

AGENDA

RESCHEDULED VLAWMO BOARD OF DIRECTORS MEETING

7:00 PM

February 28, 2023

Gem Lake City Hall, 4200 Otter Lake Road, Gem Lake

 = requested Board action

- I. **Call to Order**, Chair, Jim Lindner
- II. **Approval of Agenda** 
- III. **Approval of December 14, 2022 Board Meeting Minutes**  [pg. 3](#)
- IV. **Visitors and Presentations**
 - A. TEC Report to the Board & Finance Report– February– Terry Huntrods [pg. 11](#)
 - B. Public visitors – non agenda items
- V. **Consent Agenda**  *-Directors may request to move any item to business agenda for discussion*
 - A. Consider MOU for Deep Lake shoreland wetland restoration with NOHOA [pg. 19](#)
 - B. Consider Rotary Park MOU with City of White Bear Lake on wetland restoration plan development [pg. 27](#)
 - C. Update Feb. 1 public meeting on spent lime demonstration feasibility study at Oak Knoll Pond [pg. 33](#)
 - D. Consider 2022 Annual Report draft and Monitoring Report for submittal to BWSR et. al [35](#)
 - E. Consider Designation of Legal Publication – Press Publications and VLAWMO website [37](#)
 - F. Consider 2023 Board Meeting Dates [pg. 39](#)
 - G. Update on Vadnais-Sucker Lakes Regional Park Restoration project [pg. 41](#)
- VI. **Business**
 - A. **Administration**
 1. Consider Tabling Oath of Office for New Members, Election of Board, Subcommittee  Officers and appointment of TEC chair /officers to April 26, 2023 meeting- Phil [pg. 43](#)
 - B. **Projects and Programming**
 1. Consider Landscape Level 2 Grant Application LL2 2023-01 WBT smart irrigation controllers pilot - Lauren  (5 Mins) [pg. 45](#)
 2. Consider Landscape Level 2 Grant Application LL2 2023-02 City of VH smart irrigation controllers pilot - Lauren  (5 Mins.) [pg. 51](#)
 3. Consider Landscape Level 2 Grant Application LL2 2023-03 City of VH Westfield Park bioswale - Lauren  (5 Mins.) [pg. 57](#)
 4. Consider In-Lake Management Feasibility Study of Tamarack and Wilkinson Lakes -Dawn (10 Mins.)  [pg. 65](#)
 5. Update on Wilkinson BMP- technical memos, permitting and public engagement- Dawn (10 Mins.) [pg. 75](#)
 6. Update on drone inspection for public ditch 14 main stem- Brian (5 Mins.) [pg. 81](#)
- VII. **Discussion**
- VIII. **Administration Communication**
- XI. **Adjourn:** Next regular meeting: April 26, 2023

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MINUTES OF THE BOARD OF DIRECTORS – DECEMBER 14, 2022 REGULAR BOARD MEETING

Attendance		Present	Absent
Jim Lindner, Chair	City of Gem Lake	x	
Tom Watson	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	
Patricia Youker, Secretary-Treasurer	City of Vadnais Heights	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

Others in attendance: None

I. Call to Order

The meeting was called to order at 7:03 pm by Chair Lindner.

II. Approval of Agenda

The agenda for the December 14, 2022 Board meeting was presented for approval.

A motion was made by Director Watson and seconded by Director Youker to approve the October Board meeting agenda.

Vote: Jones: aye, Youker: aye, Lindner: aye, Watson: aye. Motion passed.

III. Approval of Minutes

The minutes from the October 26, 2022 Board meeting were placed on the agenda for approval, as presented. No comments from the Directors.

A motion was made by Director Youker and seconded by Director Watson to approve the October 26 Board meeting minutes. Vote: Jones: aye, Youker: aye, Lindner: aye, Jones: aye, Watson: aye. Motion passed.

IV. Visitors and Presentations

A. Recognition of Director Patricia Youker

Administrator Belfiori and Chair Lindner presented a certificate of appreciation and water drop award to Director Youker for her years of service on the Board of Directors.

B. 2022 VLAWMO Watershed Awards

Voss presented a summary of the 2022 watershed award recipients as provided in the December Board packet.

C. TEC Report and Financial Report for December

Administrator Belfiori described the December 2022 TEC report to the Board of Directors as included in the December Board packet. Highlights include updates on the Whitaker Pond biochar filter, drone footage of Lambert Creek, a spent lime study being underway, updates on the Wilkinson Lake BMP project, and Pleasant Lake carp management.

Discussion:

None

V. Consent Agenda

Chair Lindner asked if any Board members wished to speak on any of the consent agenda items;

Director Jones requested discussion on V.A. regarding the contract with the Munch Bunch. Tanner provided insight on goat effectiveness for buckthorn removal. She said the effectiveness relies on treatment and clearing occurring before the goats are used for grazing. The site in the proposed contract is ideal because prior treatment has been completed in the target areas at the Vadnais Heights City Hall. An additional feature in the proposed contract is that the goats will have collars that are able to be monitored and moved around the site remotely.

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

A. Consider Contracts/quotes for 2023- (5 total)

B. Wilkinson BMP Project update

C. Consider Spent lime grant submission authorization

D. Update on MAWD annual meeting carp presentation

E. Update on Great River Greening Vadnais/Sucker Park restoration

F. Consider Watershed Planning Resiliency Grant application

G. Consider VLAWMO legal services for 2023 and 24

A motion was made by Director Watson and seconded by Director Jones to approve the consent agenda. Vote: Jones: aye, Lindner: aye, Youker: aye, Watson: aye. Motion passed.

D. Public Visitors – Non agenda items

None

VI. Business

A. Administration and Projects

1. Consider Working 2023 budget fund balance carryover – Res 10-2022 

Administrator Belfiori presented the PowerPoint as included in the December BOD packet. The presentation included a summary of Resolutions 10-2022. Carry-over funds are requested for four areas: 3.1 Operations and Administration, 3.2 Monitoring and Studies, 3.3 Education and Outreach, and 3.4 Capital Improvement Projects. Staff recommends approval of the 2023 working budget as summarized and included in Resolution 10-2022.

RESOLUTION 10-2022

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 2023 “working” budget) and Purpose
General Fund - Fund 3.1. Operations and Administration	\$15,000 Engineering and/or pool firms to implement technical assistance tasks: approved watershed plan amendment projects, feas. studies, unanticipated technical work to date.
General Fund - Fund 3.2. Monitoring and Studies	\$16,000 Possible work with Rotary Park or next phase wetland restoration feasibility study. Equipment costs not spent in 2022.
General Fund - Fund 3.3. Education and Outreach	\$9,500 Carrying over into 2023 re: approved website updated

<p>General Fund -Fund 3.4. Capital Improvement Projects and Programs</p>	<p>\$485,863</p> <p>The approved 2023 budget (approved at the June 2022 Board meeting) already included utilizing <u>\$294,364</u> of fund balance carry over to implement the 2023 Capital Improvement Projects and Programs. The proposed 2023 “working” budget now proposes an additional <u>\$191,499</u> of additional fund balance carry over for a total Proposed Carry Over “committed” Funds (into 2023 “working” budget) of <u>\$485,863</u>. For implementation of the proposed Wilkinson Lake BMP Project, unspent 319 Wilkinson Lake Project/Lake Amelia BMP study-City of Lino Lks., Public drainage inspection /maintenance, Pleasant Lake partnership funding, East Vadnais Lk. Ramsey County/City partnership, Level 2 /Lvl. 1 cost-share (including encumbered NOHOA entrance), Gem Lake Commercial dist. Study.</p>
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The question was on the adoption of the resolution and there were __ yeas and __ 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>	<input type="checkbox"/>	<input type="checkbox"/>	x
<i>Rob Rafferty</i>	<input type="checkbox"/>	<input type="checkbox"/>	x
<i>Tom Watson</i>	X	<input type="checkbox"/>	<input type="checkbox"/>
<i>Patricia Youker</i>	X	<input type="checkbox"/>	<input type="checkbox"/>
<i>Jim Lindner</i>	X	<input type="checkbox"/>	<input type="checkbox"/>

Upon vote, the Chair declared the Resolution adopted on this 14th day of December 2022.

_____ Board Chair Dated: December ____, 2022

_____ Attest Dated: December ____, 2022

Discussion: Director Watson inquired about the TEC Report to BOD, comparing financial summaries and a discrepancy between the TEC report to BOD and the annual budget. Belfiori concurred that the approved budget for 2023 is \$1,389,451. Belfiori explained that the apparent discrepancy was due to the TEC report to BOD targeting a monthly summary, while the annual budget accounts for carry-over funds. Belfiori demonstrated how the spreadsheets reconcile.

A motion was made by Director Watson and seconded by Director Youker to approve **Resolution 10-2022 for contributing to the fund balance for specific purposes.**

Vote: Youker: aye, Lindner: aye, Jones: aye, Watson: aye. Motion passed.

2. Update on 2022 Education and Outreach Plan Summary & 2023 Goals

Voss noted that this presentation was focusing on the MS4 programming partnership with member communities. He summarized the presentations that were held throughout the last year including a presentation on the entrance raingarden in the City of North Oaks. Collaborations events included Lino Lakes Illicit Discharge Detection and Elimination video presentation and other work with the member communities. Voss highlighted a groundwater conservation strategy that was based on a new groundwater page on the VLAWMO website. He also summarized the content within the Good Neighbor Guide.

