

## BOARD OF DIRECTORS MEETING AGENDA

7:00 PM

February 28, 2024

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

 = requested Board action

- I. **Call to Order**, Chair, Jim Lindner
- II. **Approval of Agenda**
- III. **Approval of December 13, 2023 Board Meeting Minutes**
- IV. **Visitors and Presentations**
  - A. TEC Report and Financials for February - Terry **p. 19**
  - B. Public Visitors – Non agenda items
- V. **Consent Agenda**  **Directors may request to move any item to business agenda for discussion**
  - A. Consider Designation of Legal Publication – Press Publications and VLAWMO website  
Consider 2024 Board Meeting Dates **p. 21**
  - B. Consideration of contract extension /amendment on continuance of remaining loads for spent lime project and update on next steps, amendment on temp. easement & update on payment. **p. 25**
  - C. Consider 2024 public drainage ditch inspection report **p. 37**
  - D. Consider 2024 education and outreach plan **p. 45**
  - E. Consider MOU for maintenance for northern Birch shoreline **p. 47**
  - F. Consider Invasive yellow iris removal partnership project MOU with NOHOA **p. 51**
  - G. Update on Rotary Park prioritization for restoration **p. 55**
  - H. Update on carp solutions **p. 59**
  - I. Update on Pleasant Lake article #3. **p. 61**
  - J. Update memo on Wilkinson Deep water project **p. 63**
  - K. Update on scheduling Oath of Office for Director West to April meeting **p. 65**
- VI. **Business**
  - A. **Administration and Projects**
    1. Consider Election of Board, Subcommittee Officers and appointment of TEC chair /officers – Chair Lindner/Board  **p. 67**
  - B. **Projects and Programming**
    1. Consider Landscape Level 2 2024-01 Grant Application-The Pines HOA Smart Irrigation-Lauren 10 mins.  **p. 69**
    2. Update on the E. Vadnais Resiliency Study and Consider MOU with the City of Vadnais Heights for Partnership on Potential MPCA Grant Application – Lauren – 10 mins.  **p. 73**
    3. Update on WMP process including discussion on upcoming Board survey and April 24<sup>th</sup> required planning workshop- Nick and Dawn- 10 mins. **p. 89**
    4. Consider pursuing Tamarack Lk. alum project design in 2024 -Dawn and Greg – 10 mins.  **p. 95**
- VII. **Discussion**
- VIII. **Administration Communication** – discussion on scheduling early April Board subcommittee meeting (possible dates 4/1, 4/2, 4/3 or 4/8)- Phil
- XI. **Adjourn**: Next regular meeting: April 24, 2024

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MINUTES OF THE BOARD OF DIRECTORS – December 13, 2023 REGULAR BOARD MEETING

Attendance		Present	Absent
Jim Lindner, Chair	City of Gem Lake	X	
John Shuman	City of North Oaks		X*
Rob Rafferty	City of Lino Lakes	X	
Ed Prudhon	White Bear Township	X	
Dan Jones, Vice Chair	City of White Bear Lake	X	
Katherine Doll Kanne	City of Vadnais Heights	X	
Sarah Shah	City of North Oaks	X**	
Phil Belfiori	Administrator	X	
Brian Corcoran	Water Resources Mgr.	X	
Dawn Tanner	Program Development Coord.	X	
Nick Voss	Education & Outreach Coord.	X	
Lauren Sampedro	Watershed Tech & Program Coord.	X	

\*= with prior notice

\*\*= alternate

**Others in attendance:** Connie Taillon (City of White Bear Lake), Greg Wilson (Barr Engineering), Terry Huntrods (VLAWMO TEC/City of White Bear Lake), Anne Sawyer (Board of Water and Soil Resources 'BWSR'), Gina Schmidt (VLAWMO WAV Volunteer), Stephanie McNamara

**I. Call to Order**

The meeting was called to order at 7:00 pm by Chair Lindner.

**II. Approval of Agenda** 

The agenda for the December 13, 2023 Board meeting was presented for approval.

A motion was made by Director Rafferty and seconded by Director Jones to approve the December Board meeting agenda. Vote: Shah: aye, Doll Kanne: aye, Lindner: aye, Prudhon: aye, Rafferty: aye, Jones: aye. Motion passed.

**III. Approval of Minutes** 

The minutes from the October 25, 2023 Board meeting were placed on the agenda for approval, as presented. No comments from the Directors.

A motion was made by Director Jones and seconded by Director Rafferty to approve the October 25<sup>th</sup> meeting minutes.

Vote: Shah: aye, Doll Kanne: aye, Lindner: aye, Prudhon: aye, Rafferty: aye, Jones: aye. Motion passed.

**IV. Visitors and Presentations**

**A. Recognition of Director Dan Jones**

Board members and VLAWMO staff commemorated and thanked Director Jones for his years of service on the VLAWMO Board.

**B. BWSR Presentation of 40<sup>th</sup> Anniversary Plaque**

Anne Sawyer, BWSR Board Conservationist, presented a BWSR plaque commemorating VLAWMO's 40<sup>th</sup> anniversary. Photos were taken with the plaque.

**C. 2023 VLAWMO Watershed Awards**

Voss presented the photos from the VLAWMO watershed awards granting that took place in December with each award winner.

**D. 2023 Watershed Action Volunteers (WAV) summary presentation**

Voss and volunteer Gina Schmidt presented the summary of volunteer efforts and activities in 2023.

Director Doll Kanne inquired about the permitting requirements for invasive purple loosestrife beetles, attributed to Megan Sigmon-Olsen's 2023 capstone project that was listed in the WAV presentation. Staff Dawn Tanner confirmed that no permit is required to purchase and release the beetles, but the rearing process is a permitted activity with the MN DNR.

**E. TEC Report to the Board and December Finance Report**

TEC Commissioner Terry Huntrods presented the December TEC Report to the Board. Terry summarized the review of the 2024 cost share updates, the review of five contracts for various projects such as upcoming curly-leaf pondweed surveys, and maintenance of the Whitaker Pond Biochar project. The Tamarack and Wilkinson lakes alum feasibility study contract was also reviewed and approved.

Director Jones inquired about the status of the Technical Commission quorum for this year. Administrator Belfiori confirmed that most meetings of 2023 have been beyond quorum and all have met quorum requirements.

**F. Public Visitors**

None

**V. Consent Agenda **

Chair Lindner asked if any Board members wished to speak on any of the consent agenda items. No requests were made from directors.

Consent items on the agenda and included in the December Board packet were as follows:

- A. Consider Columbia Park IESF Feasibility Study scope from HEI and agreement with City and County
- B. Consider 2024 Salary /Compensation analysis scope of work
- C. Consider VLAWMO employee policy for earned sick and safe time

- D. Consider 2024 Cost Share Policy Updates, Resolution 08-2020 Amendment, and 2024-25 RCSWCD Professional Services Agreement
- E. Consider Contracts/quotes for 2024- (5 total)
- F. Update on Spent Lime Demo Project
- G. Update on North Oaks News articles on Pleasant Lake aquatic vegetation
- H. Consider Update on 2023 Ed. & Outreach Plan Summary
- I. Update on Wilkinson Deep water wetland project
- J. Update on Sentence to Serve ditch maintenance work
- K. Update on MN DNR for the CLP funding

Discussion:

A motion was made by Director Prudhon and seconded by Director Jones to approve the consent agenda.

Director Jones expressed encouragement for the continuation of consent item F, Spent Lime Demo Project.

Vote: Shah: aye, Doll Kanne: aye, Lindner: aye, Prudhon: aye, Rafferty: aye, Jones: aye. Motion passed.

## VI. Business

### A. Administration and Projects

#### 1. Consider alum feasibility study for Tamarack Lake and Wilkinson Lake and proposed scope of work for design and inspection services

Tanner introduced the alum feasibility study. The study included sediment core sampling and was completed in spring, 2023. Tanner explained that both Wilkinson and Tamarack lakes are impaired for nutrients and are priorities for VLAWMO and the 319 Small Watershed program. 10+ years of water quality data were analyzed to assess the treatment dosing on each lake. The feasibility study determined that a split application is recommended, separated by a couple of years. To support the mobility costs of alum treatment, combining the lakes into the same scope of work helps to reduce costs and promote efficiency. The anticipated application for phase one is fall 2024.

Discussion:

Director Shah inquired about the treatment effectiveness for 10 years. Tanner provided that spreading out the treatments helps increase.

A motion was made by Director Jones and seconded by Director Prudhon to approve and finalize the Tamarack and Wilkinson alum feasibility study by Barr Engineering and authorize the engineering scope of services from Barr Engineering in the amount of \$28,000 with an additional 15% (\$4200) contingency if any unforeseen technical issues arise during design or inspection phase.

Vote: Shuman: aye, Doll Kanne: aye, Lindner: aye, Prudhon: aye, Rafferty: aye, Jones: aye. Motion passed.

**2. Consider VLAWMO Comprehensive Watershed Management Plan development scope of work and action to initiate planning process and stakeholder input: Res 692023**

Administrator Belfiori introduced the watershed management plan update process with context to the MN State requirements from BWSR to complete a comprehensive water plan every 10 years. Belfiori explained that project planning including feasibility studies are part of the plan and that potential minor amendments are used to keep the plan current over time.

Tanner stated Rachel Olm’s involvement in plan consulting and development. Rachel (Houston Engineering) assisted VLAWMO and guided the 2021 strategic direction process and this plan builds off that effort. Analysis of strategic efforts will take place with the TEC and Board through 2024 and 2025.

**Discussion:**

None

A motion was made by Director Rafferty and seconded by Director Doll Kanne to:

1. approve the Scope of Services with HEI for the VLAWMO Watershed Management Plan development (with non-material changes and upon advice of counsel) for an estimated cost of \$135,690, plus a 20% contingency;
2. approve Resolution 09-2023 to initiate the Watershed Plan development process (with non-material changes);
3. approve the 60-day notice letters to partners and review authorities, and authorize letter distribution (with non-materials changes)

Vote: Shah: aye, Doll Kanne: aye, Lindner: aye, Prudhon: aye, Rafferty: aye, Jones: aye. Motion passed.

**Resolution 09-2023**

**A RESOLUTION TO UPDATE THE VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION (VLAWMO)’S 10-YEAR COMPREHENSIVE WATERSHED MANAGEMENT PLAN.**

Whereas, Minnesota Statutes Chapter 103B.231 of the Metropolitan Surface Water Management Act (Act), requires metropolitan water management organizations (WMOs) to develop and adopt a watershed management plan, and

Whereas, the Act requires that WMOs update their watershed management plan at least once every 10 years after the original watershed management plan is approved, and

Whereas, the updated watershed management plan must contain the elements described in Minnesota Rules 8410.0050-140, and

Whereas, the VLAWMO has determined that the update and continued implementation of a watershed management plan will help promote the health and welfare of its citizens.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF THE VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION, AS FOLLOWS:

Be it Resolved that the VLAWMO will coordinate its efforts in the update of its plan with the contiguous WDs/WMOs and counties conducting water planning and implementation under sections 103B.101 and 103B.301 to 103B.355.

Be it Further Resolved that the VLAWMO Board of Directors authorizes the establishment of an advisory committee(s) to provide recommendations to the VLAWMO Board on revisions and updates to the plan.

Be it Further Resolved that the VLAWMO Board of Directors delegates the VLAWMO staff the responsibility of coordinating, assembling, writing and implementing the watershed management plan pursuant to M.S. 103B.231.

The question was on the adoption of the resolution and there were 6 yeas and 0 nays as follows:

	<u>Yea</u>	<u>Nay</u>	<u>Absent</u>
<i>Dan Jones</i>	X	<input type="checkbox"/>	<input type="checkbox"/>
<i>Ed Prudhon</i>	X	<input type="checkbox"/>	<input type="checkbox"/>
<i>Rob Rafferty</i>	X	<input type="checkbox"/>	<input type="checkbox"/>
<i>Sarah Shah</i>	X	<input type="checkbox"/>	<input type="checkbox"/>
<i>John Shuman</i>			X
<i>Katherine Doll</i>	X	<input type="checkbox"/>	<input type="checkbox"/>
<i>Kanne</i>			
<i>Jim Lindner</i>	X	<input type="checkbox"/>	<input type="checkbox"/>

\_\_\_\_\_  
James Lindner, Chair

\_\_\_\_\_  
Date

VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION

I, the undersigned, Administrator of the Vadnais Lake Area Water Management Organization, hereby certify that I have carefully compared and attached the foregoing extract of minutes of a regular meeting of the Board of Directors of said watershed held on the 13th day of December 2023, with the original thereof on file in my office.

WITNESSED BY the Watershed Administrator this 13th day of December 2023.

\_\_\_\_\_  
Phil Belfiori, Administrator

**3. Consider working 2024 budget fund balance carryover: Res 10-2023**

Administrator Belfiori introduced the 2024 budget. He provided context from the June 2023 approval of the 2024 budget. Due to weather and some bids arriving lower than expected, the end-of-year fund balance is greater than planned. He summarized the 2024 carryover as expressed in the Board packet.

**Discussion:**

Director Rafferty expressed that the costs of projects is going up across the US and that lining efforts up ahead of time helps to reduce the impact of inflation. Rafferty also expressed support for ongoing maintenance in future budgets as well as early bidding and aggressive planning.

A motion was made by Director Rafferty and seconded by Director Jones to approve Resolution 10-2023. Vote: Shah: aye, Doll Kanne: aye, Lindner: aye, Prudhon: aye, Rafferty: aye, Jones: aye. Motion passed.

**RESOLUTION 10-2023**

**A RESOLUTION FOR COMMITTING THE FUND BALANCE FOR SPECIFIC PURPOSES**

**WHEREAS**, the Board of Directors of the Vadnais Lake Area Water Management Organization, does hereby find as follows:

**WHEREAS**, the Governmental Accounting Standards Board’s Statement No. 54 defines committed fund balance as amounts that can only be used for specific purposes pursuant to constraints imposed by formal action of the Board,

**WHEREAS**, Board action is required before year end to formalize the commitment of fund balance to specified purposes,

**WHEREAS**, those committed amounts cannot be used for any other purpose unless the VLAWMO removes or changes the specified use by taking the same type of action it employed to previously commit those amounts.

**THEREFORE, BE IT RESOLVED** by the VLAWMO, that the specific portions of fund balance in the identified funds are committed as follows:

Committed

Fund Name and Description	Proposed Carry Over “committed” Funds (into 2024 “working” budget) and Purpose
General Fund - Fund 3.1. Operations and Administration	<b>\$27,000</b> Engineering and/or pool firms to implement technical assistance tasks: approved watershed plan amendment projects, planning, feasibility studies, unanticipated technical work to date. Auditor costs based on approved proposal for 2023 Audit.
General Fund - Fund 3.2. Monitoring and Studies	<b>\$15,000</b> Required work to update Watershed plan. Possible work with Rotary Park or next phase wetland restoration /feasibility study.

