

VLAWMO TECHNICAL COMMISSION MEETING

7:30 AM July 9th, 2021

Vadnais Heights City Hall, Lakes Room, 800 County Road E East, Vadnais Heights, MN 55127

Action items: ✈

- I. Call to Order – 7:30am –Chair Gloria Tessier
- II. Approval of Agenda
- III. Approval of Minutes (June 11th, 2021)
- IV. Administration & Operations
 - A. Financial Report for July & authorization for Payment – Phil ✈
 - B. 2022 VLAWMO Budget Update – Phil
- V. Programs
 - A. Education & Outreach – Nick
 1. Community Blue: NOHOA Bioswale Renovation – MN Water Stewards
 2. Community Blue: Upstream update
 - B. Cost Share Program – Tyler
 1. 2021 Cost Share Program Update & Budget
- VI. Projects
 - A. 319 Update – Dawn
 - B. Invasive Species Update – Dawn
 - C. Spent Lime Project Update – Tyler
 - D. RC Ditch 14 Phase 2 Maintenance Update- Brian
- VII. Commissioner Reports
- VIII. NOHOA
- IX. Ramsey Soil & Water Conservation Division
- X. St. Paul Regional Water Services
- XI. Public Comment
- XII. Next Meetings: TEC: August 13th, Regular Board Meeting: August 25th, 2021
- XIII. Adjourn

Upcoming Events: vlawmo.org/events

- Upstream: Multiple events posted online
July-September
- White Bear Lake MarketFest:
August 5th (VLAWMO table)
- Neighborhood cost-share tour:
August 14th
- East Oaks bioswale tour: TBD August



The Vadnais Lake Area Water Management Organization
800 County Road E East, Vadnais Heights, 55127 651-204-6070
Website: www.vlawmo.org; Email: office@vlawmo.org

Vadnais Lake Area Water Management Organization
Technical Commission Minutes
June 11, 2021

Zoom Teleconference Open Meeting:

<https://us02web.zoom.us/j/83828772829?pwd=RzhmTEFRSGdkYnh6ZHd4cW9vNDc3Zz09>

Join by phone: +1-312-626-6799; meeting ID: 838 2877 2829; password: 234257

Commission Members Present:

Gloria Tessier	Chair, Gem Lake (GL)
Jesse Farrell	Vice Chair, Vadnais Heights (VH)
Bob Larson	Treasurer, North Oaks (NO)
Paul Duxbury	Board Liaison, White Bear Township (WBT)
Terry Huntrods	White Bear Lake (WBL)

Commission Members Absent: Andy Nelson (Lino Lakes)

Others in attendance: Phil Belfiori, Brian Corcoran, Dawn Tanner, Nick Voss, Tyler Thompson (VLAWMO); Patricia Orud (NOHOA); Barb Spears; Justine Roe (SPRWS); Ann WhiteEagle (RCSWCD); Sara Shah (City of North Oaks)

- I. **Call to Order** Chair Tessier called the meeting to order at 7:30 am. A roll call was made for attending Commissioners of the electronic meeting: Farrell: present; Larson: present; Duxbury: present; Huntrods: present; Nelson: absent; Tessier: present.
- II. **Approval of Agenda**
The agenda for the June 11, 2021 Technical Commission Meeting was presented for approval. Thompson asked to add an update on the Spent Lime project, after V. B. 2. Tessier allowed this addition. Agenda moved for approval.
It was moved by Larson and seconded by Duxbury to approve the June 11, 2021 TEC agenda, as amended. Vote: Tessier: aye Larson: aye Duxbury: aye Nelson: aye Huntrods: aye Farrell: aye. Motion passed.
- III. **Approval of Minutes**
It was moved by Huntrods and seconded by Larson to approve the May 14, 2021 meeting minutes, as presented. Vote: Tessier: aye Larson: aye Duxbury: aye Nelson: aye Farrell: abstain. Motion passed.
- IV. **Administration & Operations**
 - A. **Financial Report for June & Authorization for Payment**
Belfiori overviewed highlights of the June Finance Report and bills. Belfiori and Larson had the opportunity to review and confer on the June bills and are recommending approval.
It was moved by Farrell and seconded by Larson to approve the June Treasurer's Report and authorization of payments. Vote: Tessier: aye Larson: aye Duxbury: aye Nelson: aye Farrell: aye. Motion passed.
 - B. **June TEC Report to the Board**
Belfiori presented the June 2021 TEC Report to the Board for Commissioner review and approval. Tanner suggested an update on 319.
It was moved by Duxbury and seconded by Farrell to approve the June 2021 TEC Report to the Board. Vote: Huntrods: aye Tessier: aye Larson: aye Duxbury: aye Nelson: aye Farrell: aye. Motion passed.

V. **Programs**

A. **Education & Outreach**

1. Spring events and website updates

Voss updated on spring 2021 events, as well as the May 27th Rainbarrel Bonanza webinar and training, and the Tamarack Nature Center Teal Pond planting. Voss also previewed updates to the vlawmo.org projects page.

B. **Cost Share Program**

1. Landscape Level 1 Application: Sigmon-Olsen Curb Cut Rain Garden LL1 2021-02

Staff has received a Landscape Level 1 application for a curb cut rain garden, and has been in touch with the applicants since 2020. The Sigmon-Olsens in White Bear Township have consulted with the Davey Resources Group (formerly Outdoor Lab) for retrofitting their front yard with a curb cut rain garden to treat and infiltrate street stormwater runoff. White Bear Township has been contracted regarding the curb work, and is working with the contractor for reconstruction. The project is just upstream of Lambert Creek, and drains into a legacy wetland. The rain garden will be 250 square feet in size, and a MIDs report estimates .271 lbs of total phosphorus reduction.

The project is estimated at a cost of \$14,726, and the applicant is requesting \$7,500 in Landscape Level 1 funding in their grant application. Staff has reviewed the grant application, plans, and planting list and has no recommended revisions and is recommending the TEC recommend approval to the Board at their June 23rd meeting for LL1 2021-02 in the amount of \$7,500.00.

It was moved by Huntrods and seconded by Farrell to recommend approval to the Board for Landscape Level 1 Grant 2021-02 and funding in the amount of \$7,500.00. Vote: Tessier: aye Larson: aye Duxbury: aye Nelson: aye Farrell: aye. Motion passed.

2. Landscape Level 2 Projects Update

Thompson updated on the progress of street reconstruction retrofit projects for 2021. Of the 2021 White Bear Lake & Vadnais Heights street resurfacing projects, 1 residential curb cut rain garden has been designed and is moving forward. Vadnais Heights is resurfacing a park parking lot, and Thompson and Farrell are pursuing a rain garden for that project. During initial White Bear Lake street renovation scouting, Birch Lake Elementary showed promise for a series of curb cut rain gardens in its parking lot. Staff is working with Brian at the RCSWCD to pursue that project, as well, with more anticipated later in the summer.

3. Spent Lime Application Project with Barr Engineering

Thompson updated that the long-awaited spent lime storm pond application project is slated to begin on June 15th on the private Ash Street pond in Lino Lakes. Four applications, in total, will be completed on the pond, Tuesday through Friday. VLAWMO is not the project lead on this, as this is Barr's project, though VLAWMO has helped provide project coordination, landowner outreach, and monitoring support. The spent lime slurry is coming from the City of WBL's water treatment plant, and will be applied via a hydromulcher cannon, typically used for hydroseeding ditch slopes.

VI. Projects

A. 319 Update

Tanner updated that staff has continued to work with NOC, Barr, MPCA and other partners on the proposed Wilkinson project. A grant application submitted by the SPRWS for \$10,000 has been approved, though will not be finalized until the legislature passes a budget. The NOC and VLAWMO have continued to revise the draft MOU for the proposed project. The MPCA is ready to assist in workplan and contract development and have provided sample templates to aid in this process.

B. East Goose Update

Belfiori updated that Joe Bischoff of Barr Engineering gave presentations on shallow lake management to the City of White Bear Lake City Council, and those have been posted on the East Goose hub. An East Goose ALM Community Input Meeting has been scheduled for August 3rd at 6:30 pm, at the City of White Bear Lake Public Safety Training Room.

VII. Commissioner Reports:

Tessier noted that the July TEC meeting will be in person at the Vadnais Heights City Hall.

VIII. NOHOA

Orud updated that NOHOA is working on revised policy updates for shorelines, trees, and invasive species. Orud also updated that the planned purple loosestrife beetle release has been canceled for 2021, as, sadly, the beetles did not survive.

IX. Ramsey Soil & Water Conservation Division (RCSWCD) Report

WhiteEagle updated that the first popup event at Sucker Channel occurred for lead-free tackle, and there is a native planting/turf replacement occurring at the parks building.

X. St. Paul Regional Water Service (SPRWS) Report

Roe updated the SPRWS is continuing work on pilot plant upgrade and is reviewing candidates for the Asst. Gen Manager position.

XI. Public Comment

None.

