staff), Ed Shapland (CAC), Jeremy Erickson (SPRWS)

**I. Call to Order**

Chair Tessier called the meeting to order at 8:00 am.

**II. Approval of Agenda**

It was moved by Commissioner Philip and seconded by Commissioner Miller to approve the April 10, 2024 TEC agenda.

**III. Approval of Minutes (March 13, 2024)**

It was moved by Commissioner Ousky and seconded by Chair Tessier to approve the March 13<sup>th</sup> meeting minutes as presented.

**IV. Administration & Operations**

**A. Financial Report for April and Authorization for Payment**

Administrator Belfiori outlined the April financial report as included in the packet. Highlights included expenses related to the financial audit, watershed management plan, a Lambert Creek wetland retrofit near Whitaker Pond, spent lime study expenses, Tamarack Lake alum treatment, work with carp removal in Pleasant/Deep Lakes, engineering costs for the East Vadnais Lake Subwatershed Resiliency Study, and various gully repairs.

It was moved by Commissioner Huntrods and seconded by Commissioner Nelson to approve the April Financial Report for payment.

## B. TEC Report to Board

Administrator Belfiori presented highlights contained in the TEC report. WAV volunteer activities are kicking off and a budget subcommittee meeting is scheduled on April 3<sup>rd</sup> with the Board, with budget discussions continuing at the April and June Board meetings. A strategic watershed management plan planning meeting will be on April 24<sup>th</sup>.

It was moved by Commissioner Huntrods and seconded by Commissioner Ousky to approve the April TEC Report to the Board.

## C. Discussion on TEC alternates

Administrator Belfiori asked the TEC to consider if alternate contacts are available if unable to attend a future meeting.

Huntrods inquired about City approval for alternates. Administrator Belfiori confirmed alternates should be approved.

Nelson inquired about finance approvals in lieu of meeting attendance, Administrator Belfiori explained that due to open meeting laws the bill payments and motions must occur within the meeting in-person.

Administrator Belfiori suggested TEC members send alternate contact information by email if available.

## D. Upcoming VLAWMO budget subcommittee meeting

Administrator Belfiori outlined an appointment opportunity for TEC representation at the Board subcommittee. Commissioner Nelson expressed interest to participate.

## V. Programs

### A. 2023 Annual Report and Monitoring Report with summaries

VLAWMO staff provided a summary of the 2023 monitoring report and annual report. Corcoran identified that the monitoring report includes the sampling data summary for each of the 15 lakes that are monitored. He then presented monitoring program highlights that included Pleasant Lake monitoring and the carp removal program. Also highlighted was the spent lime demonstration study including the monitoring of pH and nutrient sampling. He also explained the Tropic State Indexes (TSI) data and chart of VLAWMO Lakes based on 2023 data.

Voss summarized key pages from the 2023 Annual Report including a summary of the cost share program funding. He then provided an overview of the project highlights section of the report. He noted that the 2023 projects and programs summary table and the 2024 workplan

table are the most important for BWSR to review. Voss then presented the 2023 expenditures summary graphic in the report.

Commissioner Nelson noted that these are excellent documents. Chair Tessier thanked staff for their work.

It was moved by Commissioner Ousky and seconded by Commissioner Huntrods to submit the 2023 Annual Report and Monitoring Reports to the VLAWMO Board of directors for approval at the April 24, 2024 Board meeting.

B. CB 2024-01 Vadnais Heights Elementary Raingarden Renovation

Voss summarized the Community Blue application to renovate one of the oldest raingardens in VLAWMO which is located at Vadnais Heights Elementary Raingarden. He noted that the applicant, who is pursuing his Eagle Scout badge through the project, will reestablish some turf in the area of invasive Siberian elm. He then explained that the City has assisted with this renovation work including extending an outlet pipe. Staff recommended approval of the application.

Commissioner Ousky asked about the frequency of Eagle Scout Projects overseen by VLAWMO. Voss identified two other completed Eagle Scout projects in the last 7 years, one other project was completed in the City of White Bear Lake. Voss said this current project is the second within a two-year time span. Voss noted how helpful these important programs are for the watershed and continued success of stormwater BMPs.

It was moved by Commissioner Ousky and seconded by Commissioner Miller to approve CB 2024-01 in the amount of \$1,000.

C. SHG 2024-01 Scherer Pollinator Garden

Sampedro outlined a proposed pollinator garden effort on the applicant's property which drains directly into Lambert Creek. Multiple planting areas are proposed in the project, and this effort is also a continuation of a 2022 Soil Health Grant. The applicant is within the time frame to apply again per the Soil Health Grant policy. Plant selection is focused on native plant species for open woodland, shade, as well as open sun areas.

It was moved by Commissioner Huntrods and seconded by Commissioner Miller to approve SHG 2024-01 in the amount of \$1,086.38.

D. SHG 2024-02 Missaghi Pollinator Garden

Sampedro presented a proposed pollinator garden project located on 6 acres off of Centerville Road, near Vadnais Heights Elementary. The property also drains directly to Lambert Creek. The project involves removing turfgrass, supplementing with compost/soil, and adding native plants. A detailed planting plan for the project includes 2,250 square feet

of planting area. The applicant proposed utilizing sown seeds as well as purchased plants for the project.

It was moved by Commissioner Miller and seconded by Commissioner Ousky to approve SHG 2024-02 in the amount of \$1,250.

E. LL2 2024-02 Elmwood Park Raingarden

Sampedro presented a proposed raingarden project at Elmwood Park, which drains to Lambert Creek. The Lambert Creek TMDL recommends retrofitting parks with large bioretention areas, which is what this project seeks to accomplish. The project would be 4,500 square feet and include a curb cut, rain guardian pretreatment structure, rock swales, and native plants. Sampedro stated staff propose utilizing grant funding from the BWSR Watershed Based Implementation Funding program for this project.

Commissioner Miller inquired about plant watering on the site. Sampedro and Commissioner Ousky confirmed that the contractor installing the raingarden is also on contract for 3 years of maintenance, which will include watering. Outside of the 3-year maintenance contract, the City will utilize a watering truck and/or conduct maintenance as needed.

Commissioner Ousky expressed gratitude to VLAWMO staff for the collaboration and partnership.

It was moved by Commissioner Miller and seconded by Commissioner Huntrods to approve LL2 2024-02 in the amount of \$30,064.05.

## VI. Projects

A. Barr Feasibility Study for Water Reuse at Polar Lakes Park

Corcoran outlined the effort with White Bear Township to reuse stormwater for Polar Lakes Park irrigation. The fields in the park of focus use about 1.6-6 million gallons of water per year. In 2023, the VLAWMO board approved a Landscape Level 2 grant to pilot a smart irrigation system in the park. The proposed reuse system would continue this water conservation strategy. An existing constructed mitigation wetland would be the source of irrigation supplement. The study's findings revealed that the wetland storage can supply up to 2-4 weeks of water, depending on demand and variable water usage in the park. Corcoran outlined the two concept options that the study provides. The concepts are outlined in the powerpoint linked from the TEC Packet, and the powerpoint compares these concept options, with a range of costs, estimated phosphorus removals, and estimated water offset in gallons, among other variables. The effort is within a FEMA floodplain and would require permitting as well as State Wetland Conservation Act permitting among others.

The conclusion is that water reuse is feasible for the irrigation at Polar Lakes Park, with the potential to offset 1.9-4.3 million gallons per year of groundwater for irrigation.

It was moved by Commissioner Ousky and seconded by Commissioner Huntrods to approve to the Board the 3/17/2024 Barr Engineering Polar Park Stormwater Reuse Feasibility Study.

