

**VLAWMO TECHNICAL COMMISSION MEETING**  
**8:00 AM February 8, 2023**

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

**Action items:** ✈

- I. **Call to Order – 8:00am –Chair Jesse Farrell**
- II. **Approval of Agenda**
- III. **Approval of Minutes (January 8, 2023)**
- IV. **Administration & Operations**
  - A. Financial Report for February and Authorization for Payment – Phil ✈ Pg. 7
  - B. February TEC Report to the Board ✈ Pg. 14
  - C. Revisit Appointments and Officers – Jesse ✈ Pg. 15
- V. **Programs Pg. 15**
  - A. Spring Event Calendar Preview - Nick
  - B. Website Update – Nick
  - C. Cost Share Updates - Lauren
- VI. **Projects**
  - A. Deep Lake MOU with NOHOA and scope of work with NST – Dawn ✈ Pg. 19
  - B. Wilkinson-Tamarack Lakes feasibility to treat internal load – Dawn ✈ Pg. 25
  - C. Rotary scope of work and MOU with the City of WBL for prioritization plan for wetland restoration – Dawn ✈ Pg. 31
  - D. Wilkinson 319 update - Dawn Pg. 17
  - E. Spent lime Feb 1<sup>st</sup> community meeting update – Dawn Pg. 17
  - F. Vadnais-Sucker Lakes Regional Park Restoration Update – Lauren Pg. 17
- VII. **Commissioner Reports**
- VIII. **NOHOA**
- IX. **Ramsey Soil & Water Conservation Division**
- X. **St. Paul Regional Water Services**
- XI. **Public Comment**
- XII. **Next Meetings:** TEC: March 8<sup>th</sup>, Board Meeting: Feb. 22, 2023
- XIII. **Adjourn**

**Vadnais Lake Area Water Management Organization  
Technical Commission (TEC) Minutes  
January 11, 2022  
Vadnais Heights City Hall, Council Chambers  
800 County Road E East, Vadnais Heights, MN 55127**

**Commission Members Present:**

Jesse Farrell	Chair, Vadnais Heights (VH)
Gloria Tessier	Vice Chair, Gem Lake (GL)
Andy Nelson	Lino Lakes (LL)
Terry Huntrods	White Bear Lake (WBL)

**Absent:** North Oaks (unassigned), Jami Philip (WBT)

**Others in attendance:** Phil Belfiori, Dawn Tanner, Brian Corcoran, Lauren Sampedro, Nick Voss (VLAWMO staff), Bob Larson

**I. Call to Order**

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

**II. Approval of Agenda**

It was moved by Commissioner Huntrods and seconded by Commissioner Nelson to approve the January 11, 2023 TEC agenda Vote: all aye. Motion passed.

**III. Approval of Minutes (December 14th, 2022)**

It was moved by Commissioner Tessier and seconded by Commissioner Huntrods to approve the December 14<sup>th</sup>, 2022 meeting minutes as presented. Vote: all aye. Motion passed.

**IV. Administration & Operations**

**A. Bob Larson recognition**

VLAWMO staff congratulated Bob Larson for serving 5 years on the Technical Commission and recognized his contributions. Chair Farrell presented a water drop award and certificate to thank him for his service.

**B. Financial Report for Payment**

Administrator Belfiori outlined the financial report. Notable projects are the Oak Knoll Pond spent lime demonstration study effort and the Wilkinson best management practice (BMP) project. Belfiori remarked that VLAWMO is right where it anticipated to be for starting 2023.

It was moved by Commissioner Tessier and seconded by Commissioner Nelson to approve the January financial report for payment. Vote: all aye. Motion passed.

#### C. 2023 Technical Commission officer appointments

Administrator Belfiori reviewed the past TEC appointments from 2022.

Chair Farrell facilitated discussion on considering candidates for chair and vice chair for 2023. Additional positions include the financial officer and liason to the Board. Nominations include Chair Farrell to continue as Chair, Vice Chair Tessier to continue as Vice Chair, Commissioner Huntrods as liason to the Board, Commissioner Nelson as financial officer.

Chair Farrell requested that the TEC return to the discussion of appointments when new members from WBT and North Oaks are present at the next meeting.

It was moved by Commissioner Huntrods and seconded by Commissioner Tessier to approve the 2023 Technical Commission officer appointments. Vote: all aye. Motion passed.

#### D. Confirmation of 2023 TEC meeting dates

Administrator Belfiori presented the discussion on 2023 TEC meeting dates including the option to keep the routine meeting date the same as 2022 or to make adjustments. TEC discussion confirmed keeping the meeting routine the same as 2022, meeting on the second Wednesday of each month at 8 am at Vadnais Heights City Hall.

It was moved by Commissioner Huntrods and seconded by Commissioner Tessier to approve the 2023 TEC meeting dates as presented. Vote: all aye. Motion passed.

#### E. 2023 working budget overview

Administrator Belfiori presented the 2023 working budget as included in the TEC packet. Major projects for the year will include the Wilkinson Lake project, spent lime water quality study at Oak Knoll Pond, pleasant lake carp management, public drainage system inspection and maintenance, smart irrigation efforts with cities, website renovation from the education budget.

### **V. Programs**

#### A. Drone stream/ditch inspection overview

Corcoran reviewed VLAWMO's public drainage authority role under state statute 103B and the creation of the VLAWMO public drainage management policy. This policy includes inspection of the ditch system. Prior to 2022 staff had conducted inspections by staff walking the length of the ditch during winter months.

In fall of 2022, VLAWMO coordinated with the city of Vadnais Heights to obtain drone footage of the main ditch system. The intent of using drone footage for the inspection was for higher efficiency in observing downed trees, bank issues, or other blockages instead of a staff member walking the ditch.

Corcoran played a video of the drone footage to the commission and remarked that it worked well to use the drone for inspections. Tanner noted that staff have used the video to meet the MPCA's site visit requirements for the 319 grant and both the MPCA and EPA commended the video.

Chair Farrell noted the City is happy to continue partnership on drone usage and that the quality of the drone imagery is an asset for developing future relationships with partnering entities such as the MPCA and EPA.

#### B. Elevator speech discussion

Voss provided a summary of tips and talking points for TEC members and VLAWMO affiliates communicating about VLAWMO in their respective communities. Items that could be highlighted when talking to the public about VLAWMO include the 2023 website update, VLAWMO's 40<sup>th</sup> anniversary, and upcoming projects. He also discussed how communities become communities of influence through using a balance of communication methods. Talking points to pull from could be mission and scope or the organization nuts and bolts. Voss then gave a demonstration of what an elevator speech could be and encouraged TEC members to practice their own elevator speech.

#### C. VLAWMO 40<sup>th</sup> anniversary campaign planning

Voss provided an overview of possible ideas for a 40<sup>th</sup> anniversary communication campaign. He asked the TEC to brainstorm ideas. Commissioner Nelson suggested the meander project drone footage with a voiceover of project details could be included as an important project as well as more video footage of staff narrating in the field. Voss noted he would be back throughout the coming months with updates.

## VI. Projects

#### A. Wilkinson BMP update

Tanner provided an update on the status of the Wilkinson BMP project. A meeting to request feedback from Minnesota Land Trust regarding the early preliminary design was recently completed with Minnesota Land Trust and the North Oaks Company in December. Continued iterations of plans and specs are underway, and staff are currently waiting on written comment from Minnesota Land Trust. A sediment report from Braun Intertec was received in December 2022. Staff worked with Houston Engineering on interpreting the information in the sediment report. The compiled report with an explanatory memo from Houston are provided as a single document and were included in the TEC packet.

Arsenic levels were observed at the project site location, and this is communicated in the memo from Houston Engineering. The MPCA indicated that arsenic levels and distribution does not indicate a potential spill, but is part of a naturally occurring glacial layer and wetland soils that frequently contain above baseline levels of arsenic in this area.

A joint NRC and NEST meeting is proposed to provide an overview for North Oaks partners in the coming months. An NRC meeting was scheduled in Dec. and Jan., but a quorum was not met in Dec., and the committee assignments are still being determined as of Jan. by the City of North Oaks. A permitting meeting is being held today 1/11 with BWSR and USACE to focus on the timing of permits associated with the project.