General Fund - Fund 3.3. Education and Outreach	<b>\$2,000</b> Carrying over into 2023 re: approved website updated
General Fund -Fund 3.4. Capital Improvement Projects and Programs	<b>\$940,442</b> The approved 2024 budget (approved at the June 2023 Board meeting) already included utilizing <u>\$791,380</u> of fund balance carry over to implement the 2024 Capital Improvement Projects and Programs. The proposed 2024 “working” budget now proposes an additional <u>\$149,062</u> of additional fund balance carry over for a total Proposed Carry Over “committed” Funds (into 2024 “working” budget) of <u>\$940,442</u> . For implementation of the proposed projects in several subwatersheds including: Wilkinson Lake BMPs /studies, Wilkinson & Tamarack Alum, City of Lino Lakes partnership, North Oaks Company partnership, Polar Lakes Park Reuse, City of Gem Lake partnerships, E. Vadnais Lake subshed resiliency study /partners projects, Level 1/ 2 and SHG cost-share partnership projects, and those proposed projects identified in the approved 2024 budget.

The question was on the adoption of the resolution and there were 6 yeas and 0 nays as follows:

	<u>Yea</u>	<u>Nay</u>	<u>Absent</u>
<i>Dan Jones</i>	X	<input type="checkbox"/>	<input type="checkbox"/>
<i>Ed Prudhon</i>	X	<input type="checkbox"/>	<input type="checkbox"/>
<i>Rob Rafferty</i>	X	<input type="checkbox"/>	<input type="checkbox"/>
<i>Sarah Shah</i>	X	<input type="checkbox"/>	<input type="checkbox"/>
<i>John Shuman</i>			x
<i>Katherine Doll</i>	X	<input type="checkbox"/>	<input type="checkbox"/>
<i>Kanne</i>			
<i>Jim Lindner</i>	x	<input type="checkbox"/>	<input type="checkbox"/>

Upon vote, the Chair declared the Resolution adopted on this 13<sup>th</sup> day of December 2023.

\_\_\_\_\_ Board Chair      Dated: December \_\_\_\_, 2023

\_\_\_\_\_ Attest                      Dated: December \_\_\_\_, 2023

**VII. Discussion**

- 1. Reminder: 2024 Board and alternate appointments/ TEC appointments and alternates**  
Director Lindner confirmed that the Board and TEC appointments will be taken to the member communities.

**VIII. Administration communication**

Administrator Belfiori thanked the Board of Directors and VLAWMO staff for their work in 2023.

**XI. Adjourn**

A motion was made by Director Jones and seconded by Director Rafferty to adjourn at 8:13 pm. Vote: Shah: aye, Doll Kanne: aye, Lindner: aye, Prudhon: aye, Rafferty: aye, Jones: aye. Motion passed.

DRAFT

# VLAWMO Finance Summary: February 2024

Feb-24		Actual 2/1/24	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>							
5.11	Storm Water Utility	\$1,776	\$1,776	\$1,145,431	\$0	\$1,143,655	\$1,145,431	0%
5.12	Service Fees			\$1,000	\$0	\$1,000	\$1,000	0%
5.13	Interest + mitigation acct	\$4,862	\$4,862	\$30,000	\$0	\$25,138	\$30,000	16%
5.14	Misc. income - WCA admin & other	\$54	\$54	\$3,000	\$0	\$2,946	\$3,000	2%
5.15	Other Income Grants/loan			\$365,000	\$0	\$365,000	\$365,000	0%
5.16	Transfer from reserves			\$791,380	\$193,062	\$984,442	\$984,442	0%
	<b>TOTAL</b>	<b>\$6,692</b>	<b>\$6,692</b>	<b>\$2,335,811</b>	<b>\$193,062</b>	<b>\$2,522,181</b>	<b>\$2,528,873</b>	<b>0%</b>
<b>EXPENSES</b>								
<b>3.1</b>	<b>Operations &amp; Administration</b>							
3.110	Office - rent, copies, post tel supplies	\$2,117	\$2,117	\$32,239	\$0	\$30,122	\$32,239	7%
3.120	Information Systems	\$1,571	\$1,571	\$33,850	\$0	\$32,279	\$33,850	5%
3.130	Insurance			\$10,050	\$0	\$10,050	\$10,050	0%
3.141	Consulting - Audit			\$12,000	\$7,000	\$19,000	\$19,000	0%
3.142	Consulting - Bookkeeping	\$47	\$47	\$1,500	\$0	\$1,453	\$1,500	3%
3.143	Consulting - Legal			\$7,000	\$0	\$7,000	\$7,000	0%
3.144	Consulting - Eng. & Tech.	\$1,505	\$1,505	\$30,000	\$20,000	\$48,495	\$50,000	3%
3.150	Storm Sewer Utility			\$22,500	\$0	\$22,500	\$22,500	0%
3.160	Training (staff/board)			\$14,250	\$0	\$14,250	\$14,250	0%
3.170	Misc. & mileage	\$70	\$70	\$6,930	\$0	\$6,860	\$6,930	1%
3.191	Administration - staff	\$31,912	\$31,912	\$435,554	\$0	\$403,642	\$435,554	7%
3.192	Employer Liability	\$9,811	\$9,811	\$129,869	\$0	\$120,058	\$129,869	8%
<b>3.2</b>	<b>Monitoring and Studies</b>							
3.210	Lake and Creek lab analysis	\$147	\$147	\$18,000	\$0	\$17,853	\$18,000	1%
3.220	Equipment			\$3,000	\$0	\$3,000	\$3,000	0%
3.230	Wetland assessment & management			\$15,000	\$0	\$15,000	\$15,000	0%
3.240	Watershed planning /special study	\$3,639	\$3,639	\$100,000	\$15,000	\$111,361	\$115,000	3%
<b>3.3</b>	<b>Education and Outreach</b>							
3.310	Public Education	\$1,500	\$1,500	\$6,000	\$0	\$4,500	\$6,000	25%
3.320	Comm., Outreach & Marketing	\$938	\$938	\$20,000	\$2,000	\$21,062	\$22,000	4%
3.330	Community Blue Ed Grant			\$8,000	\$0	\$8,000	\$8,000	0%
<i>Total Core functions: Ops, Monitoring, Education</i>		\$53,258	\$53,258	\$905,742	\$44,000	\$896,484	\$949,742	6%
<b>Capital Improvement Projects and Programs</b>								
<b>3.4</b>	<b>Subwatershed Activity</b>							
3.410	Gem Lake			\$25,000	\$10,000	\$35,000	\$35,000	
3.420	Lambert Creek			\$90,000	\$0	\$90,000	\$90,000	0%
3.421	Lambert Lake Loan			\$38,569	\$0	\$38,569	\$38,569	0%

3.425	Goose Lake	\$23,250	\$23,250	\$85,000	\$0	\$61,750	\$85,000	27%
3.430	Birch Lake	\$6,150	\$6,150	\$48,000	\$0	\$41,850	\$48,000	13%
3.440	Gilf Black Tam Wilk Amelia	\$17,564	\$17,564	\$345,000	\$60,000	\$387,436	\$405,000	4%
3.450	Pleasant Charley Deep	\$4,563	\$4,563	\$145,000	\$0	\$140,438	\$145,000	3%
3.460	Sucker Vadnais	\$8,861	\$8,861	\$90,000	\$33,000	\$114,139	\$123,000	7%
3.48	<b>Programs</b>							
3.480	Soil Health Grant	\$70	\$70	\$10,500	\$4,500	\$14,930	\$15,000	0%
3.481	Landscape 1			\$40,000	\$16,263	\$56,263	\$56,263	0%
3.482	Landscape 2/BWSR WBF	\$900	\$900	\$60,000	\$25,299	\$84,399	\$85,299	1%
3.483	Project Research & feasibility			\$5,000	\$0	\$5,000	\$5,000	0%
3.485	Facilities Maintenanc/ Pub. Ditch Main.	\$2,550	\$2,550	\$78,000	\$0	\$75,450	\$78,000	3%
3.5	<b>Regulatory</b>							
3.510	Engineer Plan review			\$5,000	\$0	\$5,000	\$5,000	0%
	<i>Total CIP &amp; Program</i>	\$63,907	\$63,907	\$1,065,069	\$149,062	\$1,150,224	\$1,214,131	5%
	<b>Total of Core Operations &amp; CIP</b>	<b>\$117,164</b>	\$117,164	\$1,970,811	\$193,062	<b>\$2,046,709</b>	\$2,163,873	<b>5%</b>

Fund Balance	1/1/2024	2/1/2024
4M Account	\$921,058	\$819,208
4M Plus Savings	\$240,180	\$241,261
Total	\$1,161,238	\$1,060,469

Restricted funds	2/1/2024
Mitigation Savings	\$21,021
Term Series	\$300,000

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

12:38 PM

02/01/2024

January 11 through February 14, 2024

Type	Num	Date	Name	Item	Account	Paid Amount	Original Amount
Check	eft	01/22/2024	further		Checking - 1987		-6.00
				Insurance Benefit		-6.00	6.00
TOTAL						-6.00	6.00
Check	eft	02/01/2024	US Bank		Checking - 1987		-47.29
				3.142 · Bookkeeping help		-47.29	47.29
TOTAL						-47.29	47.29
Check	5711	02/14/2024	Nicholas Voss		Checking - 1987		-117.97
				3.170 · Misc. & mileage		-19.65	19.65
				3.320 · Marketing		-43.33	43.33
				3.320 · Marketing		-54.99	54.99
TOTAL						-117.97	117.97
Check	5712	02/14/2024	Dawn Tanner		Checking - 1987		-50.25
				3.170 · Misc. & mileage		-50.25	50.25
TOTAL						-50.25	50.25
Check	5713	02/14/2024	Department of Corrections		Checking - 1987		-2,550.00
				3.485 · Facilities & Maintenance		-2,550.00	2,550.00
TOTAL						-2,550.00	2,550.00
Check	5714	02/14/2024	Ramsey County		Checking - 1987		-8,931.25
				3.430 · Birch Lake		-1,150.00	1,150.00
				3.440 · Gilfillan Black Tamarack Wilkin		-1,500.00	1,500.00
				3.450 · Pleasant Charley Deep		-4,562.50	4,562.50
				3.440 · Gilfillan Black Tamarack Wilkin		-1,718.75	1,718.75
TOTAL						-8,931.25	8,931.25
Check	5715	02/14/2024	Metro - Inet		Checking - 1987		-1,571.00
				IT Support		-1,571.00	1,571.00
TOTAL						-1,571.00	1,571.00
Check	5716	02/14/2024	Gallagher		Checking - 1987		-3,416.66
				3.240 · Watershed Plan Amendment		-3,416.66	3,416.66
TOTAL						-3,416.66	3,416.66
Check	5717	02/14/2024	Ramsey County		Checking - 1987		-900.00

			3.482 · Landscape 2	-900.00	900.00
TOTAL				<u>-900.00</u>	900.00
	<b>Check 5718</b>	<b>02/14/2024 Rose Bussjaeger</b>	<b>Checking - 1987</b>		<b>-69.79</b>
			3.480 · Soil Health Grant	-69.79	69.79
TOTAL				<u>-69.79</u>	69.79
	<b>Check 5719</b>	<b>02/14/2024 Metro Blooms</b>	<b>Checking - 1987</b>		<b>-300.00</b>
			3.320 · Marketing	-300.00	300.00
TOTAL				<u>-300.00</u>	300.00
	<b>Check 5720</b>	<b>02/14/2024 Bolton &amp; Menk</b>	<b>Checking - 1987</b>		<b>-1,500.00</b>
			3.310 · Public Education	-1,500.00	1,500.00
TOTAL				<u>-1,500.00</u>	1,500.00
	<b>Check 5721</b>	<b>02/14/2024 City of Vadnais Heights</b>	<b>Checking - 1987</b>		<b>-2,116.83</b>
			Rent	-1,765.00	1,765.00
			Phone/Internet/Machine Overhead	-315.00	315.00
			Postage	-14.73	14.73
			Copies	-22.10	22.10
TOTAL				<u>-2,116.83</u>	2,116.83
	<b>Check 5722</b>	<b>RMB Environmental Laboratories, 02/14/2024 Inc.</b>	<b>Checking - 1987</b>		<b>-147.35</b>
			3.210 · Lake & Creek lab analysis	-147.35	147.35
TOTAL				<u>-147.35</u>	147.35
	<b>Check 5723</b>	<b>02/14/2024 City of Lino Lakes</b>	<b>Checking - 1987</b>		<b>-13,950.00</b>
			3.440 · Gilfillan Black Tamarack Wilkin	-13,950.00	13,950.00
TOTAL				<u>-13,950.00</u>	13,950.00
	<b>Check 5724</b>	<b>02/14/2024 Houston Engineering, Inc</b>	<b>Checking - 1987</b>		<b>-222.50</b>
			3.240 · Watershed Plan Amendment	-222.50	222.50
TOTAL				<u>-222.50</u>	222.50
	<b>Check 5725</b>	<b>02/14/2024 SRF Consulting Group</b>	<b>Checking - 1987</b>		<b>-8,860.66</b>
			3.460 · Sucker Vadnais	-8,860.66	8,860.66
TOTAL				<u>-8,860.66</u>	8,860.66
	<b>Check 5726</b>	<b>02/14/2024 SEH</b>	<b>Checking - 1987</b>		<b>-1,284.98</b>
			3.144 · Eng. & Tech.	-1,284.98	1,284.98
TOTAL				<u>-1,284.98</u>	1,284.98
	<b>Check 5727</b>	<b>02/14/2024 Barr Engineering Co</b>	<b>Checking - 1987</b>		<b>-395.00</b>

		3.440 · Gilfillan Black Tamarack Wilkin	-395.00	395.00
TOTAL			<u>-395.00</u>	<u>395.00</u>
	<b>Check 5728</b>	<b>02/14/2024 Erosion Works</b>	<b>Checking - 1987</b>	<b>-23,250.00</b>
		Oak Knoll	-23,250.00	23,250.00
TOTAL			<u>-23,250.00</u>	<u>23,250.00</u>
	<b>Check 5729</b>	<b>02/14/2024 City of White Bear Lake</b>	<b>Checking - 1987</b>	<b>-46,937.63</b>
		payroll	-31,912.21	31,912.21
		Administration FICA	-2,267.58	2,267.58
		Administration PERA	-2,393.41	2,393.41
		Insurance Benefit	-4,900.08	4,900.08
		Admin payroll processing	-244.33	244.33
		3.430 · Birch Lake	-5,000.00	5,000.00
		3.144 · Eng. & Tech.	-220.02	220.02
TOTAL			<u>-46,937.63</u>	<u>46,937.63</u>

**Vadnais Lake Area Water Management Organization**  
**Custom Transaction Detail Report**  
 December 1, 2023 through February 1, 2024