XII. Next Meetings

TEC: July 9th, 2021, in-person at the Vadnais Heights City Hall; Board: June 23rd, 2021

XII. Adjourn

It was moved by Farrell and seconded by Huntrods to adjourn the meeting at 8:19 am. All aye. Motion passed.

Minutes compiled and submitted by Tyler Thompson.

July 2021 VLAWMO Finance Report

July-21		Actual 7/1/21	Actual to Date	2021 Budget	2020 carry over/Grants	Remaining in Budget	2021 Available	Act vs. Budget
BUDGET #	INCOME							
5.11	Storm Water Utility	\$0	\$20,739	\$935,340	\$0	\$914,601	\$935,340	2%
5.12	Service Fees	\$550	\$750	\$200	\$0	(\$550)	\$200	375%
5.13	Interest + mitigation acct	\$11	\$100	\$3,000	\$0	\$2,900	\$3,000	3%
5.14	Misc. income - WCA admin & other	\$50	\$100	\$3,000	\$0	\$2,900	\$3,000	3%
5.15	Other Income Grants/ <u>loan</u>	\$238	\$589,963	\$894,679	\$0	\$304,716	\$894,679	66%
5.16	Transfer from reserves	\$0	\$0	\$192,840	\$14,000	\$206,840	\$206,840	0%
	TOTAL	\$848	\$611,651	\$2,029,059	\$14,000	\$1,431,408	\$2,043,059	30%
	EXPENSES							
3.1	Operations & Administration							
3.110	Office - rent, copies, post tel supplies	\$2,087	\$14,128	\$26,214	\$0	\$12,086	\$26,214	54%
3.120	Information Systems	\$1,204	\$9,518	\$22,365	\$4,000	\$16,847	\$26,365	36%
3.130	Insurance	\$0	\$0	\$7,000	\$0	\$7,000	\$7,000	0%
3.141	Consulting - Audit	\$0	\$7,025	\$7,728	\$0	\$703	\$7,728	91%
3.142	Consulting - Bookkeeping	\$0	\$0	\$1,500	\$0	\$1,500	\$1,500	0%
3.143	Consulting - Legal	\$0	\$643	\$4,000	\$0	\$3,357	\$4,000	16%
3.144	Consulting - Eng. & Tech.	\$196	\$196	\$30,000	\$0	\$29,804	\$30,000	1%
3.150	Storm Sewer Utility	\$0	\$6,236	\$13,000	\$0	\$6,764	\$13,000	48%
3.160	Training (staff/board)	\$0	\$0	\$8,750	\$0	\$8,750	\$8,750	0%
3.170	Misc. & mileage	\$252	\$1,608	\$6,300	\$0	\$4,692	\$6,300	26%
3.191	Administration - staff	\$27,792	\$206,735	\$370,307	\$0	\$163,572	\$370,307	56%
3.192	Employer Liability	\$8,689	\$61,719	\$102,376	\$10,000	\$50,657	\$112,376	55%
3.2	Monitoring and Studies							
3.210	Lake and Creek lab analysis	\$2,884	\$4,699	\$18,000	\$0	\$13,301	\$18,000	26%
3.220	Equipment	\$159	\$849	\$3,000	\$0	\$2,151	\$3,000	28%
3.230	Wetland assessment & management	\$0	\$0	\$0	\$0	\$0	\$0	#DIV/0!
3.3	Education and Outreach							
3.310	Public Education	\$0	\$2,493	\$8,500	\$0	\$6,007	\$8,500	29%
3.320	Marketing	\$0	\$464	\$7,500	\$0	\$7,036	\$7,500	6%
3.330	Community Blue Ed Grant	\$0	\$272	\$10,000	(\$4,500)	\$5,228	\$5,500	5%
Total Core functions: Ops, Monitoring, Education		\$43,264	\$316,586	\$646,540	\$9,500	\$339,454	\$656,040	48%
	Capital Improvement Projects and Programs							
3.4	Subwatershed Activity							
3.410	Gem Lake	\$0	\$0	\$0	\$0	\$0	\$0	
3.420	Lambert Creek	\$38,868	\$621,188	\$222,100	\$0	(\$399,088)	\$222,100	280%
3.425	Goose Lake	\$1,070	\$2,195	\$124,200	\$0	\$122,006	\$124,200	2%
3.430	Birch Lake	\$0	\$637	\$0	\$0	(\$637)	\$0	#DIV/0!
3.440	Gilf Black Tam Wilk Amelia	\$0	\$1,071	\$16,000	\$0	\$14,929	\$16,000	7%
3.450	Pleasant Charley Deep	\$1,359	\$2,618	\$22,500	\$0	\$19,883	\$22,500	12%
3.460	Sucker Vadnais	\$0	\$16,408	\$12,500	\$0	(\$3,908)	\$12,500	131%
3.48	Programs							
3.480	Soil Health Grant	\$0	\$910	\$4,500	\$0	\$3,590	\$4,500	20%
3.481	Landscape 1	\$2,054	\$2,223	\$16,000	\$0	\$13,777	\$16,000	14%
3.482	Landscape 2	\$0	\$2,250	\$28,000	\$0	\$25,750	\$28,000	8%
3.483	Project Research & feasibility	\$0	\$0	\$0	\$0	\$0	\$0	#DIV/0!
3.485	Facilities Maintenance	\$245	\$10,439	\$46,540	\$0	\$36,101	\$46,540	22%
3.5	Regulatory							
3.510	Engineer Plan review	\$0	\$0	\$0	\$0	\$0	\$0	#DIV/0!
Total CIP & Program		\$43,594	\$659,938	\$492,340	\$0	(\$167,598)	\$492,340	134%
Total of Core Operations & CIP		\$86,859	\$976,524	\$1,138,880	\$9,500	\$171,856	\$1,148,380	85%

Fund Balance	6/1/2021	7/1/2021
4M Account	\$331,496	274295
4M Plus Savings	\$324,146	324154
Total	\$655,642	\$598,449

Restricted funds		7/1/2021
Mitigation Savings		\$21,037
Term Series		\$0

July 2021 VLAWMO Finance Report

Vadnais Lake Area Water Management Orga
Profit & Loss
 June 12 through July 9, 2021

10:41 AM

07/01/2021

Cash Basis

Jun 12 - Jul 9, 21

Ordinary Income/Expense	
Income	
Misc.	50.00
5.1 · Income	
5.12 · Service Fees	550.00
5.13 · Interest	10.72
5.15 · Other Income Grants/Loan	237.50
Total 5.1 · Income	798.22
Total Income	848.22
Gross Profit	
	848.22
Expense	
3.1 · Administrative/Operations	
3.110 · Office	
Copies	155.63
Phone/Internet/Machine Overhead	290.00
Postage	26.72
Rent	1,615.00
Total 3.110 · Office	2,087.35
3.120 · Information Systems	
IT Support	1,203.91
Total 3.120 · Information Systems	1,203.91
3.144 · Eng. & Tech.	
	196.00
3.170 · Misc. & mileage	
	252.18
3.191 · Employee Payroll	
Payroll	27,792.02
Total 3.191 · Employee Payroll	27,792.02
3.192 · Employer Liabilities	
Admin payroll processing	44.92
Administration FICA	2,013.99
Administration PERA	2,084.40
Insurance Benefit	4,546.05
Total 3.192 · Employer Liabilities	8,689.36
Total 3.1 · Administrative/Operations	40,220.82
3.2 · Monitoring and Studies	
3.210 · Lake & Creek lab analysis	2,884.00
3.220 · Equipment	159.48
Total 3.2 · Monitoring and Studies	3,043.48
3.4 · Capital Imp. Projects/Programs	
3.420 · Lambert Creek Restoration	
Lambert Lake Loan	237.50
LL VLAWMO cash match	21,861.32
1 · LL grant \$302,679	16,769.03
Total 3.420 · Lambert Creek Restoration	38,867.85

July 2021 VLAWMO Finance Report

3.425 · Goose Lake	1,069.50
3.450 · Pleasant Charley Deep	<u>1,358.50</u>
Total 3.4 · Capital Imp. Projects/Programs	41,295.85
3.48 · Programs	
3.481 · Landscape 1 - cost-share	2,053.56
3.485 · Facilities & Maintenance	<u>245.00</u>
Total 3.48 · Programs	<u>2,298.56</u>
Total Expense	<u>86,858.71</u>
Net Ordinary Income	<u>-86,010.49</u>
Net Income	<u><u>-86,010.49</u></u>