Chair Farrell complimented the spreadsheet dashboard Tanner used to convey the project updates and asked if it is available to the public. Tanner remarked that it's primarily for internal use, especially for communicating with the TEC and Board regarding project status, but can be useful when working with project partners.

#### B. Update on MPCA Community planning grant for stormwater resiliency application

Sampedro summarized the MPCA's community planning grant program that provides \$395,000 in funds for climate planning projects across Minnesota that improve community resilience. VLAWMO is submitting a grant application on 1/11/23 in partnership with the City of Vadnais Heights, Ramsey County, Ramsey County SWCD, and Saint Paul Regional Water Services to improve stormwater resilience in a nearly 300-acre area around Edgerton Street and Centerville Road in Vadnais Heights. Sampedro will provide updates if VLAWMO is awarded the grant. Sampedro noted that this grant is highly competitive with a relatively small amount of state funds available for this entire State.

Chair Farrell noted that the proposed grant project area includes a wide variety of commercial, single family and multi-family residential, as well as key drainage and wetland areas. It's also a valuable location due to its proximity to East Vadnais Lake and its role as a public drinking water resource. Farrell also commented that the proposed

project includes an area with frequent and historical flooding occurrences and that reducing the flood risk would greatly benefit the City.

**C. Vadnais-Sucker Lakes Regional Park restoration update**

Sampedro provided an update on the Vadnais-Sucker Lakes Regional Park restoration project. She described the RFP was posted by Great River Greening and Minnesota Native Landscapes was chosen as the contractor. She said the next steps for the project are to install temporary signage and for the education and outreach plan to go into place in the late winter/early Spring of 2023 once the buckthorn removal date is determined.

**D. 2023-2025 BWSR WBIF grant update**

Sampedro provided an update that the 2023-2025 BWSR Watershed-based Implementation Funding program workplan and grant agreement were approved and signed by the VLAWMO Board at its December 14, 2022 meeting. She added that BWSR executed the grant agreement and sent 50% of the grant award to VLAWMO. She explained that partners can move to the next step of identifying project opportunities.

**I. Commissioner Reports**

None

**II. NOHOA**

None

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

None

**IV. St. Paul Regional Water Services**

None

**V. Public Comment**

None

**VI. Next Meetings:**

Next TEC meeting February 8<sup>th</sup>. Next BOD meeting February 22<sup>nd</sup>.

**XIII. Adjourn**

It was moved by Commissioner Tessier and seconded by Commissioner Huntrods to adjourn the meeting at 9:00 am. Vote: all aye. Motion passed.

Minutes compiled by Nick Voss.

# VLAWMO Finance Summary: February 2023

Feb-23		Actual 2/1/23	Actual to Date	2023 Budget	Carry over from 2022 to 2023	Remaining in Budget	2023 Available	Act vs. Budget
<b>BUDGET #</b>	<b>INCOME</b>							
<b>5.11</b>	Storm Water Utility	\$10,891	\$10,891	\$1,090,887	\$0	\$1,079,996	\$1,090,887	1%
<b>5.12</b>	Service Fees	\$0	\$0	\$200	\$0	\$200	\$200	0%
<b>5.13</b>	Interest + mitigation acct	\$4,386	\$4,386	\$1,000	\$0	(\$3,386)	\$1,000	439%
<b>5.14</b>	Misc. income - WCA admin & other	\$0	\$0	\$3,000	\$0	\$3,000	\$3,000	0%
<b>5.15</b>	Other Income Grants/loan	\$44,169	\$44,169	\$385,284	\$0	\$341,115	\$385,284	11%
<b>5.16</b>	Transfer from reserves	\$0	\$0	\$294,364	\$231,999	\$526,363	\$526,363	0%
	<b>TOTAL</b>	<b>\$59,446</b>	<b>\$59,446</b>	<b>\$1,774,735</b>	<b>\$231,999</b>	<b>\$1,947,288</b>	<b>\$2,006,734</b>	<b>3%</b>
<b>EXPENSES</b>								
<b>3.1</b>	<b>Operations &amp; Administration</b>							
<b>3.110</b>	Office - rent, copies, post tel supplies	\$2,100	\$4,215	\$28,181	\$0	\$23,966	\$28,181	15%
<b>3.120</b>	Information Systems	\$1,659	\$3,001	\$33,300	\$0	\$30,299	\$33,300	9%
<b>3.130</b>	Insurance	\$0	\$0	\$7,571	\$0	\$7,571	\$7,571	0%
<b>3.141</b>	Consulting - Audit	\$0	\$0	\$9,000	\$0	\$9,000	\$9,000	0%
<b>3.142</b>	Consulting - Bookkeeping	\$0	\$0	\$1,500	\$0	\$1,500	\$1,500	0%
<b>3.143</b>	Consulting - Legal	\$600	\$641	\$6,000	\$0	\$5,359	\$6,000	11%
<b>3.144</b>	Consulting - Eng. & Tech.	\$0	\$0	\$30,000	\$15,000	\$45,000	\$45,000	0%
<b>3.150</b>	Storm Sewer Utility	\$0	\$1,040	\$15,000	\$0	\$13,960	\$15,000	7%
<b>3.160</b>	Training (staff/board)	\$30	\$7,530	\$13,250	\$0	\$5,720	\$13,250	57%
<b>3.170</b>	Misc. & mileage	\$52	\$191	\$6,300	\$0	\$6,109	\$6,300	3%
<b>3.191</b>	Administration - staff	\$30,773	\$60,918	\$422,353	\$0	\$361,435	\$422,353	14%
<b>3.192</b>	Employer Liability	\$9,394	\$18,404	\$122,428	\$0	\$104,024	\$122,428	15%
<b>3.2</b>	<b>Monitoring and Studies</b>							
<b>3.210</b>	Lake and Creek lab analysis	\$0	\$0	\$18,000	\$0	\$18,000	\$18,000	0%
<b>3.220</b>	Equipment	\$0	\$0	\$3,000	\$1,000	\$4,000	\$4,000	0%
<b>3.230</b>	Wetland assessment & management	\$0	\$0	\$0	\$10,000	\$10,000	\$10,000	0%
<b>3.240</b>	Watershed planning /special study	\$0	\$0	\$10,000	\$5,000	\$15,000	\$15,000	0%
<b>3.3</b>	<b>Education and Outreach</b>							
<b>3.310</b>	Public Education	\$2,000	\$2,000	\$6,000	\$0	\$4,000	\$6,000	33%
<b>3.320</b>	Marketing	\$699	\$699	\$15,000	\$9,500	\$23,801	\$24,500	3%
<b>3.330</b>	Community Blue Ed Grant	\$0	\$0	\$8,000	\$0	\$8,000	\$8,000	0%
<i>Total Core functions: Ops, Monitoring, Education</i>		<i>\$47,307</i>	<i>\$98,639</i>	<i>\$754,883</i>	<i>\$40,500</i>	<i>\$696,744</i>	<i>\$795,383</i>	<i>12%</i>
<b>Capital Improvement Projects and Programs</b>								
<b>3.4</b>	<b>Subwatershed Activity</b>							
<b>3.410</b>	Gem Lake	\$0	\$0	\$15,000	\$10,000	\$25,000	\$25,000	
<b>3.420</b>	Lambert Creek	\$568	\$2,083	\$55,000	\$0	\$52,917	\$55,000	4%
<b>3.421</b>	Lambert Lake Loan	\$0	\$0	\$38,568	\$0	\$38,568	\$38,568	0%