12:36 PM

02/01/2024

Accrual Basis

Type	Date	Num	Name	Memo	Account	Clr	Split	Amount	Balance
<b>Dec 1, '23 - Feb 1, 24</b>									
Credit Card Charge	12/04/2023		Google*SVCAPPS_VLAWM		US Bank CC	√ WEB		42.00	42.00
Credit Card Charge	12/06/2023		field environmental instruments Inc	pH meter renewal	US Bank CC	√ Oak Knoll		250.00	292.00
Credit Card Charge	12/06/2023		mn Department of Agriculture	renewal pest 2024 license	US Bank CC	√ 3.170 · Misc. & mileage		10.22	302.22
Credit Card Charge	12/07/2023		field environmental instruments Inc	pH meter renewal	US Bank CC	√ Oak Knoll		250.00	552.22
Credit Card Charge	12/08/2023		adobe *photography plan		US Bank CC	√ Software		9.99	562.21
Transfer	12/20/2023			Funds Transfer	US Bank CC	√ Checking - 1987		-1,080.47	-518.26
Credit Card Charge	12/26/2023		Adobe "Creative Cloud		US Bank CC	√ Software		32.50	-485.76
Credit Card Charge	01/02/2024		Google*SVCAPPS_VLAWM		US Bank CC	√ WEB		42.00	-443.76
Credit Card Charge	01/03/2024		University of Minnesota	Dawn 2024 project management training	US Bank CC	3.170 · Misc. & mileage		900.00	456.24
Credit Card Charge	01/08/2024		adobe *photography plan		US Bank CC	√ Software		9.99	466.23
Credit Card Charge	01/25/2024		Innovative Office Solutions	wmp envelopes	US Bank CC	3.320 · Marketing		71.28	537.51
Credit Card Charge	01/31/2024		Survey Monkey	2024 renewal	US Bank CC	3.320 · Marketing		468.00	1,005.51
								<b>1,005.51</b>	<b>1,005.51</b>
<b>Dec 1, '23 - Feb 1, 24</b>									

**Vadnais Lake Area Water Management Orga**  
**Profit & Loss**  
**January 11 through February 14, 2024**

12:42 PM

02/01/2024

Cash Basis

Jan 11 - Feb 14, 24

Ordinary Income/Expense	
Income	
Misc.	1,829.86
5.1 · Income	
5.13 · Interest	4,862.32
Total 5.1 · Income	<u>4,862.32</u>
Total Income	<u>6,692.18</u>
Gross Profit	6,692.18
Expense	
3.1 · Administrative/Operations	
3.110 · Office	
Copies	22.10
Phone/Internet/Machine Overhead	315.00
Postage	14.73
Rent	1,765.00
Total 3.110 · Office	<u>2,116.83</u>
3.120 · Information Systems	
IT Support	1,571.00
Total 3.120 · Information Systems	<u>1,571.00</u>
3.142 · Bookkeeping help	47.29
3.144 · Eng. & Tech.	1,505.00
3.170 · Misc. & mileage	69.90
3.191 · Employee Payroll	
payroll	31,912.21
Total 3.191 · Employee Payroll	31,912.21
3.192 · Employer Liabilities	
Admin payroll processing	244.33
Administration FICA	2,267.58
Administration PERA	2,393.41
Insurance Benefit	4,906.08
Total 3.192 · Employer Liabilities	<u>9,811.40</u>
Total 3.1 · Administrative/Operations	47,033.63
3.2 · Monitoring and Studies	
3.210 · Lake & Creek lab analysis	147.35
3.240 · Watershed Plan Amendment	3,639.16
Total 3.2 · Monitoring and Studies	<u>3,786.51</u>
3.3 · Education and Outreach	
3.310 · Public Education	1,500.00
3.320 · Marketing	937.60
Total 3.3 · Education and Outreach	<u>2,437.60</u>
3.4 · Capital Imp. Projects/Programs	
3.425 · Goose Lake	

Oak Knoll	23,250.00
<b>Total 3.425 · Goose Lake</b>	<b>23,250.00</b>
<b>3.430 · Birch Lake</b>	<b>6,150.00</b>
<b>3.440 · Gilfillan Black Tamarack Wilkin</b>	<b>17,563.75</b>
<b>3.450 · Pleasant Charley Deep</b>	<b>4,562.50</b>
<b>3.460 · Sucker Vadnais</b>	<b>8,860.66</b>
<b>Total 3.4 · Capital Imp. Projects/Programs</b>	<b>60,386.91</b>
<b>3.48 · Programs</b>	
<b>3.480 · Soil Health Grant</b>	<b>69.79</b>
<b>3.482 · Landscape 2</b>	<b>900.00</b>
<b>3.485 · Facilities &amp; Maintenance</b>	<b>2,550.00</b>
<b>Total 3.48 · Programs</b>	<b>3,519.79</b>
<b>Total Expense</b>	<b>117,164.44</b>
<b>Net Ordinary Income</b>	<b>-110,472.26</b>
<b>Net Income</b>	<b>-110,472.26</b>

**TEC Report to the Board  
February 2024**

Programs & Projects	Effort Level	Completion Date	Comments																								
	LOW																										
	MED																										
	HIGH																										
<b>Projects</b>				<b>Administration &amp; Operation</b>																							
E. Vadnais Lake Subwatershed Resiliency Study		Mid 2024	Working with SRF on concept designs and future based H/H modeling results. Consideration of possible grant application to the MPCA for resiliency stormwater grant.	Audit		2023	Staff has begun the process of working with CLA on the 2023 Audit.																				
Oak Knoll Pond/Wood Lake		2024	Contractor pay request received for work completed in the fall, plan to resume project with support from the City of WBL anticipated to go to the Board, and, upon authorization, work to extend temporary easements with residents to cover 2024 project season will begin.	Budget		for 2024 budget	2024 "Working" Budget /2023 carryover budget will be considered at the Dec. 13 Board meeting.																				
Public Ditch Maintenance		ongoing	2024 Ditch inspection report completed.	Personnel /HR		ongoing	End of year 2023 staff discussions and reviews are underway.																				
MPCA 319 /Wilkinson Lake BMP		2024	Buckthorn removal completed on islands, and eagle monitoring ongoing.	SSU		ongoing	The approved 2024 SSU certifications have been submitted to Anoka and Ramsey County.																				
Pleasant Lake Carp Management		ongoing	Telemetry checks conducted periodically over winter and will pick up in the spring to detect movement of carp out of Pleasant Lake.	Strategic /watershed planning		2023-2025	Engagement process underway. 60-comment from State and local entities closed on Feb. 13. Public and TEC/CAC/partner surveys being promoted and open. Initial planning meeting prep underway for April 24.																				
<b>Programs</b>																											
City/Township MS4		Feb	Continuation of efforts in training, documentation, and BMP maintenance for 2024. New pet waste graphics and initiatives.	<table border="1"> <thead> <tr> <th colspan="3">FINANCIAL SUMMARY as of 2/1/2024</th> </tr> <tr> <th>4M Account (1.10)</th> <th>4M Plus (1.23)</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>\$819,208</td> <td>\$241,261</td> <td>\$1,060,469</td> </tr> </tbody> </table>				FINANCIAL SUMMARY as of 2/1/2024			4M Account (1.10)	4M Plus (1.23)	Total	\$819,208	\$241,261	\$1,060,469											
FINANCIAL SUMMARY as of 2/1/2024																											
4M Account (1.10)	4M Plus (1.23)	Total																									
\$819,208	\$241,261	\$1,060,469																									
Education/Outreach		Feb-April	Watershed Management Plan engagement efforts, spring grant and raingarden workshops, Bluethumb shorelines webinar.																								
Website		Feb-Sept	Website renovation in progress. Launch expected 9/24.																								
WAV		March	WAV start-of-year meeting TBD in March to coordinate this year's primary WAV activities.																								
Cost Share & BWSR WBIF		ongoing	Continuing to work on projects for the BWSR WBIF grant program with partners, such as a potential raingarden at Elmwood Park in Vadnais Heights and potential raingardens in the Birch Lake subwatershed.	<table border="1"> <thead> <tr> <th>Budget Summary</th> <th>Actual Expense YTD</th> <th>2024 Budget "working"</th> <th>Remaining in Budget</th> <th>% YTD</th> </tr> </thead> <tbody> <tr> <td>Operations</td> <td>\$53,258</td> <td>\$949,742</td> <td>\$896,484</td> <td>6%</td> </tr> <tr> <td>CIP</td> <td>\$63,907</td> <td>\$1,214,131</td> <td>\$1,150,224</td> <td>5%</td> </tr> <tr> <td>Total</td> <td>\$117,165</td> <td>\$2,163,873</td> <td>\$2,046,708</td> <td>5%</td> </tr> </tbody> </table>				Budget Summary	Actual Expense YTD	2024 Budget "working"	Remaining in Budget	% YTD	Operations	\$53,258	\$949,742	\$896,484	6%	CIP	\$63,907	\$1,214,131	\$1,150,224	5%	Total	\$117,165	\$2,163,873	\$2,046,708	5%
Budget Summary	Actual Expense YTD	2024 Budget "working"	Remaining in Budget					% YTD																			
Operations	\$53,258	\$949,742	\$896,484					6%																			
CIP	\$63,907	\$1,214,131	\$1,150,224					5%																			
Total	\$117,165	\$2,163,873	\$2,046,708	5%																							
GIS		ongoing	Working on maps for the website renovation, updating the online GIS viewer as needed.																								
Monitoring		ongoing	2023 year ended reports started																								
WCA		ongoing	Administering WCA as needed.																								

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800 County Road E E, Vadnais Heights, MN 55127  
[www.vlawmo.org](http://www.vlawmo.org); [Office@vlawmo.org](mailto:Office@vlawmo.org)

To: Board of Directors

From: Phil Belfiori, Administrator

Date: February 21, 2024

Re: V. A. Board Consideration of Designation of Legal Publication

**Legal Publication**

**Recommendation: that VLAWMO continue to use Press Publication and the VLAWMO website for public notices to our jurisdiction and VLAWMO will advertise in League of MN Cities publication as appropriate.**

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800 County Road E E, Vadnais Heights, MN 55127  
[www.vlawmo.org](http://www.vlawmo.org); [Office@vlawmo.org](mailto:Office@vlawmo.org)

To: Board of Directors  
From: Phil Belfiori, Administrator  
Date: February 21, 2024  
Re: **V. A. 2.** Board Consideration of 2024 VLAWMO regular Board meeting dates

The following dates are offered for the regular VLAWMO Board meeting in 2024. They follow the pattern established in previous years:

February 28

April 24

June 26

August 28

October 23

December 11

**Staff Recommendation:** approval.

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To: VLAWMO Board of Directors  
From: Dawn Tanner, Phil Belfiori, and Greg Wilson  
Date: February 21, 2024  
Re: **V. B.:** Update on Spent Lime demonstration project

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The spent lime demonstration project at Oak Knoll Pond included 7 loads of spent lime applied during summer and fall, 2023. A request for payment from Erosion Works was received by VLAWMO and recommended for payment by Barr Engineering. Project progress and recommendations are included in the attached memos from Barr Engineering. Barr Engineering recommends resuming the demonstration project during 2024. The City of WBL is continuing to partner with VLAWMO and support the project extension. The water department has also been consulted and is working to collaborate and coordinate as the project resumes. VLAWMO's attorney prepared a contract amendment to extend the timeframe of the project. The contractor has signed and returned the amendment to VLAWMO and stated a willingness to continue working to complete the project. The TEC recommended extending the project to the Board at their February meeting, and paid the RFP that had been received and was recommended for payment by Barr Engineering.

Preliminary results from the 7 loads of spent lime applied so far are encouraging.

From the attached Barr Engineering memo:

*VLAWMO staff have also completed pond water quality monitoring efforts since the spring of 2023 that provide insight into how the spent lime applications resulted in baseline water quality changes to Oak Knoll Pond. In general, it appears that the spent lime volume applied to-date has dropped the total phosphorus concentrations in Oak Knoll Pond by approximately half, both at the surface and bottom of the pond, with no sign of internal phosphorus release since the Zone 2 applications occurred.*

**Requested Action:** Director \_\_\_\_\_ moves and Director \_\_\_\_\_ seconds to approve extending the demonstration project through 2024 to allow project completion as deemed by the project engineer, signing and authorize staff to return the contract extension with the contractor, and authorize VLAWMO staff to pursue an amendment extension with existing temporary easements from landowners.

**Attachments:**

- 1. Barr Engineering Memo: Recommendation for payment
- 2. Barr Engineering Memo: Recommendation for project continuation
- 3. Contract amendment to extend the deadline for completion



## Memorandum

**To:** Vadnais Lake Area Water Management Organization (VLAWMO)  
**From:** Greg Wilson, Barr Engineering Co.  
**Subject:** Recommended Payment #1 for Oak Knoll Pond Spent Lime Application  
**Date:** January 24, 2024

At its August 2024 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) of the pond and a \$4,500 unit price for each load of spent lime applied to the deeper zone (Zone 2) of the pond.

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

- 8/23/23—Zone 1
- 8/28/23—Zone 1
- 8/30/23—Zone 1
- 10/30/23—Zone 2
- 11/1/23—Zone 2
- 11/6/23—Zone 2
- 11/10/23—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 \$23,250 for the seven (7) loads of spent lime applied to Oak Knoll Pond in 2023.



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

# Invoice

Date	Invoice #
8/23/2023	86501

Bill To  
 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

Description	Quantity	Rate	P.O. No.		Terms		Project	
Hydro Seed @ Oak Knoll Pond Easements	1	1,750.00						1,750.00
Did the above work on 8/23 as requested by Wade								
<b>Total</b>								\$1,750.00

Thank you for your business.



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

# Invoice

Date	Invoice #
11/10/2023	88341

**Bill To**  
 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](mailto:erosionworks@msn.com)  
 Website: [www.erosionworks.net](http://www.erosionworks.net)

Description	P.O. No.	Terms	Project
	Quantity	Rate	Amount
Hydro Seed - Spent Lime Treatment @ Oak Knoll White Bear Lake	1	4,500.00	4,500.00
Did the above work on 11/10 as requested by Greg			
<b>Total</b>			\$4,500.00

Thank you for your business.



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

# Invoice

Date	Invoice #
11/6/2023	88216

Bill To  
 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](mailto:erosionworks@msn.com)  
 Website: [www.erosionworks.net](http://www.erosionworks.net)

Description	P.O. No.	Terms	Project
	Quantity	Rate	Amount
Hydro Seed - Spent Lime Treatment @ Zone 2 Oak Knoll Pond	1	4,500.00	4,500.00
Did the above work on 11/6 as requested by Greg			
<b>Total</b>			\$4,500.00

Thank you for your business.



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

# Invoice

Date	Invoice #
11/1/2023	88088

Phone 763-262-7458  
 Fax 763-712-1851  
 Email: [erosionworks@msn.com](mailto:erosionworks@msn.com)  
 Website: [www.erosionworks.net](http://www.erosionworks.net)

**Bill To**

Vadnais Lake Area Water Management  
 800 East Co. Rd E  
 Vadnais Heights, MN 55127

Description	P.O. No.	Terms	Project
	Quantity	Rate	Amount
Hydro Seed - Spent Lime Treatment @ Oak Knoll Pond	1	4,500.00	4,500.00
Did the above work on 11/1 as requested by Greg			
<b>Total</b>			\$4,500.00

Thank you for your business.