July 2021 VLAWMO Finance Report

Vadnais Lake Area Water Management Organization

10:37 AM

Check Detail

07/01/2021

June 12 through July 9, 2021

Type	Num	Date	Name	Item	Account	Paid Amount	Original Amount
Check	eft	06/18/2021	Reliance Standard		Checking - 1987		-88.50
				Insurance Benefit		-88.50	88.50
TOTAL						-88.50	88.50
Check	eft	06/18/2021	Reliance Standard		Checking - 1987		-202.29
				Insurance Benefit		-202.29	202.29
TOTAL						-202.29	202.29
Check	eft	06/22/2021	further		Checking - 1987		-5.00
				Insurance Benefit		-5.00	5.00
TOTAL						-5.00	5.00
Check	5156	07/09/2021	Brian Corcoran		Checking - 1987		-112.52
				3.170 · Misc. & mileage		-112.52	112.52
TOTAL						-112.52	112.52
Check	5157	07/09/2021	Tyler J Thompson		Checking - 1987		-89.82
				3.170 · Misc. & mileage		-89.82	89.82
TOTAL						-89.82	89.82
Check	5158	07/09/2021	Dawn Tanner		Checking - 1987		-49.84
				3.170 · Misc. & mileage		-49.84	49.84
TOTAL						-49.84	49.84
Check	5159	07/09/2021	City of White Bear Lake		Checking - 1987		-36,185.59
				payroll		-27,792.02	27,792.02
				Administration FICA		-2,013.99	2,013.99
				Administration PERA		-2,084.40	2,084.40
				Insurance Benefit		-4,250.26	4,250.26
				Admin payroll processing		-44.92	44.92
TOTAL						-36,185.59	36,185.59
Check	5160	07/09/2021	City of Vadnais Heights		Checking - 1987		-2,087.35
				Rent		-1,615.00	1,615.00
				Phone/Internet/Machine Overhead		-290.00	290.00
				Postage		-26.72	26.72
				Copies		-155.63	155.63
TOTAL						-2,087.35	2,087.35
Check	5161	07/09/2021	SEH		Checking - 1987		-5,245.40

July 2021 VLAWMO Finance Report

	1 · LL grant \$302,679	-1,649.41	1,649.41
	1 · LL grant \$302,679	-3,595.99	3,595.99
TOTAL		-5,245.40	5,245.40
Check 5162 07/09/2021 Sunram Construction, Inc	Checking - 1987		-33,622.45
	1 · LL grant \$302,679	-11,523.63	11,523.63
	LL VLAWMO cash match	-21,861.32	21,861.32
	Lambert Lake Loan	-237.50	237.50
TOTAL		-33,622.45	33,622.45
Check 5163 07/09/2021 Barr Engineering Co	Checking - 1987		-1,069.50
	3.425 · Goose Lake	-1,069.50	1,069.50
TOTAL		-1,069.50	1,069.50
Check 5164 07/09/2021 Houston Engineering, Inc	Checking - 1987		-441.00
	3.485 · Facilities & Maintenance	-245.00	245.00
	3.144 · Eng. & Tech.	-196.00	196.00
TOTAL		-441.00	441.00
Check 5165 07/09/2021 RMB Environmental Laboratories, Inc.	Checking - 1987		-2,884.00
	3.210 · Lake & Creek lab analysis	-695.00	695.00
	3.210 · Lake & Creek lab analysis	-280.00	280.00
	3.210 · Lake & Creek lab analysis	-1,389.00	1,389.00
	3.210 · Lake & Creek lab analysis	-520.00	520.00
TOTAL		-2,884.00	2,884.00
Check 5166 07/09/2021 wsb	Checking - 1987		-1,358.50
	3.450 · Pleasant Charley Deep	-1,358.50	1,358.50
TOTAL		-1,358.50	1,358.50
Check 5167 07/09/2021 City Of Roseville	Checking - 1987		-1,203.91
	IT Support	-1,203.91	1,203.91
TOTAL		-1,203.91	1,203.91
Check 5168 07/09/2021 Innovative Office Solutions	Checking - 1987		-159.48
	3.220 · Equipment	-39.87	39.87
	3.220 · Equipment	-119.61	119.61
TOTAL		-159.48	159.48
Check 5169 07/09/2021 Judy Lissick	Checking - 1987		-2,000.00
	3.481 · Landscape 1 - cost-share	-2,000.00	2,000.00
TOTAL		-2,000.00	2,000.00

July 2021 VLAWMO Finance Report

Check 5170 07/09/2021 Judy Langer

Checking - 1987

-53.56

3.481 · Landscape 1 - cost-share

-53.56

53.56

TOTAL

-53.56

53.56

July 2021 VLAWMO Finance Report

Vadnais Lake Area Water Management Organization
Custom Transaction Detail Report
 May 1 through July 1, 2021

10:35 AM

07/01/2021

Accrual Basis

	Type	Date	Num	Name	Memo	Account	Clr	Split	Amount	Balance
May 1 - Jul 1, 21										
	Credit Card Charge	05/03/2021		Google*SVCAPPS_VLAWM		US Bank CC	√	WEB	36.00	36.00
	Credit Card Charge	05/10/2021		adobe *photography plan		US Bank CC	√	Software	9.99	45.99
	Credit Card Charge	05/17/2021		Zoom	subscription	US Bank CC	√	Software	149.90	195.89
	Credit Card Charge	05/17/2021		Office Max	posters	US Bank CC	√	3.310 · Public Education	55.84	251.73
	Credit Card Charge	05/17/2021		Office Max	posters	US Bank CC	√	3.310 · Public Education	94.47	346.20
	Transfer	05/20/2021			Funds Transfer	US Bank CC	√	Checking - 1987	-367.34	-21.14
	Credit Card Charge	05/21/2021		Leitner's	bricks for east vadnais	US Bank CC	√	3.220 · Equipment	16.00	-5.14
	Credit Card Charge	05/26/2021		Adobe "Creative Cloud		US Bank CC	√	Software	32.20	27.06
	Credit Card Charge	05/28/2021		Ace Hardware	supplies post and fasteners 4th & otter	US Bank CC	√	3.220 · Equipment	18.06	45.12
	Credit Card Charge	06/02/2021		Google*SVCAPPS_VLAWM		US Bank CC	√	WEB	36.00	81.12
May 1 - Jul 1, 21									81.12	81.12

TEC Staff Memo – July 2021

IV. Administration & Operations

A. Financial Report for July & authorization for Payment

Please find the July 2021 Finance Report attached in the ePacket.

B. 2022 VLAWMO Budget Update

1. On June 10, the 2022 Budget /Finance Subcommittee (which included Directors Lindner, Youker and Jones and TEC appointee Ferrell) met and came to a recommendation on a proposed 2022 budget that includes a 9% increase in the SSU from 2021 rates (the estimated SSU rate for the single family home at apx. \$57.94.) TEC representative Ferrell provided important comments related to the needed capacity to implement high impact regional projects within the watershed. Based on the consensus recommendation from the 2022 Budget/Finance Subcommittee, Staff presented the proposed recommended budget at the June 23 Board meeting. After further discussion, the VLAWMO Board approved the recommended 2022 Budget.
2. Overall the approved 2022 budget includes:
 - a. Continuing progress towards implementation of CIP type projects:
 - Wilkinson Lake BMP design /implementation;
 - Ditch 14 maintenance/ ongoing ditch maintenance and technical work & assistance w/local partners related to public drainage management;
 - Proposed East Goose Adaptive Lake Mangment (ALM) program development;
 - Debt Service for Lambert sheet pile portion of the project (first year of required funding through 2031/32);
 - BWSR Watershed Based Fund grant implementation – cost-share program partnership with member communities.
 - b. Implementation of key watershed programs (ongoing) including: water quality monitoring, cost-share program, project communication and education/ outreach, regulatory/ engineering, wetland assessment work and MS 4 partnerships. The draft budget also includes funding for a watershed plan.
 - c. Total expenditures for 2022 is projected at \$1,541,088 which will be paid utilizing: 1) \$1,216,588 of VLAWMO funds/ carry over funds from 2021, and 2) \$324,500 from grants and partnerships funds.

V. Programs

A. Education and Outreach

1. Community Blue: NOHOA Bioswale

Mikeya Griffin is submitting this Community Blue application with Minnesota Water Steward Sierra Weirens requesting \$2,000 in Community Blue funding. The project is in partnership with the North Oaks Home Owner's Association (NOHOA) and includes a minimum of \$9,480 in cash match funds (NOHOA) and in-kind contributions (MN Water

Steward Sierra). The project serves as Sierra's Minnesota Water Steward capstone project.

The project is a renovation of an existing bioswale on NOHOA property located at the East Oaks Rec Center. The existing bioswale is experiencing poor infiltration and high rates of sedimentation, and as such risks becoming a source of nutrient loading and local nuisance flooding in the future. The renovation will restore the desired infiltration capacity and install new sediment catchment features for improved future maintenance. The East Oaks Rec Center bioswale is located in the Lake Gilfillan subwatershed and drains into a series of wetlands before reaching Lake Gilfillan.

The delineation of shared tasks and costs in partnership with NOHOA is found in the grant application. VLAWMO funds outlined in the program will be invoiced directly to VLAWMO for payment as Sierra orchestrates planning, ordering, and community outreach based on the Minnesota Water Stewards training content. Construction initiated by NOHOA is scheduled for the week of July 6, 2021. Planting and education components are to be completed by the end of September, 2021. The project has been actively communicating and partnering with community members in North Oaks such as NOHOA, the Natural Resources Commission, NEST, the North Oaks Garden Club, and Elfering and Associates (NOHOA engineering contractor). Volunteer opportunities will be available for North Oaks residents only for planting.