B. Update on East Vadnais Lake Subwatershed Resiliency Study

Sampedro reiterated the study purpose is to reduce flooding, improve water quality, and protect drinking water in the East Vadnais Lake subwatershed. Various potential BMP locations have been selected for consideration through the study, and the study completion is expected by the end of May.

Staff have been working with SRF Consulting Group (“SRF”) and study partners on moving the East Vadnais Lake Subwatershed Resiliency Study forward. Since SRF started working on the study, hydrologic and hydraulic modeling of the subwatershed has been completed. This data was used to create flood inundation maps with potential BMP locations that would provide some flood reduction and improve water quality downstream. SRF completed an initial draft of the study that included these maps and additional maps projecting the potential BMPs’ impact with future storm events, which was reviewed at a stakeholder meeting two weeks ago. VLAWMO and partners provided comments and look forward to receiving the next draft for review.

C. Spent Lime demonstration project update

Administrator Belfiori described the continuation of the spent lime study at Oak Knoll Pond/Wood Lake. Up to 14 applications may be added in 2024 depending on continued monitoring results.

Temporary easement extensions have been received. VLAWMO received 8/10 of the original easements. Barr has communicated the parcels with permission to Erosion Works. Project communication and coordination is ongoing. The water department will be doing regular maintenance during the week of April 22. VLAWMO is waiting for the contractor to provide their earliest available date for an initial spring application.

D. Tamarack Lake alum project update

Administrator Belfiori explained that a Tamarack Lake alum effort may be completed as soon as Fall 2024. Barr Engineering is preparing RFQ documents for authorization at the April Board meeting. The temporary access agreement with Ramsey County Parks/RCSWCD has been completed, signed by Ramsey County, and received by VLAWMO.

E. Birch Lake AIS removal preparation

Administrator Belfiori presented VLAWMO staff are working with partners including MN DNR (permitting), BLID (payment of Dive Guys), Dive Guys (handpulling/reporting), and RCSWCD (pre/post surveys) on the ongoing AIS removal effort in Birch Lake. All partners have been contacted to make sure the project is ready to resume in the spring. The project may need to start early depending upon spring conditions.

Commissioner Huntrods acknowledged and expressed gratitude for Dawn Tanner’s article on Birch Lake in the White Bear Press.

F. Update on Watershed Management Plan Progress and Invite

Administrator Belfiori invited the TEC to participate in the April 24<sup>th</sup> special Initial Planning meeting. Noticing has been completed, and preparation is ongoing for this special Initial meeting.

The 60-day letters received will be presented to the Board at the April special meeting. The 60-day letters were included in the TEC packet for reference.

There was 100% participation from the TEC on the TEC/CAC/Partner survey. Administrator Belfiori thanked TEC members for their participation.

G. Wilkinson Deepwater Wetland Restoration Minor Update

Administrator Belfiori stated eagle monitoring is ongoing. A final pay request is expected this spring/summer from the contractor. Vegetative establishment is the last required step before the project can be closed. Staff continue investigating options for the next round grant project.

H. Pleasant Lake Carp Removal Update

Administrator Belfiori provided an update that the second carp barrier is fully constructed and in operation. A double barrier is being used in 2024 due to the complications of carp learning and eluding the single barrier. The project is ready for removal when the carp migrate. He stated carp have not started moving yet.

Commissioner Miller confirmed that carp were not migrating as of yet.

**VII. Commissioner Reports**

Commissioner Ousky expressed gratitude for VLAWMO’s presence in the SRF resiliency study.

**VIII. NOHOA**

None.

**IX. Ramsey Soil & Water Conservation Division**

None.

**X. St. Paul Regional Water Services**

None.

**XI. Public Comment**

None.

**XII. Next Meetings:**

Next TEC meeting May 8, 2024. Next BOD meeting April 24, 2024.

**XIII. Adjourn**

It was moved by Commissioner Miller and seconded by Commissioner Ousky to adjourn the meeting at 9:07 am. Vote: all aye. Motion passed.

DRAFT



# VLAWMO Finance Summary: May 2024

May-24		Actual 5/1/24	Actual to Date	2024 Budget (June 2023 Board Approved)	Carry over from 2023 to 2024	Remaining in Budget	2024 Available (Dec. 2023 Board approved)	Act vs. Budget
<b>BUDGET #</b>	<b>INCOME</b>							
<b>5.11</b>	Storm Water Utility		\$46,282	\$1,145,431	\$0	\$1,099,149	\$1,145,431	4%
<b>5.12</b>	Service Fees			\$1,000	\$0	\$1,000	\$1,000	0%
<b>5.13</b>	Interest + mitigation acct	\$15,568	\$29,290	\$30,000	\$0	\$710	\$30,000	98%
<b>5.14</b>	Misc. income - WCA admin & other		\$856	\$3,000	\$0	\$2,144	\$3,000	29%
<b>5.15</b>	Other Income Grants/loan		\$5,589	\$365,000	\$0	\$359,411	\$365,000	2%
<b>5.16</b>	Transfer from reserves			\$791,380	\$193,062	\$984,442	\$984,442	0%
	<b>TOTAL</b>	\$15,568	\$82,017	\$2,335,811	\$193,062	\$2,446,856	\$2,528,873	4%
<b>EXPENSES</b>								
<b>3.1</b>	<b>Operations &amp; Administration</b>							
<b>3.110</b>	Office - rent, copies, post tel supplies	\$2,276	\$9,395	\$32,239	\$0	\$22,844	\$32,239	29%
<b>3.120</b>	Information Systems	\$1,571	\$6,284	\$33,850	\$0	\$27,566	\$33,850	19%
<b>3.130</b>	Insurance			\$10,050	\$0	\$10,050	\$10,050	0%
<b>3.141</b>	Consulting - Audit	\$5,471	\$19,646	\$12,000	\$7,000	(\$646)	\$19,000	103%
<b>3.142</b>	Consulting - Bookkeeping	\$70	\$222	\$1,500	\$0	\$1,278	\$1,500	15%
<b>3.143</b>	Consulting - Legal			\$7,000	\$0	\$7,000	\$7,000	0%
<b>3.144</b>	Consulting - Eng. & Tech.	\$1,306	\$3,420	\$30,000	\$20,000	\$46,580	\$50,000	7%
<b>3.150</b>	Storm Sewer Utility	\$8,643	\$9,571	\$22,500	\$0	\$12,929	\$22,500	43%
<b>3.160</b>	Training (staff/board)		\$250	\$14,250	\$0	\$14,000	\$14,250	2%
<b>3.170</b>	Misc. & mileage	\$298	\$714	\$6,930	\$0	\$6,216	\$6,930	10%
<b>3.191</b>	Administration - staff	\$32,421	\$145,385	\$435,554	\$0	\$290,169	\$435,554	33%
<b>3.192</b>	Employer Liability	\$9,889	\$41,932	\$129,869	\$0	\$87,937	\$129,869	32%
<b>3.2</b>	<b>Monitoring and Studies</b>							
<b>3.210</b>	Lake and Creek lab analysis	\$418	\$595	\$18,000	\$0	\$17,405	\$18,000	3%
<b>3.220</b>	Equipment		\$111	\$3,000	\$0	\$2,889	\$3,000	4%
<b>3.230</b>	Wetland assessment & management			\$15,000	\$0	\$15,000	\$15,000	0%
<b>3.240</b>	Watershed planning /special study	\$92	\$18,417	\$100,000	\$15,000	\$96,583	\$115,000	16%
<b>3.3</b>	<b>Education and Outreach</b>							
<b>3.310</b>	Public Education	\$26	\$2,026	\$6,000	\$0	\$3,974	\$6,000	34%
<b>3.320</b>	Comm., Outreach & Marketing	\$665	\$2,367	\$20,000	\$2,000	\$19,633	\$22,000	11%
<b>3.330</b>	Community Blue Ed Grant			\$8,000	\$0	\$8,000	\$8,000	0%
<i>Total Core functions: Ops, Monitoring, Education</i>		\$63,146	\$260,335	\$905,742	\$44,000	\$689,407	\$949,742	27%
<b>Capital Improvement Projects and Programs</b>								
<b>3.4</b>	<b>Subwatershed Activity</b>							
<b>3.410</b>	Gem Lake			\$25,000	\$10,000	\$35,000	\$35,000	
<b>3.420</b>	Lambert Creek	\$4,887	\$7,145	\$90,000	\$0	\$82,855	\$90,000	8%
<b>3.421</b>	Lambert Lake Loan	\$19,284	\$19,284	\$38,569	\$0	\$19,285	\$38,569	50%