3.425	Goose Lake	\$2,481	\$7,066	\$92,500	\$0	\$85,434	\$92,500	8%
3.430	Birch Lake	\$0	\$0	\$20,000	\$0	\$20,000	\$20,000	0%
3.440	Gilf Black Tam Wilk Amelia	\$0	\$4,279	\$157,500	\$43,000	\$196,221	\$200,500	2%
3.450	Pleasant Charley Deep	\$0	\$0	\$48,000	\$30,000	\$78,000	\$78,000	0%
3.460	Sucker Vadnais	\$0	\$0	\$35,000	\$28,000	\$63,000	\$63,000	0%
3.48	<b>Programs</b>							
3.480	Soil Health Grant	\$0	\$0	\$8,000	\$0	\$8,000	\$8,000	0%
3.481	Landscape 1	\$0	\$0	\$30,000	\$6,263	\$36,263	\$36,263	0%
3.482	Landscape 2/BWSR WBF	\$938	\$938	\$35,000	\$36,636	\$70,698	\$71,636	1%
3.483	Project Research & feasibility	\$0	\$0	\$5,000	\$0	\$5,000	\$5,000	0%
3.485	Facilities Maintenanc/ Pub. Ditch Main.	\$1,346	\$1,699	\$90,000	\$37,600	\$125,901	\$127,600	1%
3.5	<b>Regulatory</b>							
3.510	Engineer Plan review	\$0	\$0	\$5,000	\$0	\$5,000	\$5,000	0%
	<i>Total CIP &amp; Program</i>	\$5,333	\$16,065	\$634,568	\$191,499	\$810,002	\$826,067	2%
	<b>Total of Core Operations &amp; CIP</b>	<b>\$52,640</b>	\$114,704	\$1,389,451	\$231,999	<b>\$1,506,746</b>	\$1,621,450	<b>7%</b>

Fund Balance	1/1/2023	2/1/2023
4M Account	\$1,008,705	\$982,809
4M Plus Savings	\$228,418	\$229,232
Total	\$1,237,123	\$1,212,041

Restricted funds	2/1/2023
Mitigation Savings	\$21,014
Term Series	\$0



**Vadnais Lake Area Water Management Organization**  
**Profit & Loss**  
 January 12 through February 8, 2023

11:21 AM  
 02/01/2023  
 Cash Basis  
 Jan 12 - Feb 8, 23

Ordinary Income/Expense	
Income	
5.1 · Income	
5.11 · Storm Water Utility	10,891.46
5.13 · Interest	4,386.01
5.15 · Other Income Grants/Loan	44,169.65
<b>Total 5.1 · Income</b>	<b>59,447.12</b>
<b>Total Income</b>	<b>59,447.12</b>
<b>Gross Profit</b>	<b>59,447.12</b>
Expense	
3.1 · Administrative/Operations	
3.110 · Office	
Copies	32.81
Phone/Internet/Machine Overhead	305.00
Postage	47.22
Rent	1,715.00
<b>Total 3.110 · Office</b>	<b>2,100.03</b>
3.120 · Information Systems	
GIS Support & updates	220.02
IT Support	1,439.00
<b>Total 3.120 · Information Systems</b>	<b>1,659.02</b>
3.143 · Legal	600.30
3.160 · Training (staff/board)	29.99
3.170 · Misc. & mileage	51.92
3.191 · Employee Payroll	
payroll	30,773.64
<b>Total 3.191 · Employee Payroll</b>	<b>30,773.64</b>
3.192 · Employer Liabilities	
Admin payroll processing	44.92
Administration FICA	2,234.79
Administration PERA	2,308.03
Insurance Benefit	4,806.50
<b>Total 3.192 · Employer Liabilities</b>	<b>9,394.24</b>
<b>Total 3.1 · Administrative/Operations</b>	<b>44,609.14</b>
3.3 · Education and Outreach	
3.310 · Public Education	2,000.00
3.320 · Marketing	699.48
<b>Total 3.3 · Education and Outreach</b>	<b>2,699.48</b>
3.4 · Capital Imp. Projects/Programs	
3.420 · Lambert Creek Restoration	
LL VLAWMO cash match	568.58
<b>Total 3.420 · Lambert Creek Restoration</b>	<b>568.58</b>

3.425 · Goose Lake	
Oak Knoll	2,481.00
<b>Total 3.425 · Goose Lake</b>	<u>2,481.00</u>
<b>Total 3.4 · Capital Imp. Projects/Programs</b>	<u>3,049.58</u>
<b>3.48 · Programs</b>	
3.482 · Landscape 2	937.50
3.485 · Facilities & Maintenance	1,345.50
<b>Total 3.48 · Programs</b>	<u>2,283.00</u>
<b>Total Expense</b>	<u>52,641.20</u>
<b>Net Ordinary Income</b>	<u>6,805.92</u>
<b>Net Income</b>	<u><u>6,805.92</u></u>

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

11:14 AM  
 02/01/2023

January 12 through February 8, 2023

Type	Num	Date	Name	Item	Account	Paid Amount	Original Amount
Check	eft	01/12/2023	further		Checking - 1987		-6.00
				Insurance Benefit		-6.00	6.00
TOTAL						-6.00	6.00
Check	eft	02/01/2023	Reliance Standard		Checking - 1987		-320.72
				Insurance Benefit		-91.50	91.50
				Insurance Benefit		-229.22	229.22
TOTAL						-320.72	320.72
Check	5503	02/08/2023	City of White Bear Lake		Checking - 1987		-40,061.18
				payroll		-30,773.64	30,773.64
				Administration FICA		-2,234.79	2,234.79
				Administration PERA		-2,308.03	2,308.03
				Insurance Benefit		-4,479.78	4,479.78
				Admin payroll processing		-44.92	44.92
				GIS Support & updates		-220.02	220.02
TOTAL						-40,061.18	40,061.18
Check	5504	02/08/2023	Ramsey County		Checking - 1987		-937.50
				3.482 · Landscape 2		-937.50	937.50
TOTAL						-937.50	937.50
Check	5505	02/08/2023	Metro - Inet		Checking - 1987		-1,439.00
				IT Support		-1,439.00	1,439.00
TOTAL						-1,439.00	1,439.00
Check	5506	02/08/2023	Kennedy & Graven, Chartered		Checking - 1987		-1,945.80
				3.143 · Legal		-600.30	600.30
				3.485 · Facilities & Maintenance		-1,345.50	1,345.50
TOTAL						-1,945.80	1,945.80
Check	5507	02/08/2023	SEH		Checking - 1987		-568.58
				LL VLAWMO cash match		-568.58	568.58
TOTAL						-568.58	568.58
Check	5508	02/08/2023	Barr Engineering Co		Checking - 1987		-2,481.00

	Oak Knoll	-2,481.00	2,481.00
TOTAL		<u>-2,481.00</u>	<u>2,481.00</u>
	<b>Check 5509 02/08/2023 HDR Engineering, Inc.</b>	<b>Checking - 1987</b>	<b>-685.73</b>
	3.320 · Marketing	-282.23	282.23
	3.320 · Marketing	-403.50	403.50
TOTAL		<u>-685.73</u>	<u>685.73</u>
	<b>Check 5510 02/08/2023 City of Vadnais Heights</b>	<b>Checking - 1987</b>	<b>-2,100.03</b>
	Rent	-1,715.00	1,715.00
	Phone/Internet/Machine Overhead	-305.00	305.00
	Postage	-47.22	47.22
	Copies	-32.81	32.81
TOTAL		<u>-2,100.03</u>	<u>2,100.03</u>
	<b>Check 5511 02/08/2023 Metro WaterShed Partners</b>	<b>Checking - 1987</b>	<b>-2,000.00</b>
	3.310 · Public Education	-2,000.00	2,000.00
TOTAL		<u>-2,000.00</u>	<u>2,000.00</u>
	<b>Check 5512 02/08/2023 Nicholas Voss</b>	<b>Checking - 1987</b>	<b>-41.92</b>
	3.170 · Misc. & mileage	-28.17	28.17
	3.320 · Marketing	-13.75	13.75
TOTAL		<u>-41.92</u>	<u>41.92</u>
	<b>Check 5513 02/08/2023 Dawn Tanner</b>	<b>Checking - 1987</b>	<b>-23.75</b>
	3.170 · Misc. & mileage	-23.75	23.75
TOTAL		<u>-23.75</u>	<u>23.75</u>

**Vadnais Lake Area Water Management Organization**  
**Custom Transaction Detail Report**  
 December 1, 2022 through February 1, 2023