An outline of the tasks for the renovation includes:

- Excavating the existing swale
- Introducing a soil amendment for enhanced drainage
- Installing two new sediment catchments near culvert inlets into the swale
- Installing mulch in the swale
- Re-planting
- Providing education and outreach to the North Oaks community during and after construction: News articles, on-site tour with NOHOA groups and residents, on-site signage
- Creating a maintenance guide for the future of the site

2. Community Blue: Upstream Update

The "Upstream" project was re-initiated in 2021 after more than a year-long delay due to COVID-19. The re-initiation was approved at the January, 2021 TEC meeting. The effort, in partnership with the White Bear Center for the Arts, is currently active with events and publications presented to the greater White Bear Lake Community. These include:

- 2 White Bear Press articles (May, June)
- 2 completed tea ceremonies
- 5 future tea ceremonies posted online (More TBA)
- Attendee survey active

- Watershed companion information: New VLAWMO cost-share brochure, lake factsheets, adopt-a-drain flyers, VLAWMO watershed map, 2020 VLAWMO water monitoring report summaries, Blue Thumb native plant handouts, and the stormwater plinko education display.
- Culmination event planning active in concert with WB Center for the Arts re-opening in October.
- July volunteer event planning active.
- A change from the Nibi Walk to a children's play held at the WB Center for the Arts at the culmination event. This change was made due to requests and needs of the Nibi Walk organization, a listed partner with the WB Center for the Arts in the Upstream Community Blue January, 2021 grant.

A schedule of events and updates can be found on the VLAWMO web calendar in addition to the WB Center for the Arts website.

Registration is found here:

<https://whitebeararts.org/2021/04/upstream-tea-ceremony/>

B. Cost Share Program

1. 2021 Cost Share Program Update & Budget

Tyler will update the Commissioners on the status of the Program TEC at the July meeting. As of July, please find the status of the grant programs below:

- Rain Barrel Grant: 3 grants so far, \$276.52 remaining (2021 budget: \$500)
- Soil Health Grant: 6 grants, all program funds encumbered for 2021 (2021 budget: \$4,500)
- Landscape Level 1: 2 approved grants (Gem SL restoration and WBT curb-cut RG). \$4,028.71 of LL1 funding left for 2021.
- Landscape Level 2: Est. \$14,500 remaining for 2021. \$4999.99 encumbered for RSWCD design budget, and 1 WBL mill & overlay curb cut RG estimated at \$8,500 (bids being solicited).

The Vadnais Heights Bridgewood Park project is coming along, with parking lot regrading plans completed by SEH, and final design for the rain garden basin underway by Brian at the RCSWCD. A big thanks to Jesse for identifying this reconstruction and making this possible. The parking lot reconstruction will be completed this summer, and the rain garden will be put out for bid after designs are finalized, anticipating a 2021 construction. Staff anticipates using applicable '21-'23 BWSR WBIF grant funds for the rain garden retrofit project.

The Birch Lake Elementary curb cut rain gardens are anticipated to begin and complete the design phase this summer. If District 624 is interested in moving forward with the project, final plans can be submitted for construction bid. These parking lot rain gardens are not coinciding with a pavement mill & overlay or reconstruction, so project timing is not as crucial, and the project may be put out for bid this winter, in hopes of getting better bid prices, and planning for a 2022 construction. Staff is also anticipating using '21-'23 BWSR WBIF funds for implementation.

VI. Projects

A. 319 Update: VLAWMO staff have continued working with NOC, Barr Engineering, MPCA and other partners on the proposed Wilkinson project. At the June 23, 2021, regular Board meeting, the Board authorized VLAWMO staff to:

- Continue working closely with MPCA to develop the workplan and grant contract according to MPCA's target timeline,
- Continue working with North Oaks Company and the City of North Oaks to complete the MOU and maintenance agreement with NOC/NOF,
- Authorize acceptance of the MDH grant submitted by SPRWS on behalf of VLAWMO (up to \$10,000 in matching funds) when the legislature votes to approve the budget and the grant is formally made available to VLAWMO,
- Authorize continued project investigation and development in partnership with North Oaks Company and Barr Engineering to conduct survey, soil sampling/geotechnical investigation, and preliminary design using MDH grant funds and VLAWMO 2021 Wilkinson subshed budget allocation

B. Invasive Species Update: Invasive species work has been busy during the spring and early summer. Photos follow below.

- Yellow iris survey/checks were conducted on June 8th and 9th by VLAWMO staff on East Vadnais, Sucker, and Deep Lakes, and channel areas. Two small clumps of Yellow iris were located on the channel leading into East Vadnais Lake. Those clumps were removed and composted on-site (~20 lbs removed). A Yellow iris location that was reported in the north side of East Vadnais Lake as part of the Vadnais-Sucker Park wetland inventory completed in 2020 was checked. That site contained only native Blue-flag iris. The check and updated information are now included in the wetland inventory, so that information is preserved for future reference.
- Yellow iris removal was conducted on June 17, 2021, on the shoreline of Deep Lake. Seven locations were prioritized along the south and east side of the lake. Water levels were quite high due to the high temperatures and drought conditions and the need for SPRWS to pump high amounts of water through the system to meet demand. High water levels mean that the infestations are difficult to reach and remove. Three of the target locations were accessible and removed by VLAWMO staff and a volunteer (~160 lbs removed). Yellow iris that was removed was composted on-site above the ordinary high-water level, as required by MN DNR. Those sites will be checked to make sure removed plants do not reestablish.
- At 4th and Otter, Japanese hedge-parsley was removed (by hand-pulling) to the point of no detection of second-year plants this spring/early summer. Hedge-parsley is perennial, so next year some second-year plants are expected at low levels. These will be prioritized for removal. The iris that was reported on-site at a previous TEC meeting was blooming during the hedge-parsley removal days. All of the iris at the site detected so far is native Blue-flag iris. These early bloomers are important for pollinators in an around wetland areas. Native plants, in general, are doing fairly well

and starting to recover at the site following removal of Buckthorn, Garlic mustard, and Japanese hedge-parsley, and reseeding and transplanting of natives.

- Coordination for carp removal in Pleasant Lake is continuing with VLAWMO staff and WSB. WSB completed reconnaissance work this spring. Their report memo is included in this month's packet.
- Tamarack Lake is one of the priority areas for upcoming 319 projects. VLAWMO reports and documentation were unclear as to whether or not Tamarack Lake is infested with Curly-leaf pondweed. As future efforts in Tamarack lake may include addressing internal load, presence or absence of Curly-leaf pondweed is relevant. Curly-leaf pondweed may contribute to internal load in a lake when it dies back early in the growing season, releasing nutrients that stimulate algae blooms. Tamarack Lake was checked for Curly-leaf pondweed on June 21 by VLAWMO staff. No Curly-leaf pondweed was detected. At this point in the season, Curly-leaf would be expected to be abundant. Since a vegetation survey in 2008 on the lake and MN DNR infested lake documentation also did not include Curly-leaf pondweed in Tamarack Lake, remaining records have been updated to indicate that Curly-leaf pondweed is not present in Tamarack Lake.

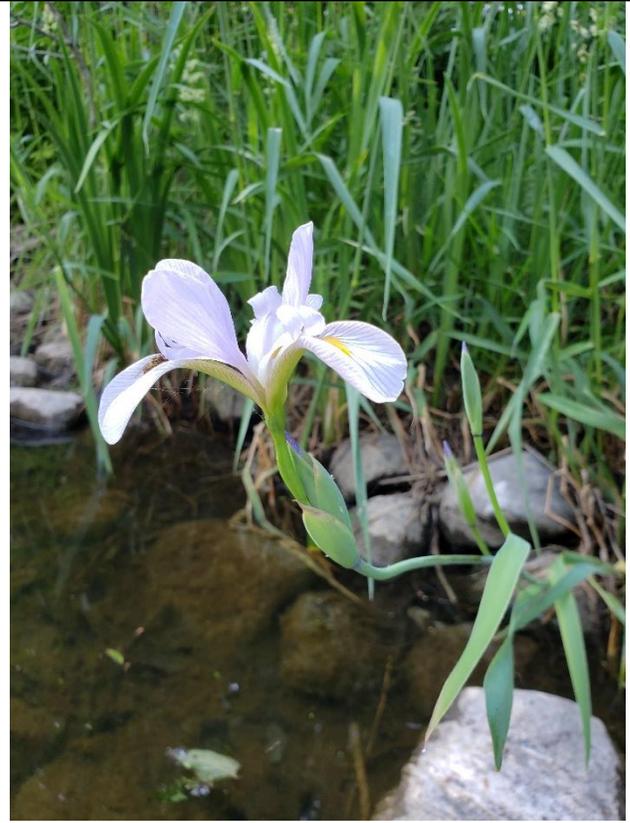
Survey: Native Blue-flag iris on the north end of East Vadnais in a small wetland area attached to the lake via a culvert.