3.425	Goose Lake	\$9,000	\$34,356	\$85,000	\$0	\$50,644	\$85,000	40%
3.430	Birch Lake		\$1,150	\$48,000	\$0	\$46,850	\$48,000	2%
3.440	Gilf Black Tam Wilk Amelia	\$3,482	\$40,897	\$345,000	\$60,000	\$364,103	\$405,000	10%
3.450	Pleasant Charley Deep		\$32,220	\$145,000	\$0	\$112,780	\$145,000	22%
3.460	Sucker Vadnais	\$19,156	\$40,359	\$90,000	\$33,000	\$82,641	\$123,000	33%
3.48	<b>Programs</b>							
3.480	Soil Health Grant		\$186	\$10,500	\$4,500	\$14,814	\$15,000	1%
3.481	Landscape 1		\$5,000	\$40,000	\$16,263	\$51,263	\$56,263	9%
3.482	Landscape 2/BWSR WBF	\$3,840	\$5,118	\$60,000	\$25,299	\$80,181	\$85,299	6%
3.483	Project Research & feasibility			\$5,000	\$0	\$5,000	\$5,000	0%
3.485	Facilities Maintenanc/ Pub. Ditch Main.	\$178	\$5,778	\$78,000	\$0	\$72,222	\$78,000	7%
3.5	<b>Regulatory</b>							
3.510	Engineer Plan review			\$5,000	\$0	\$5,000	\$5,000	0%
	<i>Total CIP &amp; Program</i>	\$59,828	\$191,493	\$1,065,069	\$149,062	\$1,022,638	\$1,214,131	16%
	<b>Total of Core Operations &amp; CIP</b>	<b>\$122,974</b>	\$451,828	\$1,970,811	\$193,062	<b>\$1,712,045</b>	\$2,163,873	<b>21%</b>

Fund Balance		4/1/2024	5/1/2024
4M Account		\$660,858	\$858,001
4M Plus Savings		\$243,365	\$244,423
Total		\$904,223	\$1,102,424

Restricted funds		5/1/2024
Mitigation Savings		\$21,024
Term Series		

**Vadnais Lake Area Water Management Organizatic**  
**Profit & Loss**  
**April 11 through May 8, 2024**

10:53 AM

05/01/2024

Cash Basis

**Apr 11 - May 8, 24**

<b>Ordinary Income/Expense</b>	
Income	
5.1 · Income	
5.13 · Interest	15,567.83
<b>Total 5.1 · Income</b>	<b>15,567.83</b>
<b>Total Income</b>	<b>15,567.83</b>
<b>Gross Profit</b>	<b>15,567.83</b>
Expense	
3.1 · Administrative/Operations	
3.110 · Office	
Copies	157.11
Phone/Internet/Machine Overhead	315.00
Postage	38.55
Rent	1,765.00
<b>Total 3.110 · Office</b>	<b>2,275.66</b>
3.120 · Information Systems	
IT Support	1,571.00
<b>Total 3.120 · Information Systems</b>	<b>1,571.00</b>
3.141 · Audit	5,470.50
3.142 · Bookkeeping help	70.43
3.144 · Eng. & Tech.	1,306.00
3.150 · Storm Sewer Utility	8,642.90
3.170 · Misc. & mileage	297.93
3.191 · Employee Payroll	
payroll	32,421.18
<b>Total 3.191 · Employee Payroll</b>	<b>32,421.18</b>
3.192 · Employer Liabilities	
Admin payroll processing	244.33
Administration FICA	2,306.51
Administration PERA	2,431.58
Insurance Benefit	4,906.08
<b>Total 3.192 · Employer Liabilities</b>	<b>9,888.50</b>
<b>Total 3.1 · Administrative/Operations</b>	<b>61,944.10</b>
3.2 · Monitoring and Studies	
3.210 · Lake & Creek lab analysis	418.00
3.240 · Watershed Plan Amendment	92.23
<b>Total 3.2 · Monitoring and Studies</b>	<b>510.23</b>
3.3 · Education and Outreach	
3.310 · Public Education	26.26
3.320 · Marketing	665.23
<b>Total 3.3 · Education and Outreach</b>	<b>691.49</b>
3.4 · Capital Imp. Projects/Programs	

<b>3.420 · Lambert Creek Restoration</b>	
Whitaker Wetlands	4,886.50
<b>Total 3.420 · Lambert Creek Restoration</b>	<u>4,886.50</u>
<b>3.421 · Lambert Lake Loan \$385,689.54</b>	19,284.48
<b>3.425 · Goose Lake</b>	
Oak Knoll	9,000.00
<b>Total 3.425 · Goose Lake</b>	<u>9,000.00</u>
<b>3.440 · Gilfillan Black Tamarack Wilkin</b>	
Wilk 319 cash match \$182,137	463.98
3.440 · Gilfillan Black Tamarack Wilkin - Other	3,017.85
<b>Total 3.440 · Gilfillan Black Tamarack Wilkin</b>	<u>3,481.83</u>
<b>3.460 · Sucker Vadnais</b>	19,156.45
<b>Total 3.4 · Capital Imp. Projects/Programs</b>	<u>55,809.26</u>
<b>3.48 · Programs</b>	
3.482 · Landscape 2	3,840.00
3.485 · Facilities & Maintenance	178.42
<b>Total 3.48 · Programs</b>	<u>4,018.42</u>
<b>Total Expense</b>	<u>122,973.50</u>
<b>Net Ordinary Income</b>	<u>-107,405.67</u>
<b>Net Income</b>	<u><u>-107,405.67</u></u>

**Vadnais Lake Area Water Management Organization**  
**Check Detail**

10:50 AM

05/01/2024

April 11 through May 8, 2024

Type	Num	Date	Name	Item	Account	Paid Amount	Original Amount
Check	eft	04/23/2024	further		Checking - 1987		-6.00
				Insurance Benefit		-6.00	6.00
TOTAL						-6.00	6.00
Check	eft	05/01/2024	US Bank		Checking - 1987		-70.43
				3.142 · Bookkeeping help		-70.43	70.43
TOTAL						-70.43	70.43
Check	5769	05/08/2024	Lauren Sampedro		Checking - 1987		-83.08
				3.170 · Misc. & mileage		-83.08	83.08
TOTAL						-83.08	83.08
Check	5770	05/08/2024	Dawn Tanner		Checking - 1987		-90.45
				3.170 · Misc. & mileage		-90.45	90.45
TOTAL						-90.45	90.45
Check	5771	05/08/2024	Nicholas Voss		Checking - 1987		-36.09
				3.170 · Misc. & mileage		-9.83	9.83
				3.310 · Public Education		-12.19	12.19
				3.310 · Public Education		-14.07	14.07
TOTAL						-36.09	36.09
Check	5772	05/08/2024	Brian Corcoran		Checking - 1987		-114.57
				3.170 · Misc. & mileage		-114.57	114.57
TOTAL						-114.57	114.57
Check	5773	05/08/2024	SRF Consulting Group		Checking - 1987		-20,462.45
				3.460 · Sucker Vadnais		-19,156.45	19,156.45
				3.144 · Eng. & Tech.		-1,306.00	1,306.00
TOTAL						-20,462.45	20,462.45
Check	5774	05/08/2024	Press Publications		Checking - 1987		-92.23
				3.240 · Watershed Plan Amendment		-57.48	57.48
				3.240 · Watershed Plan Amendment		-34.75	34.75
TOTAL						-92.23	92.23
Check	5775	05/08/2024	Ehlers & Associates, Inc.		Checking - 1987		-142.50
				3.150 · Storm Sewer Utility		-142.50	142.50

