

WATER MATTERS: Climate Change in Minnesota *(link)*; 6:15 PM

Peter Boulay – Current trends, regional flooding and future projects. How will this drive our planning and implementation?

BOARD OF DIRECTORS MEETING AGENDA

7:00 PM December 11, 2019

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

- I. **Call to Order**, Chair, Jim Lindner
- II. **Approval of Agenda**
- III. **Visitors and Presentations**
 - A. TEC Report and Financial – December – Paul Duxbury/Stephanie
 - B. Citizen Advisory Committee (CAC) Annual Summary – CAC Chair
 - C. Public visitors
- IV. **Consent Agenda** 
 - A. Approval of Minutes October 23, 2019
 - B. Project update reports
 - C. Lawns to Legumes Blue Thumb Announcement
- V. **Business**
 - A. Administration
 1. Goose Lake recommendation update – Stephanie 
 2. Approval of 2019 fund balance, Res. 08 - 2019 – Stephanie 
 3. Approval of Auditing proposal for 2019 & 2020 Audits - Stephanie 
 4. VLAWMO grant policy updates – Tyler & Nick 
 5. Health Saving Account policy change – Stephanie 
 6. Personnel committee update
 - B. Wetlands
 1. MCC grant proposal – Dawn 
 2. Survey work for 2020 from RCSWCD – Dawn/Stephanie 
 - C. Education and Outreach
 1. 2020 Education and Outreach Plan, 2019 Summary
 - D. Projects
 1. Birch Lake – 4th & Otter: authorization for 2nd round of bidding – Tyler 
- VI. **Discussion**
- VII. **Administration Communication** –Water Matters - February
- XI. **Adjourn**

Next regular meeting: February 26th 2020

December-19		Actual 12/1/19	Actual to Date	2019 Budget	2018 carry over/Grants	Remaining in Budget	2019 Available	Act vs. Budget
BUDGET #	INCOME							
5.11	Storm Water Utility	\$373,266	\$815,565	\$836,150	\$0	\$20,585	\$836,150	98%
5.12	Service Fees	\$0	\$700	\$200	\$0	(\$500)	\$200	350%
5.13	Interest	\$700	\$11,603	\$1,300	\$0	(\$10,303)	\$1,300	893%
5.14	Misc. income - WCA admin	\$210	\$4,012	\$5,000	\$0	\$988	\$5,000	80%
5.15	Other Income Grants	\$12,753	\$38,769	\$20,000	\$0	(\$18,769)	\$0	
5.16	Transfer from reserves	\$0	\$0	\$0	\$0	\$0	\$0	
	TOTAL	\$386,929	\$870,649	\$862,650	\$0	(\$7,999)	\$842,650	101%
	EXPENSES							
3.1	Operations & Administration							
3.110	Office - rent, copies, post t	\$1,933	\$23,905	\$23,700	\$0	(\$205)	\$23,700	101%
3.120	Information Systems	\$2,309	\$15,985	\$22,000	\$2,500	\$8,515	\$24,500	65%
3.130	Insurance	\$184	\$7,628	\$5,200	\$400	(\$2,028)	\$5,600	136%
3.141	Consulting - Audit	\$0	\$6,450	\$6,400	\$0	(\$50)	\$6,400	101%
3.142	Consulting - Bookkeeping	\$0	\$563	\$2,000	\$0	\$1,437	\$2,000	28%
3.143	Consulting - Legal	\$458	\$2,985	\$4,000	\$3,000	\$4,015	\$7,000	43%
3.150	Storm Sewer Utility	\$1,225	\$6,195	\$13,500	\$2,000	\$9,306	\$15,500	40%
3.160	Training (staff/board)	\$150	\$2,271	\$4,500	\$1,000	\$3,229	\$5,500	41%
3.170	Misc. & mileage	\$253	\$5,640	\$5,500	\$1,000	\$860	\$6,500	87%
3.191	Administration - staff	\$37,495	\$293,339	\$340,260	\$30,000	\$76,921	\$370,260	79%
3.192	Employer Liability	\$8,172	\$78,805	\$88,810	\$2,500	\$12,506	\$91,310	86%
3.2	Monitoring and Studies							
3.210	Lake and Creek lab analys	\$0	\$12,965	\$24,000	\$0	\$11,035	\$24,000	54%
3.220	Equipment	\$0	\$9,351	\$2,000	\$9,200	\$1,849	\$11,200	83%
3.3	Education and Outreach							
3.310	Public Education	\$2,118	\$10,092	\$7,200	\$1,500	(\$1,392)	\$8,700	116%
3.320	Marketing	\$1,000	\$9,643	\$7,500	\$2,000	(\$143)	\$9,500	102%
3.330	Community Blue Ed Grant	\$0	\$7,783	\$10,000	\$4,300	\$6,517	\$14,300	54%
	<i>Total Core functions: Ops, Monitoring, Educ</i>	<i>\$55,297</i>	<i>\$493,599</i>	<i>\$566,570</i>	<i>\$59,400</i>	<i>\$132,371</i>	<i>\$625,970</i>	<i>79%</i>
	Capital Improvement Projects and Programs							
3.4	Subwatershed Activity							
3.410	Gem Lake	\$0	\$0	\$1,200	\$0	\$1,200	\$1,200	
3.420	Lambert Creek	\$5,315	\$31,725	\$45,000	\$50,000	\$63,275	\$95,000	33%
3.425	Goose Lake	\$16,504	\$33,380	\$67,000	\$113,696	\$147,316	\$180,696	18%
3.430	Birch Lake	\$0	\$39,856	\$10,000	\$67,423	\$37,567	\$77,423	51%
3.440	Gilf Black Tam Wilk Amelia	\$0	\$0	\$54,000	\$0	\$54,000	\$54,000	0%
3.450	Pleasant Charley Deep	\$0	\$10,942	\$15,000	\$5,000	\$9,058	\$20,000	55%
3.460	Sucker Vadnais	\$0	(\$5,676)	\$2,000	\$64,900	\$72,576	\$66,900	-8%
3.48	Programs							
3.481	Landscape 1	\$2,805	\$7,240	\$24,000	\$0	\$16,760	\$24,000	30%
3.482	Landscape 2	\$0	\$10,139	\$20,000	\$1,500	\$11,361	\$21,500	47%
3.483	Project Research & feasibi	\$0	\$28,532	\$14,000	\$30,000	\$15,468	\$44,000	65%
3.470	Facilities Maintenance	\$0	\$2,613	\$5,000	\$27,172	\$29,559	\$32,172	8%
3.5	Regulatory							
3.510	Engineer Plan review	\$0	\$0	\$2,000	\$0	\$2,000	\$2,000	0%
	<i>Total CIP & Program</i>	<i>\$24,624</i>	<i>\$158,751</i>	<i>\$259,200</i>	<i>\$359,691</i>	<i>\$460,140</i>	<i>\$618,891</i>	<i>26%</i>
	Total of Core & CIP	\$79,921	\$652,350	\$825,770	\$419,091	\$592,511	\$1,244,861	52%

Fund Balance	11/1/2019	12/1/2019
4M Account	\$227,460	\$126,595
4M Plus Savings	\$409,803	\$410,926
Total	\$637,263	\$537,521