Director Watson shared that the City of North Oaks is investigating its status as an MS4 with the MPCA and also summarized status of water supply discussions with neighboring communities that have been going on since May 2022.

Belfiori provided additional insight from the 2022 Board direction that emphasizes a new and growing focus on groundwater conservation through smart irrigation controller pilots, education and outreach efforts, and feasibility with partners for stormwater reuse.

3. Consider cost share program updates

Sampedro presented the PowerPoint included in the BOD packet, which outlines the policy updates and new materials for VLAWMO's four cost share programs. Sampedro summarized each program including the Soil Health, Landscape Level 1, Landscape Level 2, and Rain barrel grant programs. She highlighted Board-initiated changes of adding groundwater conservation and smart irrigation controllers as eligible projects as well as smart irrigation pilot test sites as eligible costs through the Landscape Level 2 Grant Program.

Sampedro presented the visuals of the new grant policy documents and application documents. Staff recommended approval of the proposed 2023 grant program changes.

Discussion:

Chair Lindner noted that this focus reflects the current status of the irrigation industry.

Director Watson inquired about why the former program included an 85% payment option before the project is completed. Sampedro provided that typically this strategy is included to help homeowners front the costs and continue efforts on a project. However in Landscape Level 2 these projects are focused on Cities and public entities which don't typically need funding strategies.

A motion was made by Director Jones and seconded by Director Youker to approve the 2023 grant program changes as presented.

Vote: Lindner: aye, Jones: aye, Youker: aye, Watson: aye. Motion passed.

4. Consider grant agreement and Res 11-2022 for 23-25 BWSR WBIF Grant

Sampedro presented a grant agreement with BWSR and resolution 11-2022 for a 2023-2025 Watershed-based Implementation Funding program grant for consideration. She explained that the current round of BWSR WBIF funding consists of \$6.5 million for the metro area and recipients of these funds would need to include a 10% match. \$75,000 was specifically allocated to the VLAWMO planning area.

Sampedro described the previous funding round’s grant activities and explained the current application process. The Cities of Vadnais Heights and Lino Lakes elected to be the two municipal representatives for the grant partnership and partners elected VLAWMO to be the grantee for the 2023 grant cycle. The partnership also selected to continue the previous funding cycle’s grant activity of implementing VLAWMO’s grant programs for partnership projects. Sampedro directed attention to the workplan in the Board packet for more detail. The next step to secure the \$75,000 of funding is Board approval of the work plan and execution of the grant agreement with BWSR with the adoption of resolution 11-2022.

RESOLUTION NO. 11-2022 of the Vadnais Lake Area Water Management Organization (VLAWMO)

A RESOLUTION APPROVING the 2023-2025 BWSR WATERSHED-BASED IMPLEMENTATION FUNDING GRANT AGREEMENT AND WORK PLAN (C23-3449).

Resolution 11-2022 was moved by Director Watson and seconded by Director Jones.

WHEREAS, on October 27, 2021 the Minnesota Board of Water and Soil Resources (BWSR) approved the Watershed-based Implementation Funding (WBIF) watershed allocations for the 2022-2023 biennium; and

WHEREAS, funds have been allocated based on watershed planning areas, and VLAWMO is part of the Vadnais Lake Watershed Planning Area (Partnership) to which BWSR has allocated \$75,000 for implementation in 2023-2025; and

WHEREAS, VLAWMO submitted a funding request and draft work plan on behalf of the Partnership for the Watershed-Based Implementation Funding grant to BWSR to improve water quality within the Lambert Creek, Goose Lake, Birch Lake, and Gilfillan-Tamarack-Black-Wilkinson-Amelia Lakes subwatersheds; and

WHEREAS, components of the grant proposal include VLAWMO Grant Program implementation within the counties of Anoka and Ramsey, Minnesota; and

WHEREAS, VLAWMO has finalized a work plan with BWSR for implementation of the grant; and WHEREAS, VLAWMO will work with the Partnership and other landowners to pursue project opportunities for implementation of the grant, and

THEREFORE, BE IT RESOLVED, that the VLAWMO Board of Directors hereby approves the C23-3449 grant agreement, with BWSR-approved work plan, and authorizes the WMO Board Chair to execute the grant agreement and submit to BWSR, with any final non-material changes and on advice of counsel.

The question was on the adoption of the resolution and there were 4__ 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>	<input type="checkbox"/>	<input type="checkbox"/>	x
<i>Rob Rafferty</i>	<input type="checkbox"/>	<input type="checkbox"/>	x
<i>Tom Watson</i>	x	<input type="checkbox"/>	<input type="checkbox"/>

<i>Patricia Youker</i>	x	<input type="checkbox"/>	<input type="checkbox"/>
<i>Jim Lindner</i>	x	<input type="checkbox"/>	<input type="checkbox"/>

Upon vote, the Chair declared the Resolution adopted on this 14th day of December 2022.

_____	Board Chair	Dated: December ____, 2022
_____	Attest	Dated: December ____, 2022

Discussion:

Director Watson inquired whether the grant’s match can be cash or in-kind match, Sampedro responded that it can be either.

A motion was made by Director Watson and seconded by Director Jones to approve Resolution 11-2022 approving the 2023-2025 BWSR Watershed-Based Implementation Funding Grant Agreement and Work Plan.

Vote: Lindner: aye, Jones: aye, Watson: aye, Youker: aye. Resolution passed.

VII. Discussion

A. Reminder: 2023 Board and alternate appointments/ TEC appointments and alternate

Director Jones provided an update that after 2023 he will not be running for White Bear Lake City Council. Director Watson discussed an interest in continuing succession planning as Board terms end.

B. Discussion on groundwater conservation as requested by Director Watson

Director Watson commented that the groundwater conservation topics requested had been covered in previous discussions on the agenda, particularly in section VI. A. 2.

VIII. Administration Communication

Belfiori provided a thank you to the Board for the year and a congratulations to Director Youker for her time on the Board of Directors.

VII. Adjourn

A motion was made by Director Youker and seconded by Director Jones to adjourn at 8:04 pm.

Vote: Lindner: aye, Jones: aye, Youker: aye, Watson: aye. Meeting adjourned.

Minutes compiled and submitted by Nick Voss.

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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
BUDGET #	INCOME							
5.11	Storm Water Utility	\$10,891	\$10,891	\$1,090,887	\$0	\$1,079,996	\$1,090,887	1%
5.12	Service Fees	\$0	\$0	\$200	\$0	\$200	\$200	0%
5.13	Interest + mitigation acct	\$4,386	\$4,386	\$1,000	\$0	(\$3,386)	\$1,000	439%
5.14	Misc. income - WCA admin & other	\$0	\$0	\$3,000	\$0	\$3,000	\$3,000	0%
5.15	Other Income Grants/loan	\$44,169	\$44,169	\$385,284	\$0	\$341,115	\$385,284	11%
5.16	Transfer from reserves	\$0	\$0	\$294,364	\$231,999	\$526,363	\$526,363	0%
	TOTAL	\$59,446	\$59,446	\$1,774,735	\$231,999	\$1,947,288	\$2,006,734	3%
EXPENSES								
3.1	Operations & Administration							
3.110	Office - rent, copies, post tel supplies	\$2,100	\$4,215	\$28,181	\$0	\$23,966	\$28,181	15%
3.120	Information Systems	\$1,659	\$3,001	\$33,300	\$0	\$30,299	\$33,300	9%
3.130	Insurance	\$0	\$0	\$7,571	\$0	\$7,571	\$7,571	0%
3.141	Consulting - Audit	\$0	\$0	\$9,000	\$0	\$9,000	\$9,000	0%
3.142	Consulting - Bookkeeping	\$0	\$0	\$1,500	\$0	\$1,500	\$1,500	0%
3.143	Consulting - Legal	\$600	\$641	\$6,000	\$0	\$5,359	\$6,000	11%
3.144	Consulting - Eng. & Tech.	\$0	\$0	\$30,000	\$15,000	\$45,000	\$45,000	0%
3.150	Storm Sewer Utility	\$0	\$1,040	\$15,000	\$0	\$13,960	\$15,000	7%
3.160	Training (staff/board)	\$30	\$7,530	\$13,250	\$0	\$5,720	\$13,250	57%
3.170	Misc. & mileage	\$52	\$191	\$6,300	\$0	\$6,109	\$6,300	3%
3.191	Administration - staff	\$30,773	\$60,918	\$422,353	\$0	\$361,435	\$422,353	14%
3.192	Employer Liability	\$9,394	\$18,404	\$122,428	\$0	\$104,024	\$122,428	15%
3.2	Monitoring and Studies							
3.210	Lake and Creek lab analysis	\$0	\$0	\$18,000	\$0	\$18,000	\$18,000	0%
3.220	Equipment	\$0	\$0	\$3,000	\$1,000	\$4,000	\$4,000	0%
3.230	Wetland assessment & management	\$0	\$0	\$0	\$10,000	\$10,000	\$10,000	0%
3.240	Watershed planning /special study	\$0	\$0	\$10,000	\$5,000	\$15,000	\$15,000	0%
3.3	Education and Outreach							
3.310	Public Education	\$2,000	\$2,000	\$6,000	\$0	\$4,000	\$6,000	33%
3.320	Marketing	\$699	\$699	\$15,000	\$9,500	\$23,801	\$24,500	3%
3.330	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>
Capital Improvement Projects and Programs								
3.4	Subwatershed Activity							
3.410	Gem Lake	\$0	\$0	\$15,000	\$10,000	\$25,000	\$25,000	
3.420	Lambert Creek	\$568	\$2,083	\$55,000	\$0	\$52,917	\$55,000	4%
3.421	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	Programs							
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	Regulatory							
3.510	Engineer Plan review	\$0	\$0	\$5,000	\$0	\$5,000	\$5,000	0%
	<i>Total CIP & Program</i>	\$5,333	\$16,065	\$634,568	\$191,499	\$810,002	\$826,067	2%
	Total of Core Operations & CIP	\$52,640	\$114,704	\$1,389,451	\$231,999	\$1,506,746	\$1,621,450	7%