TOTAL		-142.50	142.50
<b>Check 5776 05/08/2024 Minnesota Pollution Control Agency</b>	<b>Checking - 1987</b>		<b>-19,284.48</b>
	3.421 · Lambert Lake Loan \$385,689.54	-19,284.48	19,284.48
TOTAL		-19,284.48	19,284.48
<b>Check 5777 05/08/2024 CliftonLarsonAllen</b>	<b>Checking - 1987</b>		<b>-5,470.50</b>
	3.141 · Audit	-5,470.50	5,470.50
TOTAL		-5,470.50	5,470.50
<b>Check 5778 05/08/2024 City of Vadnais Heights</b>	<b>Checking - 1987</b>		<b>-2,275.66</b>
	Rent	-1,765.00	1,765.00
	Phone/Internet/Machine Overhead	-315.00	315.00
	Postage	-38.55	38.55
	Copies	-157.11	157.11
TOTAL		-2,275.66	2,275.66
<b>Check 5779 05/08/2024 Metro - Inet</b>	<b>Checking - 1987</b>		<b>-1,571.00</b>
	IT Support	-1,571.00	1,571.00
TOTAL		-1,571.00	1,571.00
<b>Check 5780 05/08/2024 RMB Environmental Laboratories, Inc.</b>	<b>Checking - 1987</b>		<b>-881.98</b>
	3.210 · Lake & Creek lab analysis	-292.60	292.60
	3.210 · Lake & Creek lab analysis	-125.40	125.40
	Wilk 319 cash match \$182,137	-196.46	196.46
	Wilk 319 cash match \$182,137	-267.52	267.52
TOTAL		-881.98	881.98
<b>Check 5781 05/08/2024 Houston Engineering, Inc</b>	<b>Checking - 1987</b>		<b>-4,886.50</b>
	Whitaker Wetlands	-4,886.50	4,886.50
TOTAL		-4,886.50	4,886.50
<b>Check 5782 05/08/2024 Ramsey County</b>	<b>Checking - 1987</b>		<b>-12,340.40</b>
	3.482 · Landscape 2	-3,840.00	3,840.00
	3.150 · Storm Sewer Utility	-4,116.40	4,116.40
	3.150 · Storm Sewer Utility	-4,384.00	4,384.00
TOTAL		-12,340.40	12,340.40
<b>Check 5783 05/08/2024 Barr Engineering Co</b>	<b>Checking - 1987</b>		<b>-3,017.85</b>
	3.440 · Gilfillan Black Tamarack Wilkin	-1,069.35	1,069.35
	3.440 · Gilfillan Black Tamarack Wilkin	-1,948.50	1,948.50
TOTAL		-3,017.85	3,017.85
<b>Check 5784 05/08/2024 Erosion Works</b>	<b>Checking - 1987</b>		<b>-9,000.00</b>

	Oak Knoll	-9,000.00	9,000.00
TOTAL		<u>-9,000.00</u>	<u>9,000.00</u>
	<b>Check 5785 05/08/2024 HDR Engineering, Inc.</b>		
	<b>Checking - 1987</b>		<b>-478.50</b>
	3.320 - Marketing	-478.50	478.50
TOTAL		<u>-478.50</u>	<u>478.50</u>
	<b>Check 5786 05/08/2024 City of White Bear Lake</b>		
	<b>Checking - 1987</b>		<b>-42,303.68</b>
	payroll	-32,421.18	32,421.18
	Administration FICA	-2,306.51	2,306.51
	Administration PERA	-2,431.58	2,431.58
	Insurance Benefit	-4,900.08	4,900.08
	Admin payroll processing	-244.33	244.33
TOTAL		<u>-42,303.68</u>	<u>42,303.68</u>

**Vadnais Lake Area Water Management Organization**  
**Custom Transaction Detail Report**  
**March 1 through May 1, 2024**

10:48 AM

05/01/2024

Accrual Basis

Type	Date	Num	Name	Memo	Account	Clr	Split	Amount	Balance
<b>Mar 1 - May 1, 24</b>									
Credit Card Charge	03/01/2024		Starbucks	coffee for S to S	US Bank CC	√ 3.485	Facilities & Maintenance	48.20	48.20
Credit Card Charge	03/01/2024		Fresh Thyme	ICWC crew snacks	US Bank CC	√ 3.485	Facilities & Maintenance	22.19	70.39
Credit Card Charge	03/01/2024		subway	lunch Corrections crew	US Bank CC	√ 3.485	Facilities & Maintenance	140.07	210.46
Credit Card Charge	03/04/2024		Google*SVCAPPS_VLAWM		US Bank CC	√ WEB		42.00	252.46
Credit Card Charge	03/05/2024		print for change	costshare Brochures	US Bank CC	√ 3.482	Landscape 2	377.50	629.96
Credit Card Charge	03/08/2024		Fresh Thyme	ICWC crew snacks	US Bank CC	√ 3.485	Facilities & Maintenance	12.97	642.93
Credit Card Charge	03/08/2024		subway	lunch Corrections crew	US Bank CC	√ 3.485	Facilities & Maintenance	133.46	776.39
Credit Card Charge	03/08/2024		Starbucks	coffee for S to S	US Bank CC	√ 3.485	Facilities & Maintenance	37.19	813.58
Credit Card Charge	03/08/2024		adobe *photography plan		US Bank CC	√ Software		9.99	823.57
Credit Card Charge	03/13/2024		Aatrix	1095-B efile	US Bank CC	√ 3.142	Bookkeeping help	14.95	838.52
Credit Card Charge	03/19/2024		Aatrix	1095-B efile	US Bank CC	√ 3.142	Bookkeeping help	14.95	853.47
Credit Card Charge	03/19/2024		NAISMA	buckthorn supplies	US Bank CC	√ 3.485	Facilities & Maintenance	104.30	957.77
Credit Card Charge	03/19/2024		Ace Hardware	gloves & bags	US Bank CC	√ 3.485	Facilities & Maintenance	78.94	1,036.71
Credit Card Charge	03/20/2024		Prairie Restorations	plants	US Bank CC	√ 3.485	Facilities & Maintenance	373.66	1,410.37
Transfer	03/20/2024			Funds Transfer	US Bank CC	√ Checking - 1987		-4,738.89	-3,328.52
Credit Card Charge	03/25/2024		Adobe "Creative Cloud		US Bank CC	√ Software		32.50	-3,296.02
Credit Card Charge	04/02/2024		Google*SVCAPPS_VLAWM		US Bank CC	√ WEB		41.99	-3,254.03
Credit Card Charge	04/08/2024		adobe *photography plan		US Bank CC	√ Software		9.99	-3,244.04
Credit Card Charge	04/11/2024		Vista Print	business cards	US Bank CC	3.320	Marketing	36.83	-3,207.21
Credit Card Charge	04/12/2024		Zoom	subscription april24-april25	US Bank CC	3.320	Marketing	149.90	-3,057.31
Credit Card Charge	04/19/2024		Fresh Thyme	ICWC crew snacks	US Bank CC	3.485	Facilities & Maintenance	10.00	-3,047.31
Credit Card Charge	04/19/2024		Starbucks	coffee for S to S	US Bank CC	3.485	Facilities & Maintenance	37.19	-3,010.12
Credit Card Charge	04/19/2024		subway	lunch Corrections crew	US Bank CC	3.485	Facilities & Maintenance	131.23	-2,878.89
								<b>-2,878.89</b>	<b>-2,878.89</b>
<b>Mar 1 - May 1, 24</b>									



## **TEC Staff Memo – May 8, 2024**

### **IV. Administration & Operations**

#### **A. May Financial Report and Consider Authorization for Payment**

Please find the May financial report and authorization to pay bills in the ePacket for consideration and approval.