Restricted funds	12/1/2019
Mitigation Savings	\$29,651
Term Series (3/28/19)	\$0

Vadnais Lake Area Water Management Organiz
Profit & Loss
November 9 through December 13, 2019

1:39 PM

12/03/2019

Cash Basis

Nov 9 - Dec 13, 19

Ordinary Income/Expense	
Income	
Mitigation Interest	1.46
Reimbursed Expenses	209.88
5.1 · Income	
5.11 · Storm Water Utility	373,265.69
5.13 · Interest	700.48
5.15 · Other Income Grants	12,752.70
Total 5.1 · Income	<u>386,718.87</u>
Total Income	<u>386,930.21</u>
Gross Profit	<u>386,930.21</u>
Expense	
3.1 · Administrative/Operations	
3.110 · Office	
Copies	62.41
Phone/Internet/Machine Overhead	275.00
Postage	15.70
Rent	1,540.00
Supplies	40.00
Total 3.110 · Office	<u>1,933.11</u>
3.120 · Information Systems	
IT Support	467.00
Software	1,296.00
Website & email hosting	546.00
Total 3.120 · Information Systems	<u>2,309.00</u>
3.130 · Insurance	184.00
3.143 · Legal	457.70
3.150 · Storm Sewer Utility	1,225.00
3.160 · Training (staff/board)	150.00
3.170 · Misc. & mileage	252.82
3.191 · Employee Payroll	
payroll	37,495.20
Total 3.191 · Employee Payroll	<u>37,495.20</u>
3.192 · Employer Liabilities	
Admin payroll processing	44.92
Administration FICA	2,807.84
Administration PERA	2,812.14
Insurance Benefit	2,272.48
3.192 · Employer Liabilities - Other	234.50
Total 3.192 · Employer Liabilities	<u>8,171.88</u>
Total 3.1 · Administrative/Operations	<u>52,178.71</u>
3.3 · Education and Outreach	
3.310 · Public Education	2,118.40

3.320 · Marketing	1,000.00
3.330 · Community Blue Education Grant	0.00
Total 3.3 · Education and Outreach	3,118.40
3.4 · Capital Imp. Projects/Programs	
3.420 · Lambert Creek Restoration	
Whitaker Wetlands	4,315.42
3.420 · Lambert Creek Restoration - Other	1,000.00
Total 3.420 · Lambert Creek Restoration	5,315.42
3.425 · Goose Lake	
WB Funding - Goose subshed	16,503.50
Total 3.425 · Goose Lake	16,503.50
Total 3.4 · Capital Imp. Projects/Programs	21,818.92
3.48 · Programs	
3.481 · Landscape 1 - cost-share	2,805.00
Total 3.48 · Programs	2,805.00
Total Expense	79,921.03
Net Ordinary Income	307,009.18
Net Income	307,009.18

Vadnais Lake Area Water Management Organization

1:37 PM

Check Detail

12/03/2019

November 9 through December 13, 2019

Type	Num	Date	Name	Item	Account	Paid Amount	Original Amount
Check	EFT	11/18/2019	Reliance Standard		Checking - 1987		-184.38
				Insurance Benefit		-184.38	184.38
TOTAL						<u>-184.38</u>	<u>184.38</u>
Check	4829	12/13/2019	Innovative Office Solutions		Checking - 1987		-40.00
				Supplies		-40.00	40.00
TOTAL						<u>-40.00</u>	<u>40.00</u>
Check	4830	12/13/2019	Kennedy & Graven, Chartered		Checking - 1987		-1,000.00
				3.420 · Lambert Creek Restoration		-1,000.00	1,000.00
TOTAL						<u>-1,000.00</u>	<u>1,000.00</u>
Check	4831	12/13/2019	City of Vadnais Heights		Checking - 1987		-1,893.11
				Rent		-1,540.00	1,540.00
				Phone/Internet/Machine Overhead		-200.00	200.00
				Phone/Internet/Machine Overhead		-75.00	75.00
				Postage		-15.70	15.70
				Copies		-62.41	62.41
TOTAL						<u>-1,893.11</u>	<u>1,893.11</u>
Check	4832	12/13/2019	City of White Bear Lake		Checking - 1987		-45,248.20
				payroll		-37,495.20	37,495.20
				Administration FICA		-2,807.84	2,807.84
				Administration PERA		-2,812.14	2,812.14
				Insurance Benefit		-2,088.10	2,088.10
				Admin payroll processing		-44.92	44.92
TOTAL						<u>-45,248.20</u>	<u>45,248.20</u>
Check	4833	12/13/2019	Tyler J Thompson		Checking - 1987		-30.68
				3.170 · Misc. & mileage		-30.68	30.68
TOTAL						<u>-30.68</u>	<u>30.68</u>
Check	4834	12/13/2019	Dawn Tanner		Checking - 1987		-70.76
				3.170 · Misc. & mileage		-70.76	70.76
TOTAL						<u>-70.76</u>	<u>70.76</u>
Check	4835	12/13/2019	christopher Knopf		Checking - 1987		-756.68
				3.481 · Landscape 1 - cost-share		-756.68	756.68
TOTAL						<u>-756.68</u>	<u>756.68</u>
Check	4836	12/13/2019	Nicholas Voss		Checking - 1987		-234.47

	3.170 · Misc. & mileage	-151.38	151.38
	3.310 · Public Education	-34.01	34.01
	3.310 · Public Education	-49.08	49.08
TOTAL		<u>-234.47</u>	234.47
Check 4837 12/13/2019 Freshwater Society	Checking - 1987		-2,500.00
	3.310 · Public Education	-1,500.00	1,500.00
	3.320 · Marketing	-1,000.00	1,000.00
TOTAL		<u>-2,500.00</u>	2,500.00
Check 4838 12/13/2019 Vacker Inc.	Checking - 1987		-81.50
	3.310 · Public Education	-81.50	81.50
TOTAL		<u>-81.50</u>	81.50
Check 4839 12/13/2019 Stephanie Oliver McNamara	Checking - 1987		-234.50
	3.192 · Employer Liabilities	-234.50	234.50
TOTAL		<u>-234.50</u>	234.50
Check 4840 12/13/2019 Ann Karpenko	Checking - 1987		-2,000.00
	3.481 · Landscape 1 - cost-share	-2,000.00	2,000.00
TOTAL		<u>-2,000.00</u>	2,000.00
Check 4841 12/13/2019 BWSR	Checking - 1987		-100.00
	3.160 · Training (staff/board)	-100.00	100.00
TOTAL		<u>-100.00</u>	100.00
Check 4842 12/13/2019 Ehlers & Associates, Inc.	Checking - 1987		-1,225.00
	3.150 · Storm Sewer Utility	-1,225.00	1,225.00
TOTAL		<u>-1,225.00</u>	1,225.00
Check 4843 12/13/2019 Regents of the University of Minnesota	Checking - 1987		-4,315.42
	Whitaker Wetlands	-4,315.42	4,315.42
TOTAL		<u>-4,315.42</u>	4,315.42
Check 4844 12/13/2019 Barr Engineering Co	Checking - 1987		-16,503.50
	WB Funding - Goose subshed	-16,503.50	16,503.50
TOTAL		<u>-16,503.50</u>	16,503.50
Check 4845 12/13/2019 City Of Roseville	Checking - 1987		-1,763.00
	Software	-203.00	203.00
	Software	-1,093.00	1,093.00
	IT Support	-467.00	467.00
TOTAL		<u>-1,763.00</u>	1,763.00