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
Total 5.1 · Income	59,447.12
Total Income	59,447.12
Gross Profit	59,447.12
Expense	
3.1 · Administrative/Operations	
3.110 · Office	
Copies	32.81
Phone/Internet/Machine Overhead	305.00
Postage	47.22
Rent	1,715.00
Total 3.110 · Office	2,100.03
3.120 · Information Systems	
GIS Support & updates	220.02
IT Support	1,439.00
Total 3.120 · Information Systems	1,659.02
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
Total 3.191 · Employee Payroll	30,773.64
3.192 · Employer Liabilities	
Admin payroll processing	44.92
Administration FICA	2,234.79
Administration PERA	2,308.03
Insurance Benefit	4,806.50
Total 3.192 · Employer Liabilities	9,394.24
Total 3.1 · Administrative/Operations	44,609.14
3.3 · Education and Outreach	
3.310 · Public Education	2,000.00
3.320 · Marketing	699.48
Total 3.3 · Education and Outreach	2,699.48
3.4 · Capital Imp. Projects/Programs	
3.420 · Lambert Creek Restoration	
LL VLAWMO cash match	568.58
Total 3.420 · Lambert Creek Restoration	568.58

3.425 · Goose Lake	
Oak Knoll	2,481.00
Total 3.425 · Goose Lake	<u>2,481.00</u>
Total 3.4 · Capital Imp. Projects/Programs	<u>3,049.58</u>
3.48 · Programs	
3.482 · Landscape 2	937.50
3.485 · Facilities & Maintenance	1,345.50
Total 3.48 · Programs	<u>2,283.00</u>
Total Expense	<u>52,641.20</u>
Net Ordinary Income	<u>6,805.92</u>
Net Income	<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>
Check 5509	02/08/2023 HDR Engineering, Inc.	Checking - 1987	-685.73
	3.320 · Marketing	-282.23	282.23
	3.320 · Marketing	-403.50	403.50
TOTAL		<u>-685.73</u>	<u>685.73</u>
Check 5510	02/08/2023 City of Vadnais Heights	Checking - 1987	-2,100.03
	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>
Check 5511	02/08/2023 Metro WaterShed Partners	Checking - 1987	-2,000.00
	3.310 · Public Education	-2,000.00	2,000.00
TOTAL		<u>-2,000.00</u>	<u>2,000.00</u>
Check 5512	02/08/2023 Nicholas Voss	Checking - 1987	-41.92
	3.170 · Misc. & mileage	-28.17	28.17
	3.320 · Marketing	-13.75	13.75
TOTAL		<u>-41.92</u>	<u>41.92</u>
Check 5513	02/08/2023 Dawn Tanner	Checking - 1987	-23.75
	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
Dec 1, '22 - Feb 1, 23									
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
								207.70	207.70
Dec 1, '22 - Feb 1, 23									

**TEC Report to the Board
February 2023**

Programs & Projects	Effort Level	Completion Date	Comments														
	LOW																
	MED																
	HIGH																
Projects				Administration & Operation													
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										
Programs																	
City/Township MS4		Feb	City MS4 newsletter issued Feb 1st to support MS4s in spring preparation.	<table border="1"> <thead> <tr> <th colspan="3">FINANCIAL SUMMARY as of 2/1/2023</th> </tr> <tr> <th>4M Account (1.10)</th> <th>4M Plus (1.23)</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>\$982,809</td> <td>\$229,232</td> <td>\$1,212,041</td> </tr> </tbody> </table>					FINANCIAL SUMMARY as of 2/1/2023			4M Account (1.10)	4M Plus (1.23)	Total	\$982,809	\$229,232	\$1,212,041
FINANCIAL SUMMARY as of 2/1/2023																	
4M Account (1.10)	4M Plus (1.23)	Total															
\$982,809	\$229,232	\$1,212,041															
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 Rotary, 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.														
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.														
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%
Total	\$114,704	\$1,621,450	\$1,506,746	7%

To: VLAWMO Board of Directors

From: Dawn Tanner

Date: February 13, 2023

Re: V. A. Consider MOU for Deep Lake shoreland wetland restoration with NOHOA

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. The TEC approved a recommendation to the VLAWMO Board for authorization at the February TEC 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/

Requested action: VLAWMO staff request authorization of the VLAWMO Board for the Deep Lake MOU with NOHOA at a cost to VLAWMO for 50% of the project (50% support = \$15,000) to be reimbursed to NOHOA following project completion in 2023.

**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.

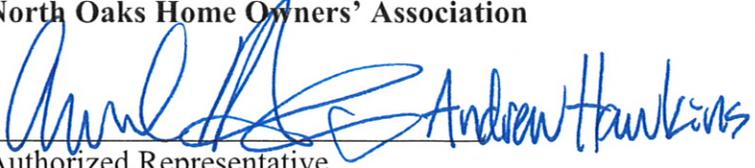
**Vadnais Lake Area Watershed
Management Organization**

Chairperson

Administrator

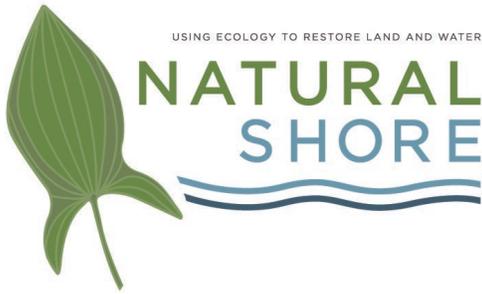
Date: _____

North Oaks Home Owners' Association



Authorized Representative

Date: 1/24/2023



Date: December 21st, 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

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To: VLAWMO Board of Directors

From: Dawn Tanner

Date: February 13, 2023

Re: V. B. Consider Rotary Park MOU with city on wetland restoration plan development

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 and was recommended by the TEC to the Board at the February meeting. See attached MOU and scope of work, included in the packet.

Requested action: VLAWMO staff request authorization of the MOU with the City of White Bear Lake and scope of work with Natural Shore Technologies for the prioritization plan for wetland restoration in Rotary Park at a cost to VLAWMO of \$9,800.



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
	Total =	\$9,800



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

**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 has the ability to work on wetlands to preserve, protect, and improve water quality;

Whereas, the Rotary Park Nature Preserve (“**Rotary Park**”), in the City of White Bear Lake, 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, VLAWMO and the City mutually desire to support and expand upon wetland restoration efforts in Rotary Park;

Whereas, VLAWMO included funding for planning for wetland restoration in Rotary Park in its approved budget for 2023;

Whereas, both parties have a well-established, long-term relationship with Natural Shore Technologies (“**NST**”) at Rotary Park and other neighboring areas within the subwatershed;

Whereas, VLAWMO and the City asked NST to submit a Rotary Nature Preserve: Vegetation Management Plan Estimate;

Whereas, NST submitted the attached scope of work (Rotary Nature Preserve: Vegetation Management Plan Estimate, January 26, 2023 (“**Vegetation Management Plan**”)), in the amount of \$9,800; and

Whereas, both parties wish to clearly define their respective roles in completing this Vegetation Management Plan and planning for funds to conduct implementation of recommendations provided therein;

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

1. VLAWMO Responsibilities. VLAWMO agrees to do each of the following:
 - a. VLAWMO will enter into a contract with NST and pay for services included in the scope of work described in the Vegetation Management Plan in the amount of \$9,800.
 - b. Provide for management and oversight with NST while they develop the Vegetation Management Plan.
 - c. Attend meetings and participate in discussion related to the development of the Vegetation Management Plan.

- d. In partnership with the City, plan for funds to cost-share on restoration projects recommended in the Vegetation Management Plan, as agreed upon by VLAWMO and the City, and as available in the budget.