### **VI. Projects**

#### **A. East Vadnais Lake Subwatershed Resiliency Study Report**

Since the April TEC meeting, a final draft of the East Vadnais Lake Subwatershed Resiliency Study report was completed by SRF Consulting Group (“SRF”) and approved by the study stakeholders. David Filipiak, SRF Project Manager for the study provided a presentation on the report highlights at the April 24<sup>th</sup> Board Meeting, where the VLAWMO Board approved the study.

The completed study is accessible at the following link:

[https://www.vlawmo.org/index.php/download\\_file/4891/](https://www.vlawmo.org/index.php/download_file/4891/)

Lauren will provide some of the highlights from the study and David Filipiak’s presentation at the May 8<sup>th</sup> TEC meeting.

#### **B. Spent Lime Demonstration Project update**

A request for payment was received by VLAWMO and is included in the bill request for May for the 2 spent lime loads applied so far this spring (4/9 and 4/11) prior to the closure of the water plant for routine maintenance. At the time of packet preparation, the water department slaker was back in use on 4/29/24. Spent lime will be available again toward the end of the week, and the contractor plans to start reapplying the following week.

#### **C. Tamarack Lake alum RFQ request update**

Barr Engineering is sending out the approved RFQ to potential contractors at the time of packet preparation.

#### **D. WMP update**

Thank you to TEC members, Susan Miller and Gloria Tessier, for attending the WMP Initiate meeting on April 24, 2024. The meeting was successfully convened by the VLAWMO Board with VLAWMO and HEI staff facilitating. Review authorities were present including State and local representatives from: BWSR, City of WBL, MPCA, MDH, NOHOA/TEC, and RWMWD. Members from the public also attended. Feedback is being incorporated and meeting notes prepared from the comments received during the meeting at the time of packet preparation.

**E. Pleasant Lake carp removal update**

Coordination is ongoing for the spring carp removal between Pleasant and Deep Lakes. At the time of packet preparation, 124 carp have been removed so far in 2024.

**F. Wilkinson Deep-water wetland update**

Eagle nest monitoring is ongoing. There are at least 2 chicks being cared for by the parents in the nest. A final request for payment from the contractor is expected in the coming weeks.

**G. BLID article sharing request**

The Birch Lake AIS removal article that was published in the White Bear Press in April is included in the packet. The article was highlighted by the UMN Minnesota Aquatic Invasive Species Research Center (MAISRC) in their recent e-newsletter. VLAWMO staff request that BLID share the article in their e-newsletter with members.

# V. A. East Vadnais Lake Subwatershed Resiliency Study Report

Lauren Sampedro  
TEC Meeting  
5/8/2024



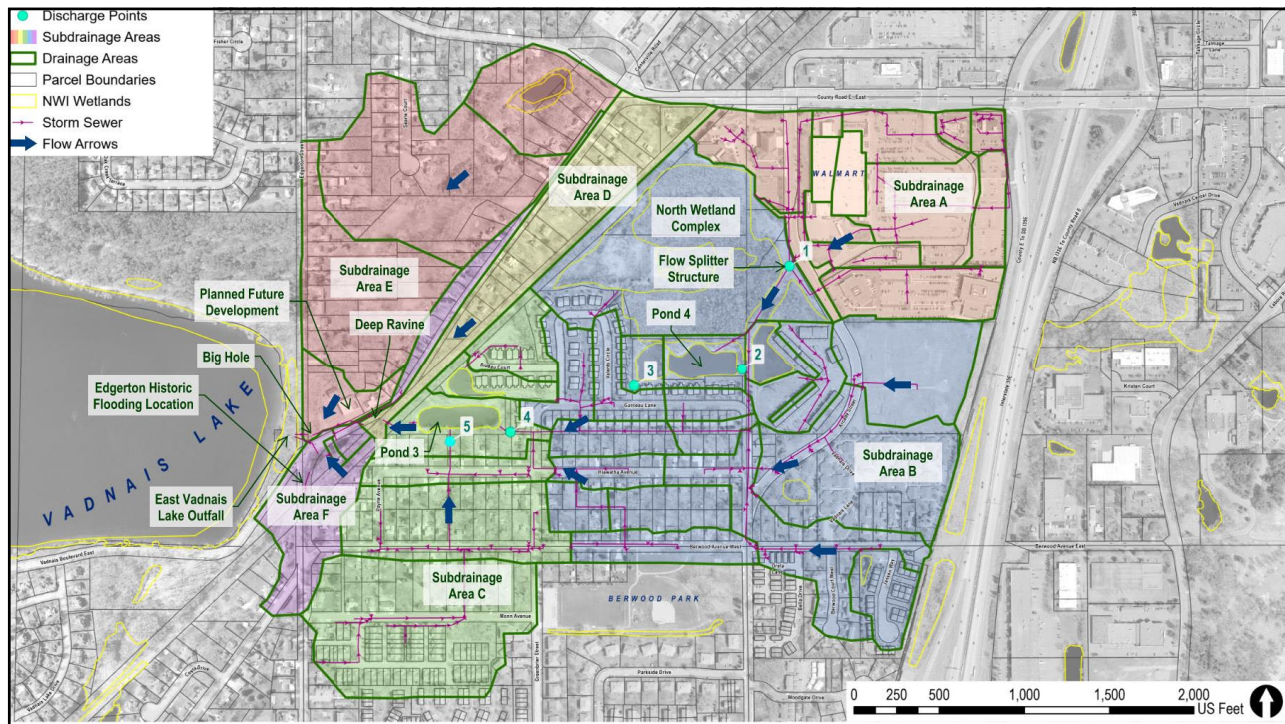
## Study Purpose/ Partner Goals

**The overall goal is to reduce flooding while improving water quality to provide a more resilient stormwater management system.**

- Focus on resilient system to protect property/structures from flood damage for extreme events.
- Reduce street flooding depth and duration, providing more consistent emergency access during flood events.
- Improve water quality to East Vadnais Lake to reduce treatment needs.