	Check 4846 12/13/2019 Kennedy & Graven, Chartered	Checking - 1987		-457.70
		3.143 · Legal	-457.70	457.70
TOTAL			<u>-457.70</u>	<u>457.70</u>
	Check 4847 12/13/2019 Bullis Insurance Agency LLC	Checking - 1987		-184.00
		3.130 · Insurance	-184.00	184.00
TOTAL			<u>-184.00</u>	<u>184.00</u>
	Check 4848 12/13/2019 Rika Pennington	Checking - 1987		-48.32
		3.481 · Landscape 1 - cost-share	-48.32	48.32
TOTAL			<u>-48.32</u>	<u>48.32</u>
	Check 4849 12/13/2019 HDR Engineering, Inc.	Checking - 1987		-546.00
		Website & email hosting	-546.00	546.00
TOTAL			<u>-546.00</u>	<u>546.00</u>

Vadnais Lake Area Water Management Organization
Custom Transaction Detail Report
 November 1 through December 1, 2019

1:36 PM

12/03/2019

Accrual Basis

Type	Date	Num	Name	Memo	Account	Clr	Split	Amount	Balance
Nov 1 - Dec 1, 19									
Credit Card Charge	11/01/2019		fedex	swan poster	US Bank CC	√ 3.320	· Marketing	22.48	22.48
Credit Card Charge	11/01/2019		Prairie Restorations	seed for VH city hall burn	US Bank CC	√ 3.48	· Programs	383.00	405.48
Credit Card Charge	11/01/2019		Adobe "Creative Cloud		US Bank CC	√	Software	32.20	437.68
Credit Card Charge	11/02/2019		Google*SVCAPPS_VLAWM		US Bank CC	√	WEB	20.83	458.51
Credit Card Charge	11/08/2019		ATS	otter transmitter	US Bank CC	3.460	· Sucker Vadnais	1,419.00	1,877.51
Credit Card Charge	11/08/2019		Cub	TEC snacks	US Bank CC	3.170	· Misc. & mileage	18.48	1,895.99
Credit Card Charge	11/15/2019		Donatellis	volunteer celebration	US Bank CC	3.310	· Public Education	232.57	2,128.56
Transfer	11/20/2019			Funds Transfer	US Bank CC		Checking - 1987	-1,535.00	593.56
Credit Card Charge	11/25/2019		The Studio	lapel pins	US Bank CC	3.310	· Public Education	221.24	814.80
Credit Card Charge	11/25/2019		NAI	NAI-Nick writing interpretive captions	US Bank CC	3.160	· Training (staff/board)	50.00	864.80
								864.80	864.80
Nov 1 - Dec 1, 19									

TEC Report to the Board
December 2019

Programs & Projects	Effort Level	Completion Date	Comments
	LOW		
	MED		
	HIGH		
Projects			
Oak Knoll Pond		2019	Barr is awaiting approval of their workplan for spent lime application and monitoring, and asking for an extension on their grant. Spent lime treatment is likely to be delayed until spring 2020.
Goose Lk subshed project		2017-2020	Barr is finalizing the H&H and P8 modeling and whittling down the recommended BMP list from 12 possible projects.
Lambert Creek - Ditch 14, branches		2019	S.E.H. has started the design work. This includes replacement of the sheet pile in the pond and design of the meander and treatment cells. MPCA loan was approved.
Birch Lake		2017-20	Results of the first round of bidding were rejected and a new project schedule has been set, along with restoration efforts.
Wetland Assessment - Vadnais Sucker		2018-20	S.EH is meeting with staff to outline work plan for 2020 wetland assessment. Grant through Great River Greening for AIS removal and habitat restoration in select areas of Vadnais Sucker park is moving forward to LCCMR.
Whitaker Wetlands		2019	Monitoring & pathogen sampling is complete, working on reports
Programs			
Outreach		Oct-Dec	Annual Watershed Steward Award program in progress. New Community Blue funding policy and scoring sheet for applications. 2019 end-of-year survey live until Dec 17th, 30+ responses collected.
Education		Oct-Dec	2020 Education and Outreach Plan and 2019 education summary complete. Water Matters talk: MN Climate Change - December Board meeting @6:15 pm
Website		Oct-Dec	New school page updates in progress. Wildlife monitoring reports posted: Frog & Toad Survey, Remote Camera report
WAV		Oct-Dec	2019 Watershed Celebration event complete, Nov 14. 1 new formal WAV volunteer (non-master water steward). 2020 volunteer job descriptions posted.
Cost Share		ongoing	Carry over amounts to 2020 have been proposed, as well as LL1 Grant Policy changes. Grant applications for LL1 still possible yet this year.
GIS		ongoing	Draft Cost Share GIS prioritization, miscellaneous projects.
Monitoring		ongoing	Season has ended, working on reports/data analysis
WCA		ongoing	Seasonended, working on year end summary

TEC Report to the Board
December 2019

Administration & Operation			
SLMPs		2019	All SLMPs for 2019 are complete. Starting preliminary work on 2020
Budget		June 2019	Finalizing 2019 Carry-over fund balance recommendations for Board
Administration		Sept. 2018	VLAWMO has received a claim against our insurance from a resident on Twin Lake. All local agencies involved. More later. Policy adjustments to the cost-share and community blue grant program being considered.
SSU		ongoing	The SSU certification to the counties will be done by mid November.
Water Plan		ongoing	The Water Plan Amendment was adopted by the Board. The last two Local Water Plans from North Oaks and White Bear Lake are remaining for approval Comments on NO submitted.

FINANCIAL SUMMARY as of 12/1/2019			CD's	4M Term Series	
				Maturity	Rate
4M Account (1.10)	4M Plus (1.23)	Total	Term series		
\$175,758	\$410,409	\$586,167			

Budget Summary	Actual Expense YTD	2019 Budget amended	Remaining in Budget	% YTD
Operations	\$438,110	\$625,970	\$187,860	70%
CIP	\$146,585	\$618,891	\$472,306	24%
Total	\$584,695	\$1,244,861	\$660,166	47%



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

To: Board of Directors
From: Nick Voss, EOC
Date: December 2019
Re: III. B. Citizen Advisory Committee

The Citizen Advisory Committee (CAC) is a branch of the Watershed Action Volunteers. It's composed of resident volunteers who advise VLAWMO's education outreach, assist in community networking, and the planning of project. Watershed Districts and WMO's commonly have citizen advisory groups such as this, functioning as a link between the citizenry and VLAWMO key personnel (TEC, BOD, staff). Two CAC meetings occur annually. At each meeting CAC members review and comment on VLAWMO activities as they see fit. They also utilize their local neighborhood knowledge to help VLAWMO be aware of the issues and interests present in the community. The CAC is also a resource that the BOD may utilize for specific questions or feedback depending on VLAWMO's needs.