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

- a. Attend meetings and participate in discussion related to the development of the Vegetation Management Plan.
- b. In partnership with VLAWMO, plan for funds to cost-share on restoration projects recommended in the Vegetation Management Plan, as agreed upon by VLAWMO and the City, and 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: _____

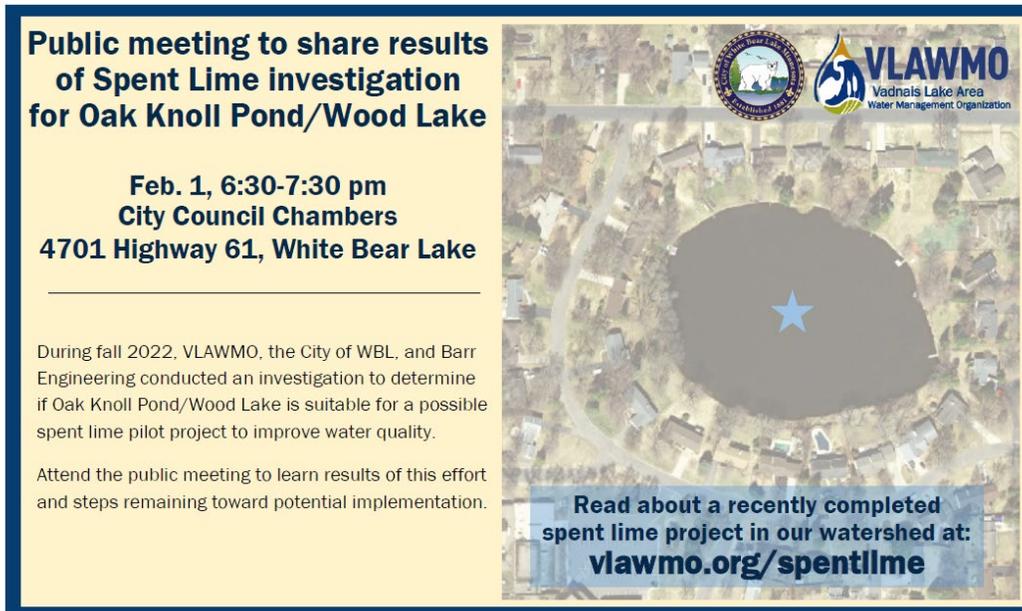
Date: _____

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To: VLAWMO Board of Directors
From: Dawn Tanner and Phil Belfiori
Date: February 13, 2023

Re: V. C. Update on Feb. 1 public meeting on spent lime demonstration feasibility study at Oak Knoll Pond

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 meeting announcement was mailed to residents living around Oak Knoll Pond and published in advance in Press Publications. The community meeting was held on Feb. 1. Attendance included the project team (4), the City of WBL/VLAWMO Board Director (1), and residents who own shoreline on Oak Knoll Pond (13). Residents expressed support for the project, and the project team responded to questions. VLAWMO staff are currently working with legal counsel to prepare a temporary easement for residents around the pond to ensure adequate access as part of the ongoing social feasibility determination.



Public meeting to share results of Spent Lime investigation for Oak Knoll Pond/Wood Lake

Feb. 1, 6:30-7:30 pm
City Council Chambers
4701 Highway 61, White Bear Lake

During fall 2022, VLAWMO, the City of WBL, and Barr Engineering conducted an investigation to determine if Oak Knoll Pond/Wood Lake is suitable for a possible spent lime pilot project to improve water quality.

Attend the public meeting to learn results of this effort and steps remaining toward potential implementation.

Read about a recently completed spent lime project in our watershed at: vlawmo.org/spentlime

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To: VLAWMO Board of Directors
From: Nick Voss, VLAWMO Education and Outreach Coordinator
Date: 2/23/23
Re: **V. D. Consider 2022 Annual Report draft and Monitoring Report for submittal to BWSR**

Drafts of the 2022 Annual Report and final Water Monitoring Report are ready for review.

The 2022 Annual Report contains all of the components except for the 2022 financial information, which is pending on the 2022 audit. Upon approval of the 2022 audit and financial discussion staff will insert the information regarding VLAWMO expenditures and income into the annual report document in a format identical to the format used in completed VLAWMO annual reports from 2014 to 2021.

This draft of the 2022 Annual Report contains “draft” watermarks on the two financial pages (pg. 34-35), while all other pages are in their final presentation after undergoing staff review and editing.

The full 2022 Annual Report document and its supplement summary plus the 2022 water monitoring report are available online for review at these links:

2022 Annual Report:

https://www.vlawmo.org/index.php/download_file/4392/

2022 Water Monitoring Report:

https://www.vlawmo.org/index.php/download_file/4393/

Staff Recommendation

Staff proposes approval of the 2022 Annual Report in its current format. Upon completion of the 2022 audit, financial information will be updated into the document on the two specified financial pages for a final submission to the Board of Water and Soil Resources (BWSR) by their April, 2023 deadline. At that time the complete report including finances will be sent to VLAWMO Board and Technical Commission members.

Requested VLAWMO Board action: VLAWMO staff request Board consideration and approval of the 2022 Annual Report and 2022 Water Monitoring Report. Staff also requests that the VLAWMO Board authorize final submission of the 2022 VLAWMO Annual Report to the BWSR as required upon completion of the 2022 Audit which will be in April 2023.

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800 County Road E E, Vadnais Heights, MN 55127
www.vlawmo.org; Office@vlawmo.org

To: Board of Directors

From: Phil Belfiori, Administrator

Date: February 14, 2023

Re: V. E. 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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To: Board of Directors

From: Phil Belfiori, Administrator

Date: February 14, 2023

Re: **V. F.** Board Consideration of 2023 VLAWMO regular Board meeting dates

The following dates are offered for the regular VLAWMO Board meeting in 2023. They follow the pattern established in previous years:

February 22

April 26

June 28

August 23

October 25

December 13

Staff Recommendation: approval.

Intentional blank page

To: VLAWMO Board of Directors

From: Lauren Sampedro, Watershed Technician & Program Coordinator

Date: February 13, 2023

Re: **V. G.** Vadnais-Sucker Lakes Regional Park Restoration Project Update

Since the last Board meeting, Great River Greening awarded a contract to Minnesota Native Landscapes (MNL) as the selected contractor for the Vadnais-Sucker Lakes Regional Park restoration project. This project is a partnership between VLAWMO, Great River Greening, Saint Paul Regional Water Services, and Ramsey County. Minnesota Native Landscapes began work on the project on January 12th, which has primarily consisted of cutting down buckthorn in woodland areas and treating the cut stumps with aquatic-safe herbicide. The cut buckthorn is piled in place and MNL is working with Ramsey County Parks and Recreation staff on removing some of the piles, with the rest remaining for wildlife.

VLAWMO staff have put up temporary construction signage at the park in two locations to notify park visitors about the project. Staff also submitted a press release to the Vadnais Heights press and sent out postcards to nearby residents to ensure the public is aware of the project. After the invasive species removal and native species seeding work is completed this winter/early spring, additional removal and treatment work will occur in the fall into 2024. Staff will be facilitating discussions on maintenance of the project in the next few months to prepare for future maintenance coordination.

Intentional blank page

To: Board of Directors
From: Phil Belfiori, Administrator
Date: February 14, 2023
Re: **VI. A. 1.**

Consider Tabling Oath of Office for New Members, Election of Board, Subcommittee Officers and appointment of TEC chair /officers to April 26, 2023 meeting

1. **Election of officers.** 2022 Slate: Chair: Jim Lindner; Vice Chair: Dan Jones; Secretary Treasurer: Patricia Youker. 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 officers have served on the subcommittee in 2022.

Technical Commission (TEC) Chair and Officers. VLAWMO process requires appointment of the TEC Chair by the Board. For 2023, TEC has recommended Jesse Farrell, commissioner from City of Vadnais Heights as its Chair. Other Officers appointed by the TEC at their January 11, 2023 meeting include Gloria Tessier as Vice Chair, Andy Nelson as Treasurer, and Terry Huntrods as Board Liaison.

Intentional blank page

To: VLAWMO Board of Directors

From: Lauren Sampedro, Watershed Technician & Program Coordinator

Date: February 13, 2023

Re: VI. B. 1. Landscape Level 2 2023-01 White Bear Township Smart Irrigation Grant Application

Introduction

LL2 2023-01 White Bear Township Pilot Smart Irrigation Controllers

- Applicant: White Bear Township
- Location: Columbia Park, Township Administration Office, and Polar Lakes Park
- Project Type: Smart Irrigation Controllers
- Total Estimated Project Cost: \$14,388.00
- VLAWMO Grant Recommendation: 90%, up to \$12,949.20

Background

This application proposes irrigation system updates through the installation of smart irrigation controllers at three public properties in White Bear Township including Columbia Park, the Township's Administration Office, and Polar Lakes Park. White Bear Township is within the North and East Metro Groundwater Management Area, which according to the DNR is an area where groundwater resources are at risk of overuse and degraded quality. The DNR is supportive of groundwater consumption reduction efforts in this groundwater management area. This is a pilot project to determine the groundwater conservation benefits of smart irrigation controllers.

As part of the project, the existing irrigation systems at Columbia Park, Township Administration Office, and Polar Lakes Park will be upgraded to newer-technology Hunter smart irrigation controllers with flow sensors that use weather-based sensors to create more efficient watering schedules. It is anticipated these controllers will result in a reduction in groundwater usage over an area of 46 acres. A grant agreement requiring annual reporting to VLAWMO will be required so staff can review changes in groundwater usage as a result of this project. Results will be shared with the Board when available.

The Township obtained two bids for the project:

- Conserva Irrigation: \$37,375.00
- Peterson Companies: \$14,388.00

The estimated project costs and proposed grant award are based on Peterson Companies' low bid. This project was discussed at the TEC meeting on February 8th and the TEC did not express any concerns about the project.

Staff Recommendation

Staff recommend the VLAWMO Board of Directors approve Landscape Level 2 Grant funds for the 2023-01 White Bear Township Smart Irrigation Controllers.

Proposed Motion

It was moved by Director _____ and seconded by Director _____ to approve the Landscape Level 2 grant application 2023-01 at 90% of eligible project expenses, not to exceed \$12,949.20 in accordance with VLAWMO staff's recommendation and established program guidelines.