10:14 AM  
 02/01/2023  
 Accrual Basis

Type	Date	Num	Name	Memo	Account	Clr	Split	Amount	Balance
<b>Dec 1, '22 - Feb 1, 23</b>									
Credit Card Charge	12/03/2022		Arrowwood Resort	MAWD dawn hotel	US Bank CC	√	3.160 · Training (staff/board)	369.54	369.54
Credit Card Charge	12/08/2022		adobe *photography plan		US Bank CC	√	Software	9.99	379.53
Credit Card Charge	12/13/2022		Vista Print	envelopes	US Bank CC	√	3.320 · Marketing	102.19	481.72
Credit Card Charge	12/13/2022		mn Department of Agriculture	renewal pest 2023 license	US Bank CC	√	3.160 · Training (staff/board)	10.22	491.94
Transfer	12/20/2022			Funds Transfer	US Bank CC	√	Checking - 1987	-1,454.42	-962.48
Credit Card Charge	12/26/2022		Adobe "Creative Cloud		US Bank CC	√	Software	32.20	-930.28
Credit Card Charge	12/27/2022		University of Minnesota	Dawn PM training	US Bank CC	√	3.160 · Training (staff/board)	940.00	9.72
Credit Card Charge	12/27/2022		Prairie Moon Nursery	seed	US Bank CC		3.220 · Equipment	118.00	127.72
Credit Card Charge	12/30/2022		Amazon.com	phils battery shipping	US Bank CC	√	Hardware	7.99	135.71
Credit Card Charge	01/02/2023		Google*SVCAPPS_VLAWM		US Bank CC	√	WEB	42.00	177.71
Credit Card Charge	01/12/2023		Gumroad Inc	Nick website training	US Bank CC		3.160 · Training (staff/board)	29.99	207.70
								<b>207.70</b>	<b>207.70</b>
<b>Dec 1, '22 - Feb 1, 23</b>									

**TEC Report to the Board  
February 2023**

Programs & Projects	Effort Level	Completion Date	Comments					
	LOW							
	MED							
	HIGH							
<b>Projects</b>				<b>Administration &amp; Operation</b>				
319 Biochar		2022	Project completed. Monitoring to start spring 2023.	Audit		2022/2023	2022 audit has started	
East Goose Lk Adaptive Mgmt.		ongoing	Feasibility study underway for Spent Lime study on Oak Knoll/Wood Lake pond. Community meeting held on Feb. 1, 2023.	Budget		for 2023 budget	2023 "working" budget considered at the December 14, 2022 Board meeting.	
Public Ditch Maintenance		ongoing	Drainage inspections have started.	Personnel /HR		ongoing	Staff continue to pursue professional development per their approved training plans. Year end staff reviews occurring.	
MPCA 319 /Wilkinson Lake BMP		2021-24	Partner coordination, permitting discussions, and design work continue. HEI is working to provide the preliminary design memo and joint application to the Board for Feb.	SSU		ongoing	2023 SSU certifications submitted to Ramsey and Anoka County.	
Pleasant Lake Carp Management		2022-25	Basic field monitoring underway; Carp Solutions is preparing for spring removal.	Strategic /watershed planning		2023	SLMR updates continue in prep for website update and to maintain current technical information	
<b>Programs</b>								
City/Township MS4		Feb	City MS4 newsletter issued Feb 1st to support MS4s in spring preparation.	<b>FINANCIAL SUMMARY as of 2/1/2023</b>				
Education/Outreach		Feb-May	Spring outreach calendar developed including workshops and grant program open house. 2022 Annual report and summary document in progress, to be submitted to BWSR in April. Partnership formed with City of White Bear Lake, WBL Rotatory, and Birch Lake Elementary to provide education programming in conjunction with WB Rotary Park restoration (cost-share).					
Website		Feb-May	Website renovation underway with HDR, expected to be complete mid 2023.	4M Account (1.10)	4M Plus (1.23)	Total		
WAV		March	WAV planning meeting TBD in March. MN Water Steward training occurring with staff assistance from Jan-May '23. Spring planning meeting in progress.	\$982,809	\$229,232	\$1,212,041		
Cost Share & BWSR WBIF		ongoing	Cost share program policies and materials were updated and are now available for the public. One potential Landscape Level 1 grant application and two Landscape Level 2 smart irrigation grant applications are in progress. BWSR executed the WBIF grant with VLAWMO for FY '22-23 grant funding and staff are beginning to consider potential projects for the grant.					
GIS		ongoing	Working on Tamarack and Gem Lake SLMR maps and updating the online GIS Viewer.					
Monitoring		ongoing	2022 monitoring report complete, starting 2023 season prep.					
WCA		ongoing	Administering WCA as needed.					

  

Budget Summary	Actual Expense YTD	2023 Budget "working"	Remaining in Budget	% YTD
Operations	\$98,639	\$795,383	\$696,744	12%
CIP	\$16,065	\$826,067	\$810,002	2%
<b>Total</b>	<b>\$114,704</b>	<b>\$1,621,450</b>	<b>\$1,506,746</b>	<b>7%</b>

## **TEC Staff Memo – Feb 8, 2023**

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

#### **A. Financial Report for January and Authorization for Payment**

Please find the February financial report and authorization to pay bills in the ePacket for review and approval.

#### **B. February TEC Report to the Board**

Please find the February TEC report to the Board attached in the ePacket for review and approval.

#### **C. Revisit TEC Appointments and Officers**

As a follow-up to the discussion at the January TEC meeting, TEC Chair Jesse Farrell will facilitate a second discussion on TEC representative appointments and officer duties for 2023 to determine if the Committee wishes to make any changes from appointments made in January.

### **V. Programs**

#### **A. Spring Event Calendar Preview**

Nick will provide a brief preview of this spring's education and outreach opportunities in addition to what steps are being taken to integrate the efforts into City and Township MS4 permit resources.

#### **B. Website Update**

VLAWMO staff are working with web specialists at HDR to renovate the VLAWMO.org website. As of the February TEC packet release date a wire frame has been completed in consultation between VLAWMO and HDR. Adjustments and customization are scheduled to continue to spring 2023 followed by a transition phase between the old and new websites.

#### **C. Cost Share Updates**

1. Two Potential Landscape Level 2 Grant Applications in Progress-City of Vadnais Heights and White Bear Township Pilot Smart Irrigation Controllers
  - a. Staff are in current discussions with the City of Vadnais Heights and White Bear Township on completing Landscape Level 2 grant applications for pilot smart irrigation controller demonstration projects. These demonstration projects would be potentially located at the Vadnais Heights' City Hall/Fire Station and Kohler Meadows Park, and White Bear Township's Columbia Park and Polar Lakes Park. Discussions are ongoing with smart irrigation controller contractors to provide a scope of work and cost estimates for these potential pilot projects. Staff are anticipating one or both grant applications to be ready for consideration at the February 22<sup>nd</sup> Board meeting and

anticipate recommend grant funding level with the City and Township to be between 90% - 100%. If more application information is available by the TEC meeting, staff will distribute it during the meeting.

2. One Potential Landscape Level 2 Grant Application in Progress-City of Vadnais Heights Westfield Park Bioswale
  - a. Staff are working with the City of Vadnais Heights and Ramsey County Soil and Water Conservation Division staff on a potential Landscape Level 2 Grant application for constructing a bioswale, potentially over 3,500 sq ft in size, northwest of the warming house at Westfield Park. A request for bids was sent for this project and contractor bids are due February 10<sup>th</sup>. Pending where bids come in, staff are anticipating the grant application to be ready for consideration at the February 22<sup>nd</sup> Board meeting and may recommend a 50% grant funding level with the City.

## VI. Projects

### A. Deep Lake MOU with NOHOA and scope of work with Natural Shore Technologies (NST)

VLAWMO and NOHOA staff have been working to implement the prioritization plan for Deep Lake shoreline restoration. VLAWMO has proposed to cost-share restoration of priority wetland areas identified by NST, consistent with the approved 2023 VLAWMO budget. The NOHOA Board authorized the scope of work from NST and MOU with VLAWMO at their January Board meeting. See attached MOU and scope of work, included in the packet. Link to the NOHOA Deep Lake Shore Restoration and Management Plan is found here:

[https://www.vlawmo.org/index.php/download\\_file/4372/](https://www.vlawmo.org/index.php/download_file/4372/)

**Requested action:** VLAWMO staff request a recommendation from the TEC to the VLAWMO Board for authorization of the Deep Lake MOU with NOHOA at the February 22 meeting of the VLAWMO Board.