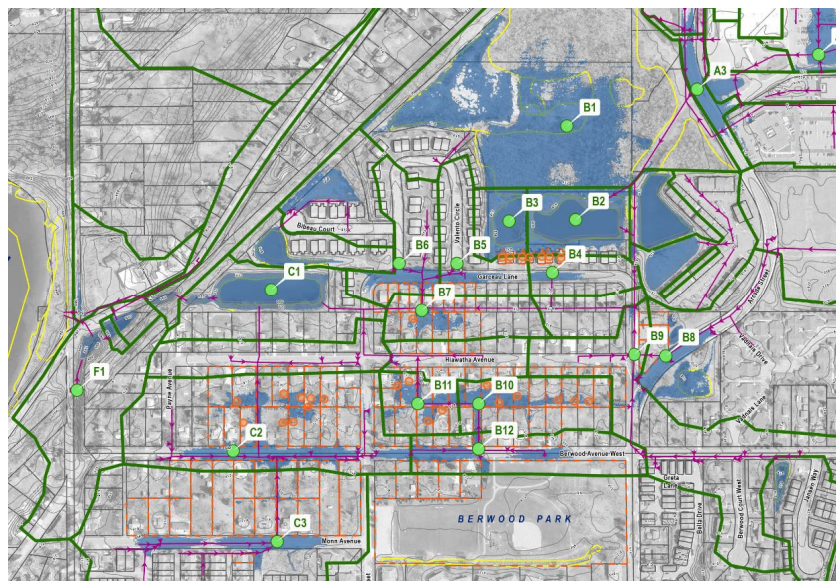






## 100-year Existing Conditions

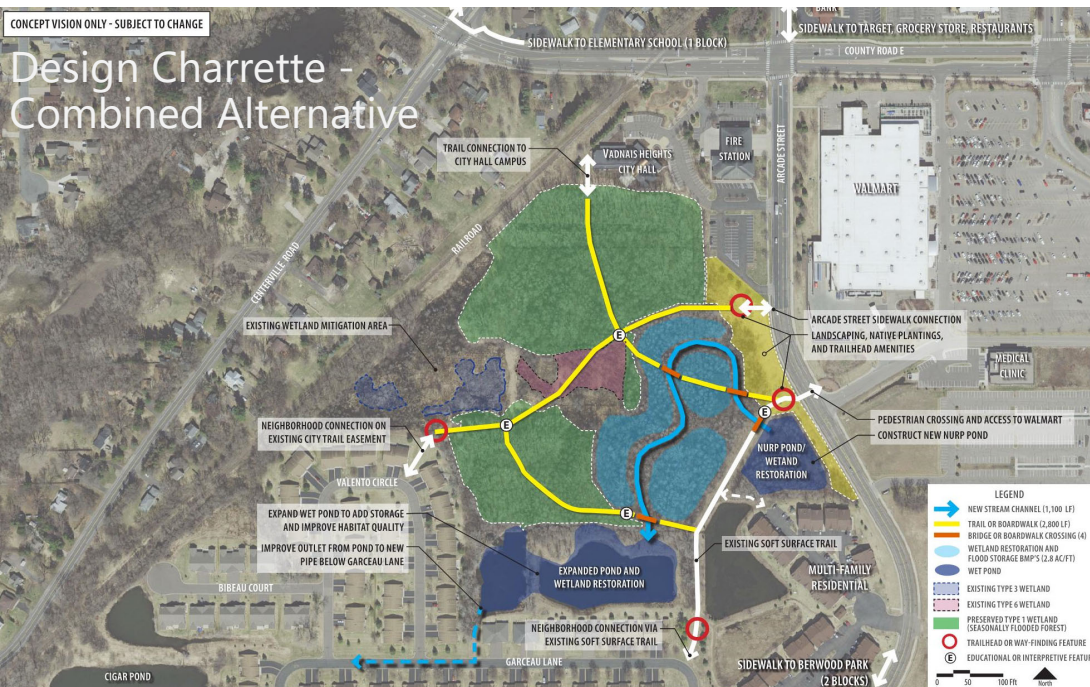
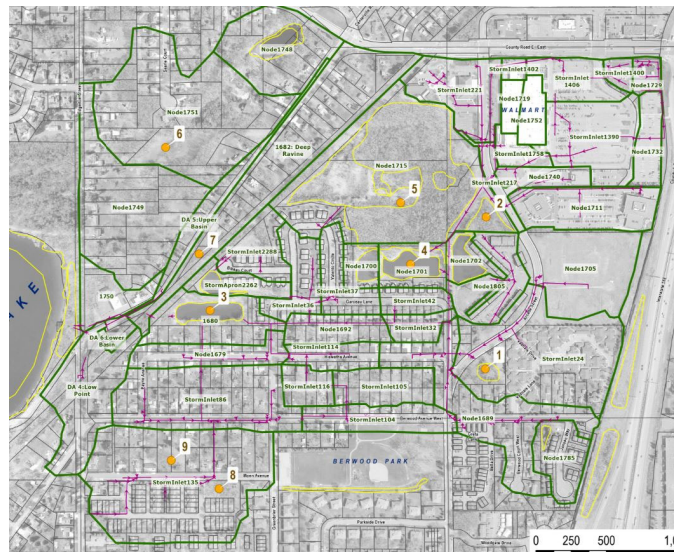
- Significant flooding on Arcade Street near the fire station
- 89 parcels (including 27 insurable structures) in the 100-year floodplain
  - (based on LiDAR data – will require field survey to confirm)



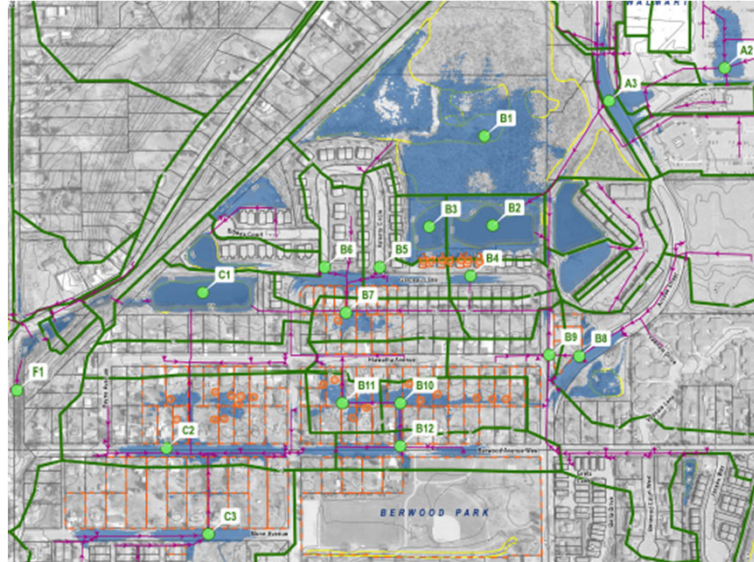


## Alternative BMP Locations/Criteria

- Solve a Flooding Problem
- Water Quality Improvements
- Ecological Benefits
- Constructability
- Property Ownership
- Utility Impacts
- Construction Detours/Road Shutdowns
- Triggers Permitting Requirements



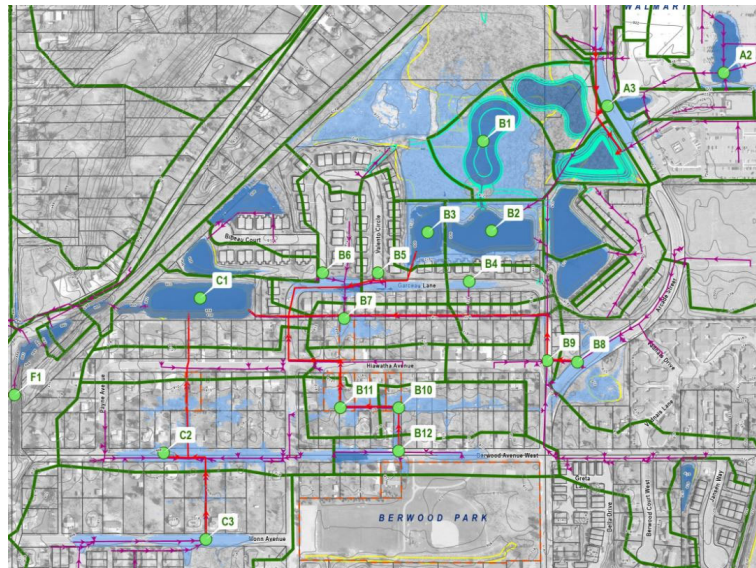
## 100-yr Inundation Map – Existing Conditions