Attachments

- Grant Application
- PowerPoint Slides

LL2 Grant Application



Submit completed application to:

Lauren Sampedro

lauren.sampedro@vlawmo.org

Applicant Information:

Organization Name:	White Bear Township
Project Contact:	Pete Tholen
Address:	1281 Hammond Road
City/Township, State, Zip:	White Bear Township, MN 55110
Phone:	651-747-2776
Email:	pete.tholen@whitebeartownship.org

Project Summary:

ESTIMATED TOTAL PROJECT COST (\$)	\$14,388.00
AMOUNT REQUESTED	\$12,949.20
EXPECTED PROJECT COMPLETION (Month, Year)	June, 2023

PROJECT TYPE:

- Water Quality Treatment
- Stormwater Rate and Volume Control
- Groundwater Conservation
- Other

If other, please describe the proposed project: _____

Project Background:

Describe the project location and water resources that will benefit from the project.	The project has three different locations within the Township. One at Columbia Park (1756 Hwy 96 East), the second at the Township Administration Building (1281 Hammond Road), and a third at Polar Lakes Park (1270 Hammond Road).
What issues will be addressed with this project?	The installation of smart irrigation meters at these locations will provide a reduction in the current groundwater usage for irrigation.

Project Background: Continued

<p>Provide estimated water quality results, stormwater rate/volume reduction, or groundwater conservation benefits associated with the project.</p>	<p>This project would be a reduction in groundwater usage through the use of the most current technology.</p>
<p>Describe the public education and outreach efforts or signage planned for the project.</p>	<p>The project will be posted on the Town's website describing the locations and the benefits of using Smart irrigation controllers vs. Standard controllers.</p>
<p>List or describe any partnerships or other forms of support for the project, including external funding sources.</p>	<p>The DNR is very supportive of reducing groundwater consumption in Northeast Metro area.</p>

Project Specifications:

<p>TOTAL PROPERTY AREA (Acres)</p>	<p>46</p>	<p>Total PROJECT SIZE (Sq Ft)</p>	<p>N/A</p>
<p>IMPERVIOUS AREA DRAINING TO PROJECT (Sq Ft):</p>	<p>N/A</p>	<p>PERVIOUS AREA DRAINING TO PROJECT (Sq Ft):</p>	<p>N/A</p>

Required Attachments:

- ⇒ Detailed final plan set of the proposed project that includes the estimated, quantitative outcomes of the project.
- ⇒ At least 2 bids for construction of proposed project.
- ⇒ Detailed project budget estimate with itemized materials and costs that equal the total project cost.

VI. B. 1.

White Bear Township Smart Irrigation Controllers LL2 2023-01 Grant Application

Lauren Sampedro
Board of Directors Meeting
2/22/2023



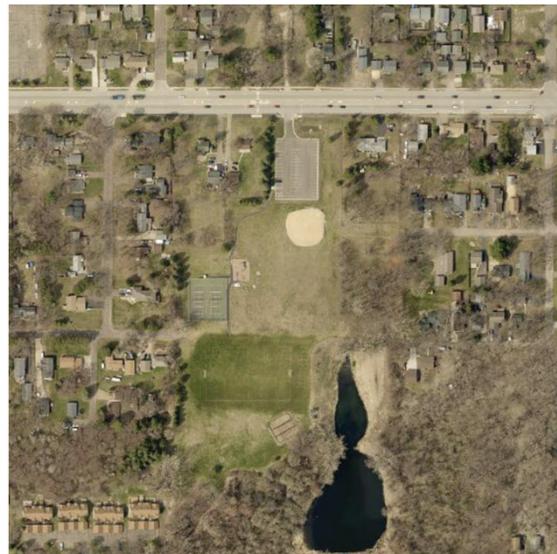
LL2 2023-01 Location Aerials



Polar Lakes Park & WBT Admin Building



Columbia Park



Scope of Work



- **Polar Lakes Park:**
 - Install 2 Hunter ACC2 controllers and cell modules
 - Install 2 flow sensors
- **Township Administration Building:**
 - Install Hunter ICC2 controller and cell module
 - Install flow sensor
- **Columbia Park:**
 - Install Hunter ACC2 controller and cell module
 - Install flow sensor
- **Training time**

Total Bid from Conserva Irrigation: \$37,375.00

Total Bid from Peterson Companies: \$14,388.00

Proposed Motion



It was moved by _____ and seconded by _____ to approve the Landscape Level 2 Grant Application 2023-01 at 90% of eligible project expenses, not to exceed \$12,949.20

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To: VLAWMO Board of Directors

From: Lauren Sampedro, Watershed Technician & Program Coordinator

Date: February 13, 2023

Re: VI. B. 2. Landscape Level 2 2023-02 City of Vadnais Heights Smart Irrigation Grant Application

Introduction

LL2 2023-02 City of Vadnais Heights Pilot Smart Irrigation Controllers

- Applicant: City of Vadnais Heights
- Location: Vadnais Heights City Hall and Community Park
- Project Type: Smart Irrigation Controllers
- Total Estimated Project Cost: \$8,013.00
- VLAWMO Grant Recommendation: 90%, up to \$7,211.70

Background

This application proposes irrigation system updates through the installation of smart irrigation controllers at two public properties in the City of Vadnais Heights including the Vadnais Heights City Hall and the City's Community Park. The City of Vadnais Heights expressed early interest in trying smart irrigation controllers through VLAWMO's pilot program in discussions with staff. Like many communities in VLAWMO, the City of Vadnais Heights is also located within the North and East Metro Groundwater Management Area and the DNR is supportive of groundwater consumption reduction efforts within this area. This is a pilot project to determine the groundwater conservation benefits of smart irrigation controllers, which may expand to additional areas in the City in the future.

As part of the project, the existing irrigation system at the City Hall will be upgraded to a Baseline smart irrigation controller, which contains soil moisture sensors, and a flow sensor. The irrigation system at Community Park will be upgraded to a newer-technology Hunter smart irrigation controller and a flow sensor, which is a weather-based controller. The City will compare the two controller types to determine the best fit for the City and the controller that results in the greatest groundwater conservation benefits. It is anticipated these controllers will result in a reduction in groundwater usage over an area of 20 acres.

A grant agreement requiring annual reporting to VLAWMO will be required so staff can review changes in groundwater usage from both controller types as a result of this project. Results will be shared with the Board when available.

The City obtained one bid for the project from Peterson Companies, totaling \$8,013.00 for the two properties. VLAWMO staff are confident of the value of this bid.

The estimated project costs and proposed grant award are based on Peterson Companies' bid. This project was discussed at the TEC meeting on February 8th and the TEC did not express any concerns about the project.

Staff Recommendation

Staff recommend the VLAWMO Board of Directors approve Landscape Level 2 Grant funds for the 2023-02 City of Vadnais Heights Smart Irrigation Controllers.

Proposed Motion

It was moved by Director _____ and seconded by Director _____ to approve the Landscape Level 2 grant application 2023-02 at 90% of eligible project expenses, not to exceed \$7,211.70 in accordance with VLAWMO staff's recommendation and established program guidelines.

Attachments

- Grant Application
- PowerPoint Slides

LL2 Grant Application



Submit completed application to:

Lauren Sampedro

lauren.sampedro@vlawmo.org

Applicant Information:

Organization Name:	City of Vadnais Heights
Project Contact:	Nick Ousky
Address:	800 Co Rd E East
City/Township, State, Zip:	Vadnais Heights, MN 55127
Phone:	6512046095
Email:	nick.ousky@cityvadnaisheights.com

Project Summary:

ESTIMATED TOTAL PROJECT COST (\$)	\$8,013.00
AMOUNT REQUESTED	\$7,211.70
EXPECTED PROJECT COMPLETION (Month, Year)	03,2023

PROJECT TYPE:

- Water Quality Treatment
- Stormwater Rate and Volume Control
- Groundwater Conservation
- Other

If other, please describe the proposed project: _____

Project Background:

Describe the project location and water resources that will benefit from the project.	Vadnais Heights City Hall/Community Park - Smart irrigation systems can help conserve water by monitoring weather conditions and adjusting water levels accordingly. By responding to temperature and humidity variations, smart irrigation systems can help VH use only the necessary amount of water for their green areas, reducing the amount of water wasted and providing long-term benefits for water resources.
What issues will be addressed with this project?	

Project Background: Continued

<p>Provide estimated water quality results, stormwater rate/volume reduction, or groundwater conservation benefits associated with the project.</p>	<p>Smart irrigation can help reduce groundwater use by up to 30% by optimizing the timing and amount of water applied to a landscape. This reduction in water use can help reduce groundwater depletion and help ensure the long-term sustainability of local water resources. Smart irrigation systems also reduce water waste by preventing over-watering, which can help conserve groundwater and improve water quality. Additionally, smart irrigation systems can reduce the risk of groundwater contamination from over-applied fertilizers and pesticides.</p>
<p>Describe the public education and outreach efforts or signage planned for the project.</p>	<p>In our next newsletter to residents, Vadnais Heights will highlight that we will be testing Smart Irrigation Controllers.</p>
<p>List or describe any partnerships or other forms of support for the project, including external funding sources.</p>	<p>-</p>

Project Specifications:

<p>TOTAL PROPERTY AREA (Acres)</p>	<p>20</p>	<p>Total PROJECT SIZE (Sq Ft)</p>	<p>N/A</p>
<p>IMPERVIOUS AREA DRAINING TO PROJECT (Sq Ft):</p>	<p>N/A</p>	<p>PERVIOUS AREA DRAINING TO PROJECT (Sq Ft):</p>	<p>N/A</p>

Required Attachments:

- ⇒ Detailed final plan set of the proposed project that includes the estimated, quantitative outcomes of the project.
- ⇒ At least 2 bids for construction of proposed project.
- ⇒ Detailed project budget estimate with itemized materials and costs that equal the total project cost.