### B. Wilkinson-Tamarack Lakes feasibility to treat internal load

VLAWMO staff worked with Barr Engineering to obtain a feasibility study and sediment analysis to analyze the treatment internal load in Wilkinson and Tamarack Lakes, consistent with the approved 2023 VLAWMO budget. Both lakes are impaired for nutrients and priority areas for the small, priority watershed grant program. Internal load treatment may be recommended, depending upon resulting recommendations, as a possible upcoming project. See attached scope of work, included in the packet. Staff is also in discussions with Ramsey Conservation Division regarding possible partnership on this study process.

**Requested action:** VLAWMO staff request a recommendation from the TEC to the VLAWMO Board for authorization of the Barr Engineering scope of work at the February 22 meeting of the VLAWMO Board.



### **C. Rotary scope of work for prioritization plan for wetland restoration**

VLAWMO staff worked with Natural Shore Technologies (NST) to obtain a prioritization plan for wetland restoration work to follow currently underway upland restoration being conducted by NST with the City of WBL. Wetland restoration in partnership with the City is planned to begin in 2025 and will follow recommendations resulting from the prioritization plan. This work is consistent with the approved 2023 VLAWMO budget. See attached draft MOU and draft scope of work, included in the packet. Note that the City is currently reviewing the drafts and may respond with minor requested changes prior to the VLAWMO February Board meeting.

**Requested action:** VLAWMO staff request a recommendation from the TEC to the VLAWMO Board for authorization of the draft MOU and scope of work, with nonmaterial changes that may be requested by the City prior to the Board meeting, at the February 22 meeting of the VLAWMO Board.

### **D. Wilkinson 319 update**

Since the January TEC meeting, VLAWMO staff have continued with partner project meetings, permitting discussions, and working closely with Houston Engineering. The dashboard for the project has not changed since the previous TEC meeting. Houston is advancing the design at this time in preparation for having a preliminary design memo ready for the February 22 meeting of the VLAWMO Board. VLAWMO staff and partners are preparing for a joint meeting of the North Oaks Natural Resources Commission and NOHOA NEST Committee. That is scheduled and has been announced to the community for February 13, 2023, at 7:00 pm.

A joint application for WCA is currently in prep by Houston.

### **E. Spent lime Feb 1<sup>st</sup> community meeting update**

VLAWMO and City of WBL staff worked with Barr Engineering to conduct a community meeting, consistent with the scope of work in the currently active feasibility study with Barr Engineering for a possible demonstration project/spent lime treatment in Oak Knoll Pond/Wood Lake. The community meeting was held on Feb. 1. At the time of packet preparation, the meeting had not yet been held. A verbal update on attendance and comments received at the meeting will be presented by VLAWMO staff at the TEC meeting.

### **F.. Vadnais-Sucker Lakes Regional Park Restoration Update**

Great River Greening's subcontractor Minnesota Native Landscapes (MNL) began work on the Vadnais-Sucker Lakes Regional Park restoration project on January 12<sup>th</sup>. They have been primarily cutting down buckthorn in woodland areas for the

last few weeks and treating the cut stumps with aquatic-safe herbicide. The cut buckthorn is piled in place and MNL is working with Ramsey County on removing some of the piles, with the rest remaining for wildlife.

VLAWMO staff have put up some temporary construction signage at the park in two locations to help park visitors be aware of the project. We also submitted a press release to the Vadnais Heights Press and sent out a few postcards to nearby residents to ensure the public knows about the project. Below is an action shot of the invasive removal work occurring:



**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 Deep Lake Shore and Restoration Plan was completed by Natural Shore Technologies (NST) in 2022 at the request of and funded by NOHOA;

Whereas, the Deep Lake Shore and Restoration Plan included:

- an evaluation and prioritization of shoreline areas for invasive plant removal and shoreline restoration,
- an identification of wetland segments 11, 13 (Willow dogwood shrub swamp) and 4, 20 (Sedge meadow) as priority #1 designation,
- and provided upper and lower bound cost estimates for these segments for planning and budgeting purposes;

Whereas, Deep Lake restoration efforts included in priority wetland segments are consistent with other ongoing Deep Lake restoration efforts between VLAWMO and NOHOA (i.e., yellow iris removal to support rare plants and water quality);

Whereas, VLAWMO included partner support for this Deep Lake restoration effort in its approved 2023 budget and work requested is consistent with that approved budget item;

Whereas, NST recently provided a scope and specific cost estimate (Deep Lake Shoreland Buffer – Buckthorn Control, December 21, 2022) for the priority #1 wetland segments, at the request of NOHOA and VLAWMO, for invasive plant removal and shoreline restoration work to be completed in 2023, and NOHOA also plans to continue to maintain these areas following restoration as part of their ongoing work with NST;

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 invasive plant removal and shoreline restoration in 2023 included in the Deep Lake Shoreland Buffer – Buckthorn Control, December 21, 2022, 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. Provide for management and oversight of the Deep Lake Shoreland Buffer—Buckthorn Control scope of work and activities included therein with NST.
  - b. Pay the overall contract with NST at the end of the 2023 growing season that includes a NOHOA contribution of \$15,000 and VLAWMO contribution of 50% of documented NOHOA costs up to but not to exceed \$15,000 for invasive plant removal and shoreline restoration in the following areas: wetland segments 11, 13 (Willow dogwood shrub swamp) and 4, 20 (Sedge meadow).
  - c. Invoice VLAWMO for its portion of completed restoration work after the invoice for 2023 work has been received from NST by NOHOA.
2. VLAWMO Responsibilities. VLAWMO agrees to do each of the following:
  - a. Reimburse NOHOA for 50% of documented costs up to but not to exceed \$15,000 of the costs in the scope of work between NOHOA and NST for invasive plant removal and shoreline restoration on Deep Lake in areas: wetland segments 11, 13 (Willow dogwood shrub swamp) and 4, 20 (Sedge meadow). All reimbursement requests shall include final receipts of payment. VLAWMO reserves the right to inspect the areas of completed work and withhold any or all reimbursement until work is deemed satisfactory by VLAWMO staff.
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 invasive plant removal and shoreline restoration 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 invasive plant removal and shoreline restoration with NST in 2023 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. VLAWMO shall remain responsible for reimbursing NOHOA 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: 1/24/2023



**Date: December 21<sup>st</sup>, 2022**

**To: Mr. Lee Elfering, Elfering and Associates**

**Bid Description: Deep Lake Shoreland Buffer – Buckthorn Control**

**Summary:**

In 2021, Natural Shore produced a report, Deep Lake: Shore Restoration and Management Plan, where individual shore segments were characterized, plans were developed, and sites were prioritized. In 2023, we are proposing to address sites 4 (350’), 11 (225’), 13 (370’), and 20 (125’). These are wetland dominated buffer areas. In addition to buckthorn cutting, treatment, removal, we will spot treat outlier patches of the invasive reed canary grass, purple loosestrife, and phragmites. In high profile areas close to the pathway, we will overseed with a custom seed mix and interplant with wetland forb species (fall, 2023). Below is a cost breakdown:

Site Design, Project Management, Mobilization		\$2,280.00
Buckthorn cutting, treatment, removal and spot treatment of outlier reed canary, purple loosestrife, and phragmites		\$15,825.00
Custom seed mix and 2,000 Plants - 3" and 4" - containers – interplanting (see preliminary species list below)		\$11,895.00

**TOTAL = \$30,000.00**

**Total Cost: \$30,000**

If you would like to proceed with the above outlined project, please sign the contract below and send in a 50% down payment.

**Client name:** \_\_\_\_\_

**Signed:** \_\_\_\_\_ **Date** \_\_\_\_\_

**Contractor: *Natural Shore Technologies, Inc.***

**Signed:**

**Contract Date: Contract Date for 30 Day term**

A handwritten signature in black ink, appearing to read 'W.M. Bartodziej', written in a cursive style.