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

# Invoice

Date	Invoice #
10/30/2023	88050

**Bill To**  
 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](mailto:erosionworks@msn.com)  
 Website: [www.erosionworks.net](http://www.erosionworks.net)

Description	P.O. No.	Terms	Project
	Quantity	Rate	Amount
Hydro Seed @ Oak Knoll Pond White Bear Lake - Zone 2	1	4,500.00	4,500.00
Did the above work on 10/30 as requested by Greg			
<b>Total</b>			\$4,500.00

Thank you for your business.



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

# Invoice

Date	Invoice #
8/30/2023	86662

Bill To  
 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

Description	P.O. No.	Terms	Project
	Quantity	Rate	Amount
Hydro Seed @ Oak Knoll Pond Fascments on 8/30	1	1,750.00	1,750.00
Did the above work on 8/30 as requested by Dylan			
<b>Total</b>			\$1,750.00

Thank you for your business.



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

# Invoice

Date	Invoice #
8/28/2023	86590

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

**Bill To**

Vadnais Lake Area Water Management  
 800 East Co. Rd E  
 Vadnais Heights, MN 55127

Description	P.O. No.	Terms	Project
Description	Quantity	Rate	Amount
Hydro Seed @ Oak Knoll Pond Easements	1	1,750.00	1,750.00
Did the above work on 8/28 as requested by Wade			
<b>Total</b>			\$1,750.00

Thank you for your business.



## Memorandum

**To:** Vadnais Lake Area Water Management Organization (VLAWMO)  
**From:** Greg Wilson, Barr Engineering Co. (Barr)  
**Subject:** Recommended Approach for 2024 Oak Knoll Pond Spent Lime Applications  
**Date:** January 31, 2024

At its August 2024 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 14 loads of spent lime applied to the shallower zone (Zone 1) of the pond and eight loads of spent lime applied to the deeper zone (Zone 2) of the pond.

Erosion Works commenced work on the project and applied three loads of spent lime to the shallower zone (Zone 1) of the pond during the latter half of August 2023 and four loads to the deeper zone (Zone 2) between late October and the middle of November 2023. As a result, the difference between the contracted and actual applied amount of spent lime corresponds with approximately 11 loads of spent lime that could still be applied to Zone 1 and four loads that could be applied to Zone 2 of Oak Knoll Pond to complete the full scope of work envisioned for the overall treatment contract.

VLAWMO staff have also completed pond water quality monitoring efforts since the spring of 2023 that provide insight into how the spent lime applications resulted in baseline water quality changes to Oak Knoll Pond. In general, it appears that the spent lime volume applied to-date has dropped the total phosphorus concentrations in Oak Knoll Pond by approximately half, both at the surface and bottom of the pond, with no sign of internal phosphorus release since the Zone 2 applications occurred.

Since Erosion Works expressed an interest and willingness to extend the contract end date at the agreed upon unit prices for completing the prescribed spent lime applications to Oak Knoll Pond in 2024, Barr recommends that VLAWMO continue to work with them to apply the remaining contracted loads of spent lime to the respective treatment zones of Oak Knoll Pond during the spring and early summer months of this year. It is also recommended that VLAWMO staff continue to monitor the pond water quality throughout the 2024 open water season, following previous recommendations for monitoring parameters, locations, and frequencies.

**FIRST AMENDMENT TO CONTRACTOR SERVICES AGREEMENT**

THIS FIRST AMENDMENT TO CONTRACTOR SERVICES AGREEMENT (“**Amendment**”) is made and entered into this 24 day of January 2024, by and between Vadnais Lake Area Water Management Organization, a Minnesota joint powers entity (“**VLAWMO**”), and Erosion Works (“**Contractor**”). VLAWMO and Contractor may hereinafter be referred to individually as a “party” or collectively as the “parties.”

**RECITALS**

- A. VLAWMO and Contractor entered into a Contractor Services Agreement (“**Agreement**”) effective as of August 10, 2023, to apply spent lime on Oak Knoll Pond.
- B. Contractor was to complete the project by November 3, 2023 under the Agreement, but due to a period of unavailability of the spent lime product through no fault of VLAWMO or Contractor, the 2023 application season ended with only part of the project being completed.
- C. The parties desire to adopt this Amendment to extend the Agreement and the project completion deadline through the 2024 season to allow Contractor to complete the project.

**AMENDMENT**

In consideration of the ongoing promises and agreements by the parties, the parties hereby agree as follows:

- 1. Schedule. Section 3 of the Agreement is hereby amended by deleting the reference to “November 3, 2023” and replacing it with “November 29, 2024.”
- 2. No Other Changes. The parties agree the Agreement, as amended herein, is extended and remains in full force and effect, and that no other modifications to its terms or conditions are intended by this Amendment.

IN WITNESS THEREOF, the parties hereto have executed this Amendment effective as of the date of the last party to execute it.

VLAWMO:

Contractor:

By: \_\_\_\_\_

By: Chad Mitchell

Its: \_\_\_\_\_

By: \_\_\_\_\_

Its: Manager

Its: \_\_\_\_\_

Date: \_\_\_\_\_

Date: 01/24/2024

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To: VLAWMO Board of Directors

From: Brian Corcoran and Phil Belfiori

Date: February 16, 2024

Re: Consent Agenda item V. C. Consideration of 2024 Public Drainage System Inspection Report

VLAWMO staff has prepared the attached 2024 Public Drainage System Inspection Report for consideration by the VLAWMO Board. This document is a product of the approved June 22, 2022 Public Drainage Management Policy.

The 2024 Public Drainage System Inspection Report is prepared in accordance to the March 31, 2023 Public Drainage Inspection Protocol. This report provides the VLAWMO Board of Directors with a summary of potential drainage system maintenance projects and will be used to plan for the upcoming year's potential maintenance activities.

Please find attached the 2024 Public Drainage System Inspection Report.

**Recommendation**

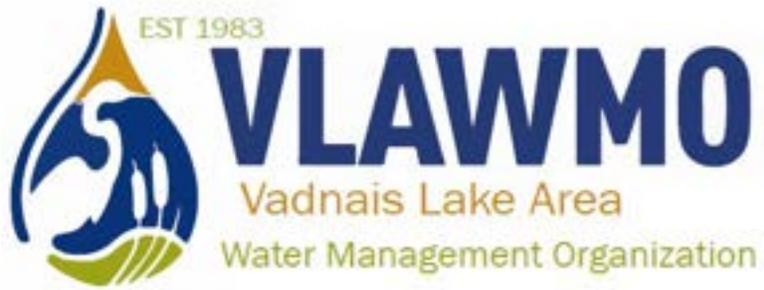
Staff recommends approval of the 2024 Public Drainage System Inspection Report

**Requested Motion**

Director \_\_\_\_\_ Moves and Director \_\_\_\_\_ seconds approval of the 2024 Public Drainage System Inspection Report

**Attached:**

- 2024 Public Drainage System Inspection Report



## PUBLIC DRAINAGE SYSTEM INSPECTION REPORT

---

**2024**



Brian Corcoran

# Vadnais Lake Area WMO

## 2024 Public Drainage System Inspection Report

Vadnais Lake Area WMO (VLAWMO), as the Drainage Authority for the public drainage system within its boundaries, is required per the VLAWMO Public Drainage Policy dated June 22, 2022, to provide a yearly Public Drainage Inspection Report. This report is prepared in accordance to the March 31, 2023 Public Drainage Inspection Protocol. The Public Drainage System Inspection Report provides the VLAWMO Board of Directors with a summary of potential drainage system maintenance projects and will be used to plan for the upcoming year's potential maintenance activities.

County Ditch 14 (CD14) received a Level 1 inspection in 2024 per **Figure 1A**. The CD 14 alignment is shown in **Figure 1**. This report contains recommendations and locations for potential future maintenance projects. Most maintenance areas from the 2023 inspection report were addressed in 2023.

**Any questions or comments regarding the content of this report can be submitted to:**

Brian Corcoran

651-204-6075

[brian.corcoran@vlawmo.org](mailto:brian.corcoran@vlawmo.org)

**Figure 1A**

**VLAWMO Drainage System Inspection Schedule**

Last Updated:

30-Mar-23

**Inspection Type**

- - Level 1
- - Level 2
- - Level 3

- X - repair completed or scheduled
- - Level 2 and 3 inspections completed

Drainage System	Branch	System Type	Inspection Priority	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Lambert Creek (CD14)	Main Trunk	Open Channel	High																	
	Branch 1	Open Channel	normal																	
	Branch 2	Open Channel	normal																	
	Branch 3	Open Channel	normal																	
	Branch 4	Open Channel	normal																	
	Branch 5	Open Channel	normal																	
	Branch 5A	Open Channel	normal																	

\*We intend on doing a level 1 on entire system in 2023

Open Channel and Flumes

Level 1 inspection – View from road crossings, and at known problem areas. Schedule: every year (high priority), every 10 years (normal priority), or in response to complaint

Level 2 inspection – Aerial drone survey or walking survey. Schedule: Every 5 years (high priority), every ten years (normal priority), or one year following a major repair

Level 3 inspection – Full survey of ditch (200’ spacing on centerline, follow 2018 HEI survey). Schedule: Prior to a major repair (Repair Report); every 10 years following a major repair.

Stormsewer

Level 1 inspection – Check outlets and known problem areas

Level 2 inspection – Full televising of stormsewer. City, Township & County responsibility

Roadway Culverts and Weirs

Responsibility of entity that constructed the structure

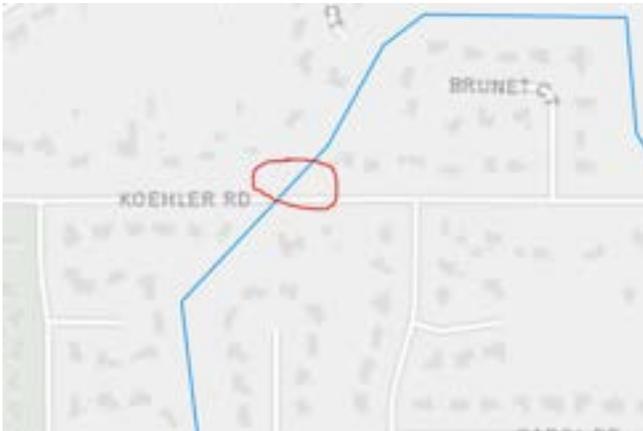
Figure 1 - County Ditch Alignment Map



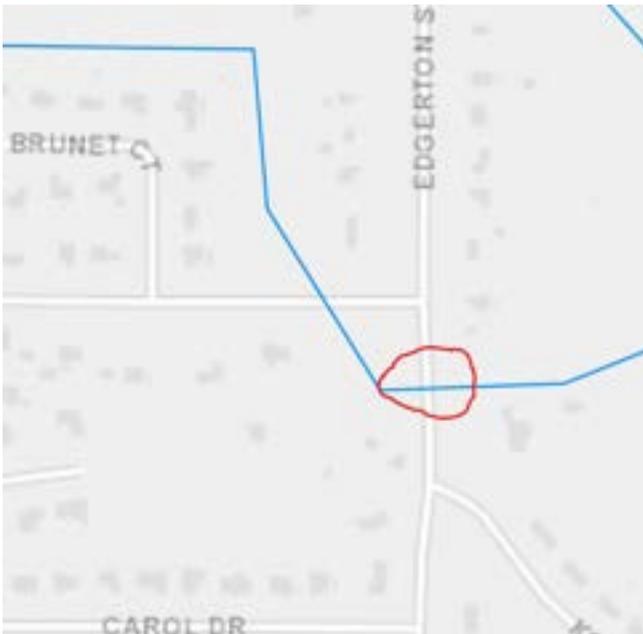
## **C D 14 Prioritized Drainage System Maintenance Projects**

**(Note: This list of potential maintenance projects is preliminary and subject to change. Timing of repairs is subject to a number of factors, including but not limited to available funding, resources, and coordination.)**

- Main Trunk - Erosion at Koehler Rd up stream of flume
  - Major gully has formed from stormwater runoff, possible drop structure for fix. Located in both public drainage and road ROW



- Main Trunk - Sink hole and gully at Edgerton & Koehler
  - Address stormwater runoff in area on both sides of Edgerton. Located in both public drainage and road ROW









**To:** VLAWMO Board  
**From:** Nick Voss, Education and Outreach Coordinator  
**Date:** February 21, 2024  
**Re:** Consent V. D. 2024 Education and Outreach Plan

---

The 2024 Education and Outreach Plan (EOP) is now posted online and was presented to the VLAWMO TEC at the Feb 2024 TEC meeting. The Education and Outreach Plan (EOP) is updated annually as an extension of the 10-year Watershed Management Plan.

An outline of the 2024 goals and program areas are listed here in this memo.

Find the full 2024 EOP online here:

[https://www.vlawmo.org/index.php/download\\_file/4793/](https://www.vlawmo.org/index.php/download_file/4793/)

### **Capital Improvement Campaigns**

- 1) *Watershed Management Plan (WMP) stakeholder engagement*
- 2) *VLAWMO website renovation*
- 3) *Major BMP campaigns: Wilkinson Deep-Water Wetland, Elmwood Park raingarden, Oak Knoll/Wood Lake Spent Lime study, East Vadnais climate resiliency study*

### **MS4 Permit Support**

*VLAWMO will support partner Cities and Townships in making progress in their MS4s.*

### **Communications and Volunteer Community**

- 1) *Community members utilize watershed knowledge to act on watershed issues with help from VLAWMO's tools and resources.*
- 2) *Community members are educated on VLAWMO issues and projects.*
- 3) *Coordinate an active volunteer base that learns and leads.*
- 4) *Watershed communications are accountable and active in the community*

### **Formal Education: Schools**

*Schools have established and maintained stormwater BMPs integrated with watershed education efforts.*

### **Informal Education and Interpretation**

*An appreciation of natural resources is established in the community, fostering ecological awareness, a sense of place, and civic participation.*

### **Professional Support: BOD, TEC, WAV**

*Key personnel have continued to advance their knowledge of water and related natural resources.*

- Supplementary learning
- Blue Thumb partner meetings (new)

Articles, presentations, or workshops  
News and events in the watershed field  
Volunteer opportunities  
Updated on staff projects and efforts

**Blue Thumb Partner Meeting:**

The Board, TEC, and CAC are welcome to attend Blue Thumb Partner meetings that occur 2-3 times/year. VLAWMO is a member of the Blue Thumb partnership, which provides education resources, connections to expert workshops and guest speakers, and close working relationships with the State Lawns to Legumes grant program. Partner meetings consist of networking and various guest speakers and special presentations from the field of native plants and stormwater management. The next Blue Thumb meeting is occurring on Thursday February 29 at 4:30-6:30 pm. Contact Nick for more details or to express interest in future Blue Thumb engagements.