VI. B. 2.

City of Vadnais Heights Smart Irrigation Controllers LL2 2023-02 Grant Application

Lauren Sampedro
Board of Directors Meeting
2/22/2023



LL2 2023-02 Location Aerials



City Hall



Community Park



Scope of Work



- **City Hall:**
 - Install Baseline controller and cell module
 - Install flow sensor and soil moisture sensor
- **Community Park:**
 - Install Hunter ACC2 controller and cell module
 - Install flow sensor
- **Training time**

Total Bid from Peterson Companies: \$8,013.00

Proposed Motion



It was moved by _____ and seconded by _____ to approve the Landscape Level 2 Grant Application 2023-02 at 90% of eligible project expenses, not to exceed \$7,211.70

To: VLAWMO Board of Directors

From: Lauren Sampedro, Watershed Technician & Program Coordinator

Date: February 13, 2023

Re: VI. B. 3. Landscape Level 2 2023-03 City of Vadnais Heights Westfield Park Grant Application

Introduction

LL2 2023-03 City of Vadnais Heights Westfield Park Bioswale

- Applicant: City of Vadnais Heights
- Location: Westfield Park (520 Westfield Lane, Vadnais Heights)
- Project Type: Bioswale
- Total Estimated Project Cost: \$31,988.17
- VLAWMO Grant Recommendation: 50%, up to \$15,994.09

Background

This application proposes a bioswale northwest of the warming house at Westfield Park, located off of Westfield Lane in Vadnais Heights. The proposed project drains to the Basswood wetland and discharges to Lambert Creek, which is impaired for e.coli.

Ramsey County Parks & Recreation Soil and Water Conservation Division (SWCD) provided a design for the proposed bioswale project to capture and treat stormwater runoff and reduce the volume of water coming from a significant drainage area upstream. It would provide treatment for a catchment area of about 8.5 acres that discharges directly to the Basswood wetland. The estimated pollutant reductions are as follows: 22% reduction in volume (83,727 cubic feet), a 75% reduction in TSS (~973 lbs), and a 51% reduction in TP (~3.7 lbs). The bioswale as proposed would be 3,500 square feet in size with a dry creek bed and rock checks to help collect some of the debris and sediment coming from the street and slow the rate of water getting to this area. The existing turf grass would also be removed and replaced with native plants over an area of 2,915 square feet.

As part of the project, formal signage, similar to the Bridgewood Park project, will be installed on site. The bioswale will have high public visibility as Westfield Park is well-used in the community, especially for walking, baseball, and winter activities. This project is continuing a partnership with the City on water quality and stormwater treatment projects in City parks.

The applicant obtained eight bids for the project below:

- RES: \$56,234.00
- Nelco Landscaping: \$46,813.53
- Landbridge Ecological: \$39,124.87
- Davey Resource Group: \$37,858.25
- Sandstrom Land Management: \$34,913.75
- Minnesota Native Landscapes: \$33,301.25
- Shoreline Landscaping: \$33,175.00
- Rock, Leaf, Water Environmental: \$31,988.17

The estimated project costs and proposed grant award are based on Rock, Leaf, Water Environmental's low bid, which is close to the SWCD's estimate of \$31,440.00. This project was discussed at the TEC meeting on February 8th and the TEC did not express any concerns about the project.

Staff Recommendation

Staff recommend the VLAWMO Board of Directors approve Landscape Level 2 Grant funds for the 2023-03 City of Vadnais Heights Westfield Park Bioswale.

Proposed Motion

It was moved by Director _____ and seconded by Director _____ to approve the Landscape Level 2 grant application 2023-03 at 50% of eligible project expenses, not to exceed \$15,994.09 in accordance with VLAWMO staff's recommendation and established program guidelines.

Attachments

- Grant Application
- PowerPoint Slides

LL2 Grant Application



Submit completed application to:

Lauren Sampedro

lauren.sampedro@vlawmo.org

Applicant Information:

Organization Name:	City of Vadnais Heights
Project Contact:	Nick Ousky
Address:	800 Co Rd E East
City/Township, State, Zip:	Vadnais Heights, MN 55127
Phone:	6512046095
Email:	nick.ousky@cityvadnaisheights.com

Project Summary:

ESTIMATED TOTAL PROJECT COST (\$)	31,988.17
AMOUNT REQUESTED	15,994.09
EXPECTED PROJECT COMPLETION (Month, Year)	06,2023

PROJECT TYPE:

- Water Quality Treatment
- Stormwater Rate and Volume Control
- Groundwater Conservation
- Other

If other, please describe the proposed project: _____

Project Background:

Describe the project location and water resources that will benefit from the project.	The Westfield Park Bio-Swale project is located in Vadnais Heights, Minnesota. The purpose of the project is to reduce the volume and increase the quality of stormwater runoff from the storm sewer outlet pipe entering the park by installing 1 bio-swale with dry creek bed centerline and rock check dams. The project will directly discharge into Vlawmo Wetland 07-49-01, which is part of the Lambert Creek sub-watershed and ultimately discharges into East Vadnais Lake. The water resource improvements expected from this project include
What issues will be addressed with this project?	

reductions in total suspended solids (TSS), total phosphorus (TP), and water volume.

Project Background: Continued

Provide estimated water quality results, stormwater rate/volume reduction, or groundwater conservation benefits associated with the project.	The project will benefit water resources by reducing the volume of water runoff by 22%, reducing total suspended solids (TSS) by 75%, and reducing total phosphorus (TP) by 51%. Additionally, the project will reduce runoff from impervious surfaces by 28%, resulting in improved water quality.
Describe the public education and outreach efforts or signage planned for the project.	Will include in Newsletter, Social Media, and put up a Sign Describing the benefits.
List or describe any partnerships or other forms of support for the project, including external funding sources.	-

Project Specifications:

TOTAL PROPERTY AREA (Acres)	19.73	Total PROJECT SIZE (Sq Ft)	3,500
IMPERVIOUS AREA DRAINING TO PROJECT (Sq Ft):	106,010	PERVIOUS AREA DRAINING TO PROJECT (Sq Ft):	268,230

Required Attachments:

- ⇒ Detailed final plan set of the proposed project that includes the estimated, quantitative outcomes of the project.
- ⇒ At least 2 bids for construction of proposed project.
- ⇒ Detailed project budget estimate with itemized materials and costs that equal the total project cost.

VI. B. 3.

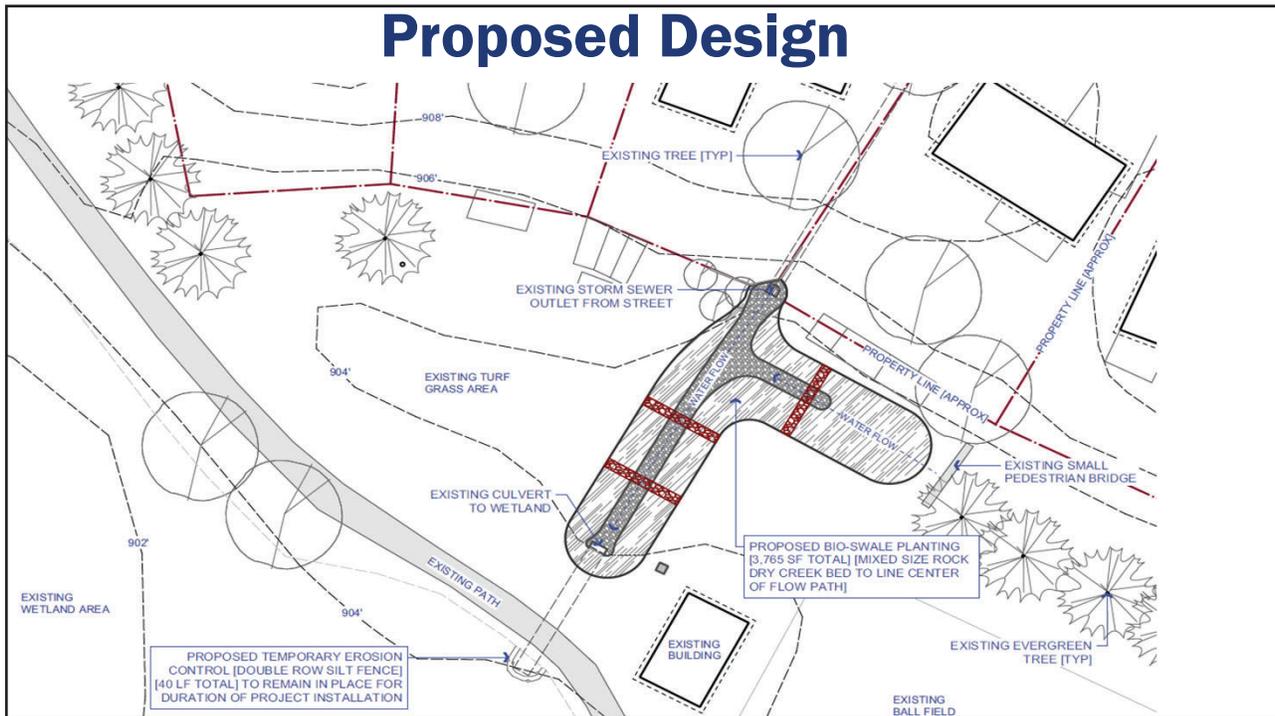
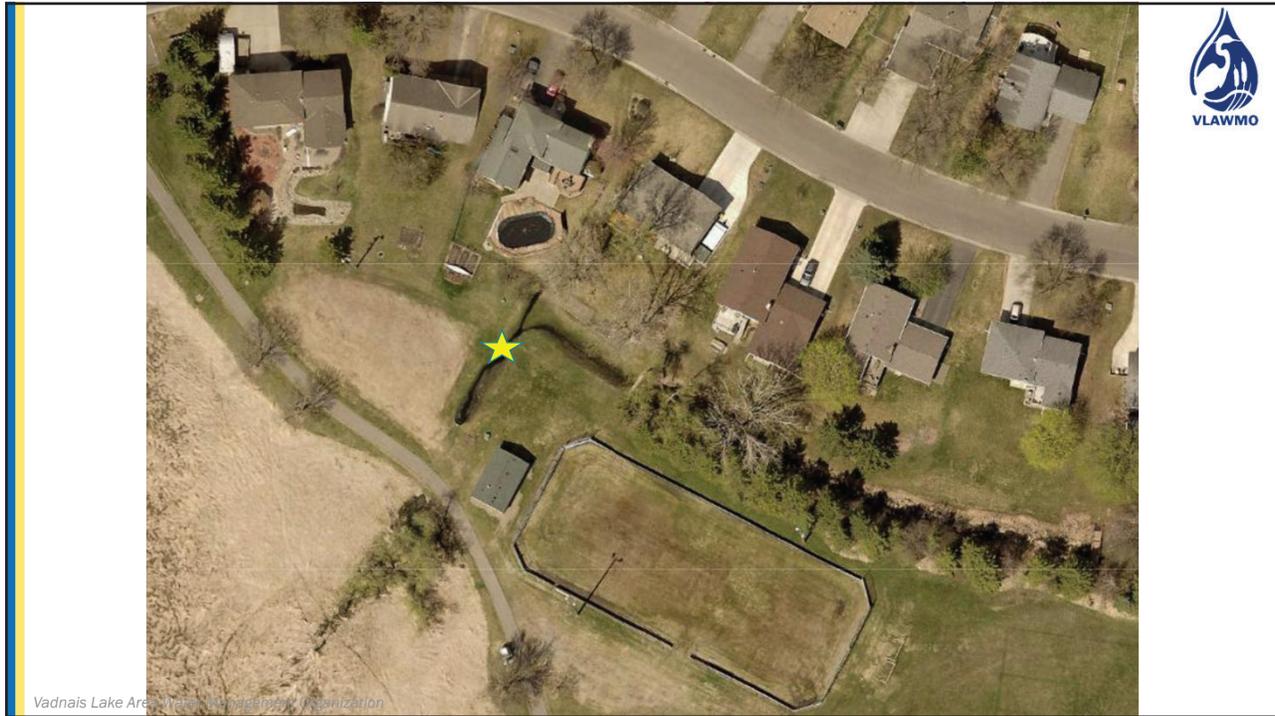
**City of Vadnais Heights
Westfield Park Bioswale
LL2 2023-03 Grant Application**