William M. Bartodziej, M.S., Senior Restoration Ecologist

***Please return a signed copy of this contract and a check to:***

Natural Shore Technologies, Inc.  
6275 Pagenkopf Rd.  
Maple Plain, MN 55359

## WET MEADOW

### Grasses, Sedges, Rushes

River bulrush	<i>Bolboschoenus fluviatilis</i>	4 to 6	Brown	June - July	S
Canada Blue Joint	<i>Calamagrostis canadensis</i>	3 to 6	Tan-Green	July - August	S PS
Bebb's Sedge	<i>Carex bebbii</i>	2 to 3	Green	May - June	S PS
Plains Oval Sedge	<i>Carex brevior</i>	1 to 2	Tan	June - July	S SH
Bottlebrush Sedge	<i>Carex comosa</i>	2 to 3.5	Green	May - June	S PS
Porcupine Sedge	<i>Carex hystricina</i>	2 to 3.5	Green	May - June	S PS
Lake Sedge	<i>Carex lacustris</i>	2 to 4	Green	June - July	
Tussock Sedge	<i>Carex stricta</i>	2 to 3	Green	May - July	S PS
Fox Sedge	<i>Carex vulpinoidea</i>	1.5 to 2.5	Green	May - June	S PS
Common Rush	<i>Juncus effusus</i>	2 to 4	Brown	July - August	S PS
			Green-		
Green Bulrush	<i>Scirpus atrovirens</i>	2 to 5	Brown	July - August	S
Woolgrass	<i>Scirpus cyperinus</i>	3 to 5	Brown	July-September	S
			Green-		
Prairie Cordgrass	<i>Spartina pectinata</i>	3 to 6	Purple	August-October	S PS

### Forbs

Sweet flag	<i>Acorus calamus</i>	2	Green	May - July	S
Canada Anemone	<i>Anemone canadensis</i>	1 to 2	White	May - July	S PS
Swamp Milkweed	<i>Asclepias incarnata</i>	3 to 4	Lavender	June - August	S PS
Marsh marigold	<i>Caltha palustris</i>	1.0	Yellow	April-May	S PS
Turtlehead	<i>Chelone glabra</i>	2 to 3	White	August - October	S SH
Boneset	<i>Eupatorium perfoliatum</i>	2 to 4	White	June-July	S PS
Joe-Pye Weed	<i>Eutriochium maculatum</i>	3 to 6	Purple	June-July	S PS
Blue Bottle Gentian	<i>Gentiana andrewsii</i>	1.5 to 2.5	Blue	August - October	S PS
Sneezeweed	<i>Helenium autumnale</i>	4 to 5	Yellow	August -September	S PS
Blue Flag Iris	<i>Iris versicolor</i>	2 to 3	Blue	June - July	S PS
Meadow Blazing Star	<i>Liatris ligulistylis</i>	2 to 3.5	Purple	June - July	S PS
Prairie Blazing Star	<i>Liatris pycnostachya</i>	2 to 3	Purple	July - September	S PS
Cardinal Flower	<i>Lobelia cardinalis</i>	3 to 4	Red	June - October	S PS
Blue Lobelia	<i>Lobelia siphilitica</i>	1.5 to 2.5	Blue	June - October	S PS
Monkeyflower	<i>Mimulus ringens</i>	1.5 to 2	Lavender	July - September	S PS
Obedient Plant	<i>Physostegia virginiana</i>	2 to 4	Purple	June-July	S SH
Mountain Mint	<i>Pycnanthemum virginianum</i>	2 to 3	White	July - September	S PS
	<i>Symphotrichum novae-</i>				
New England Aster	<i>angliae</i>	3 to 5	Purple	September-October	S PS
Blue vervain	<i>Verbena hastata</i>	2 to 5	Purple	July-August	S PS
Ironweed	<i>Vernonia fasciculata</i>	3 to 6	Purple	July-September	S PS
Culvers Root	<i>Veronicastrum virginicum</i>	3 to 5	White	July-August	S PS



January 12, 2023

Mr. Phil Belfiori  
Administrator  
Vadnais Lake Area Water Management Organization (VLAWMO)  
800 County Road E East  
Vadnais Heights, MN 55127

**Re: Agreement for In-Lake Management Feasibility Study of Tamarack and Wilkinson Lakes**

Dear Mr. Belfiori:

Thank you for the opportunity to submit this agreement to provide engineering services to the Vadnais Lake Area Water Management Organization (VLAWMO) for sediment monitoring and completion of an in-lake management feasibility study for Tamarack and Wilkinson Lakes.

This engineering estimate includes sediment core collection/analysis, determination of an alum dosage plan and preparation of supporting information, and completion of, an in-lake management feasibility report. Table 1 summarizes the work items and the estimated cost.

## **Project Scope**

The project includes the following work tasks.

### **1. Sediment core collection and phosphorus fractionation**

Sediment core collection and phosphorus fractionation are essential to understanding the potential for phosphorus release for bottom sediment that can spur algal blooms and water quality problems. For this project, sediment cores will be collected from four locations in Wilkinson Lake and two locations in Tamarack Lake. Sediment cores will be collected during April or May 2023, if safe working conditions allow. The bottom depth of the core will vary depending on how far the coring tube can be pushed into the sediment at each location.

For this task, we will cut each core into 7 sediment slices and fractionate the sediment core samples to extract and accurately identify/target the forms of phosphorus that are contributing to internal loading each summer, and subsequently determine the implications for control. Iron-bound phosphorus, organic phosphorus, aluminum-bound phosphorus, and calcium-bound phosphorus will be extracted and analyzed separately. Iron-bound and loosely-sorbed phosphorus are the forms of phosphorus that can most readily contribute to internal loading of phosphorus within a water body. Anoxic conditions (i.e., low oxygen levels) at the sediment interface will convert iron in the sediment to a soluble form, releasing phosphorus that was previously bound to insoluble iron. Organic phosphorus can also contribute to internal loading of biologically available phosphorus. Under normal conditions, aluminum-bound and calcium-bound phosphorus in the sediment do not contribute to internal loading of biologically available phosphorus. Our analysis of the sediment cores will provide the data needed to calculate of the optimal alum dose to reduce internal phosphorus loading from each water body.

## **2. Development of an alum dosage and application plan**

Our analysis of the sediment cores will provide the areal data needed to calculate the optimal alum dose for each water body to reduce internal phosphorus loading. Based on the amount of mobile phosphorus (the pool that contributes to internal loading) in the sediment, an alum dose will be calculated that will reduce internal loading to the desired goal. Another factor that will be considered in calculating the alum dose is the amount of labile (easily broken down) organic phosphorus in the sediment. This form of phosphorus is not immediately available for use by algae but will break down over time and increase the mobile phosphorus pool in the sediment. The addition of this phosphorus pool into the dosing calculation will ensure that an alum dose is added to each water body that will effectively control internal phosphorus loading for an extended period.

Water chemistry will also need to be considered when developing the application plan. If the alum dose is high enough, it is possible that there will be insufficient alkalinity in the lake/pond to buffer the treatment and prevent pH depression below 6.0. Historical data, along with water chemistry data collected before treatment will be reviewed. We will also complete an alum titration with lake water samples to evaluate the pH buffering capacity of each lake.

For this task Barr will produce mapping of the mobile and organic phosphorus fractions across each lake. If necessary, the recommended alum dosing procedure will indicate whether the treatment should be done in conjunction with a buffering agent. Once a dose has been developed, morphometric information for the lake/pond (mean depth and surface area) will be used to determine if the alum dose should be applied over multiple treatments as opposed to a one-time treatment.