Contained in the BOD packet is the 2019 CAC summary, established at the November 6th CAC meeting at the Vadnais Heights Community Commons. The CAC chair will present this summary for a brief introduction to make acquaintance and for VLAWMO to increase familiarity with our volunteer community. Please reach out to Nick at nick.voss@vlawmo.org for questions or clarification.

Citizen Advisory Committee (CAC)

Meeting Minutes: November 6th, 2019

6:30-7:45 pm - Vadnais Heights Community Commons

Members in attendance: Ceci Shapland, Ed Shapland, Tom Falk

1. VLAWMO Organizational comments:

Members express a general support for lowering West Vadnais Lake level. Optimism about mitigating flooding regarding nearby Twin Lake, which has had some residents sandbagging their backyards.

Members discussed recent meetings and events concerning Goose Lake, and expressed an encouragement to seek science-based solutions and policies on this and future lake management decisions. Members express support for VLAWMO to establish clarity regarding newspaper articles and the greater public discussion.

Members commented that VLAWMO has had good news coverage this year.

Members express support for the upcoming Lambert Lake re-meander project and the Sucker Wetland assessment and potential restoration. Congratulations and excitement for Priority Watershed Status. Encouragement to address the sources of sedimentation and nutrients, upland restorations, etc.

Members expressed interest and support for Community Blue's Growing Green Hearts program, commenting that it's an excellent hands-on community engagement strategy.

Members noted that stormdrain clean-up and stormdrain stenciling activities are common in other watershed organizations. Expression of support and awareness for these activities in VLAWMO.

2. Comment and critique on VLAWMO 2019 education materials:

No comment on education materials.

3. Discussion and design of 2020 volunteer positions:

The 'Welcome to the neighborhood' position was re-designed to include a residential welcome letter rather than a VLAWMO staff-written letter. When a new property is sold within the Watershed, VLAWMO is able to send a welcome information packet with cost-share and other local water info. The volunteer in this position will focus on either their immediate neighborhood, or the entire watershed, depending on interest. Their letter would include a picture and a welcome note from them as well as other describing community cost-share projects, and would convey why they got involved with VLAWMO and what their experience was.

Ceci expressed interest in assisting 'Welcome to the Neighborhood' for her immediate area.

Ed expressed interest in serving as cost-share photographer.

Tom expressed interest in continuing advisory role and applying carpentry skills on an as-needed basis.

General discussion took place concerning a possible water-friendly carwash kit and other prospective volunteer positions. Members expressed support and approval to begin outreach to the public to seek volunteers.

All members expressed interest in assisting with scoring incoming Community Blue applications using the new scoring chart established at the November 5th, 2019 Policy and Personnel meeting.



MINUTES OF THE BOARD OF DIRECTORS
 October 23, 2019

Attendance		Present	Absent
Jim Lindner, Chair	City of Gem Lake	X	
Dan Jones	City of White Bear Lake	X	
Rob Rafferty, Secretary-Treasurer	City of Lino Lakes		X
Ed Prudhon	White Bear Township	X	
Marty Long, Vice Chair	City of North Oaks	X	
Patricia Youker	City of Vadnais Heights	X	
Stephanie McNamara	Administrator	X	
Brian Corcoran	Water Resources Mgr.	X	
Dawn Tanner	Program Development Coord.	X	
Nick Voss	Education & Outreach Coord.	X	
Tyler Thompson	GIS Watershed Tech.	X	

Others in attendance: Paul Duxbury (VLAWMO TEC commissioner & rep.); Kurt Carpenter, WBL resident

I. Call to Order

The meeting was called to order at 7:01 pm by Chair Lindner.

II. Approval of Agenda

The agenda for the meeting was presented with no changes proposed.

A motion was made by Prudhon and seconded by Jones to approve the meeting agenda as presented. Vote: all aye. Motion passed.

III. Visitors and Presentations

A. October TEC Report to the Board and October 2019 Finance Report,

Duxbury presented the TEC's operations and recommendations to the Board. There were 3 recommendations for approval the TEC moved at their October meeting: the Otter Project equipment funding, selection of SEH for the Vadnais-Sucker RFP, and to submit for the CWP restoration grant for 4th & Otter. McNamara presented the October Finance Report.

IV. Consent Agenda

A. Approval of Minutes

The minutes from the August 28th, 2019 Board meeting are placed on the consent agenda for approval, as presented.

B. Project update reports

Staff has completed a list updates to report on projects and programs not up for discussion on the Board meeting agenda. These updates were included in the October Board packet and may be discussed if any Directors would so choose.

Discussion: none.

A motion was made by Long and seconded by Youker to approve the October 23, 2019 meeting consent agenda, including the August 28, 2019 Board meeting minutes, as presented, and staff project update reports. Vote: all aye. Motion passed.

V. **Business**

A. **Administration**

1. EAW: Public Hearing and determination consideration, Res. 05-2019

McNamara presented that agency comments have been received and responded to by Barr Engineering, Ramsey Washington Metro Watershed District's engineer regarding the proposed West Vadnais Lake Outlet Project. A Summary of Comments & Responses and Findings of Fact have been supplied to the VLAWMO Board of Directors for their review, discussion, and consideration of Resolution 05-2019. The Board was asked to consider Resolution 05-2019, EAW comments and responses, along with findings of fact to be a sufficient environment review, and whether the record of decision be a either a negative or positive determination for further review via an Environmental Impact Statement. McNamara noted 2 later comments: The Office of the State Archaeologist realizes the area of work has already been disturbed on several occasions, but for the contractor to be vigilant and wary of any possible artifacts that may be uncovered. Also, the Vadnais Heights City Engineer provided comments questioning whether further modeling may be necessary to ensure the project will be effective, once installed. McNamara noted that Barr Engineering has responded to these comments.

At 7:11 pm Chair Lindner officially opened the Public Hearing for the EAW regarding the West Vadnais Lake outlet elevation change. There was no comment. The Chair officially closed the public hearing at 7:12 pm.

Discussion: Youker stated the City's concerns of drawing down of West Vadnais Lake and questions what other efforts are being performed upstream outside of the Watershed, as well as what is included in terms of a partnership. McNamara outlined physical processes such as berming and pumping, but also that watersheds work together to solve common issues. McNamara will forward further EAW responses and explanations.

A motion was made by Prudhon and seconded by Jones for approval of Resolution 05-2019, resulting in a negative determination for further environmental review, and accepting the EAW and its appendices for the lowering of the West Vadnais Lake outlet and OHW. Vote: all aye. Motion passed.

2. Approval of storm sewer utility certification lists for 2020, Res. 06-2019

McNamara presented that the parcel lists that are generated annually as a combination of staff and consultant work to determine the list of non-exempt parcels within VLAWMO's boundary for payment and funding in 2020 have been prepared and are ready for certification.

Discussion: Long questioned why golf course SSU fees are so large, and asked for further explanation for 2021 fees. McNamara and Lindner responded that each land use type has a specific calculation formula, but more in-depth explanation can be had.

A motion was made by Long and seconded by Jones for approval of Resolution 06-2019, certifying the storm sewer utility parcel lists in Ramsey and Anoka Counties for VLAWMO's 2020 storm sewer utility fees. Vote: all aye. Motion passed.