Invasive Yellow iris on Sucker Channel near the north end of East Vadnais Lake.



Native Blue-flag iris on Sucker Channel near the north end of East Vadnais Lake.



Native Blue-flag iris doing well in the restoration at Sucker Channel. This is one of the sites that is being maintained by Natural Shores this year.



Native Blue-flag iris at 4th and Otter



At Tamarck Lake, native Sago pondweed was abundant, as reported in a previous vegetation survey in 2008; Curly-leaf pondweed was not detected.



C. Spent Lime Project Update

Staff has been working with Barr Engineering since 2018 on a spent lime storm pond treatment pilot grant project. The project and grant are Barr's, with VLAWMO being a project partner, along with the Ramsey-Washington Metro WS District, facilitating storm pond site coordination and water quality monitoring, and Barr heading the actual application. The goal of the project is to test how cost-efficiently spent lime byproduct of water treatment plants can be used to reduce and settle nutrients in storm ponds, as spent lime has similar water treatment characteristics as alum and is often a free byproduct that requires disposal costs.

Two ponds were originally chosen, Wakefield Pond in Maplewood (RWMWD), and Oak Knoll Pond in White Bear Lake (VLAWMO). After several years of coordination, access and pond size of Oak Knoll Pond were deemed unsuitable for the grant timeframe and project scope. Ash Street Pond in Lino Lakes was identified and selected as an alternate application site in VLAWMO, with landowner coordination and pond morphology headed by VLAWMO staff. After delays, the first application of spent lime took place on June 14th, and a second on June 24th. Though the pond is very shallow (2 ft max) and rain has been limited, the water column is clarifying and reacting very well to the treatments and has been successful thus far. Staff has been collecting pond outlet water samples to help determine project effectiveness.

D. RC Ditch 14 Phase 2 Maintenance Update

The landowner information meeting for the County Ditch 14 Phase II maintenance repair project has been scheduled for Wednesday, July 28, 2021 at 6:00 p.m. in the Vadnais Heights City Council Chambers. The meeting will include presentation on the overall County Ditch 14 Phase II maintenance repair project, including anticipated project work limits and site conditions during construction. A map identifying the estimated project work limits was sent out last week to each property owner along the ditch within the proposed project area.



Vadnais Lake Area Water Management Organization

800 East County Rd E
Vadnais Heights, MN 55127
vlawmo.org
(651) 204-6070

COMMUNITY BLUE GRANT APPLICATION

Please submit form and required materials to: NICK VOSS
Nick.Voss@vlawmo.org

BASIC INFORMATION

PROJECT NAME	East Rec Bioswale Project
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CONTACT PERSON	Mikeya Griffin
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ADDRESS	100 Village Center Drive, Ste 240	CITY ZIP	North Oaks, 55127
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ORGANIZATION	NOHOA	PHONE	651-792-7764	EMAIL ADDRESS	Mikeya@nohoa.org
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WHAT GEOGRAPHIC AND/OR DEMOGRAPHIC AREA DO YOU SERVE?	City of North Oaks
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HOW MUCH ARE YOU REQUESTING? (BETWEEN \$200 AND \$10,000)	\$2,000
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HOW MUCH ARE YOU PREPARED TO MATCH OR PROVIDE IN-KIND?	\$9,480
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PROJECT BACKGROUND

INTRODUCTION & GOAL

- 1. A: DESCRIBE THE MISSION AND GOALS OF YOUR ORGANIZATION/PROFESSION AND WAYS IT RELATES TO WATER RESOURCES.
B: IN 2-3 SENTENCES: WHAT DOES THE PROJECT DO (LIST HARD DETAILS OF #, PLACE, EVENT, ETC). AND WHAT'S THE GOAL?

The East Rec Center bioswale in North Oaks is experiencing poor infiltration after rain events. Along with poor drainage, most of the swale is inundated with sediment (when swales become highly sedimented, localized flooding and little to no pollutant removal occurs). Overall, the goal of the renovation of the bioswale will reduce sedimentation and pollution in downstream wetlands, lakes, and streams.

2. DESCRIBE HOW YOUR PROJECT WILL PROTECT OR IMPROVE WATER QUALITY. FOR EDUCATIONAL COMPONENTS, DESCRIBE BEHAVIORS AND ACTIONS THAT WILL BE ENCOURAGED THROUGH THE PROJECT AS THEY RELATE TO WATER.

The East Rec bioswale renovation plans include native plantings whose long roots will absorb stormwater and reduce the toxins entering the watershed. There will be watershed tours, signage, and articles released to inform the community about this project (including educating the community about how this project connects with climate change). This project will boost the ability of the local watershed to absorb and purify water in place, reducing pressure on local waterbodies throughout the year.

3. DESCRIBE ANY PROJECT PARTNERS, THEIR ROLE IN THE PROJECT, THEIR QUALIFICATIONS, AND THEIR ROLE IN YOUR PROJECT. FOR PROJECTS WITH INVOLVED PARTNERSHIPS, A SEPARATE CONFIRMATION LETTER MAY BE REQUESTED. *Please provide specifics (names, titles, email or phone #)*

We will be partnering with Sierra Weirens with the MN Water Stewards program to facilitate the planting plan, coordination of the volunteer activities, and providing educational articles.

Sierra Weirens
6 Wildflower Place
North Oaks, 55127
Phone: 651-252-5280
Email: sweirens@smith.edu

The North Oaks Home Owners Association (NOHOA) will contract excavation of the site's clay and clogged sediment and build two sediment catchment structures at swale inlets. As owners of the swale, NOHOA will also be responsible for maintenance of the swale, which will include periodically cleaning out the catchment devices. NOHOA will continue to contract out plant maintenance for this swale. Other maintenance includes additional mulch, invasive and undesirable woody vegetation removal.

Kristie Elfering (NOHOA Engineer, Elfering & Associates)
10062 Flanders Ct NE
Blaine, MN 55449
(763) 780-0450 ext 2
kelfering@elferingeng.com

PROJECT OBJECTIVES

4. IN THE SPACE BELOW, PLEASE BREAK DOWN YOUR PROJECT INTO OBJECTIVES (**UP TO 5**). THESE SHOULD TELL THE STORY OF YOUR PROJECT FROM PREPARATION TO ACTION TO FOLLOW-UP MEASURES. INCLUDE AN ESTIMATED COMPLETION DATE (left box) AND COST (right box) TO EXPIDITE PROJECT BUDGETING AND FUND DISPERSAL.

1	OBJECTIVE	Excavation and soil amendment	COMPLETION DATE (M/Y) COST (right box)	7/21	\$0
	DESCRIPTION	Excavate clay and clogged sediment and introduce amended soil. NOHOA leadership and budgeting.			
	POSSIBLE BARRIERS				

2	OBJECTIVE	Build and install catchment structures	COMPLETION DATE (D/M/Y) COST (right box)	7/14/21	\$0
	DESCRIPTION	Build two sediment catchment structures at swale inlets near culverts. NOHOA leadership and budgeting. NOHOA provides soil amendment.			
	POSSIBLE BARRIERS				

3	OBJECTIVE	Mulch and replant swale	COMPLETION DATE (D/M/Y) COST (right box)	8/14/21	\$1,600
	DESCRIPTION	Lay mulch and re-plant the swale. Volunteer recruitment.			
	POSSIBLE BARRIERS	Major rain event between catchment installation and planting could be problematic with current drought conditions.			

4	OBJECTIVE	Educate community	COMPLETION DATE (D/M/Y) COST (right box)	8/30/21	\$400
	DESCRIPTION				
	POSSIBLE BARRIERS	Write and publish a series of articles educating the community. Design, produce, and install signage at swale.			

5	OBJECTIVE	Maintenance	COMPLETION DATE (D/M/Y): COSTS: (right box)	9/8/21	\$0
	DESCRIPTION	Monitor condition of swale and communicate infiltration results and upkeep needs. Maintenance plan/ongoing maintenance to keep sediment structures clear. Watering every other day for 3 weeks.			
	POSSIBLE BARRIERS	Possible barrier: Vandalism in the swale.			

MEASUREMENT AND EVALUATION

5. DESCRIBE HOW YOU WILL MEASURE THE SUCCESS OF YOUR PROJECT.
Measurements should be phrased as a final result. What tangibles will prove that the objective was met?
Example: Number of participants, number of installations, gallons of storm water infiltrated, etc. Effective measurables relate back to the goal and purpose of the project – VLAWMO will make recommendations as needed. If an objective doesn't need a measurable please indicate another objective that has a measurable that serves to measure both.

OBJECTIVE 1: Excavation complete (NOHOA).

OBJECTIVE 2: Soil amendment complete, dispersed within swale (NOHOA) Installation of 2 catchment sediment structures (NOHOA).