To: VLAWMO Board of Directors

From: Dawn Tanner

Date: February 21, 2024

Re: **V. E.:** Birch Lake shoreline maintenance renewal of MOU and partnership with City of WBL

---

VLAWMO received the signed MOU from the City of WBL to renew the maintenance relationship that has been ongoing between VLAWMO and the City for the past 12 years, maintaining the north Birch Lake shoreline project. The new MOU renews the maintenance partnership between the 2 entities at this project area and projects that ongoing maintenance will require a similar investment as the recent preceding years. VLAWMO's share of this maintenance cost is part of the 2024 VLAWMO budget and is planned to be included in future budgets as well. VLAWMO received the signed MOU from the City on February 14, 2024. Staff recommends that the Board sign the MOU with City of WBL and authorize staff to return the fully executed MOU to the City of WBL.

**Requested Action:** VLAWMO staff request that the Board sign the MOU with the City of WBL to renew ongoing maintenance of the northern shoreline restoration project on Birch Lake and return the fully executed MOU to the City of WBL.

**Attachment:**

- MOU to renew ongoing Birch Lake shoreline maintenance between VLAWMO and NOHOA

**Memorandum of Understanding Between  
the Vadnais Lake Area Water Management Organization and City of White Bear Lake  
to update the Birch Lake Shoreland Restoration Project Maintenance Agreement**

**Figure 1: Map of shoreline restoration that was completed in 2012.**



This Memorandum of Understanding (“MOU”) is made and entered into by and between the Vadnais Lake Area Water Management Organization (“VLAWMO”) and the City of White Bear Lake (“City”) each acting by and through its duly authorized governing bodies.

Whereas, VLAWMO and the City had a maintenance agreement from December 13, 2011 through 2021 to maintain the north shoreline Birch Lake project restoration area completed in 2012 (**Project**) on City of White Bear Lake property;

Whereas, VLAWMO and the City worked in partnership to maintain this Project during 2022 and 2023;

Whereas, ongoing maintenance is needed for Project sustainability;

Whereas, VLAWMO has been working with a contractor on a suite of maintenance sites in the watershed since 2021, and that contractor has provided high-quality maintenance including invasive species removal, native species enhancement, and recommendations for each following year;

Whereas, VLAWMO and the City mutually desire to continue to support and maintain this Project;

Whereas, maintenance of this Project has been achieved at the dollar amounts of: \$2,000 in 2021, \$1,500 in 2022, \$1,500 in 2023, and \$1,500 in 2024, and ongoing minor maintenance is anticipated to be in a similar cost range;

Whereas, VLAWMO and the City included funding for Project maintenance in their approved budgets for 2024 and plan to continue to budget for ongoing maintenance annually;

Whereas, both parties wish to clearly define their respective roles in ongoing maintenance of the Project;

Now, therefore, the parties hereby agree to enter into this MOU and to comply with the following processes with respect to Project maintenance:

1. VLAWMO Responsibilities. VLAWMO agrees to do each of the following:
  - a. VLAWMO will enter into a contract with a contractor and pay for services for maintenance of project sites that include this specific Project on an ongoing basis;
  - b. Provide for management and oversight with the contractor;
  - c. Attend meetings and participate in discussion related to ongoing project maintenance;
  - d. At the end of the growing season, pay the contractor for their services in full and invoice the City for 50% of the cost of maintenance of the Project;
  - e. Plan for and budget for ongoing annual Project maintenance;
  - f. Provide the quote for the coming year to the City for ongoing cost-share approval.
  
2. City Responsibilities. City agrees to do each of the following:
  - a. Attend meetings and participate in discussion related to ongoing Project maintenance.
  - b. Reimburse VLAWMO for 50% of the annual Project maintenance cost, once VLAWMO has received the annual invoice and provided that invoice to the City;
  - c. Plan for and budget for ongoing annual Project maintenance;
  - d. Once the quote for the coming year has been provided to the City by VLAWMO, notify VLAWMO of intended ongoing financial support.
  
3. Use of Study. The reports or documents produced in whole or in part under this MOU will be subject to fair use and may not be the subject of an application for copyright by or on behalf of City or VLAWMO. City and the VLAWMO may use, without restriction, the work products of the Study including, but not limited to, any associated reports and documents.
  
4. Term. This MOU is effective on the date of the last party to execute it. This MOU shall terminate upon completion of maintenance work with the contractor in 2034 and reimbursement for the professional services costs incurred as provided herein, unless prior notice has been provided by either party (as stated in #5).
  
5. Termination. Each party has the right to terminate this MOU at any time and for any reason by submitting written notice of the intention to do so to the other party at least thirty (30) days prior to the specified effective date of such termination.

6. Entire Agreement; Amendments. This MOU constitutes the entire agreement between the parties regarding this matter. No amendments to this MOU are valid unless they are in writing and signed by both parties.

IN WITNESS WHEREOF, the parties have caused this MOU to be executed by their duly authorized representatives and is effective as of the date of the last party to execute it.

**Vadnais Lake Area Water  
Management Organization**

\_\_\_\_\_  
Chairperson

\_\_\_\_\_  
Administrator

Date: \_\_\_\_\_

**City of White Bear Lake**

  
\_\_\_\_\_  
Mayor

  
\_\_\_\_\_  
City Manager

Date: 2/13/24

To: VLAWMO Board of Directors  
From: Dawn Tanner  
Date: February 21, 2024  
Re: **V. F.:** Invasive yellow iris removal partnership project MOU with NOHOA

---

VLAWMO received the signed MOU from NOHOA for partnership on invasive yellow iris removal in 2024. This is a continuation of partnership that has been ongoing since 2022 and is part of the 2024 VLAWMO budget. At their February meeting, the TEC recommended that the Board sign the MOU with NOHOA for 2024 and authorize staff to return the fully executed MOU to NOHOA.

**Requested Action:** VLAWMO staff request that the Board sign the MOU with NOHOA for invasive yellow iris removal partnership in 2024 and return the fully executed MOU to NOHOA.

**Attachment:**

- MOU for invasive yellow iris removal between VLAWMO and NOHOA

**Memorandum of Understanding Between  
Vadnais Lake Area Watershed Management Organization  
and the North Oaks Home Owners' Association**

This Memorandum of Understanding (“MOU”) is made and entered into by and between the Vadnais Lake Area Watershed Management Organization (“VLAWMO”) and the North Oaks Home Owners’ Association (“NOHOA”) each acting by and through its duly authorized governing bodies.

Whereas, VLAWMO and NOHOA mutually desire to improve and protect shoreline areas and water quality;

Whereas, the invasive Yellow iris removal project has been underway for the past 4 years—beginning with shoreline areas around Deep Lake and expanding to include shoreline areas around Pleasant Lake in 2023—and is making important progress in removing this invasive species and protecting native plant community abundance and diversity;

Whereas, rare plant species of conservation concern, including Water willow (*Decodon verticillatus*), are found in North Oaks, and these plants are found in shoreline areas that are also infested with Yellow iris;

Whereas, Yellow iris infestations occur in the drinking water chain of lakes and are most abundant in North Oaks waterbodies in the Vadnais Lake Area Watershed;

Whereas, control of Yellow iris in North Oaks waterbodies helps to protect uninvaded shoreline areas downstream such as Sucker and East Vadnais Lakes;

Whereas, healthy native plant communities offer increased resilience and ability to buffer against climate variability and disturbance;

Whereas, the parties wish to clearly define their respective roles and financial support for Yellow iris removal in 2024 as part of the VLAWMO maintenance agreement with Natural Shore Technologies, Inc. (NST);

Now, therefore, the parties hereby agree to enter into this MOU:

1. NOHOA. NOHOA agrees to do the following:

- a. Reimburse the VLAWMO for \$3,000 of the costs in the maintenance contract between VLAWMO and NST for Yellow iris removal on Deep and Pleasant Lakes.

2. VLAWMO Responsibilities. VLAWMO agrees to do each of the following:

- a. Provide for management and oversight of the maintenance agreement and activities included therein with NST.
- b. Pay the overall contract with NST at the end of the 2024 growing season that includes a VLAWMO contribution of \$3,000 and NOHOA contribution of \$3,000 for Yellow iris removal on Deep and Pleasant Lakes.

c. Invoice NOHOA for its portion of completed Yellow iris removal efforts after the invoice for 2024 work has been received from NST by VLAWMO.

3. Use of Any Related Documentation. Reports or documents produced in whole or in part under this MOU will be subject to fair use and may not be the subject of an application for copyright by or on behalf of VLAWMO nor NOHOA. VLAWMO and NOHOA may use, without restriction, products of the removal and maintenance work including, but not limited to, any associated reports and documents.
4. Term. This MOU is effective on the date of the last party to execute it. This MOU shall terminate upon completion of maintenance work with NST in 2024 and reimbursement for the professional services costs incurred as provided herein.
5. Termination. Each party has the right to terminate this MOU at any time and for any reason by submitting written notice of the intention to do so to the other party at least thirty (30) days prior to the specified effective date of such termination. NOHOA shall remain responsible for reimbursing the VLAWMO for the professional costs it incurs prior to the effective date of the termination.
6. Entire Agreement: Amendments. This MOU constitutes the entire agreement between the parties regarding this matter. No amendments to this MOU are valid unless they are in writing and signed by both parties.

IN WITNESS WHEREOF, the parties have caused this MOU to be executed by their duly authorized representatives and is effective as of the date of the last party to execute it.

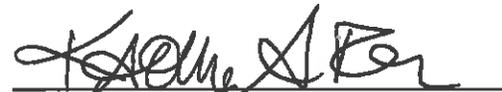
**Vadnais Lake Area Watershed  
Management Organization**

\_\_\_\_\_  
Chairperson

\_\_\_\_\_  
Administrator

Date: \_\_\_\_\_

**North Oaks Home Owners' Association**

  
\_\_\_\_\_  
Authorized Representative

Date: 1/11/23

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To: VLAWMO Board of Directors

From: Dawn Tanner

Date: February 21, 2024

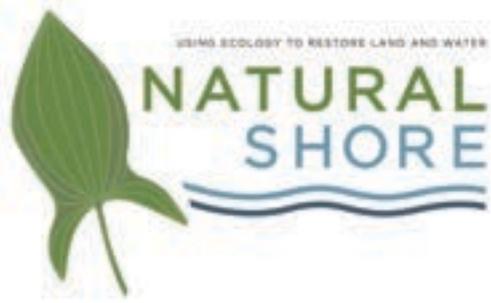
Re: **V. G.** : Rotary Park Prioritization Study with NST, and in partnership with the City of WBL, complete (for work scheduled to begin in 2025)

---

Natural Shore Technologies provided their final draft Rotary Park, wetland prioritization for restoration, report at the end of 2023, as scheduled. As part of the process, they developed a table with recommended actions and estimated budget for restoration actions. It is anticipated that these actions will begin in partnership with the City of White Bear Lake and VLAWMO in 2025. The report and recommendation schedule are attached in the packet. These documents have also been provided to the City of White Bear Lake.

**Attachments:**

- 1. Rotary Park Nature Preserve Assessment by NST  
[https://www.vlawmo.org/index.php/download\\_file/4804/](https://www.vlawmo.org/index.php/download_file/4804/)
- 2. Rotary Park Nature Preserve Budget Addendum memo by NST



**Date:** December 14, 2023

**To:** Dawn Tanner, Natural Resources Specialist, VLAWMO

**Memo Description:** Budget Addendum to the report titled, “Rotary Nature Preserve Wetland – Plant Community Assessment and Management Recommendations.” Please refer to page 18 of the report for a detailed summary of restoration tasks.

**Preliminary Restoration Schedule with Associated Budget:**

Task #	Plant Comm.	Restoration Elements	Cost Est.	Timeline
1	WMn82b and MRn93	Spot herbicide, weed whip, and cut cattail below water level – outlier patches	\$25,000 - \$30,000	2025
2	Perimeter around WMn82b stands	Target RCG/PL and RCG/PL/CT stands around WMn82b		
3,5	RCG, MRn93 and WMn82b1	Spring/summer mowings and fall herbicide treatments - RCG		
1	WMn82b and MRn93	Spot herbicide, weed whip, and cut cattail below water level – outlier patches	\$25,000 - \$30,000	2026
2	Perimeter around WMn82b stands	Target RCG/PL and RCG/PL/CT stands around WMn82b		

3	MRn93 and WMn82b1	Site prep. - seed and plant – erosion control		
5	RCG (NE section closest to parking area)	Site prep. - seed and plant – erosion control	\$30,000	2027
6	RCG/PL and RCG/PL/CT	Treat test plots in the northwest portions of the wetland		
5	RCG (Eastern side parallel to walking path)	Site prep. - seed and plant – erosion control	\$30,000	2028
6	RCG/PL and RCG/PL/CT	Area scope and restoration approach based on test area results	\$30,000	2029

**NOTES:**

Maintenance costs are not included above. Once, restoration is initiated, annual maintenance activities would range from \$4,000-\$8,000, depending coverage and the invasive weed response to initial control efforts.

Purple loosestrife beetle rearing can be performed by volunteers, thus it is not included in the budget summary above.

Restoration efforts past 2029 will be shaped by restoration results and pilot test results that take place in the RCG/PL and RCG/PL/CT meadows (northwest section of the wetland).

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To: VLAWMO Board of Directors  
From: Dawn Tanner  
Date: February 21, 2024  
Re: **V. H.** : Carp Solutions year-end report for 2023

---

Carp Solutions provided the year-end report for 2023 carp removal in the Pleasant Lake system. The report is attached in the packet and states the progress made since the project was initiated in 2019. Although there is a range in the current biomass estimates, depending upon which technology is used and because of small sample sizes, the population is now anticipated to be below the targeted management threshold. Preparation is in place for removal activities during spring 2024.

Following presentation of the report to the Board in this packet, the report will be posted on the VLAWMO website. A carp removal update article has also been submitted for the March issue of North Oaks News.

**Attachments:**

Pleasant Lake System Carp Management Report by Carp Solutions  
[https://www.vlawmo.org/index.php/download\\_file/4805/](https://www.vlawmo.org/index.php/download_file/4805/)

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To: VLAWMO Board of Directors

From: Dawn Tanner

Date: February 21, 2024

Re: **V. I.:** Update on North Oaks News articles on Pleasant Lake aquatic vegetation

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VLAWMO staff have been working with St. Paul Regional Water Services and NOHOA to provide information about relationships between healthy native aquatic vegetation and water quality. That effort has included 3 articles submitted in a series to North Oaks News. The 2 articles that were published in 2023 were provided in the December, 2023, packet. The 3<sup>rd</sup> article was published in the February issue of North Oaks News and is attached in this month's packet. VLAWMO, NOHOA, and SPRWS will be able to use these articles when they receive questions from residents regarding aquatic plants in Pleasant Lake.