3. MPCA/Minnesota CWP Revenue Bond, Res. 07-2019

Tanner reported that the final step in release of CWP loan funding is for VLAWMO to authorize sending the Revenue Bond Note to the MPCA. After further analysis and engineering, SEH has determined that the estimate of sheetpile replacement will be above previous estimated costs. Staff has discussed this with the MPCA and an amendment to the loan amount will likely begin in spring 2020 after a bidder has been selected for

construction. **Staff recommends the Board authorize submittal of the Revenue Bond Note to the MPCA.**

Discussion: None.

A motion was made by Prudhon and seconded by Youker for authorization to submit the CWP Revenue Bond Note to the MPCA for allowance of fund distribution. Vote: all aye. Motion passed.

B. Goose Lake

1. Board review and recommendation regarding alum treatment and boating restrictions

VLAWMO staff was present for the October 8th White Bear Lake City Council meeting where formal boating restrictions on East Goose Lake were first presented for discussion. Staff was also present at the October 22nd Council Meeting where a short presentation was given and a drafted boating restriction ordinance was brought and discussed for adoption.

Discussion: Jones gave an overview of the proceedings of the October 22nd White Bear Lake City Council meeting, regarding the presentation and discussion of potential boating restrictions on East Goose Lake. Jones discussed that general sentiment regarding an ordinance was not favored by Council members, and further discussion or motion was tabled for a January meeting. McNamara questioned if there was direction that the Board would give staff until the awarding of the grant is announced in January. Prudhon and Long discussed that the Board already gave VLAWMO's recommendation to the City at the August meeting, so any action or decision is now the responsibility of the City. Lindner and Jones discussed that an alum treatment is still the best economical option for nutrient reduction in East Goose Lake, and VLAWMO should still be involved. The directors agreed that staff has provided more than a sufficient amount of information to the City for their consideration, and should not be hindered by further efforts at this time. Tanner mentioned that several misleading and misinformed discussion points were made at the Council meeting and a list of responses has been composed. Tanner asked the Board to consider if these responses should be sent to Council members and the Mayor. The Board agreed these clarifying points would be beneficial for distribution (Attachment 1 to minutes).

A motion was made by Prudhon and seconded by Long for staff to distribute a list of clarifying points regarding East Goose Lake at the October 22nd White Bear Lake City Council meeting to City Council members and the Mayor. The letter would also be attached to these minutes for the record. Vote: all aye. Motion passed.

C. Wetlands

1. Vadnais-Sucker Park RFP

Corcoran presented that Request for Proposals (RFP) for the Vadnais/Sucker subwatershed, Phase I wetland assessment were sent to 7 consulting/delineation firms, of which, 4 firms submitted proposals and bid estimates. Proposals ranged from \$16,000 to \$74,950 to complete tasks outlined in the RFP. The lowest responsible bidder was S.E.H. and was recommended by staff to the TEC at their October meeting for recommendation to the Board to enter into contract with S.E.H. for the proposal. **The TEC accepted and, along with staff, is recommending to the Board the selection of the lowest responsible bidder, S.E.H., for entering into contract for the Phase I: Vadnais/Sucker Wetland Assessment, at the cost of \$16,000.**

Discussion: Lindner asked if any suggested price was solicited before the RFP was sent out. Corcoran addressed that no, there were none solicited before issuing the RFP. Youker asked about the extras column and that SEH had none listed and asked for clarification on this. Corcoran clarified that this was an area where firms may include optional extra items on top of required items included in the RFP.

A motion was made by Jones and seconded by Youker to accept the bid and enter into contract with S.E.H. at the cost of \$16,000 for the Phase I: Vadnais/Sucker Wetland Assessment. Vote: all aye. Motion passed.

2. Conservation Partners Legacy (CPL) Grant Proposal

Tanner presented that as part of the 4th & Otter Project, restoration of the area where the project is taking place, along with the adjacent parcel, newly-acquired by the City of White Bear Lake, will apply to the goals of the Clean Water Fund grant. The grant proposal is for replanting with a native shady woodland seed mix for a total of \$8,636. If awarded, there is a local match of 10%. The TEC recommended the application for submittal of the grant application at their October meeting. **Staff is seeking authorization from the Board to submit the CPL grant proposal for the total of \$8,636.**

A motion was made by Prudhon and seconded by Long to authorize staff to submit the application for the CPL grant proposal in the amount of \$8,636. Vote: all aye. Motion passed.

3. Otter Project Equipment Request

At the August 2019 meeting, the Board authorized entering and being a partner to an otter study within VLAWMO. Partners include the MN Zoo and departments from the University of MN. The MN Zoo proposal (\$5,000) is in to the Zoo Committee and includes vet time and time and equipment for disease and heavy metal sampling/analysis and tracker implementation, along with hiring of an animal trapper. The U of M will be conducting scat parasite load at the Vet Diagnostic Lab. The Fisheries, Wildlife, and Conservation club will be submitting a proposal during the spring 2020 semester to fund ~\$2,500 of related vet equipment. Tanner is proposing purchasing radio telemetry equipment to begin prepping for the 2020 project at a cost of \$1,815 for a receiver, 5 transmitters (2 initially and 3 later), and an antenna. This was brought to the TEC at their October meeting and approved for recommendation to the Board for funding authorization. **Staff and TEC recommends purchasing telemetry equipment and testing over the winter. Staff proposes an expense of \$1239 now, and the remaining \$576 if and when additional transmitters are needed (fall 2021 would be the earliest additional transmitters might be needed).**

Discussion: Long commented he liked this and questioned how this benefits the Watershed and accomplishes its goals towards water quality. Tanner responded that the project studies animals that are indicator species of water quality and monitors pollutants such as heavy metals. Jones commented that the project also provides public relations benefits.

A motion was made by Long and seconded by Prudhon to authorize funding in the amount of \$1,815 for the purchase of telemetry equipment for testing and implementation in the Otter Project. Vote: all aye. Motion passed.

VIII. Discussion

Jones posited a discussion about the possibilities of offering either guidance or assistance to member municipalities in leveraging funding for offsetting the purchasing of new equipment that includes innovative salting technology.

IX. Administration Communication

1. MN Association of Watershed Districts (MAWD)

McNamara mentioned the annual meeting is coming up and asked if a Board member would be interested attending MAWD as a delegating member on December 6th.

2. Nov. 14th vlawmo celebration and end of year recap

3. North Oaks Local Water Management Plan (LWMP)

X. Adjourn

A motion was made by Youker and seconded by Prudhon to adjourn at 8:03 pm. Vote: all aye. Motion passed.

Minutes compiled and submitted by Tyler Thompson.

**Attachment 1: Follow-up Notes to October 10, 2019 White
Bear Lake City Council Meeting**

DRAFT

October 23, 2019

City of White Bear Lake
Mayor and Councilmembers

From VLAWMO Staff and VLAWMO Board of Directors:

VLAWMO would like to respond to statements made during the Council meeting on October 23, 2019, and clarify points that may not have been clear during the presentation.