SRF

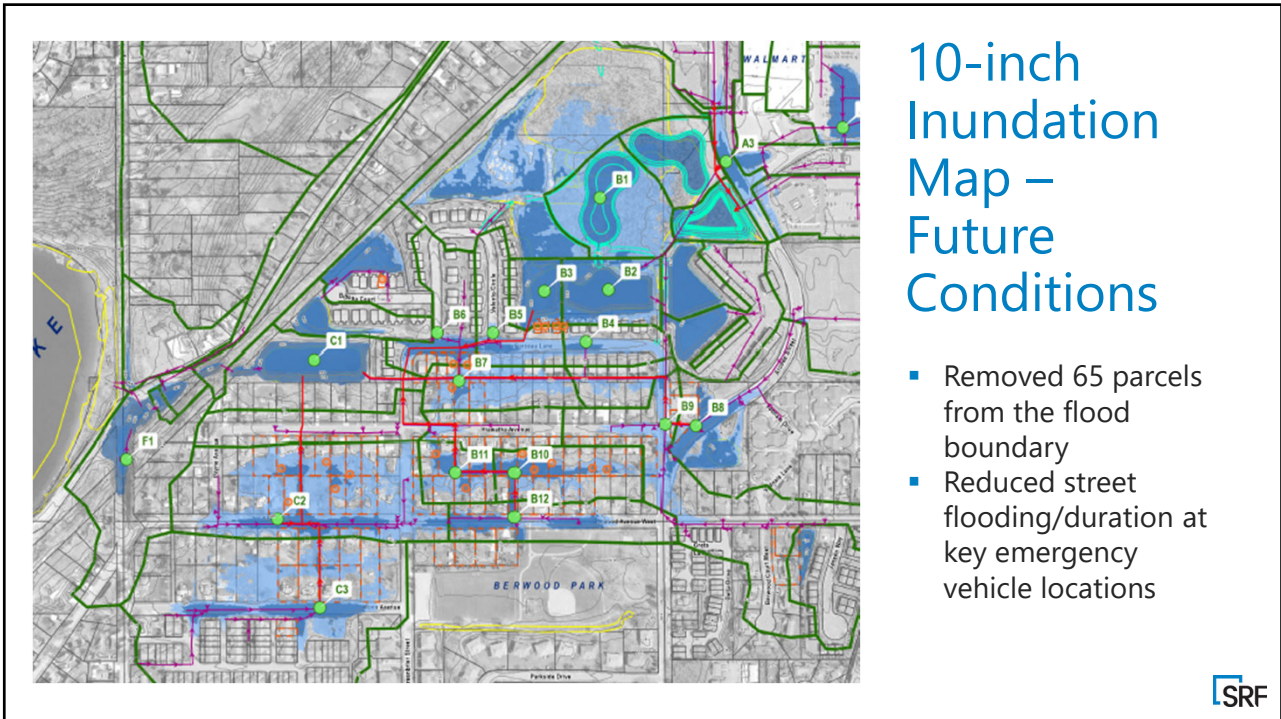
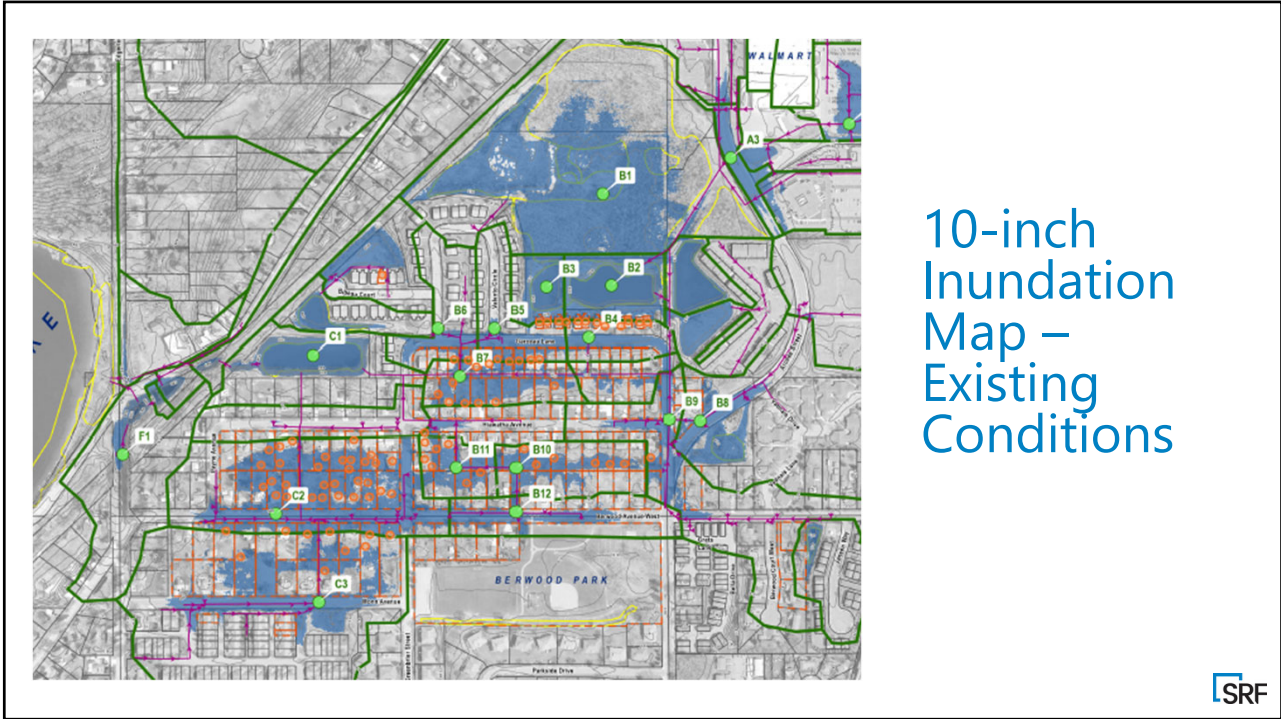
## 100-yr Inundation Map – Future Conditions

- Street Flooding eliminated throughout area with a trunk storm sewer improvements
- All structures removed from 100-yr floodplain
  - (Based on LiDAR data - Will need low opening surveys to determine freeboard)



SRF





## Summary

- Flood improvements across the subwatershed

	100-year/24 hour		10-inch/24 hour	
	Existing	Future	Existing	Future
<b>Inundated Parcels</b>	89	7	137	72
<b>Inundated Structures</b>	27	0	85	20

- Duration of flooding is generally 40-80% reduced from existing conditions for the 10-inch event
- Additional 11,000 lbs of TSS and 39 lbs of TP removed annually from the subwatershed runoff



## Next Steps

- Collect data to move the concepts to final feasibility
  - Wetland delineation
  - Soil borings/piezometers
  - Field survey
  - Permitting needs
- Identify the grants that are most applicable and determine the information needed to submit a successful grant application
- Coordinate with other local projects to install features along with other restoration (roads)
  - Garceau Lane reconstruction in 2025
- Use the new hydrologic modeling tool to evaluate staging improvements





## Memorandum

**To:** Vadnais Lake Area Water Management Organization (VLAWMO)  
**From:** Greg Wilson, Barr Engineering Co.  
**Subject:** Recommended Payment #2 for Oak Knoll Pond Spent Lime Application  
**Date:** April 17, 2024

At its August 2023 meeting, VLAWMO entered into an agreement with Erosion Works to apply spent lime, obtained from the White Bear Lake water treatment facility to Oak Knoll Pond to control sediment phosphorus release. The contract called for a \$1,750 unit price for each load of spent lime applied to the shallower zone (Zone 1; **14 loads**) of the pond and a \$4,500 unit price for each load of spent lime applied to the deeper zone (Zone 2; **8 loads**) of the pond.

Erosion Works resumed work on the project in 2024 and applied a single load of spent lime, for the respective zones of the pond, on each of the following dates:

- 4/9/24—Zone 2
- 4/11/24—Zone 2

The attachment provides copies of Erosion Works' invoicing for each spent lime load applied to Oak Knoll Pond. Barr recommends that VLAWMO pay Erosion Works the total invoiced amount of \$9,000 for the two (2) loads of spent lime applied to Oak Knoll Pond thus far in 2024.