## **3. In-lake management feasibility report**

The results of the above tasks will be summarized in a feasibility report and submitted for review and comment. The feasibility study report will address the following topics, consistent with the Minnesota Board of Water and Soil Resources requirements for implementation funding:

- Lake and watershed information (at minimum, include lake morphology and depth, summary of water quality information, and the assessment of aquatic invasive species)
- Description of internal load vs. external load nutrient reductions
- History of projects completed in the watershed, as well as other in-lake activities if applicable
- Cost benefit analysis of options considered
- Projected effective life of the proposed activities
- Expected water quality outcome
- Plan for monitoring surface water quality to assure the project's total phosphorus goal will be achieved during the project's effective life

The feasibility report will also include all calculations used to derive the bid quantities that can be supplied to alum application contractors, as well as a map that indicates the alum dosing rates that should be applied to each water body. Barr will respond to questions and comments and finalize the report. The pertinent results of the above tasks will also be compiled and sent to VLAWMO staff in an email for incorporation into a BWSR grant application, including an engineer's estimate of alum treatment cost that would cover final design, contracting, oversight and project assurances.

## Estimated Cost and Schedule

The following table summarizes the estimated costs associated with each task described in the scope of services and list of assumptions.

The table also shows the estimated schedule for the completion of the project tasks. The schedule assumes authorization to proceed by VLAWMO no later than February 24, 2023. The actual schedule will be coordinated with VLAWMO staff and will accommodate coordination with public and private landowners for lake/pond access, where applicable.

<b>Task</b>	<b>Description of Task</b>	<b>Amount</b>	<b>Estimated Completion</b>
<b>1</b>	Sediment core collection and phosphorus fractionation	\$ 12,600	July 2023
<b>2</b>	Development of alum dosage and application plan	\$ 5,400	August 2023
<b>3</b>	In-lake management feasibility report	\$ 8,500	September 2023
<b>Total Estimated Project Cost</b>		<b>\$ 26,500</b>	

This Agreement will be effective for the duration of the services, unless earlier terminated by either VLAWMO or us. We will commence work on Task 1 upon receipt of a copy of this letter signed by your authorized representative.

We will inform you of our progress through periodic (e.g., bi-weekly) e-mail updates, telephone calls, invoice details, and other communications.

For the services provided, you will pay us on a lump sum basis, according to the attached Standard Terms. We will bill the VLAWMO approximately monthly. The cost of the services will not exceed \$26,500 without prior approval by the VLAWMO. Work beyond the scope outlined above will be billed on a time-and-expense basis in accordance with our fee schedule, following your written permission or otherwise negotiated with you.

We understand you or your designees have the authority to direct us. We will direct communications to you at the 800 County Road E East address. Direction should be provided to Greg Wilson at the letterhead address.

During the term of this Agreement, we will maintain the following insurance coverages:

Worker Compensation..... Statutory  
 Employer Liability..... \$500K per claim/\$500k aggregate  
 Commercial General Liability..... \$1M per claim/\$2M aggregate, combined single limit  
 Automobile..... \$1M combined single limit  
 Umbrella/excess policy as to above coverages..... \$10M aggregate  
 Professional Liability (claims-made) ..... \$5M per claim/\$5M annual aggregate

If this Agreement is satisfactory, please sign the enclosed copy of this letter in the space provided and return it to us.

Sincerely yours,  
Barr Engineering Co.



By \_\_\_\_\_  
Nathan Campeau, P.E.  
Vice President

Accepted this \_\_\_ day of \_\_\_\_\_, 2023

Vadnais Lake Area Watershed Management Organization

By \_\_\_\_\_  
Phil Belfiori  
Its District Administrator

Attachments  
Standard Terms—Professional Services



## STANDARD TERMS—PROFESSIONAL SERVICES

Our Agreement with you consists of the accompanying letter or other authorization, Work Orders, and these Standard Terms – Professional Services.

### Section 1: Our Responsibilities

- 1.1 We will provide the professional services (“Services”) described in this Agreement. We will use that degree of care and skill ordinarily exercised under similar circumstances by reputable members of our profession practicing in the same locality.
- 1.2 We will select the means, methods, techniques, sequences, or procedures used in providing our Services. If you direct us to deviate from our selections, you agree to hold us harmless from claims, damages, and expenses arising out of your direction.
- 1.3 We will acquire all licenses applicable to our Services and we will comply with applicable law.
- 1.4 Our duties do not include supervising your contractors or commenting on, supervising, or providing the means and methods of their work unless we accept any such duty in writing. We will not be responsible for the failure of your contractors to perform in accordance with their undertakings.
- 1.5 We will provide a health and safety program for our employees, but we will not be responsible for contractor, job, or site health or safety unless we accept that duty in writing.
- 1.6 Estimates of our fees or other project costs will be based on information available to us and on our experience and knowledge. Such estimates are an exercise of our professional judgment and are not guaranteed or warranted. Actual costs may vary. You should add a contingency.
- 1.7 The information you provide to us will be maintained in confidence except as required by law.

### Section 2: Your Responsibilities

- 2.1 You will provide access to property.
- 2.2 You will provide us with prior reports, specifications, plans, changes in plans, and other information about the project that may affect the delivery of our Services. You will hold us harmless from claims, damages, and related expenses, including reasonable attorneys’ fees, involving information not timely called to our attention or not correctly shown on documents you furnish to us.
- 2.3 You agree to provide us with information on contamination and dangerous and hazardous substances and processes we may encounter in performing the Services and related emergency procedure information.
- 2.4 You agree to hold us harmless as to claims that we are an owner, operator, generator, transporter, treater, storer, or a disposal facility within the meaning of any law governing the handling, treatment, storage, or disposal of dangerous or hazardous materials.
- 2.5 Site remediation services may involve risk of contamination

of previously uncontaminated air, soil, or water. If you are requesting that we provide services that include this risk, you agree to hold us harmless from such contamination claims, damages, and expenses, including reasonable attorneys’ fees, unless and to the extent the loss is caused by our negligence.

- 2.6 You agree to make disclosures required by law. If we are required by law or legal process to make such disclosures, you agree to hold us harmless and indemnify us from related claims and costs, including reasonable attorneys’ fees.

### Section 3: Reports and Records

- 3.1 We will retain analytical data relating to the Services for seven years and financial data for three years.
- 3.2 Monitoring wells are your property and you are responsible for their permitting, maintenance and abandonment unless we accept that duty in writing. Samples remaining after tests are conducted and field and laboratory equipment that cannot be adequately cleansed of contaminants are your property. They will be discarded or returned to you, at our discretion, unless within 15 days of the report date you give written direction to store or transfer the materials at your expense.
- 3.3 Our reports, notes, calculations, and other documents, and our computer software, programs, models, and data are instruments of our Services, and they remain our property, subject to a license to you for your use in the related project for the purposes disclosed to us. You may not use or transfer such information and documents to others for a purpose for which they were not prepared without our written approval. You agree to indemnify and hold us harmless from claims, damages, and expenses, including reasonable attorneys’ fees, arising out of any unauthorized transfer or use.
- 3.4 Because electronic documents may be modified intentionally or inadvertently, you agree that we will not be liable for damages resulting from change in an electronic document occurring after we transmit it to you. In case of any difference or ambiguity between an electronic and a paper document, the paper document shall govern. When accepting document transfer in electronic media format, you accept exclusive risk relating to long-term capability, usability, and readability of documents, software application packages, operating systems, and computer hardware.
- 3.5 If you do not pay for the Services in full as agreed, we may retain reports and work not yet delivered to you and you agree to return to us our reports and other work in your possession or under your control. You agree not to use or rely upon our work for any purpose until it is paid for in full.

#### **Section 4: Compensation**

- 4.1** You will pay for the Services as agreed or according to our then current fee schedules if there is no other written agreement as to price. An estimated cost is not a firm figure unless stated as such and you should allow for a contingency in addition to estimated costs.
- 4.2** You agree to notify us of billing disputes within 15 days and to pay undisputed portions of invoices within 30 days of invoice date. For balances not paid under these terms, you agree to pay interest on unpaid balances beginning 10 days after invoice date at the rate of 1.5% per month, but not to exceed the maximum rate allowed by law.
- 4.3** If you direct us to invoice another, we will do so, but you agree to be responsible for our compensation unless you provide us with that person's written acceptance of the terms of our Agreement and we agree to extend credit to that person.
- 4.4** You agree to compensate us in accordance with our fee schedule if we are asked or required to respond to legal process arising out of a proceeding to which we are not a party.
- 4.5** If we are delayed by factors beyond our control, or if the project conditions or the scope of work change, or if the standards change, we will receive an equitable adjustment of our compensation.
- 4.6** In consideration of our providing insurance to cover claims made by you, you hereby waive any right of offset as to payment otherwise due us.