Two educational signs are also being drafted for intended use on-site at the Pleasant Lake beach. These signs have been approved in concept by NOHOA and will need to be presented in draft for formal approval prior to installation.

**Attachments:**

North Oaks News article from February 2024 on aquatic vegetation -  
[https://www.vlawmo.org/index.php/download\\_file/4806/](https://www.vlawmo.org/index.php/download_file/4806/)

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To: VLAWMO Board of Directors  
From: Dawn Tanner  
Date: February 21, 2024

Re: **V. J. Wilkinson** deep-water wetland restoration minor update

Natural Shore Technologies completed buckthorn removal on the islands within the project site in January, when frozen conditions allowed safe access. Eagle monitoring is ongoing by VLAWMO staff.

**Pre-condition with thick buckthorn in the understory of the islands**



**Post-condition with buckthorn removed; native willows remain**



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To: Board of Directors  
From: Phil Belfiori, Administrator  
Date: February 21, 2024

**Re: V. K.** Update on scheduling of Oath of Office for Director West for the April Board meeting

Per direction from Chair Lindner, staff will schedule the Oath of Office for Director Andrea West (new VLAWMO representative from the City of White Bear Lake) to the April 24, 2024 Board meeting. The schedule for caucuses on Feb. 27<sup>th</sup> required the City to reschedule the White Bear Lake City Council meeting to Feb. 28<sup>th</sup> which conflicts with the February VLAWMO Board meeting. Traditionally, the oath of office would be administered to new Board members during the first board meeting of the year.

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To: Board of Directors

From: Phil Belfiori, Administrator

Date: February 21, 2024

Re: **VI. A. 1.** Elections and Appointments

1. **Election of officers.** 2023 Slate: Chair: Jim Lindner; Vice Chair: Dan Jones; Secretary Treasurer: Katherine Doll Kanne. Please consider how you might best serve. Officers preside over the meeting (Chair, Vice Chair, Sec-Tres.) and become check signers through US Bank. Other duties: the Chair may speak for VLAWMO in public situations, Review draft board meeting agenda, and the Sec- Treasurer is a member of the Finance committee.
2. **Subcommittee Assignments.** Finance, Policy & Personnel Subcommittee may meet 2-4 times per year. They make recommendations for Board action as far as budget, new policies or policy updates and personnel matters. They also assist with human resources questions and direction as needed. The three Board members that served on the subcommittee in 2023 were Jim Lindner, Katherine Doll Kanne and Ed Prudhon.

**Technical Commission (TEC) Chair and Officers.** VLAWMO process requires appointment of the TEC Chair by the Board. For 2024, TEC has recommended Gloria Tessier commissioner from City of Gem Lake as its Chair. Other Officers appointed by the TEC at their January 2024 meeting include Nick Ousky as Vice Chair, Andy Nelson as Treasurer, and Terry Huntrods as Board Liaison.

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To: VLAWMO Board of Directors

From: Lauren Sampedro, Watershed Technician & Program Coordinator

Date: February 16, 2024

Re: **VI.B.1.** Consider Landscape Level 2 2024-01 The Pines Smart Irrigation Controllers Grant Application

### Introduction

LL2 2024-01 The Pines HOA Smart Irrigation Controllers

- Applicant: The Pines of North Oaks HOA
- Location: The Pines of North Oaks neighborhood including:
  - Pine Cone Rd, White Pine Rd, Larch Ln, Pearson Pl, Knoll Rd, Buchal Heights, Marsh Ridge Rd, Hawthorne Ct
- Project Type: Smart Irrigation Controllers
- Total Estimated Project Cost: \$21,239.95
- VLAWMO Grant Recommendation: 90%, up to \$19,115.96

### Background

This application proposes irrigation system updates through the installation of smart irrigation controllers across a 100-acre neighborhood in North Oaks. The project area includes about 96 homes. In 2017, VLAWMO provided the HOA \$10,000 for installing two smart irrigation controller systems in the neighborhood. This application will be building off of that work and upgrading the remaining irrigation controller systems in the neighborhood. Like other communities within VLAWMO, the City of North Oaks is within the North and East Metro Groundwater Management Area and the DNR is supportive of groundwater consumption reduction efforts within this area.

As part of the project, five existing irrigation systems in the neighborhood will be upgraded to newer-technology Weathermatic smart irrigation controllers with flow sensors and weather-based sensors to reduce groundwater usage. The Pines HOA has monitored the residents' water usage since 2021 and will use that information to help determine the groundwater conservation changes as a result of the smart irrigation controllers. The new smart irrigation controllers will provide an online monitoring system that will provide HOA residents with real-time information on groundwater usage, which will make monitoring easier. A grant agreement requiring annual reporting to VLAWMO will be required so staff can continue working to gather groundwater usage data.

The applicant obtained five bids for the project below:

- Prescription Landscape: \$123,241.09
- Global Irrigation Solutions: \$92,000.00
- Williston Irrigation (Hunter Controllers): \$24,090.78
- Horticulture Services: \$21,896.86
- Williston Irrigation (Weathermatic Controllers): \$21,239.95

The estimated project costs and proposed grant award are based on Williston Irrigation's low bid. This project was discussed at the TEC meeting on February 14<sup>th</sup> and the TEC recommended the project and encouraged VLAWMO to use any collected data to conduct a targeted education and outreach campaign to other HOAs within VLAWMO.

### Staff Recommendation

Staff recommend the VLAWMO Board of Directors approve Landscape Level 2 Grant funds for the 2024-01 The Pines HOA Smart Irrigation Controllers.

Proposed Motion

It was moved by Director \_\_\_\_\_ and seconded by Director \_\_\_\_\_ to approve the Landscape Level 2 grant application 2024-01 at 90% of eligible project expenses, not to exceed \$19,115.96 in accordance with VLAWMO staff's recommendation and established program guidelines.

Attachments

- Application packet - [https://www.vlawmo.org/index.php/download\\_file/4807/](https://www.vlawmo.org/index.php/download_file/4807/)
- PowerPoint slides

# VI.B.1. The Pines HOA Smart Irrigation Controllers

## LL2 2024-01 Grant Application

**Lauren Sampedro**  
**Board of Directors**  
2/28/2024



### LL2 2024-01 Location Aerial



# Bid Summary



	Horticulture Services	Williston Irrigation	Williston Irrigation	Global Irrigation Solutions	Prescription Landscape
Product Type	Weathermatic	Weathermatic	Hunter ICC2	RainBird ESP	RainBird ESP
Wire System	2-wire	2-wire	n/a	2-wire	2-wire
Master Valve / Flow Sensor	YES	YES	YES	YES	YES
Pine Cone Road	\$4,384.35	\$4,446.82	\$4,357.88		
Marsh Ridge	\$4,351.30	\$4,220.76	\$4,136.34		
Knoll / Pearson	\$5,100.21	\$4,947.50	\$4,848.26		
Pine Road	\$3,021.24	\$2,930.60	\$6,147.62		
Bochal Heights	\$4,839.76	\$4,694.57	\$4,600.68		
<b>Total Premium</b>	<b>\$21,596.56</b>	<b>\$21,239.95</b>	<b>\$24,090.78</b>	<b>\$92,000.00</b>	<b>\$ 123,241.09</b>

# Proposed Motion



It was moved by \_\_\_\_\_ and seconded by \_\_\_\_\_ to approve the Landscape Level 2 Grant Application 2024-01 at 90% of eligible project expenses, not to exceed \$19,115.96.

To: VLAWMO Board of Directors

From: Lauren Sampedro, Watershed Technician & Program Coordinator

Through: Phil Belfiori, Administrator

Date: February 16, 2024

Re: **VI. B. 2.** Update on East Vadnais Lake Resiliency Study and Consider Draft MOU for Potential Future Grant Application Partnership

---

### Introduction

VLAWMO, in partnership with the City of Vadnais Heights, is seeking Board approval of a draft MOU for a potential future partnership on an application for the MPCA's Implementation Grant for Stormwater Resilience.

### Update on Resiliency Study

At its August 23<sup>rd</sup> Board meeting last year, the VLAWMO Board approved the hiring of engineering consulting firm SRF Consulting Group ("SRF") to complete the East Vadnais Lake Subwatershed Resiliency Study. Completion of the study is well underway and is anticipated to be completed in April/May. To begin work on the study, SRF has conducted preliminary hydrologic and hydraulic modeling to create an existing conditions model of the subwatershed using XP-SWMM. This included collecting and incorporating information such as land use and impervious surface data, storm sewer pipe location and sizing information, field-verified storm sewer infrastructure and outlet control structure elevations, as-built plans from existing stormwater management features, and known localized flooding areas. SRF used this data to produce a preliminary flood inundation map with potential alternative BMPs identified that would have the potential to provide some level of flood reduction and improve water quality downstream. Nine alternative BMPs are included on the attached draft flood inundation map (attachment 2).

VLAWMO, the City of Vadnais Heights, Ramsey County, and Saint Paul Regional Water Services had the opportunity to review and discuss the nine alternative BMPs with SRF at a stakeholder meeting on December 11<sup>th</sup>. The partners selected some of the top projects for SRF to take to a conceptual design level and investigate further as part of the study based on a draft decision matrix that weighs the benefits and considerations for each project area (see attachment 3). SRF recently completed a level 1 wetland delineation to have a better idea of where the wetlands are located in the top project areas until a full wetland delineation can be completed during the growing season this spring. SRF is currently working on high level concepts for the top project areas and drafting the report for the resiliency study. Attachment 4 contains the draft table of contents for the study.

### MPCA Implementation Grant for Stormwater Resilience

During the process of completing the East Vadnais Lake Resiliency Study, the MPCA released a brand-new grant opportunity on January 11<sup>th</sup> called the Implementation Grant for Stormwater Resilience. The purpose of this grant is to encourage green infrastructure projects that provide multiple benefits, especially those that will address stormwater vulnerabilities with the changing climate, such as projects that will reduce localized existing and future flooding and improve water quality. This grant has a very short application deadline of April 11<sup>th</sup> and requires projects to be ready for construction at the time of application submittal.

The City of Vadnais Heights has identified initial interest in considering applying for this grant to implement some of the potential projects SRF is conceptualizing as part of the East Vadnais Lake Resiliency Study. Since the study is not yet completed and design work and permitting considerations are still underway, the timing of the grant is not optimal. There still remains some level of uncertainty with several technical and wetland permitting related issues that would need to be resolved before the City could move forward with a grant application. If the City chooses to move forward with pursuing this grant opportunity, staff have prepared a draft MOU (attachment 5) to allow for future partnership with the City for preparing the grant application. The MOU includes providing financial assistance of up to \$20,000 to the City if they choose to hire an engineering firm to assist with the preparation of grant application materials. This attached MOU might not get executed, but is needed due to the timing of the next available VLAWMO Board meeting. The MOU will allow VLAWMO staff to quickly adapt to changing circumstances and support the City if the City moves forward with a grant application.

The funding for this possible MOU with the City has been anticipated and is included in the approved 2024 VLAWMO Budget under the Vadnais Lake Subwatershed Fund.

#### Staff Recommendation

VLAWMO staff recommend the Board of Directors approve the attached draft MOU with the City of Vadnais Heights to support a potential MPCA Implementation for Stormwater Resilience Grant application if the City decides to pursue the application.

#### Proposed Motion

It was moved by Director \_\_\_\_\_ and seconded by Director \_\_\_\_\_ to approve the MOU between VLAWMO and the City of Vadnais Heights with non-material changes.

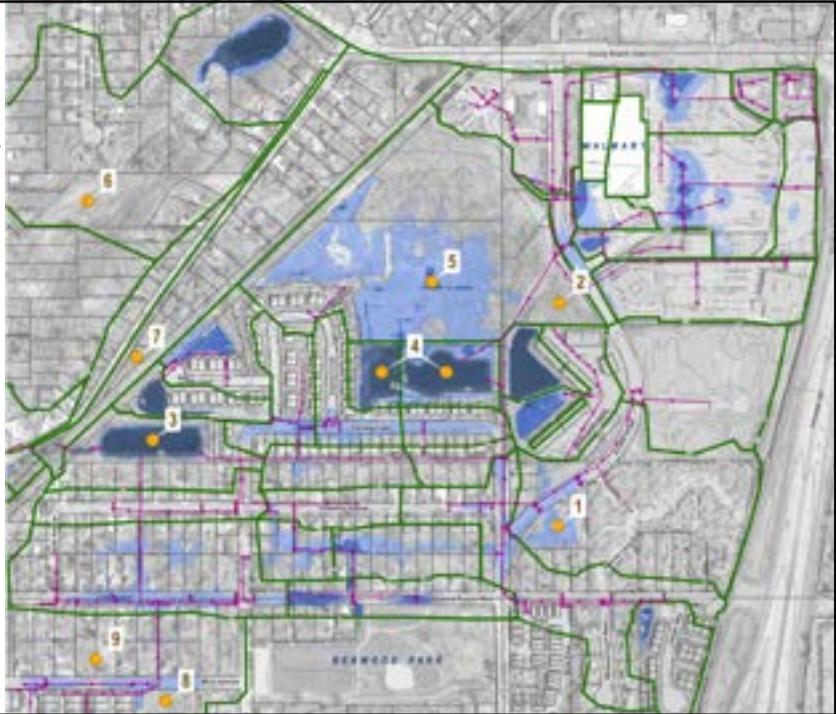
#### Attachments

- PowerPoint slides
- Draft Alternative BMPs Location Map
- Draft BMP Decision Matrix
- Draft Resiliency Study Table of Contents
- Draft MOU for MPCA Grant