- **Algae blooms: Status**

Algae blooms are occurring continually on Goose Lake, starting in late spring through fall. VLAWMO has not received reports of dramatic blue-green blooms since 2013. However, Chlorophyll a levels on East Goose Lake show a lake that is dominated by algae. Algae has gotten worse since the TMDL (Total Maximum Daily Load) was published. At the time, there were still some plants present on East Goose Lake. Algae have completely shaded out plants so that the lake is now devoid of plants. This was documented in the plant survey this summer by the Ramsey County Soil and Water Conservation Division (RCSWCD). Algae in the lake include blue-green algae, also documented on the vegetation survey. Blue-green algae can produce toxins that are harmful to humans, pets, livestock, and wildlife.

Ongoing monitoring is not done for harmful algal blooms because the algae can be present and not produce toxins, and they can produce toxins when they are not especially thick nor apparent to observers of a lake. Harmful algal blooms are a health concern. A harmful algal bloom was documented on Pleasant Lake in the Vadnais Lake Area Watershed during summer 2019. A dog became sick, and the algae bloom was reported to the Minnesota Pollution Control Agency (MPCA). Both the MPCA and Minnesota Department of Health have increased efforts to document, alert, and educate about the threat of toxic algal blooms. The Centers for Disease Control has a short information page that cover the most important points. They recommend not going into water that looks like has abundant algae, “When in Doubt, Keep Out”:

<https://www.cdc.gov/habs/be-aware-habs.html>

- **The connection between TMDL load reductions and MS4 waste load allocations may have been unfamiliar to some councilmembers**

The VLAWMO TMDL (Total Maximum Daily Load) is a study completed in partnership with and approved by the MPCA and the EPA. It identifies how much improvement is needed for each impaired water and how that improvement effort will be divided among NPDES MS4 permit holders. The Implementation Plan further identified strategies to address the impaired waters. MS4 agencies are through their

NPDES permit with annual reporting through the SWPPPs. The City of White Bear Lake has an assigned phosphorus reduction of 64.7 lb/yr in East Goose Lake and 7.3 lb/yr in West Goose Lake. That is a total reduction of 72 lb/yr in the Goose Lake subwatershed.

If the City chooses to pursue the 3 next-best, non-alum treatment options to improve stormwater treatment in the subwatershed, that would come at a cost of \$500,000 and only provide a 60-pound reduction. That would not meet the required target.

If the City chooses to pursue an alum treatment on East Goose Lake, that would treat 800 lb/yr of phosphorus and allow the City to exceed the target by 728 lb/yr at a cost of \$170,000. Side note on the currently submitted grant proposal: VLAWMO increased the funds requested in the grant proposal to \$190,000 to allow for possible fish harvest and an increase in costs since the feasibility study was completed.

There is also an additional social cost of removing boat activity of 4 boats for 3 years. We recognize that the Council is weighing that. The removal of boating could likely be reduced to 2 full growing seasons (full season after a fall treatment + the summer after a follow-up spring treatment).

- **Half Moon Lake was presented as a case study of a similar lake that did not work**

The Barr report cited by residents regarding Half Moon Lake was from the 1990s. That lake has been under intense management efforts since that time with different goals. The alum treatment was effective, and the council, park board, and others passed an ordinance and did remove boats to protect the alum treatment. There was also considerable study done to directly measure the effects of boats at ski jump sites and at other sites around the lake prior to the decision to remove boats.

Half Moon continues to have high nutrient load from external sources. Stormwater practices around the lake have not been totally effective and feature a number of overloaded swales. Those swales are not doing the job of pre-treatment. Managers are also working to keep the lake below 30 µg/L, which is well below the shallow lake standard (60 µg/L). They are using a more frequent regimen for alum treatment to keep the lake below 30 µg/L.

There was a published recommendation for Half Moon Lake to continue to treat on a 3-5 year cycle. That was incorrectly understood by residents as pertaining to East Goose Lake, which it does not. VLAWMO has published papers and unpublished reports covering a wide span of time on Half Moon if councilmembers would like to review more about this lake.

- **How long will an alum treatment last on East Goose?**

The East Goose Lake alum treatment, calibrated to lake sediments, the specific P load in those sediments, and lake morphometry characteristics is projected to last 10-15 years using best practices of appropriate dosing and protecting the bottom from disturbance during the floc settling phase. Shallow

lakes analyzed in the literature including early treatments that did not perform well show have an average lifespan of 5.7 years. When lakes with improved conditions (best practices) are reviewed, they last an average of 15 years.

- **A councilmember asked if not treating East Goose would make the nutrient situation worse downstream. That was later interpreted to mean that there would be no downstream effects.**

Downstream effects are already apparent. There are high nutrient loads in Lambert Creek and associated wetlands. These areas are also the target of VLAWMO projects, including a remainder of the ditch at Lambert Lake to remove nutrients and bacteria. High nutrient loads flowing from East Goose Lake do affect waterbodies downstream. However, there is also filtration occurring along the way from East Goose Lake to East Vadnais Lake. We do not see high nutrient levels in East Vadnais. Low levels of toxins from upstream algae blooms are documented. They pose only a moderate threat. The water utility does not conduct additional treatment for algae because it is not needed at this time.

- **A persistent issue that has been mentioned and would likely remain an issue if the alum treatment were to go forward is the view of optimal lake condition. Would rooted emergent plants be acceptable in part or all of Goose Lake?**

Shallow lakes in our area have two alternate stable states: clear water with plants or murky water with algae. An alum treatment would make the water clear and allow plants to grow again. Residents on the lake view these as weeds and a nuisance in need of control. VLAWMO and other state agencies view them as the optimal, healthy condition, providing habitat for fish and other wildlife. Fish management without aquatic vegetation is not sustainable, as vegetation is a necessary component of healthy habitat. Aquatic vegetation also uptakes nutrients, decreasing algae and clarifying the water. If plants don't use the nutrients, algae will. Algae provide poor nutrition, and predator fish higher up the food chain often don't survive. East Goose Lake contains many stunted (food-limited) Black bullhead and sunfish.

From the TMDL: *The abundance and diversity of native aquatic plants drive the health of shallow lake ecosystems and are critical to keeping shallow lakes in a clear state. They provide spawning areas and cover for fish, habitat for macroinvertebrates, refuge for prey, and stabilization of sediments.*

VLAWMO would not seek to control native plant species on the lake. VLAWMO would make it priority to actively work to control invasive species that may become present in the lake once water-quality conditions improve and promote colonization of native species. Curly-leaf pondweed is an invasive species, often spread by boat activity, that is present on West Goose. There are examples of cost-share options in neighboring watersheds that support harvest of aquatic vegetation with appropriate permitting and at levels approved by the MN DNR. That could be a possibility for future management on East Goose Lake.