OBJECTIVE 3: Mulch order and dispersal (NOHOA) and plantings ordered and installed (Sierra/Community Blue).

OBJECTIVE 4: Education signage installed, neighborhood tour conducted on-site (target 12 participants). Publish series of 4 articles to the North Oaks community providing education on how they can personally make an impact on the environmental health of North Oaks which includes this bioswale effort.

OBJECTIVE 5: Minimum 6 maintenance sessions/yr conducted by NOHOA, consisting of emptied catch basins, weeding, and general inspection for trash, invasive species, or property damage. Watering new plants every other day for 3 weeks (accommodating for rainfall) after planting.

BUDGET DESCRIPTION

6. DESCRIBE THE BUDGET: List 1) materials and services that the requested funds will go towards and 2) description of Match funds that go with that objective/expense.

OBJECTIVE 1/EXPENSE 1: Estimated NOHOA cost: 3 individuals for 5 hours each - \$375

OBJECTIVE 2: Estimated NOHOA cost: \$2,530 plus 3 individuals for 3 hours each - \$2,755

OBJECTIVE 3: Estimated NOHOA cost: Mulch - up to \$620 VLAWMO planting cost: \$1,600

OBJECTIVE 4: Signage installed (VLAWMO) - \$400

OBJECTIVE 5: Estimated NOHOA cost: Watering 2 hrs/wk for first 3 weeks, maintenance 1 hr/6 times per year - \$300

BUDGET

7. COMPLETE THE FOLLOWING TABLE FOR PROJECT COSTS. IF ADDITIONAL COSTS EXIST INDEPENDENT OF GRANT FUNDING LIST THEM AS FUNDING AS OTHER SOURCE. PLEASE SPECIFY AN AMMOUNT PER EXPENSE AND A TOTAL. THE GREEN BOX IN PART 7 MUST EQUAL THE GREEN BOX IN PART 8. USE WORK PLAN SPREADSHEET FOR MORE DETAIL. TIP: ALIGN EXPENSES ACCORDING TO OBJECTIVES IN PART 5.

EXPENSES Reflect objective #	PERSONNEL COSTS "N/A" if blank	MATERIALS / SUPPLIES "N/A" if blank	FUNDING FROM OTHER SOURCE "N/A" if blank	TOTAL
EXPENSE 1: Excavation and soil amendment	N/A	N/A	\$375	\$375
EXPENSE 2: Build and install catchment structures	N/A	N/A	\$5,285	\$5,285
EXPENSE 3: Replant and mulch swale	N/A	\$1,609	\$620	\$2,229
EXPENSE 4: Educate community	N/A	\$391	N/A	\$390
EXPENSE 5: Maintenance	N/A	N/A	\$300	\$300
TOTALS	N/A	\$2,000	\$6,580	\$8,579

Description of other source funding:

NOHOA contributions ("cash" under match funds in #8)

TOTAL EXCLUDING MATCH FUNDS:

\$8,579

GRANT FUNDING & MATCH FUNDS

8. PLEASE FILL IN THE TABLE BELOW WITH HOW YOU PLAN TO ALLOCATE YOUR FUNDING. Match funds are required assets for the project that strive to support community investment and exposure. Match funds may be cash from other sources, mileage, pre-existing materials involved in the project, or provided in-kind (i.e. volunteer services). In-kind match hours may be volunteer service hours, voluntary presentations, etc. Consult with VLAWMO staff for discussion on what applies as match funds. THE BLUE BOX SHOULD BE AN ADDITIONAL 25-100% OF THE GREEN BOX. PROJECT APPLICATIONS ARE WEIGHED WITH A PREFERENCE FOR PROJECTS WITH HIGHER MATCH FUNDS, IN ADDITION AND ARE VOTED ON THROUGH THE VLAWMO TECHNICAL COMMISION.

VOLUNTEER HOURS ARE VALUED AT
\$25/HR
MILEAGE IS VALUED AT
\$0.525/MI

EXPENSES	REQUESTED VLAWMO FUNDING	MATCH FUNDS		TOTAL
		Cash	In-kind	
EXPENSE 1: Excavation and soil amendment	\$0	\$375	N/A	\$375
EXPENSE 2: Build and install catchment structures	\$0	\$5,285	N/A	\$5,285
EXPENSE 3: Replant and mulch swale	\$1,609	\$620	\$800	\$3,029
EXPENSE 4: Educate community	\$391	N/A	\$2000	\$2,391
EXPENSE 5: Maintenance	\$0	\$300	\$100	\$300
TOTALS	\$2,000	\$6,580	\$2,900	\$11,480

BUDGET CONTINUED

9) DESCRIPTION OF MATCH FUNDS: CASH AND/OR IN-KIND HOURS. Briefly describe the nature, activity, or function of the match funds for each expense line. I.e. "volunteer hours", "honorarium", etc.

EXPENSE 1: NOHOA cash match: Soil amendment, excavation

EXPENSE 2: NOHOA cash match: Catchment structures

EXPENSE 3: Volunteer in-kind efforts. Planting (North Oaks residents only) minimum 8 volunteers for 3 hours and 2 volunteers for 4 hours. NOHOA cash match for mulch.

EXPENSE 4: Volunteer education efforts in-kind/MN Water Stewards 1 volunteer at 30 hours. (North Oaks residents only)

EXPENSE 5: NOHOA maintenance contributions ("cash"), volunteers monitoring infiltration rate after rain event (North Oaks residents only)

FUTURE POTENTIAL

10.) WILL YOU OR THE PROJECT PARTNERS BE ABLE TO REPEAT THIS PROJECT? EXPLAIN HOW THE PROJECT WILL BE CARRIED ON IF 1) THE

Yes, this project will provide NOHOA's contractor with the experience and education necessary to fabricate and install catchment devices throughout North Oaks. NOHOA has maintenance and responsibility for drainage issues throughout the City. There will continue to be a great need to implement drainage solutions throughout North Oaks by NOHOA in the future.

11.) HOW DID YOU HEAR ABOUT OUR GRANT PROGRAM?

Nick Voss, VLAWMO staff, and MN Water Stewards training 2020/2021.

East Oaks Renovation
Shots in NAVD88
5/21/2021



- culvert invert
- Drain elev. shot
- RG bottom elev.
- "Splash Block Sump" install
- Basin overflow point
- basin regrading/fill removal
- basin replanting and mulching



Number on illustration	Shrub	Size	How many	Cost (of each)	Total cost
1	Low Serviceberry	2 gallon	2	\$30	\$60
2	Low Serviceberry	5 gallon	2	\$45	\$90
3	Nannyberry	2 gallon	2	\$30	\$60
4	Nannyberry	5 gallon	2	\$50	\$100
5	False Indigo	2 gallon	2	\$30	\$60
6	False Indigo	5 gallon	2	\$45	\$90
7	Pagoda Dogwood	2 gallon	2	\$30	\$60
8	Pagoda Dogwood	5 gallon	2	\$50	\$100
9	Bush Honeysuckle	2 gallon	2	\$25	\$50
10	Bush Honeysuckle	5 gallon	2	\$40	\$80
11	Black Chokeberry	2 gallon	2	\$25	\$50
12	Black Chokeberry	5 gallon	2	\$40	\$80

= \$880

Number on illustration	Perennial	Size	How many	Cost (of each)	Total cost
13	Compass Plant	4 inch pot	3	\$5.25	\$16.75
14	Compass Plant	1 gallon	4	\$15	\$60
15	Rattlesnake Master	4 inch pot	3	\$5.25	\$16.75
16	Rattlesnake Master	1 gallon	4	\$15	\$60
17	Yellow Coneflower	4 inch pot	2	\$5.25	\$10.50
18	Yellow Coneflower	1 gallon	4	\$15	\$60
19	Blackeyed Susan	4 inch pot	2	\$5.25	\$10.50
20	Wild Lupine	4 inch pot	2	\$5.25	\$10.50
21	Wild Geranium	4 inch pot	2	\$5.25	\$10.50
22	Wild Geranium	1 gallon	3	\$15	\$45
23	Cardinal Flower	4 inch pot	2	\$5.25	\$10.50
24	Swamp Milkweed	4 inch pot	2	\$5.25	\$10.50
25	Swamp Milkweed	1 gallon	3	\$15	\$45

= \$364.50

Number on illustration	Grass	Size	How many	Cost (of each)	Total cost
26	Little Bluestem	4 inch pot	6	\$5.25	\$31.50
27	Little Bluestem	1 gallon	9	\$15	\$135
28	Pennsylvania Sedge	4 inch pot	6	\$5.25	\$31.50
29	Big Bluestem	4 inch pot	6	\$5.25	\$31.50
30	Big Bluestem	1 gallon	9	\$15	\$135