## Update on Status of Study

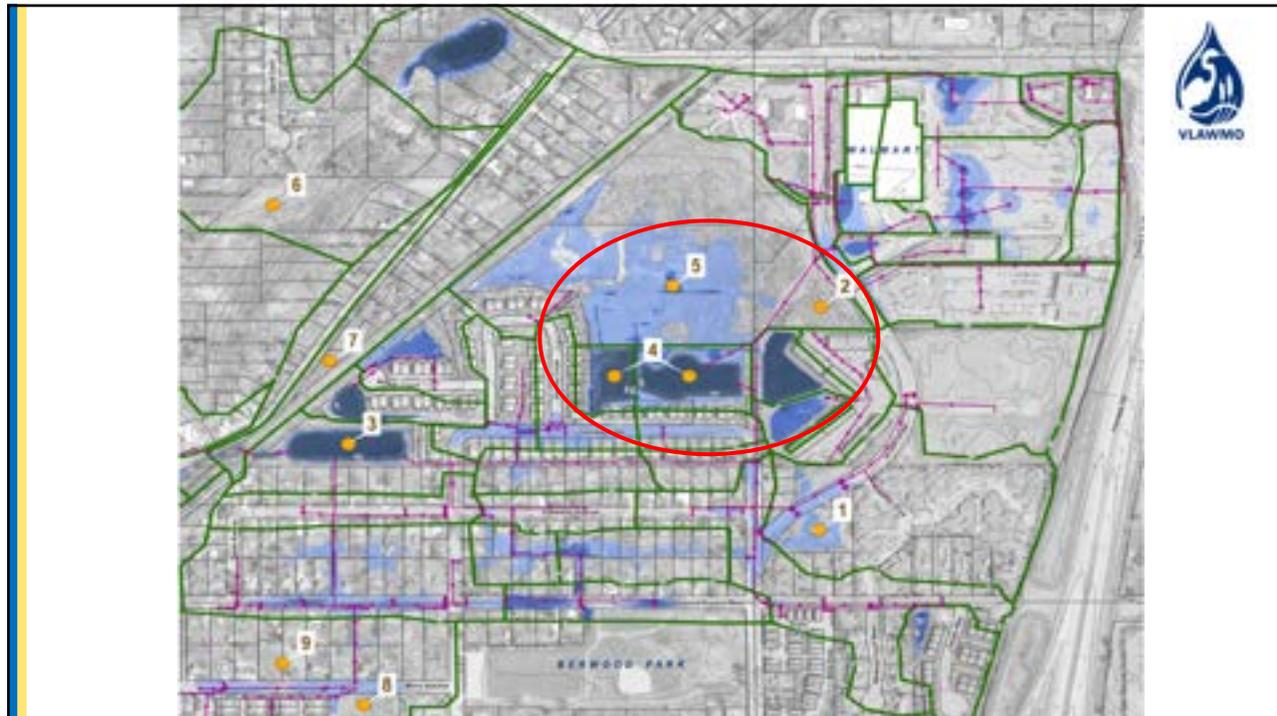
### 9 Alternative BMPs Locations



## Draft Study BMP Decision Matrix



- Each of the 9 BMP locations are being evaluated on ~20 benefits and considerations through a decision matrix as part of the Study, such as:
  - Water quality benefits
  - Flood control benefits
  - If located on public vs. private land
  - If wetlands are present
  - If soil could be contaminated
- Stakeholders met on Dec. 11 to discuss the draft decision matrix & determined the Study could focus on BMPs 2, 4, & 5



## MPCA Implementation Grant for Stormwater Resilience

- Released on January 11, 2024
- Newly created grant opportunity
- Purpose: support green infrastructure projects that address stormwater vulnerabilities with climate change, especially related to reducing existing & future flooding
- Quick application deadline: April 11, 2024
- Projects need to be ready for construction



## Summary of proposed partnership MOU with the City of Vadnais Heights\*



MOU would allow VLAWMO to:

Partner with City on possible MPCA Grant application (City would be grant applicant)

Provide financial assistance to reimburse City for up to \$20,000 for professional services for grant application development

Provide Letter of Support to City for VLAWMO partnership on local match if grant successful

Assist City with producing deliverables/writing potential grant application

\* If City decides to pursue grant application

## Staff Recommendation



- VLAWMO staff recommend the Board of Directors approve the attached draft MOU with the City of Vadnais Heights to support a potential MPCA Implementation for Stormwater Resilience Grant application if the City decides to pursue an application

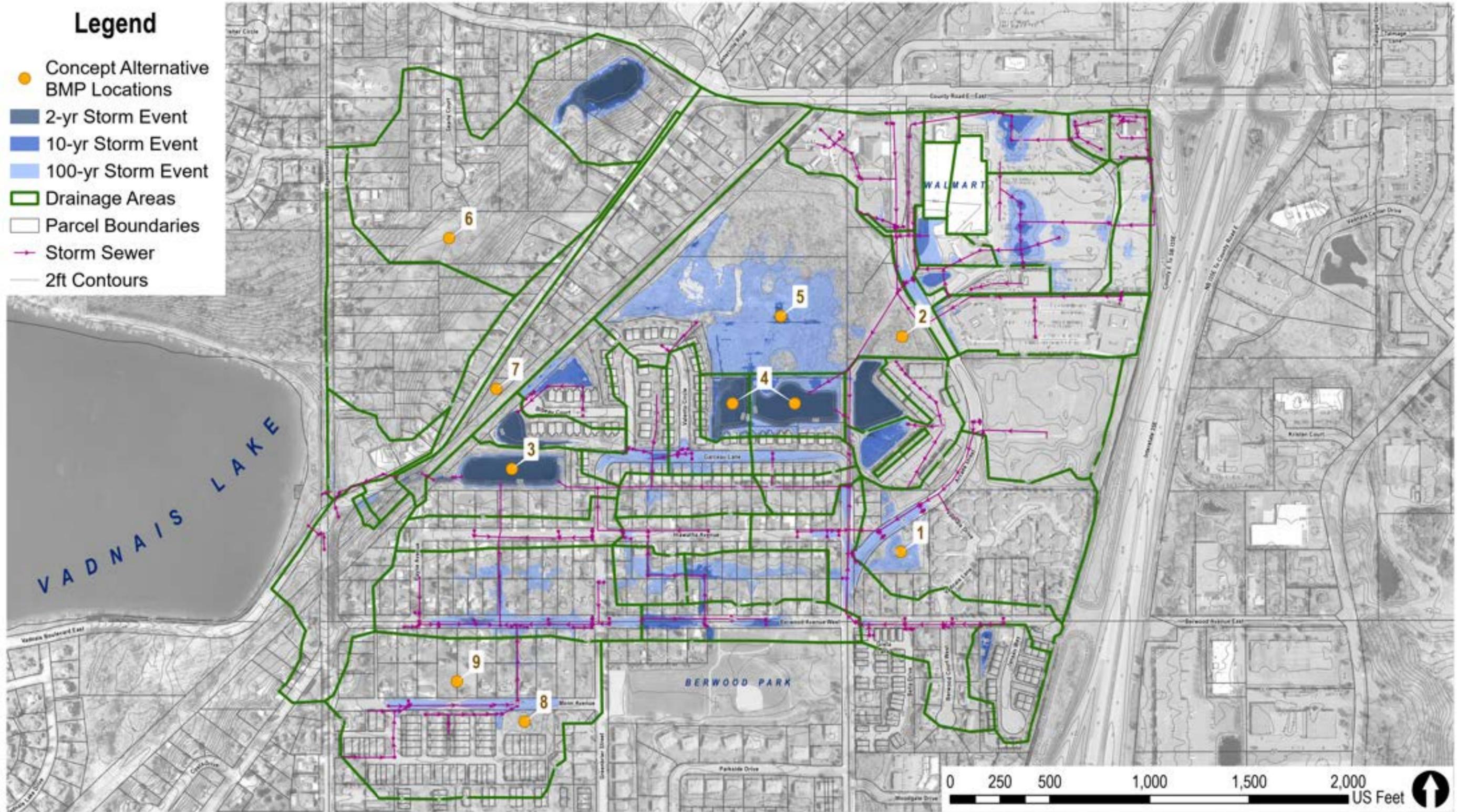
## Proposed Motion

It was moved by Director \_\_\_\_\_ and seconded by Director \_\_\_\_\_ to approve the MOU between the City of Vadnais Heights and VLAWMO with non-material changes.



## Questions?





**Flood Inundation Overview Map**  
East Vadnais Lake Subwatershed Resiliency Study  
Vadnais Lake Area Watershed Management Organization

**Table 1. East Vadnais Lake Subwatershed Resiliency Study - Decision Matrix (Weighted)**

Concept Alternative Number	Concept Alternative Location	Concept Alternative Benefit	Main Goals & Benefits								Considerations													
			Rate Control	Water Quality	Volume Control	Flood Control	Ease of BMP Maintenance	BMP Access	Future Public Benefit/Amenity	Summary	Proximity to Low Point	Located Within Public Parcel	Existing Utilities	Soil Permeability	Soil Contamination	DWSMA	High Groundwater	Wetlands Present	Ease of Routing	Size of Drainage Area	Ownership of Drainage Area	Collaboration with Future Projects	Potential Funding	Summary
1	Arcade South	Flood Control Water Quality/Quantity	●	●	●	●	◐	●	○	●	●	●	◐	○	◐	●	○	○	●	◐	●	○	●	◐
2	Arcade North (City Owned)	Flood Control Water Quality/Quantity	●	●	●	●	◐	●	○	●	●	●	◐	○	◐	●	○	○	●	◐	●	○	●	◐
3	Cigar Pond (City Owned)	Flood Control Water Quality/Quantity	●	●	●	●	◐	◐	○	●	●	●	◐	○	○	●	○	●	◐	●	◐	●	◐	◐
4	1700/1701 Pond (City Owned Pond)	Flood Control Water Quality/Quantity	●	●	●	●	◐	◐	○	●	●	●	◐	○	○	●	○	●	●	●	◐	●	◐	◐
5	Large Wetland (City Owned)	Flood Control Water Quality/Quantity	●	●	○	●	◐	●	●	●	●	●	◐	○	◐	●	○	○	●	●	◐	○	●	◐
6	Private North Parcel (3548 Edgerton St)	Flood Control Water Quality/Quantity	◐	●	●	○	◐	○	○	◐	○	○	◐	◐	◐	●	◐	●	●	◐	○	○	●	◐
7	County Lot (Centerville Rd)	Flood Control Water Quality/Quantity	◐	●	●	○	◐	●	○	◐	○	●	◐	●	◐	●	◐	●	●	◐	●	○	●	◐
8	South Residential Area 1 (Villas on Edgerton)	Flood Control Water Quality/Quantity	●	●	●	◐	◐	●	○	◐	●	○	◐	◐	◐	●	◐	●	●	◐	◐	○	●	◐
9	South Residential Area 2 (630/644 Berwood Ave W)	Flood Control Water Quality/Quantity	●	●	●	◐	◐	●	○	◐	●	○	◐	◐	◐	●	◐	●	●	◐	◐	○	●	◐

**Table 2. East Vadnais Lake Subwatershed Resiliency Study - Criterion**

CRITERION	DESCRIPTION	●	◐	◑
<b>Project Parameters</b>				
Rate Control	Potential to meet the rate control required by the Watershed District/City.	High	Medium	Low
Water Quality	Potential to meet the water quality required by the Watershed District/City.	High	Medium	Low
Volume Control	Potential to meet the volume control required by the Watershed District/City.	High	Medium	Low
Flood Control	Potential to provide control required by the Watershed District/City.	High	Medium	Low
Ease of BMP Maintenance	Level of maintenance for a given BMP.	Low	Medium	High
BMP Access	Ease of accessing the BMP from public ROW/existing easements.	High	Medium	Low
Future Public Benefit/Amenity	Level of public benefit/Amenity	High	Medium	Low
Proximity to Low Point	Proximity of any potential BMP location to the low point of the roadway.	Within 500 feet.	Between 500 and 1000 feet.	Greater than 1000 feet to low point
Located within Public Parcel	BMP location within a Public Parcel	Yes	N/A	No
Existing Utilities	Number of existing utilities/significant existing utilities that would limit BMP types.	Low	Medium	High
Soil Permeability	Soil permeability of the underlying in-situ soils at a particular BMP location.	High	Medium	Low
Soil Contamination	Soil contamination at a BMP location that would affect the type of BMP.	No	Unknown	Yes
DWSMA	BMP is NOT within a DWSMA the would affect the type of BMP.	Yes	N/A	No
High Groundwater	Potential of high groundwater effects on a given BMP location.	Low potential	Medium potential	High potential
Wetlands Present	Wetland presence at a BMP location that would limit the size of the BMP.	No	N/A	Yes
Ease of Routing	Ease routing water to a proposed BMP location.	High	Medium	Low
Size of Drainage Area	Size of drainage area routed to potential BMP	Large	Medium	Small
Ownership of Drainage Area	Potential to treat public water only	High	Medium	Low
Collaboration with Future Projects	Known future project to collaborate with	Yes	N/A	No
Potential Funding	Potential Funding available	High	Medium	Low

# East Vadnais Lake Subwatershed

## *Water Quality/Flood Resilience Study*

*Report Version 1.0 (Draft)*

**Vadnais Lake Area Watershed Management Organization (VLAWMO)**

Prepared by:



Date: February 2024

SRF No. 16829.0

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# Chapter 1 Introduction/Goals

---

## 1.1 Introduction

## 1.2 Partnership

## 1.3 Study Location/Goals

**Rough Draft - Memorandum of Understanding Between  
City of Vadnais Heights  
and Vadnais Lake Area Watershed Management Organization**

This Memorandum of Understanding (“**MOU**”) is made and entered into by and between the City of Vadnais Heights (“**City**”) and Vadnais Lake Area Watershed Management Organization (“**VLAWMO**”) each acting by and through its duly authorized governing bodies.

Whereas, the City, VLAWMO, Ramsey County, and Saint Paul Regional Water Services have partnered to complete the East Vadnais Lake Resiliency Study (“**Study**”);

Whereas, the goals of the Minnesota Pollution Control Agency (MPCA)’s Implementation Grant for Stormwater Resilience, released on January 11, 2024, appears to align with the potential implementation of projects conceptualized in the Study, given the purpose of the projects is to reduce and prevent existing and future flooding, build more climate resilient stormwater infrastructure, improve water quality, and protect drinking water in East Vadnais Lake;

Whereas, the City and VLAWMO mutually desire to partner on a grant application (“**Application**”) for the MPCA’s Implementation Grant for Stormwater Resilience, as identified in Attachment 1, to request State funding for the potential implementation of projects recommended in the Study; and

Whereas, the parties wish to clearly define their respective roles in the development and completion of this Application.

Now, therefore, the parties hereby agree to enter into this MOU and to comply with the following processes with respect to the Application:

1. City Responsibilities. The City agrees to do each of the following:

- a. Coordinate the hiring of an engineering firm to complete deliverables to submit the grant application, if necessary.
- b. Share the professional services costs with VLAWMO to complete the Application.
- c. Invoice VLAWMO at regular intervals in the Application development process for its share of the cost for professional services.
- d. Serve as applicant for the grant application and provide for management and oversight of the application process to ensure timely submission of an application to the MPCA.
- e. Schedule partner meetings when needed with VLAWMO staff to ensure collaboration with VLAWMO on deliverables and the completion of the application.
- f. Share and distribute Application deliverables to VLAWMO.
- g. Communicate with affected property owners and other stakeholders as may be necessary.

2. VLAWMO Responsibilities. VLAWMO agrees to do the following:

- a. Share the professional services costs to complete the Application with the City, not to exceed \$20,000.

- b. Pay invoices received from the City for reimbursement of professional services costs within 35 days of receipt.
  - c. Write a letter of support to assist with the Application’s local match requirement.
  - d. Attend meetings and participate in discussion related to the preparation of the Application.
  - e. Provide data and technical assistance as necessary for the preparation of the Application.
  - f. Assist the City as requested in writing Application materials.
  - g. Assist the City with communications to affected property owners and other stakeholders as may be necessary.
3. Use of Application Materials. The plans or documents produced in whole or in part under this MOU will be subject to fair use and may not be the subject of an application for copyright by or on behalf of the City or VLAWMO. The City and VLAWMO may use, without restriction, the work products of the Application including, but not limited to, any associated design plan sets and documents.
  4. Term. This MOU is effective on the date of the last party to execute it. This MOU shall terminate upon completion of the Application and payment for the professional services costs incurred as provided herein.
  5. Termination. Each party has the right to terminate this MOU at any time and for any reason by submitting written notice of the intention to do so to the other party at least thirty (30) days prior to the specified effective date of such termination.
  6. Entire Agreement; Amendments. This MOU constitutes the entire agreement between the parties regarding this matter. No amendments to this MOU are valid unless they are in writing and signed by both parties.