To: VLAWMO Board of Directors

From: Dawn Tanner

Date: December 11, 2019

Re: IV. B. Project Updates

- 1. Lambert Creek:** The grant contract is signed with MPCA. With that, both the loan and grant fund process is complete, and we are approved to move forward with our project. SEH and Joe Magner's lab have both been notified and have resumed their work.
- 2. Carp Project:** A write-up was submitted to the North Oaks News for the Jan. issue. It was reviewed by NOHOA and Carp Solutions.
- 3. East Goose Lake:** An article ran in the Star Tribune on Sunday, Nov. 24 (<http://www.startribune.com/temporary-east-goose-lake-boating-ban-advocated-by-water-management-scientists/565384782/>). The article presented a balanced view of both sides of the issue. It generated support for the project alum treatment and improving the lake. A small contingent of residents living on the lake have started to speak out in support of the project. The water skiers remain opposed, have sent letters to the editor, and continue to express opposition to the project.
- 4. Biological Surveys:** The final reports for the frog and toad surveys and remote-camera surveys are complete and available in the packet and on the VLAWMO website under monitoring. These reports are written to be fun to read and shared. During our 319 interview for priority watershed funding, MPCA asked if we were doing any surveys monitoring organisms in the watershed. We shared these project descriptions with MPCA at that time. We have also sent these reports to MPCA as examples of this kind of survey work in the watershed.
- 5. Cover It Up!** This is a new research project by researchers at UMN. Carol Gernes forwarded it to NOHOA, and NOHOA forwarded it to VLAWMO because their buckthorn removal is just getting started. This was a perfectly timed recommendation for us because the removal that we just finished this fall at City Hall exactly meets the specifications for the project. The project requires an area 30 ft x 40 ft that had buckthorn coverage in the past 1-2 years and has recently been cleared. We will set up 6 plots within that area according to specifications of the project. The goal of the project is to see if a native-species seed mix can outcompete buckthorn seedlings to help improve the success/reduce maintenance needs in new restoration areas. The project description is included in the packet.
- 6. The Conservation Partners Legacy (CPL) grant** was submitted in Nov. If funded, this grant would provide seed for the buckthorn removal site at 4th and Otter. Shady understory plants take time to establish (up to 3 years), and seed is expensive. The grant request was ~\$8,000. We partnered with Connie Taillon and Ellen Hiniker at the City of White Bear Lake on the proposal and will continue to partner on the site restoration to improve function of the enhanced-sand-iron filter.

VLAWMO Frog and toad surveys

Monitoring results from 2019

By: Dawn Tanner, PhD
Program Development Coordinator

During 2019, VLAWMO made it a priority to better understand our wetlands in a variety of ways. One way we did that was by conducting a frog and toad call survey. The survey is modeled after a long-running MN DNR sampling program, and follows the same protocol used for that program. A survey consists of 3 separate sampling sessions, or runs, of a predefined route.

Protocol:

A survey run begins at least 30 minutes after sunset. Runs are not conducted if wind speed is more than 8 mph. Warm, cloudy evenings with little or no wind and high humidity are ideal. A light rain is acceptable. Loud vehicle noise can obscure calls. Vehicles passing are noted. The observer listens for at least 5 minutes and counts all frog and toad calls heard. An index value is recorded for each species heard at each stop.

Call Index Values	
1	Individuals can be counted with space between calls
2	Individuals can be distinguished but there is some overlapping of calls
3	Calls are constant, continuous, and overlapping

Fourteen sampling locations were selected to encompass the range of wetland types found in the Vadnais Lake Area Watershed. They were not selected randomly. The sites were organized into 2 smaller routes (R1 = route 1 and R2 = route 2), each with 7 total sites. This was done so that monitoring could be split in the future if desired. Sites were numbered accordingly. For example: R1S1 through R1S7.

Locations included:

- remnant natural wetlands and created mitigation wetlands
- large wetland complexes and isolated pocket wetlands
- locations in 5 of our 6 communities
- areas designated primarily commercial, residential, and green space
- near the creek, large and small lakes, and nonimpaired and impaired lakes
- near major roads and small side roads

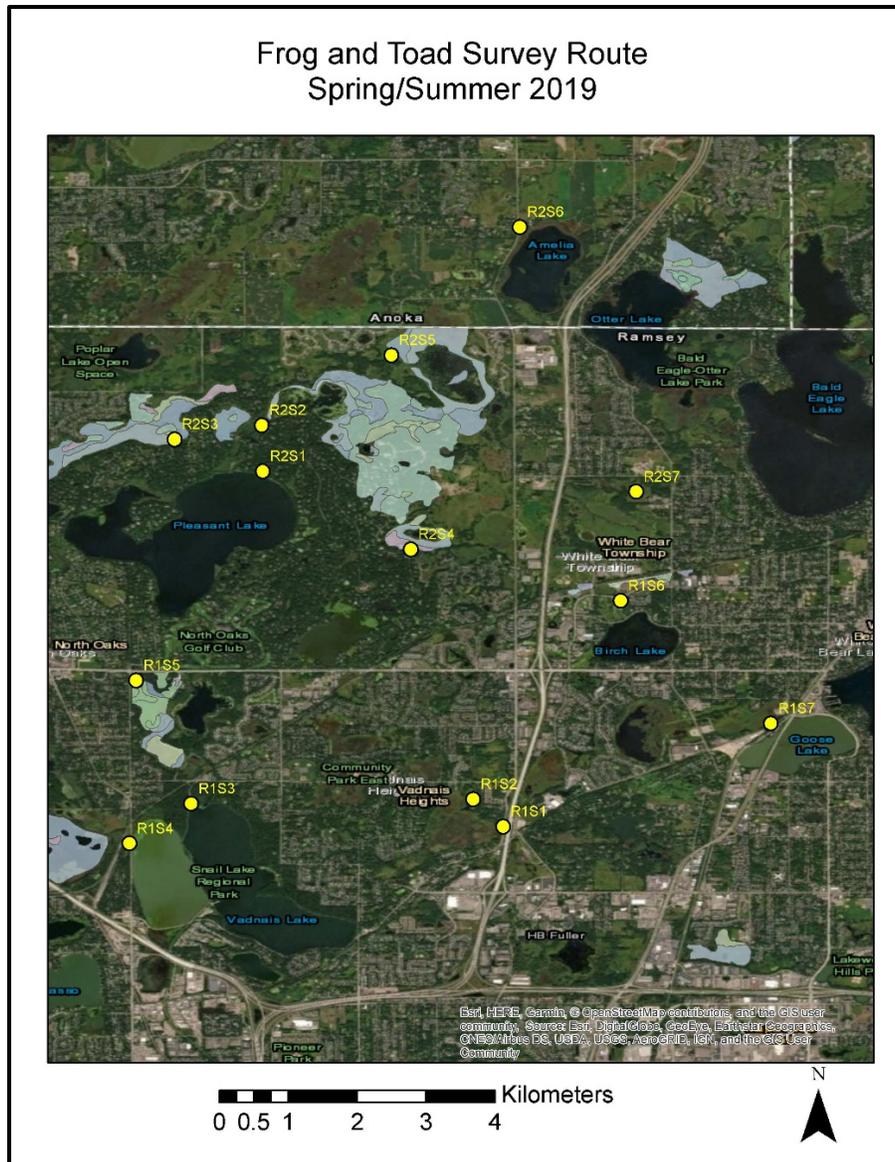


Figure 1: Frog and toad survey route for the Vadnais Lake Area Watershed during 2019.

Timing and behavioral role of calling

Sampling runs were done during predefined timeframes to fully encompass the breeding windows for all Minnesota species. **The first run takes place between April 15-30, the second is May 20-June 5, and the third is June 25-July 10.**

Why do frogs call? Male frogs do the calling. They call in large groups to reduce the risk of predation on any one individual. It's safer to call in groups, even though that means competing with other males for the attention of the females. Predation risk is also why the whole group will get quiet if you're trying to listen to calls and get too close. If an owl calls, this can silence the group too. A few bravest individuals will cautiously start calling again when they feel the potential danger has passed. They do their best to maximize the chance to breed while minimizing the chances of getting eaten.