The project total invoiced and status to date is shown in the table below:

RFP date	Contractor invoices included in RFP	Total Cost	Status
January 24, 2024	#86501 (Z1), #88341 (Z2), #88216 (Z2), #88088 (Z2), #88050 (Z2), #86662 (Z1), #86590 (Z1)	\$23,250	Paid
April 17, 2024	#91009 (Z2), #91058 (Z2)	\$9000	Recommended for payment
Total cost for invoices received (Zone 1 = 3 and Zone 2 = 6)		\$32,250	
Amount remaining (Total project = \$60,500)		\$28,250	



Erosion Works  
 8177 199th Ave NW  
 Elk River, MN 55330

# Invoice

Date	Invoice #
4/9/2024	91009

<b>Bill To</b>
Vadnais Lake Area Water Management 800 East Co. Rd E Vadnais Heights, MN 55127

Phone 763-262-7458 Fax 763-712-1851 Email: erosionworks@msn.com Website: www.erosionworks.net
--

P.O. No.	Terms	Project

Description	Quantity	Rate	Amount
Hydro Seed - Spent Lime Slurry to Zone 2 of Oak Knoll Pond	1	4,500.00	4,500.00
Did the above work on 4/9 as requested by Greg			

Thank you for your business.	<b>Total</b>	\$4,500.00
------------------------------	--------------	------------



Erosion Works  
 8177 199th Ave NW  
 Elk River, MN 55330

# Invoice

Date	Invoice #
4/11/2024	91058

<b>Bill To</b>
Vadnais Lake Area Water Management 800 East Co. Rd E Vadnais Heights, MN 55127

Phone 763-262-7458 Fax 763-712-1851 Email: erosionworks@msn.com Website: www.erosionworks.net
--

P.O. No.	Terms	Project

Description	Quantity	Rate	Amount
Hydro Seed @ Spent Lime Slurry Application to Zone 2 of Oak Knoll Pond (Day 2)	1	4,500.00	4,500.00
Did the above work on 4/11 as requested by Greg			

Thank you for your business.	<b>Total</b>	\$4,500.00
------------------------------	--------------	------------

# Diverse and Important Underwater Forests: Aquatic Plants in Birch Lake

By Dawn Tanner/Special to the Press

Apr 3, 2024 Updated Apr 3, 2024 – White Bear Press



Healthy native plants include bladderworts with pretty yellow flowers and duckweed which is often confused for algae but is a native plant.

Contributed





Eurasian watermilfoil infestation was identified in 4.9 areas of Birch Lake, as surveyed in 2023 by VLAWMO and RCSWCD. Following removal, EWM was at such low levels only 1 plant was detected.

Contributed

As the winter—whatever we had of it this year—turns to spring, Minnesotans gaze longingly at our lakes. We can hardly wait to spend time swimming, fishing, paddling, boating, sitting lakeside with family and friends, and more. Our lakes, rivers, and streams connect us in many ways.

The underwater forests that help provide habitat for wildlife and keep our waterways healthy are often an underrated component of summers in and on the water. Healthy native aquatic plants are a sign of good and even improving water quality. These native plants take up nutrients from lakes and streams and keep the water clear; instead of algae, especially blue-green algae, taking up the nutrients and making the water murky and green.

Birch Lake, in White Bear Lake, is a healthy urban lake and a standout in the Vadnais Lake Area Watershed. Its native plant community is diverse, with some rare species and even a couple of new records for Ramsey County reported last year, as a result of close observation and surveys.

Keeping this lake healthy is a goal of the Vadnais Lake Area Water Management Organization (VLAWMO) and partners. Working toward this goal, a partnership project focused on removing invasive aquatic plants has been underway over the past 3 years. Partners in the project include the Birch Lake Improvement District (BLID), Ramsey County Soil and Water Conservation Division (RCSWCD), Minnesota Department of Natural Resources (MN DNR), and the Dive Guys, which is a local company that removes invasive aquatic plants.

The project is now in its third year; however, projects can't begin without solid data and good science. Work toward the current project began in 2019, with an aquatic plant survey and a focused effort to understand where invasive Eurasian watermilfoil (EWM) was found in the lake. Results of that survey showed that 11.4 acres of Birch Lake were infested with EWM. Using that information, partners in the watershed worked together to apply for a MN DNR Aquatic Invasive Species Control Grant. The proposal was awarded a 2-year grant to for removal of EWM. VLAWMO provided funds and staff to assist on pre and post surveys—which are a requirement of the grant—and technical assistance in managing the grant. BLID provided funds, and was reimbursed for a portion of those funds through the grant, for hand-pulling of EWM with the Dive Guys.

Eurasian watermilfoil removal began in 2022 and continued in 2023. Dive Guys removed approximately 125 pounds of EWM over 2 days in 2022. In 2023, only a single day of hand-pulling was needed. A new infestation of invasive Curly-leaf pondweed was also detected as part of this focused project. That infestation was reported to MN DNR and removed as part of the project. During the post survey in 2023, only 1 EWM location and no Curly-leaf pondweed plants were detected. These invasive plant species have been reduced to such low levels that they were difficult to detect on the survey. Ongoing survey and removals will help to maintain the progress made on the

project and could allow eradication of these invasive plants over time, with dedicated ongoing partnership efforts.

Eurasian watermilfoil is an invasive plant that originally came from Europe and Asia. In Minnesota, EWM also hybridizes with native Northern watermilfoil. The resulting hybrid plants are invasive too. The University of Minnesota has been working to identify hybrid EWM strains and better understand targeted removal strategies. As part of the Birch Lake project, EWM was collected and sent to the lab for genetic analysis. These samples were identified as hybrid watermilfoil and are reported in a statewide database that is available at: [z.umn.edu/milfoilmap](https://z.umn.edu/milfoilmap).

We now have improved understanding about the invasive plants in Birch Lake and have reduced their abundance. We have also been learning more about the native plants in Birch Lake. In conducting observations as part of the surveys for the project, we see that the healthy, diverse native plant community, with especially abundant fern pondweed and large-leaf pondweed, appear to be helping to keep the lake healthy and preventing the invasive plants from simply reestablishing in areas where they were removed. These native plants provide clean water, habitat for fish, food for wildlife, and are beautiful and important in and of themselves.

In addition to surveys conducted by local partners, the Minnesota Biological Survey (MBS) with the MN DNR, recently visited lakes in our watershed, including Birch Lake during 2023. What they found in Birch Lake was exciting. Two native plants species were documented that are new records for Ramsey County. These are Spiny-spore quillwort and Slender watermilfoil. Both of these plants are found in shallow areas and not as likely to be sampled by the standard protocol. The standard protocol involves using the head of a rake tied to a rope to sample plants from the lake bottom. These new records emphasize the importance of having an aquatic plant expert visit and look closely. They also highlight the importance of Birch Lake and its native plant community.

Twenty-one native plants species were previously identified in the 2019 plant survey in Birch Lake. Three new species were added as part of the MBS survey in 2023, for a total of at least 24 native aquatic plant species. Birch Lake provides a surprising example of diversity below its surface. A healthy plant community is more resilient to environmental stressors such as extreme storm events, water-level fluctuations, drought, and can help prevent establishment of new invasive species.

There's more than initially meets the eye when we look into a clear lake and observe a tangle of plants. Supporting those native plants means supporting clear lakes and improved water quality. Want to learn more? Check out the plant surveys for each lake under Waterbodies on the VLAWMO website at [www.vlawmo.org](http://www.vlawmo.org).

*Dawn Tanner is VLAWMO Program Development Coordinator.*