= \$364.50

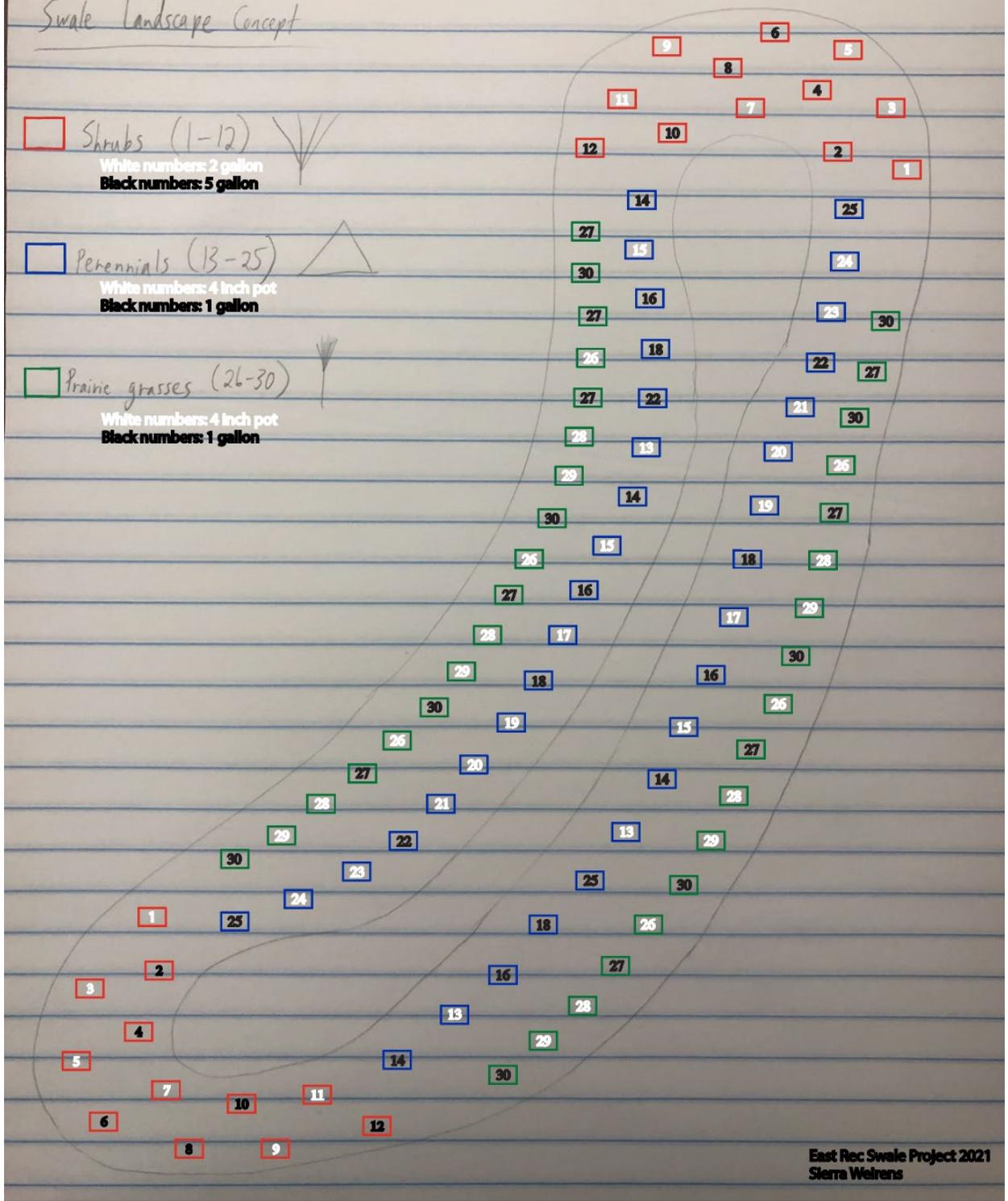
**Scatter milkweed and other appropriate wildflower seeds in the middle of swale.

Swale Landscape Concept

 Shrubs (1-12)
White numbers: 2 gallon
Black numbers: 5 gallon

 Perennials (13-25)
White numbers: 4 inch pot
Black numbers: 1 gallon

 Prairie grasses (26-30)
White numbers: 4 inch pot
Black numbers: 1 gallon



East Rec Swale Project 2021
Sierra Weirns

Community Blue: Application Score Chart

“Upstream” – White Bear Center for the Arts

March 12, 2021 TEC

Scoring Criteria: Evaluating the content and nature of the proposed project.

Category	Points Possible	Points Assigned
Program fit (20%): Project is compatible with the Community Blue goal or makes a strong case to relate to VLAWMO’s mission. SMART Goals and desired outcomes are clearly stated. Topic of interest is timely and appropriate, target audience(s) defined, outreach method, and connections are made to local water resources are defined. A minimum of 25% match-funds are outlined. Projects within VLAWMO cost-share target zones are weighed more.	1-20	20
Leadership (20%): Project demonstrates watershed leadership and motivates participants to reflect on and improve their relationship to water. Project inspires water-related awareness, knowledge, attitude, skills, and behaviors, while outlining and committing to physical maintenance when needed.	1-20	20
Evaluation (20%) Project has an evaluation component with goals that are specific and measurable. Evaluation provides meaningful information that can be used to assess results and provide comparison to future projects. Applicant has a plan for sharing and disseminating results.	1-20	20
Growth and replication (10%) Project creates social and organizational networks to inspire future projects related to water resource improvement and education, or demonstrates an ability to be efficiently replicated.	1-10	4
Collaboration/Engagement (10%) Project engages appropriate partners and local citizens in the planning, implementation and/or evaluation process. Partners demonstrate a high level of support for project proposal.	1-10	10
Budget (10%) Funding request is detailed and appropriate. Sub-costs in objectives clearly add up to final cost.	1-10	10
Timeline (10%) Timeline is clear and realistic given the scope of the project.	1-10	10
Total:	100	94

Comment:

Only points detracted due to the innovative and specialized nature of the project being difficult to replicate. Future potential to sustain project is mentioned and possible, but program changes in Community Blue in late 2020 create more budget constraints than when this project was originally presented in early 2020.

Continued on reverse

Application Criteria: Evaluating the application for clarity, reliability, and its ability to serve as a tool to guide VLAWMO, the applicant, and project partners over the course of the project's lifespan.

Category	Points Possible	Points Assigned
Outlined objectives (40%): The project is clearly outlined by up to 5 objectives serving as stages of the project. Each objective is a specific task within the project, accompanied by a measurable outcome, timeframe, and associated cost. Costs and timeframes of objectives clearly match the overall budget and timeframe.	1-20	20
SMART measurements (40%): Objectives include front-end, middle, and back-end measurements. Exceptional applications seek not to just complete the project but to also collect information for evaluation (closing survey, etc.). If parts of the project are dependent on unknown variables at the time of the application, these are clearly defined and distinguished as a list of prospective directions and actions. Prospective actions are equipped with defined measurements should they occur.	1-20	20
Partnerships and Contacts (20%): Project partners are listed in the application with names, titles, contact information, and role in the project. Maintenance responsibilities are defined with contacts and timeframe.	1-10	20
Total:	50	50
Suggestions for application improvement:		

Grand Total: 145 / 150

Grant approval scale:

- 1-49: Decline application citing scoring results and other reasons why.
- 50-79: Decline application, send back to applicant with suggestions for re-working and a new submission at a later time.
- 80-99: Approvable grant on the condition of outlined improvements and comments from TEC or BOD.
- 100-150: Approvable grant.

Memorandum

To: Dawn Tanner, VLAWMO
Phil Belfori, VLAWMO

From: Mary Newman, WSB
Tony Havranek, WSB

Date: June 21, 2021

Re: Pleasant Lake Reconnaissance, VLAWMO
WSB Project no. 017843-000

This memo describes a reconnaissance survey for initial feasibility of commercial removal of common carp in Pleasant Lake, North Oaks, Ramsey County, MN. This site visit was completed on May 17, 2021 on Pleasant Lake using a side scan sonar and general observations to identify potential obstructions that may inhibit a successful seine netting event in areas where carp are known to aggregate.

Radio-tag locations will be monitored after they are implanted into carp in the fall of 2021. These locations will help to determine the location of seine netting attempts. The information gathered in this reconnaissance will help to determine the feasibility and likelihood of success at times when fish are found to be aggregated. Once it is decided to pursue a seine event, the mapped potential obstructions as well as bathymetry will be used to guide the detailed operation of the seine net.

History/Background

Pleasant Lake was included on the 303d list of impaired waters in 2010 and updated in 2014. In 2010 the lake was listed as impaired for aquatic consumption due to mercury in fish tissues and updated in 2014 to include impairment for aquatic recreation that is caused by excess nutrients – phosphorus. An updated TMDL has not been completed for Pleasant Lake, however a lake sediment study was completed in August 2020 to investigate the physical characteristics of the sandbar in the shallow area in the west bay of Pleasant Lake and to determine the concentrations of various phosphorus fractions in sediment in deep areas of Pleasant Lake.