**Lauren Sampedro
Board of Directors Meeting
2/22/2023**



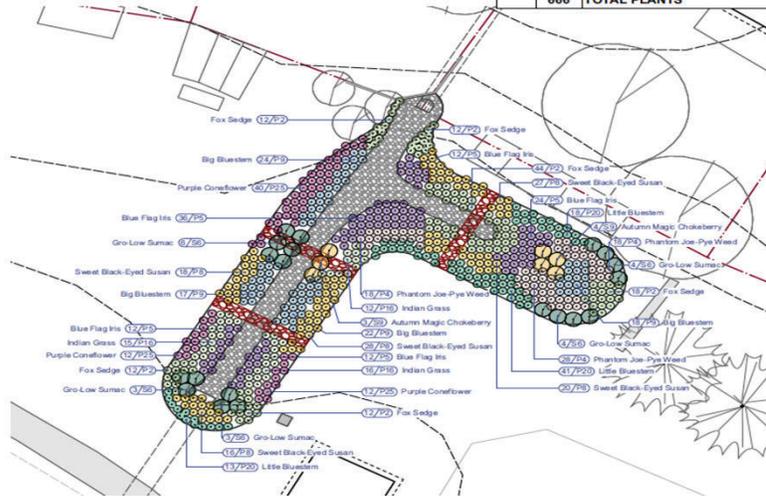
LL2 2023-03 Location Aerials





Planting Plan

ID	Qty	Latin Name	Common Name	Size	Spacing (ft)
P2	110	Carex vulpinoidea	Fox Sedge	4" Pot	2
P4	64	Eupatorium 'Phantom'	Phantom Joe-Pye Weed	4" Pot	2
P5	96	Iris versicolor	Blue Flag Iris	4" Pot	2
P8	109	Rudbeckia subtomentosa	Sweet Black-Eyed Susan	4" Pot	2
P9	81	Andropogon gerardi	Big Bluestem	4" Pot	2
P16	43	Sorghastum nutans	Indian Grass	4" Pot	2
P20	72	Schizachyrium scoparium	Little Bluestem	4" Pot	2
P25	64	Echinacea purpurea	Purple Coneflower	4" Pot	2
S6	20	Rhus aromatica 'Gro-low'	Gro-Low Sumac	2 Gallon	4
S9	7	Aronia melanocarpa 'Autumn Magic'	Autumn Magic Chokeberry	2 Gallon	4
666 TOTAL PLANTS					



Bioswale Bids Received



- RES: \$56,234.00
- Nelco Landscaping: \$46,813.53
- Landbridge Ecological: \$39,124.87
- Davey Resource Group: \$37,858.25
- Sandstrom Land Management: \$34,913.75
- Minnesota Native Landscapes: \$33,301.25
- Shoreline Landscaping: \$33,175.00
- Rock, Leaf, Water Environmental: \$31,988.17

Proposed Motion



It was moved by _____ and seconded by _____ to approve the Landscape Level 2 Grant Application 2023-03 at 50% of eligible project expenses, not to exceed \$15,994.09

To: VLAWMO Board of Directors

From: Dawn Tanner

Date: February 13, 2023

Re: VI. B. 4. Consider In-Lake Management Feasibility Study of Tamarack and Wilkinson Lakes

VLAWMO staff worked with Barr Engineering to obtain a scope and contract for an in-lake management feasibility study of Tamarack and Wilkinson Lakes to be completed in 2023. This study will include 3 main categories of work: 1) Sediment core collection and phosphorus fractionation, 2) Development of an alum dosage and application plan, and 3) In-lake feasibility report. The cost for this effort is \$26,500, which is consistent with the approved 2023 VLAWMO budget. The scope and contract were presented to the TEC and recommended by the TEC to the Board at the February meeting. See attached scope of work, included in the packet.

Wilkinson and Tamarack Lakes are both impaired for nutrients and priority areas for improvement as part of VLAWMO's participation in the small, priority watershed grant program with the EPA/administered by the MPCA. Addressing internal load may be an appropriate action for these lakes toward improvement. Possible internal-load management was identified in the pre-approved table of projects in the small, priority watershed Nine Key Element document, completed in 2021. If feasible, internal load management may be recommended as part of a suite of projects in the second round of grant-funded projects that will be coming up in 2024. These lakes are non-motorized, and Wilkinson Lake has very limited paddling recreation.

There may be an opportunity for Ramsey County Soil and Water Conservation Division to provide some financial support, given that they have funds remaining in their BWSR grant that are targeted on Wilkinson Lake. Conversations with BWSR are underway. Sufficient funds were identified in the VLAWMO budget to support this work with or without that possible support.

Requested action: VLAWMO staff request authorization of the scope of work and contract with Barr Engineering for the In-Lake Management Feasibility Study of Tamarack and Wilkinson Lakes, at a cost to VLAWMO of \$26,500.

Agenda item VI. B. 4

Consider In-Lake Management Feasibility Study of Tamarack and Wilkinson Lakes

Dawn Tanner
Board Meeting
2/22/2023



Consider In-Lake Management Feasibility Study of Tamarack and Wilkinson Lakes



- Scope by Barr Engineering to be completed in 2023
- Study will include:
 1. Sediment core collection and phosphorus fractionation
 2. Development of an alum dosage and application plan
 3. In-lake feasibility report

Vadnais Lake Area Water Management Organization

Consider In-Lake Management Feasibility Study of Tamarack and Wilkinson Lakes



- Wilkinson and Tamarack Lakes both impaired for nutrients and priority areas in small, priority watershed grant program
- Addressing internal load may be an appropriate action
- Possible internal-load management was identified in pre-approved Nine Key Element document (completed in 2021)
- If feasible, internal load management may be recommended in second round of grant projects coming up in 2024

Vadnais Lake Area Water Management Organization

Consider In-Lake Management Feasibility Study of Tamarack and Wilkinson Lakes



- Lakes are non-motorized, and Wilkinson Lake has very limited paddling recreation
- Ramsey County Soil and Water Conservation Division may be able to provide some financial support, but we may not have a final answer from BWSR on that for some time yet
- Sufficient funds were identified in the VLAWMO budget to support this work with or without that possible support

Vadnais Lake Area Water Management Organization

Consider In-Lake Management Feasibility Study of Tamarack and Wilkinson Lakes



- The cost for this effort is \$26,500, which is consistent with the approved 2023 VLAWMO budget
- Scope and contract were presented to the TEC and recommended by the TEC to the Board at the February meeting

Vadnais Lake Area Water Management Organization

Requested Board action



VLAWMO staff request authorization of the scope of work and contract with Barr Engineering for the In-Lake Management Feasibility Study of Tamarack and Wilkinson Lakes, at a cost to VLAWMO of \$26,500.