#### **Section 5: Disputes, Damage, and Risk Allocation**

- 5.1** Each of us will exercise good faith efforts to resolve disputes without litigation. Such efforts will include a meeting attended by each party's representative empowered to resolve the dispute. Disputes (except collections) will be submitted to mediation as a condition precedent to litigation.
- 5.2** We will not be liable for special, incidental, consequential, or punitive damages, including but not limited to those arising from delay, loss of use, loss of profits or revenue, loss of financing commitments or fees, or the cost of capital. Each of us waives against the other and its subcontractors, agents, and employees all rights to recover for losses covered by our respective property/casualty or auto insurance policies.
- 5.3** We will not be liable for damages unless you have notified us of your claim within 30 days of the date of your discovery of it and unless you have given us an opportunity to investigate and to recommend ways of mitigating damages, and unless suit is commenced within two years of the earlier of the date of injury or loss and the date of completion of the Services.
- 5.4** For you to obtain the benefit of a fee which includes a reasonable allowance for risks, you agree that our aggregate liability will not exceed the fee paid for our services, but not less than \$50,000, and you agree to indemnify us from all liability to others in excess of that amount. If you are unwilling to accept this allocation of risk, we will increase our aggregate liability to \$100,000 provided

that, within 10 days of the date of our Agreement, you provide payment in an amount that will increase our fees by 10%, but not less than \$500, to compensate us for the greater risk undertaken. This increased fee is not the purchase of insurance.

- 5.5** If you fail to pay us within 60 days following invoice date, we may consider the default a total breach of our Agreement and, at our option, we may terminate all of our duties without liability to you or to others.
- 5.6** If we are involved in legal action to collect our compensation, you agree to pay our collection expenses, including reasonable attorneys' fees.
- 5.7** The law of the state in which the project site is located will govern all disputes. Each of us waives trial by jury. No employee acting within the scope of employment will have any individual liability for his or her acts or omissions and you agree not to make any claim against individual employees.

#### **Section 6: Miscellaneous Provisions**

- 6.1** We will provide a certificate of insurance to you upon request. Any claim as an Additional Insured will be limited to losses caused by our sole negligence.
- 6.2** This Agreement is our entire agreement, and it supersedes prior agreements. Only a writing signed by an authorized representative for each of us making specific reference to the provision modified may modify it.
- 6.3** Neither of us will assign this Agreement without the written approval of the other. No other person has any rights under this Agreement.
- 6.4** Only a writing may terminate this Agreement. We will receive an equitable adjustment of our compensation as well as our earned fees and expenses if our work is terminated prior to completion.
- 6.5** We will not discriminate against any employee or applicant for employment because of race, color, creed, ancestry, national origin, sex, religion, age, marital status, affectional preference, disability, status with regard to public assistance, membership or activity in a local human-rights commission, or status as a specially disabled, Vietnam-era, or other eligible veteran. We will take affirmative action to ensure that applicants are considered, and employees are treated during their employment, without regard to those factors. Our actions will include, but are not limited to notifications, hiring, promotion or employment upgrading, demotion, transfer, recruitment or recruitment advertising, layoffs or terminations, rates of pay and other forms of compensation, and selection for training or apprenticeship.
- 6.6** Neither we nor you, including our officers, employees, and agents, are agents of the other, except as agreed in writing. Except as agreed in writing, nothing in this Agreement creates in either party any right or authority to incur any obligations on behalf of, or to bind in any respect, the other party. Nothing contained herein will prevent either party from procuring or providing the same or similar products or services from or to any third person, provided that there is no breach of any obligations pertaining to confidentiality.

*End of Standard Terms*



January 26, 2023

**Rotary Nature Preserve: Vegetation Management Plan Estimate**

Dear Dawn,

Thank you for considering Natural Shore for developing a vegetation management plan for Rotary Nature Preserve in White Bear Lake. We understand the importance of maintaining the ecological balance of this important resource, and appreciate the opportunity to partner with you on creating a practical roadmap to increase and sustain biodiversity and water quality.

Scope of Work:

Rotary Nature Preserve is a popular recreational area known for its natural beauty and diverse array native plant and animal species. The park features a combination of wetland and upland habitats, as well as a network of walking paths and boardwalks, making it a local destination for outdoor enthusiasts. However, the ecological integrity of the park is being threatened by the presence of invasive species.

To address this issue, we are proposing to conduct thorough vegetation analysis and mapping during the 2023 growing season, layout invasive species management strategies for individual compartments, detail restoration approaches, and establish a 5-year budget and timeline. Below is a breakdown of major tasks:

Task	Timeline	Cost
Set up mapping protocol and GPS	March	\$800
Vegetation site surveys - focusing on invasive species throughout the growing season – notes and photos	May-Sept.	\$4,600
Compile field data	October	\$1,200
Partition wetland into individual management units and map	November	\$600
Develop management recommendations for each unit	November	\$800
Compile 5-year vegetation management plan, including plant control, restoration, and maintenance recommendations	Nov.-Dec.	\$1,800
	<b>Total =</b>	<b>\$9,800</b>



We will also assess the possibility of conducting strategic invasive species management in the fall, based on survey findings and agency budgets. This will be discussed with staff in late summer.

Please let me know if you have any questions regarding the above estimate.

Thank you,

Tracy Lawler  
Maintenance Program Manager  
Cell: 612-220-4178  
[tracy@naturalshore.com](mailto:tracy@naturalshore.com)



**Memorandum of Understanding Between  
Vadnais Lake Area Watershed Management Organization  
and City of White Bear Lake**

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

Whereas, VLAWMO and City mutually desire to support and expand upon restoration efforts in upland areas begun by the City in Rotary Park Nature Preserve (“**Rotary Park**”); both entities have a well-established, long-term relationship with Natural Shore Technologies (“**NST**”) at the current site and other neighboring areas within the subwatershed;

Whereas, VLAWMO and another partner worked with NST to conduct a restoration prioritization plan, similar to the one proposed in the attached scope of work (Rotary Nature Preserve: Vegetation Management Plan Estimate, January 26, 2023), and that prioritization plan effectively informed restoration work that is currently underway;

Whereas, VLAWMO has the ability to work on wetlands to preserve, protect, and improve water quality; the Rotary Park Nature Preserve contains a large mosaic of wetlands; those wetlands are highly infested with invasive plant species; and restoration of these wetland areas would improve ecological function and allow them to better support downstream waterbodies;

Whereas, Rotary Park supports wetland-dependent wildlife species, as documented by wildlife monitoring conducted by VLAWMO; such wildlife includes native frogs, toads, mink, Sandhill cranes, Sora (a secretive bird that uses wetland habitat exclusively), and others; and restoration would improve habitat for these species;

Whereas, VLAWMO included funding for Rotary Park in its approved budget for 2023, and this prioritization effort will allow a smooth transition from upland areas, that the City is currently working to restore, to wetland areas where the City and VLAWMO plan to cost-share restoration efforts beginning in 2025; and

Whereas, the parties wish to clearly define their respective roles in completion of the prioritization effort for wetland restoration in Rotary Park;

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

1. City Responsibilities. City agrees to do each of the following:
  - a. Attend meetings related to the proposed work and participate in discussion regarding recommendations provided.
  - b. In partnership with VLAWMO, plan for funds to cost-share wetland restoration in Rotary Park, beginning in 2025, following recommendations provided from the current work, as available in the budget.

2. VLAWMO Responsibilities. VLAWMO agrees to do each of the following:
  - a. Attend meetings related to the proposed work and participate in discussion regarding recommendations provided.
  - b. Provide for management and oversight of the prioritization effort.
  - c. Pay the professional services costs to NST.
  - d. In partnership with the City, plan for funds to cost-share wetland restoration in Rotary Park, beginning in 2025, following recommendations provided from the current work, as available in the budget.
  
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 the Study 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.
  
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**

**City of White Bear Lake**

\_\_\_\_\_  
Chairperson

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Administrator

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

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

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