Internal loading of phosphorus is typically attributed to anoxic sediment release and bioturbation caused by common carp, while external loading can partially be attributed to watershed (non-point) loading. The lake sediment study determined that anoxic sediment release is suppressed in Pleasant Lake due to the oxygen injection system in place that runs year round. Pleasant Lake has a known population of rough fish/carp and removal of some or all of the biomass is one implementation activity that may be used to help achieve water quality goals.

A carp population and biomass estimate was completed using boat electrofishing catch per unit effort (CPUE) methodology in 2019. The population estimate resulting from the CPUE survey indicates that 243.9 lbs/acre (273.4 kg/ha) of carp biomass may be present Pleasant Lake. This number can be compared to the ecological tipping point of 89.9 lbs/acre (100 kg/ha) identified in the literature to determine an overabundance of carp biomass in Pleasant Lake. The average weight of carp sampled in this survey was 12.4 lbs (5.63 kg) and ranged in length from 25 to 36 inches.

In 2019, carp movement was also monitored using passive tags and a tag reader placed in the stream between lakes connected upstream of Pleasant Lake. Results from this movement study indicate that a large percentage of carp move in the spring-time as part of an annual spawning migration and may recruit young carp in Deep Lake and or Wilkinson Lake.

Historic rough fish aggregation locations were determined in consultation with commercial fishermen who have targeted removal operations in Pleasant Lake in the past. The licensed commercial fishing crew in this area is JR Commercial Fishing led by Jeff Reidemann.

Additionally, aquatic vegetation surveys have been completed in Pleasant Lake. The most recent survey was conducted in June 2018 and found that native Stringy Pond Weed and Coontail were the dominant species. Non-native plants including Curly leaf pond weed (CLPW) and Eurasian Water Milfoil (EWM) were sampled in this survey but were reported at non-nuisance levels.

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Route traversed and historic haul locations

The shoreline of Pleasant Lake was traversed, observations were made, and side-scan sonar graphs were analyzed. The route began in the northern portion of the lake and moving west and south, focused in areas where carp are known to aggregate (Figure 1). Obstructions could include dense vegetation, rocks, trees, or introduced structures on the lake bottom.

Open water and under ice seine attempts have been made on Pleasant Lake by area commercial fishermen historically. Information on the locations that were targeted are labeled in Figure 1 by water condition and numbers that indicate the priority (1-high – 3-low) of these locations. Priority is defined as the most probable location for fish to aggregate based on the data we have available. Data we have available is from correspondence and reconnaissance completed with Jeff Reidemann (JR Commercial Fishing).

During reconnaissance of the lake, the bathymetry was studied in the areas where fish may be targeted for removal. It will be important to avoid pulling the seine net over sharp drop offs or underwater peninsulas. The most recent bathymetry maps will be used to plan net deployment in these locations if and when fish are detected here and VLAWMO contracts with JR Commercial Fishing to complete a seine netting attempt.

Potential Obstructions to Seine Netting

Dense mats of invasive curly leaf pond weed were observed in the northwest portion of the lake and in the west bay of Pleasant Lake (figure 2). These dense mats were associated with spawning behavior by rough fish including invasive common carp and native large mouth buffalo. Dense vegetation is prohibitive to a successful seine netting event because the netting material rolls up in the excess vegetation allowing fish to escape when it is pulled through these areas.

The type of vegetation present in these areas was dominated by curly leaf pond weed with some stringy pond weed, coontail, and Eurasian water milfoil. This is a different order of assemblage that was reported in the 2018 vegetation survey delivered to VLAWMO. This difference in assemblage is due to the early season bloom and senescence of CLPW. In some cases, CLPW will begin to grow under ice and reach the surface in early spring as we saw on Pleasant Lake.

Potential obstructions besides vegetation were mapped using the results from the side scan survey of the lake (Figure 3). Rocks were identified in the northern portion of the lake near the beach/boat launch that would potentially snag the seine net if it were pulled through the area. The oxygen infusion system is also mapped as it would prohibit seining in or around the areas where it is in place.

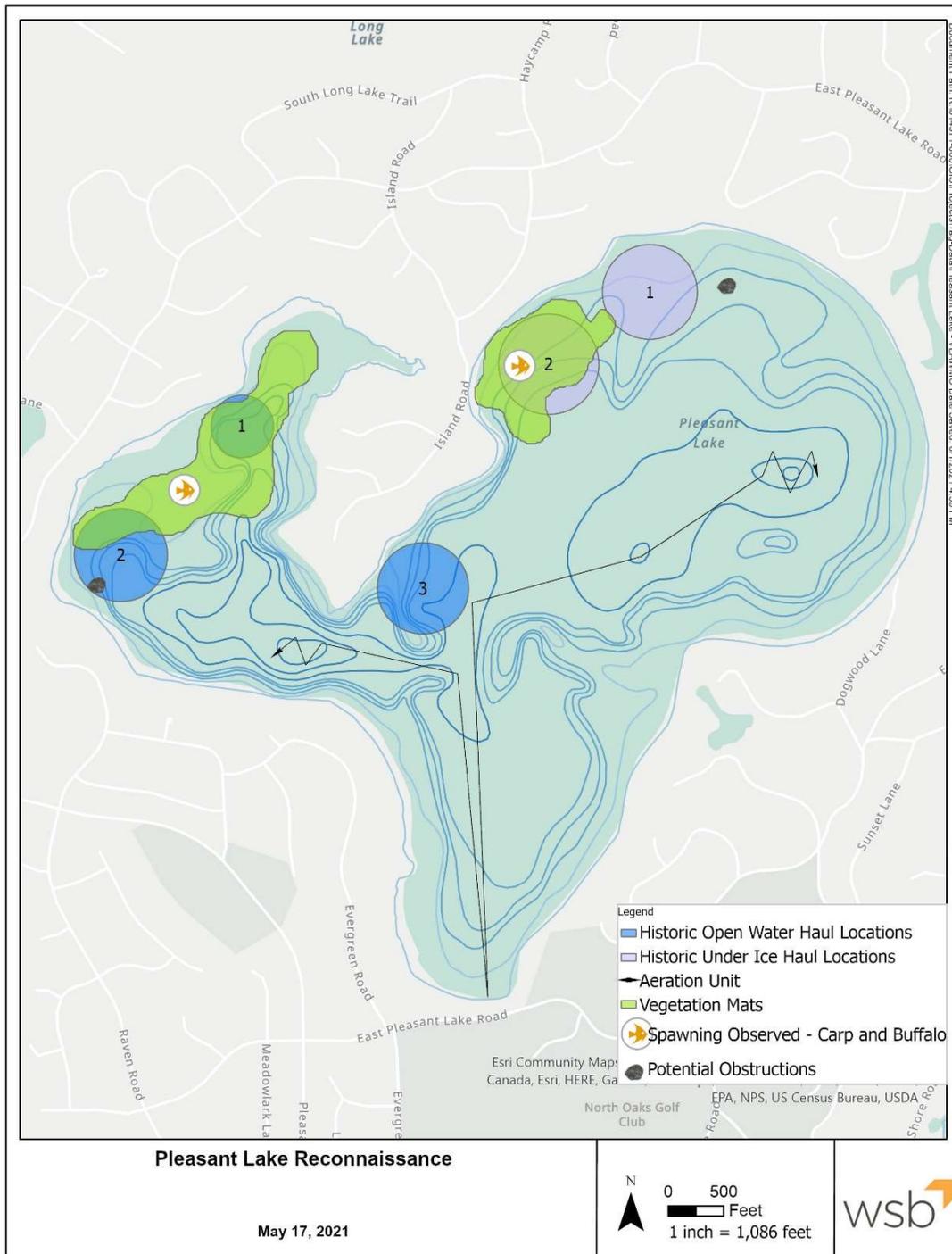


FIGURE 2 Potential obstructions including dense vegetation, rocks, and oxygen infusion system.

Results

The results of the survey indicate that seining is feasible in Pleasant Lake as long as precautions are taken to avoid rocks and the aeration unit that are present in the lake as well as avoiding thick vegetation mats. A study of the bathymetry in areas that are to be seined when and if fish are determined to be aggregating will be an important pre-planning activity.

Aquatic vegetation density is cyclic in most systems. In Pleasant Lake it is possible that early season open water attempts or under ice attempts may be unlikely due to the dense growth of CLPW. This plant species is not expected to hinder attempts in open water that are made in late summer into fall. However, vegetation surveys indicate that coontail, stringy pond weed, and to some extent Eurasian water milfoil may prohibit successful seine events in the interim time period.

It is recommended that VLAWMO complete a mid to late fall vegetation bed mapping survey in the areas identified for both open water and under ice removal to document vegetation abundance and plan for either open water or under ice removal operations. Typically these areas could be treated using herbicide, but a planned study by the MDA in 2021 and 2022 will not allow herbicide application to occur. It is currently unknown to what extent curly leaf pond weed is present in late winter and under-ice. This should be monitored in the winter to spring of 2022 to help determine if seine netting at that time could be feasible in these areas.