IN WITNESS WHEREOF, the parties have caused this MOU to be executed by their duly authorized representatives and is effective as of the date of the last party to execute it.

**City of Vadnais Heights  
Management Organization**

**Vadnais Lake Area Watershed  
Management Organization**

\_\_\_\_\_  
Chairperson

\_\_\_\_\_  
Chairperson

Date: \_\_\_\_\_

\_\_\_\_\_  
Administrator

Date: \_\_\_\_\_

To: VLAWMO Board of Directors

From: Phil Belfiori, Dawn Tanner, Lauren Sampedro, and Nick Voss, with support from Rachel Olm from Houston Engineering, Inc. (HEI)

Date: February 21, 2024

Re: **VI. B. 3.: Comprehensive Watershed Management Plan (WMP): Engagement**

---

Engagement is underway for the next 10-year Comprehensive Watershed Management Plan (WMP). Events that are part of the engagement process are summarized in the graphic at the bottom of this memo. The required 60-day comment period that the Board authorized at the regular meeting in December closed on February 13. Feedback received is being compiled by VLAWMO and HEI staff.

The Public survey opened on Feb. 5 and is being advertised and promoted actively including in-person kiosks at local libraries and Tamarack Nature Center. Please encourage residents in your communities to participate in our WMP process by filling out this survey, either in-person or online, by March 13. The TEC/CAC/Partner survey also opened on Feb. 5, closed on Feb. 26, and responses are being compiled to cater the upcoming Board survey.

Public survey link: <https://www.surveymonkey.com/r/HHPLLNM>

TEC/CAC/Partner survey link: <https://www.surveymonkey.com/r/SFBZHBS>

### **Upcoming VLAWMO Board Survey**

A link will be sent to you for the Board survey shortly- it is anticipated that Board members will receive this survey link on **March 15**. Please complete this survey as soon as possible, once you receive the link.

A short ppt is included in the packet with more information on the engagement process. The engagement process will help to inform the required initial planning meeting on April 24. The initial planning meeting is scheduled from 6:00-7:00 pm at the Vadnais Heights Council Chambers. The VLAWMO Board will be presiding over this meeting, as required by BWSR. VLAWMO and HEI staff will facilitate the meeting. State and local Plan review authorities are also invited to attend, along with interested members of the general public.

#### **Attachment:**

- PowerPoint

VI. B. 3.

Attachment 1

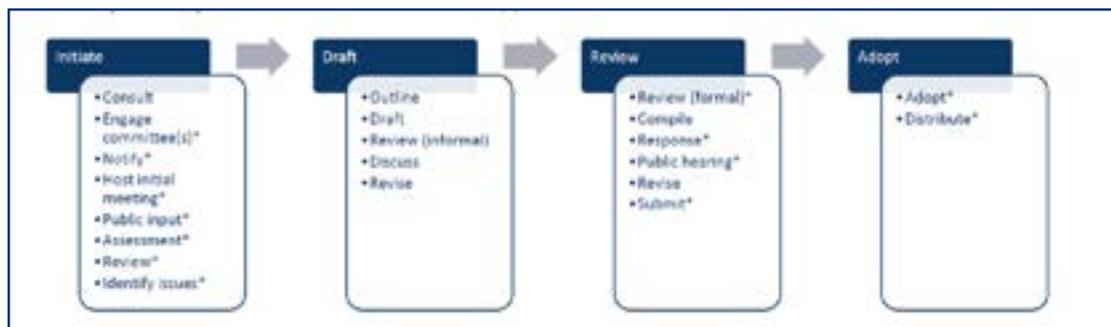
# Comprehensive Watershed Management Plan: Update on WMP overall engagement efforts and Initial Planning Meeting in April

February 28, 2024  
VLAWMO Board Meeting



## Background

- Since last Board update, **Initiate** process and public engagement in progress
- VLAWMO staff working closely with HEI
- 60-day comment letters from State review agencies and local partners received (closed Feb. 13)



## Background: Public engagement and survey

- Various events:  
Virtual and in-person
- Focus on public survey input and invitation to Initial Plan meeting
- Public survey open now (closes March 13)

**A New Chapter for the Watershed**  
 Add your voice to the next  
**10-year Watershed Management Plan**

**Virtual Coffee Houses**  
 Open house style

Feb 13 10 AM
Feb 20 Noon
Feb 27 6 PM

**VLAWMO Grant Program 101**  
 Gem Lake Heritage Hall  
**Initial Plan Meeting**  
 Vednes Heights City Hall  
 Window for public input  
 Survey results presented

March 7 6 PM
April 24 6 PM

Visit [vlawmo.org/watershedplan](http://vlawmo.org/watershedplan) for times and locations.

Watch the plan and initial phase of implementation with our future goals at [vlawmo.org/watershedplan](http://vlawmo.org/watershedplan).

**Contribute to our 6-question survey**

- Online at [vlawmo.org/watershedplan](http://vlawmo.org/watershedplan)
- Find a hardcopy paper survey at these locations **Feb 5 - March 13**  
 Kiosk available during regular business hours  
 → Ramsey County Libraries: Shoreline, White Bear Lake  
 → Tamarack Nature Center

## Background: WMP public engagement survey

- Link on the VLAWMO website
- 6-question survey
- Asks about priorities and places people value
- Includes opportunity for more-detailed response
- Promoted through kiosks at libraries and TNC, flyers at city halls, direct mailing to environmental justice area, and noticed in Press Pubs

**You're Invited:**  
 Provide Input for the next  
**10-year Watershed Management Plan**

What are your priorities and concerns about a future 10-year watershed management plan?

How can the public be involved and in the know?

Search kiosks and help us distribute the 2027-2036 watershed management plan by:

- Take a brief survey (open Feb. 5 - March 13)
- Consider attending one of our February - April plan focused events (in-person or virtual)

The fastest path to a 10-year watershed management plan is to go to [vlawmo.org/watershedplan](http://vlawmo.org/watershedplan) to take a survey.

For a detailed document version with graphics of various regions, visit [vlawmo.org/watershedplan](http://vlawmo.org/watershedplan).

Learn more and participate at:  
[vlawmo.org/watershedplan](http://vlawmo.org/watershedplan)

## TEC, CAC, partner survey

- Similar goals as public survey with more technical language
- Survey to people working closely with and part of VLAWMO's ongoing activities
- 7-question survey; similar questions to Strategic Direction survey to Board in 2021 and connects smoothly to public survey for analysis
- Working to identify priorities for new Plan
- Asks for ranking of previously established priorities and to select top 7 priorities from a list of 21
- Asks for possible priorities not already included
- Survey now closed



## Board survey

- A survey to the Board will follow the close of both currently open surveys
- The Board survey will have similar questions and include a synthesis of input received from surveys and 60-day comment
- Focus on refining and finalizing priority issues
- Please complete the survey promptly when you receive the link.
- It is anticipated that Board members will receive this survey link on ± March 15.
- Information received will be used at the April special meeting



## April Initial Planning Meeting

- April 24, 6:00-7:00 pm, Vadnais Heights Council Chambers
- Required part of the WMP process
- VLAWMO Board presides
- VLAWMO and HEI staff facilitate
- State and local review authorities invited
- Public invited
- Focus on finalizing priority issues



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To: VLAWMO Board of Directors

From: Phil Belfiori, Dawn Tanner, and Greg Wilson

Date: February 21, 2024

Re: **VI. B. 4.:** Consider pursuing design plans for Tamarack Lake alum project

---

Preparation for solicitation of quotes for an alum project during 2024 has consisted of 2 main tasks since the December Board meeting. Those are:

1. Work on acquiring temporary access agreements from landowners
2. Work by Barr on project design element investigation and cost estimate refinement

#### **Work on temporary access agreements**

Landowners for the potential projects are Ramsey County Parks working with Ramsey County Soil and Water Conservation Division and North Oaks Company/North Oaks Farms. VLAWMO staff and the project engineer met with both entities during January. Discussions are ongoing. Tentative support has been expressed. VLAWMO legal counsel prepared draft temporary access agreements that VLAWMO staff and the project engineer updated and had reviewed. A completed draft has been provided to Ramsey County Parks for their review.

#### **Work by Barr on project design element investigation and cost estimate refinement**

Following the December Board action, Barr is continuing engineering and project design work to investigate challenging on-site project design elements. Barr's investigation of on-site conditions included reaching out to a possible contractor to incorporate feedback on design elements including building more specifics regarding access, staging, and boat launch/project implementation. An important result of this meeting was the determination that both sites have difficult access paths with an extremely long amount of hose required to deliver chemicals to storage tanks onsite. The length of hose required has informed an anticipated cost increase to complete the projects.

Newly available market data were also made available for 2024 and have provided updated cost information. The resulting updated costs as are now identified from Barr are higher than VLAWMO's budget allocated for 2024 to complete both lake alum treatments.

Based on Barr's revision of their cost estimates, Barr recommends pursuing implementation of an alum treatment with a full dose in Tamarack Lake during 2024. Wilkinson Lake alum project should be evaluated in future as the budget allows.

The project engineer will be available at the Board meeting to respond to possible questions from the Board.



800 County Road E E, Vadnais Heights, MN 55127

[www.vlawmo.org](http://www.vlawmo.org); [Office@vlawmo.org](mailto:Office@vlawmo.org)

If approved by the Board and depending upon approval for access, VLAWMO staff anticipate bringing a request to authorize going out for a quote for the Tamarack Lake alum treatment at the April regular Board meeting.

**Requested action:**

Director \_\_\_\_\_ moves and Director \_\_\_\_\_ seconds to approve VLAWMO staff and the project engineer to continue preparing Request For Quote documents for an alum treatment in Tamarack Lake

**Attachments:**

1. PPT on alum feasibility extension
2. Recommendation memo from Barr Engineering

**VI. B. 4.****Attachment 1****Consider pursuing design plans  
for Tamarack Lake alum project  
for April Board meeting**

**February 28, 2024  
VLAWMO Board Meeting**

**Background: Since December Board, 2 focal areas**

1. Work on acquiring temporary access agreements
2. Work by Barr on project design element investigation and cost-estimate refinement



## Temporary access agreements

- Landowners for potential projects are Ramsey County Parks (working with RCSWCD) and North Oaks Company/North Oaks Farms
- Meetings underway and tentative support expressed
- VLAWMO legal counsel prepared draft temporary access agreements; VLAWMO staff and project engineer incorporated project specifics
- Completed draft provided to Ramsey County Parks for review and comment



## Project design investigation and cost-estimate refinement

- Barr Engineering investigation of on-site conditions included reaching out to a possible contractor to incorporate feedback on design elements including building more specifics regarding access, staging, and boat launch/project implementation
- Determined that both sites need extremely long amount of hose to deliver chemicals to storage tanks onsite; length of hose required informed anticipated cost increase
- Market data also now available for 2024
- Resulting updated costs as are now identified from Barr are higher than VLAWMO's budget allocated for 2024 to complete both lake alum treatments

## Project design investigation and cost-estimate refinement

- Recommendation to pursue implementation of alum treatment with a full dose in Tamarack Lake during 2024
- Full dose recommendation also considers safety for aquatic life included in memo and real-time monitoring during application
- Anticipated cost range as provided by Barr for a full dose in Tamarack Lake is below the \$200,000 in the 2024 approved budget for alum project implementation.
- Wilkinson Lake alum project should be evaluated in future as the budget allows
- Anticipating a request to authorize going out for a quote for the Tamarack Lake alum treatment at the April regular Board meeting

## Proposed Board action

Director \_\_\_\_\_ moves and Director \_\_\_\_\_ seconds to approve VLAWMO staff and the project engineer to continue preparing Request For Quote documents for an alum treatment in Tamarack Lake



## Memorandum

**To:** Vadnais Lake Area Water Management Organization (VLAWMO)  
**From:** Greg Wilson and Joe Bischoff, Barr Engineering Co. (Barr)  
**Subject:** Site Access Issues and Cost Implications for Tamarack and Wilkinson Lakes Alum Treatment  
**Date:** February 20, 2024

As part of starting design work for the proposed Tamarack and Wilkinson Lakes alum treatment, Barr reached out to a contractor in the industry to further investigate some challenging site conditions that were initially identified within the two sites during the feasibility study. Barr then met with this contractor on-site to further discuss these site challenges (including long distances required for hose, staging location and boat launching). The contractor then provided Barr with cost estimate ranges that considered these on-site conditions. Based on these updated cost ranges, Barr is concluding that the costs for both lakes will be around 60% more than the Phase I costs identified in the feasibility study. Based on this conclusion and Barr's understanding that the approved budget for this project is consistent with the approved feasibility study and the cost estimate table provided therein, I recommend that VLAWMO move forward with preparation of final design plans and quote documents for a full dose in Tamarack Lake in 2024 and do not pursue Wilkinson Lake alum project at this time.

It is important to note that while the additional cost required is due to the issues already stated, aluminum treatment is still the best available technology to improve these impaired lakes, and a full dose is being recommended for Tamarack Lake as it is significantly more cost-effective than the half dose application. It should also be noted that the contractor cost estimate for applying the full dose at Tamarack Lake is only 27% higher than the half-dose and is expected to be below the \$175,000 threshold for public bid requirements. The full-dose treatment cost-benefit is \$400/pounds TP/year reduced for both lakes, which is still well below the typical life-cycle implementation costs for implementation of any other improvement options or watershed best management practices.

The recommendation for treating Tamarack Lake alone does not include a loss of economy of scale because different equipment will be required to complete each lake (e.g., large watercraft would likely get used for Wilkinson Lake that could not be launched on Tamarack Lake).

Aluminum toxicity to aquatic organisms is dependent of aluminum species present in the water column which is controlled by pH. Aluminum hydroxide, a nontoxic form of aluminum, forms between a pH between 6 and 9. While aluminum sulfate (alum) is acidic and will lower the pH of the lake, pH is easily controlled during the application process by using sodium aluminate which raises the pH. Alum and sodium aluminate applied at a 2:1 ratio will maintain the pH of the lake during application regardless of

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the amount added to the lake. Based on this understanding, applying the full dose versus a partial dose will not affect pH or aluminum toxicity when using a 2:1 ratio of aluminum sulfate to sodium aluminate. Following the application, lakes in Minnesota rarely fall outside the pH range of 6 to 9 especially as phytoplankton production is controlled. So, the probability of aluminum release is very low. In addition, Barr will provide continuous pH monitoring and visual observation during and immediately following the application ensure that aquatic life do not experience adverse conditions.

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