Vadnais Lake Area Water Management Organization

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.

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

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

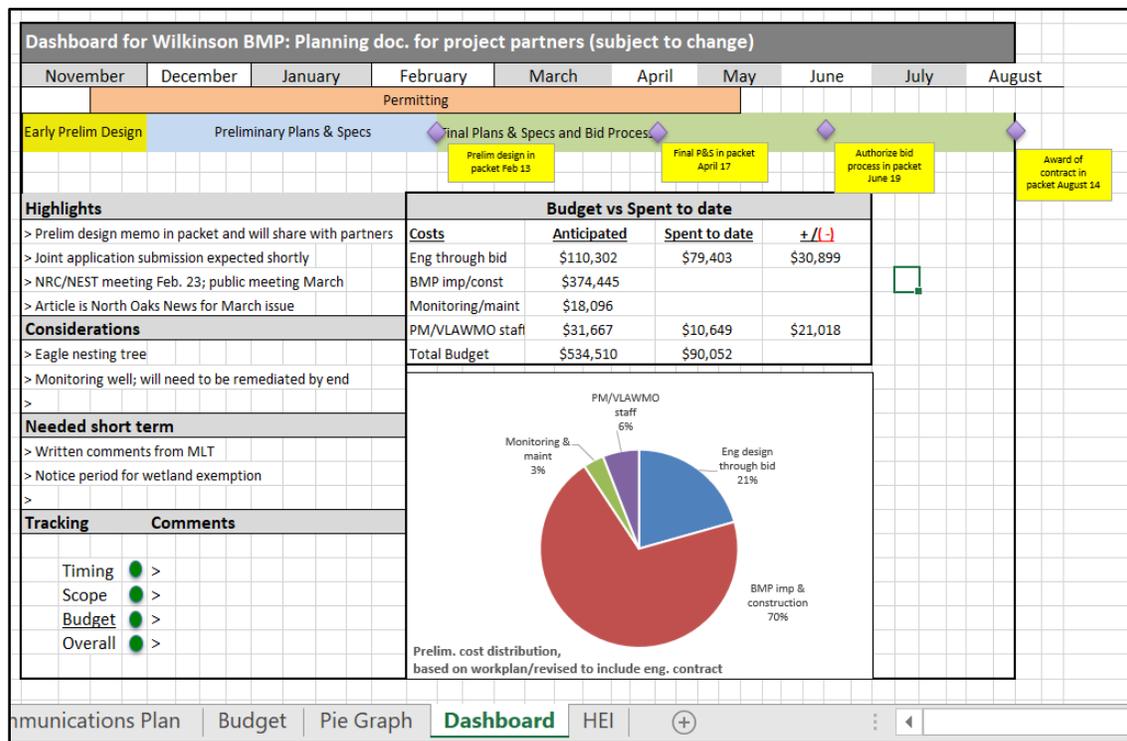
- 6.1** We will provide a certificate of insurance to you upon request. Any claim as an Additional Insured will be limited to losses caused by our sole negligence.
- 6.2** This Agreement is our entire agreement, and it supersedes prior agreements. Only a writing signed by an authorized representative 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

To: VLAWMO Board of Directors
 From: Dawn Tanner
 Through: Phil Belfiori
 Date: February 13, 2023

Re: VI. B. 5. Wilkinson BMP Project update: Overall status, technical memos, permitting, and public engagement

Overall status



Overall, the project is proceeding according to the established timeline and within budget for the project. The screenshot above shows the current project Dashboard as it stands as of Feb. 13, 2023. The early preliminary design that was presented to the Board at the December regular meeting has been updated to preliminary design by HEI and is included in this packet.

Technical memos

Two memos are included in the packet, one of which as a linked document, for Board review. Those memos include:

- A. MPCA Coordination of On-site Spoil Disposal for Concept BMP Alternatives Wilkinson Lake BMP Project and Sediment (Dredge) Sampling Report
https://www.vlawmo.org/index.php/download_file/4394/
- B. Joint Application Memo and Preliminary Plans: Included in packet.
[. . . g e . e 4395](#)

Permitting and public engagement

Highlights for the project include partner coordination and permitting. In addition to the preliminary plans, HEI staff prepared the joint application to BWSR and USACE that is being submitted to WCA. VLAWMO will have noticed the comment period by the time of the Board meeting. A permitting discussion is underway with the City of North Oaks. HEI is preparing the submission to the City that will include grading, excavation, and erosion control, as per standard procedures.

VLAWMO staff are presenting an update on the project as part of a joint Natural Resources Commission (NRC)/Natural Environment Stewardship Team (NEST) meeting on Feb. 13, 7:00 pm. The meeting will be recorded and made available by the City of North Oaks through their standard procedures. An article has been prepared for North Oaks News for the March issue that includes a project update to the community and the announcement for an in-person community meeting/presentation about the project. That meeting will occur in late March.

Agenda item VI. B. 5

Consider Wilkinson BMP Project Update

Dawn Tanner
Board Meeting
2/22/2023



Wilkinson BMP Project Update



Dashboard for Wilkinson BMP: Planning doc. for project partners (subject to change)

	November	December	January	February	March	April	May	June	July	August
Permitting										
Early Prelim Design	Preliminary Plans & Specs		Final Plans & Specs and Bid Process			Final P&S in packet		Authorize bid process in packet		Award of contract in packet
			Prelim design in packet Feb 23			Final P&S in packet April 17		Authorize bid process in packet June 19		Award of contract in packet August 14

Budget vs Spent to date			
Costs	Anticipated	Spent to date	+ / (-)
Eng through bid	\$110,302	\$79,403	\$30,899
BMP imp/const	\$374,445		
Monitoring/maint	\$18,096		
PM/VLAWMO staff	\$31,667	\$10,649	\$21,018
Total Budget	\$534,510	\$90,052	

Prelim. cost distribution, based on workplan/ revised to include eng. contract

Tracking	Comments
Timing	● >
Scope	● >
Budget	● >
Overall	● >

Communications Plan | Budget | Pie Graph | **Dashboard** | HEI | +

Technical memos



Included in the packet are 2 memos by HEI. Those include:

1. MPCA Coordination of On-site Spoil Disposal for Concept BMP Alternatives Wilkinson Lake BMP Project and Sediment (Dredge) Sampling Report
2. Joint Application Memo and Preliminary Plans

Vadnais Lake Area Water Management Organization

Permitting

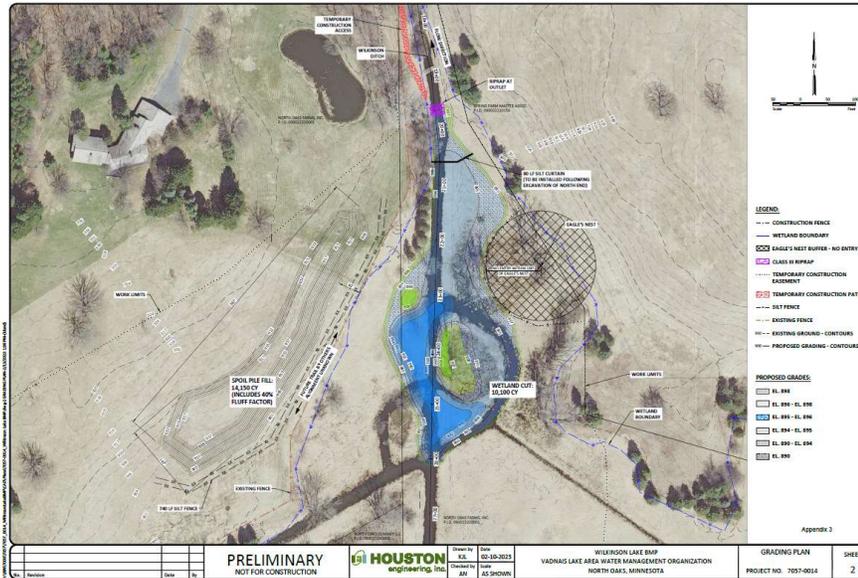


HEI has prepared and is submitting:

1. A joint application to BWSR and USACE for a wetland exemption, which was deemed appropriate during conversations with our BWSR representative for WCA
2. A permit application to the City of North Oaks for excavation, grading, and erosion control
3. Preliminary plans for permit applications and to VLAWMO on schedule

Vadnais Lake Area Water Management Organization

Current design: 60% plans



Stakeholder engagement



- Ongoing partner communication and coordination, especially with NOC and MLT
- Joint presentation to NRC/NEST on Feb. 13, 2023
- Article with project update submitted to North Oaks News for March issue
- In-person community meeting scheduled for March 22 at 7:00 pm

Vadnais Lake Area Water Management Organization

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800 County Road E E, Vadnais Heights, MN 55127
www.vlawmo.org; Office@vlawmo.org

To: VLAWMO Board of Directors

From: Brian Corcoran

Date: February 23, 2023

Re: **VI. B. 6.** Update on drone inspection for public ditch 14 main stem

Staff coordinated with the City of Vadnais Heights to use their drone to inspect the hydraulics of the recently completed meander project to make sure flows and streambanks were in good shape. The drone flight also flew over the phase I & II ditch dredging projects to inspect conditions. Overall the ditch was in good shape with minor debris in a few areas. We appreciate the partnership from the City on this effort and would like to continue the drone flights as part of our overall inspection efforts going into the future. Staff will show a portion of the drone flight at the BOD meeting.