Frogs and toads don't all call at the same time, nor all summer long. If they all called at the same time, it would be hard for individuals of the same species, especially quieter callers, to find each other. Instead, calling timeframes are staggered. Wood frogs are especially quiet and can be covered up by louder species, like Spring peepers. Wood frogs start calling as early as late March but continue into late April. Green frogs are a late caller. They start calling in early June and continue through late July. Frogs and toads don't call all summer long because young born late in the year would not have time to fully develop and successfully overwinter.

Minnesota species and predicted occupancy

Fourteen frog and toad species are documented in Minnesota. Of those 14 species, 1, the Bullfrog, is undesirable. Bullfrogs have been documented in the southeast corner of the Twin Cities metro area. Bullfrogs are native to the United States but are naturally found farther south and only at the very southern tip of Minnesota. They were often transported to new locations and released. Outside of their native range, they are regarded as a pest and often displace other frog and toad species.

Based on range maps, we identified 10 frog and toad species that might be found in the watershed. That group included the Bullfrog, which was not detected. We identified 9 native species that appeared to be possible; we detected 8 species. The remaining species that was not heard was the Mink frog. Mink frogs are reported in Anoka County. They have not been reported as far south as Amelia Lake. We will continue to listen for this species and would report a possible range expansion if it occurs in the future.

Species detected on 2019 survey (in order of seasonal calling):

1. Wood frog
 2. Boreal chorus frog
 3. Spring peeper
 4. Northern leopard frog
 5. American toad
 6. Gray treefrog
 7. Cope's gray treefrog
 8. Green frog
- Not detected but identified as possible: Bullfrog and Mink frog

Figure 2: Frog and toad species detected during 2019 survey

<p>Wood frog <i>Lithobates sylvaticus</i></p> 	<p>Boreal chorus frog <i>Pseudacris maculata</i></p> 	<p>Spring peeper <i>Pseudacris crucifer</i></p> 
<p>Northern leopard frog <i>Lithobates pipiens</i></p> 	<p>American toad <i>Anaxyrus americanus</i></p> 	<p>Gray treefrog <i>Hyla versicolor</i></p> 
<p>Cope's gray treefrog <i>Hyla chrysoscelis</i></p> <p>(indistinguishable from Gray treefrogs by sight; only detectable by call)</p>	<p>Green frog <i>Lithobates clamitans</i></p> 	

Synopsis of each run

The first run was completed on April 23. Four species were detected: Wood frogs, Spring peepers, Boreal chorus frogs, and Northern leopard frogs. Air temperature: 54°F.

We noticed, anecdotally at this point, that often the large wetlands with dense Phragmites (Common reed) and cattail did not have very many frogs calling. Smaller, ephemeral, and some mitigation wetlands were filled were quite loud, which may be telling us important information about specific wetlands in our watershed and their importance to amphibians.

Spring peepers are thought to be declining in the metro area because of a loss of wooded wetlands. We heard Spring peepers at 64% of our stops, but the chorus wasn't complete and often was composed of only a few individuals.

Vadnais-Sucker Lakes Regional Park is an excellent place to hear frogs and toads. All 4 species were present at the parking lot at the north shore of East Vadnais Lake.

The second run was completed on May 29. Five species were detected (for a total of 7 species detected): Spring peepers, Boreal chorus frogs, Gray treefrogs, Cope's gray treefrogs, and American toads. Air temperature: 65°F.

As expected, Wood frogs and Northern leopard frogs were done calling. Spring peepers were still calling in a few locations. Boreal chorus frogs were no longer dominating the chorus, but they were still a noticeable presence. New frogs and toads detected included: American toads, Gray treefrogs, and Cope's gray treefrogs, for a running total of 7 species for the watershed so far.

The record-setter location was Long Marsh in North Oaks, which had 5 species calling: Spring peepers, American toads, Gray and Cope's gray treefrogs, and Boreal chorus frogs. There was still a full chorus of Spring peepers calling at this location.

Gray treefrogs largely dominated the chorus at all locations. They are distinguished from Cope's gray treefrogs by their call or by their DNA--call is much easier and faster. There is no way to tell these species apart by sight. In a loud constant chorus of Gray treefrogs, it can be difficult to distinguish the Cope's lower-pitched and faster trill. This is one reason the strength of the chorus is included in data collection. If there is a loud chorus of Spring peepers or Gray treefrogs, it may not mean that quieter species were absent but rather that they were covered up by other calls. Coloration on Gray and Cope's gray treefrogs can change rapidly as they camouflage with their environment. These treefrogs can range from creamy white, to gray, to bright green.

Figure 3: Gray treefrogs show a wide range in possible coloration and can change their color rapidly.



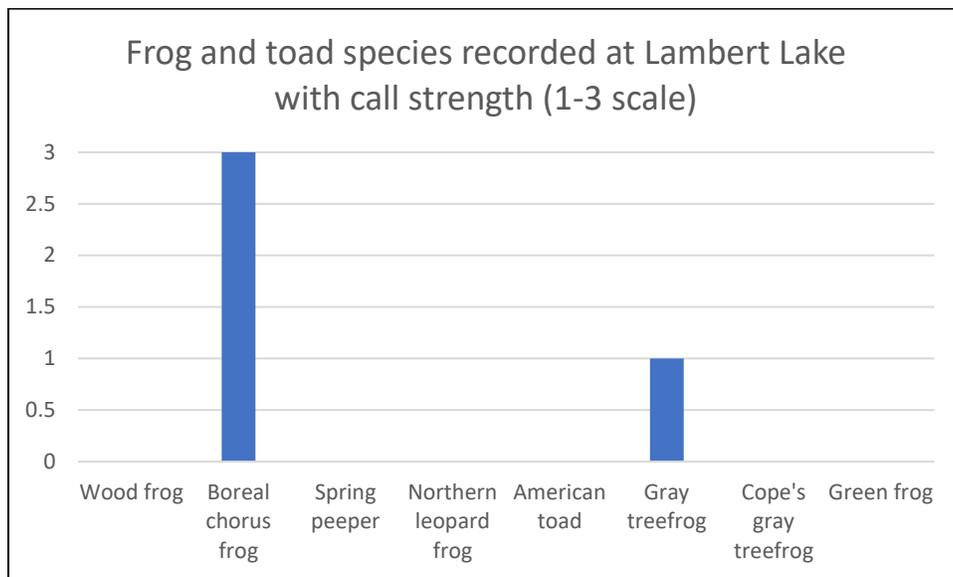
The third run was completed on July 1. Five species were detected: Boreal chorus frogs, Gray treefrogs, Cope's gray treefrogs, American toads, and Green frogs. Spring peepers were no longer calling. Green frogs were newly detected during this run (for a total of 8 species detected). Air temperature: 70°F.

The most species heard at a single location on this run was at Amelia Lake. Four species were recorded: Boreal chorus frogs, Gray treefrogs, Cope's gray treefrogs, and American toads. Green frogs were recorded at 6 locations.

Results by sampling location with short site descriptions

Route #1

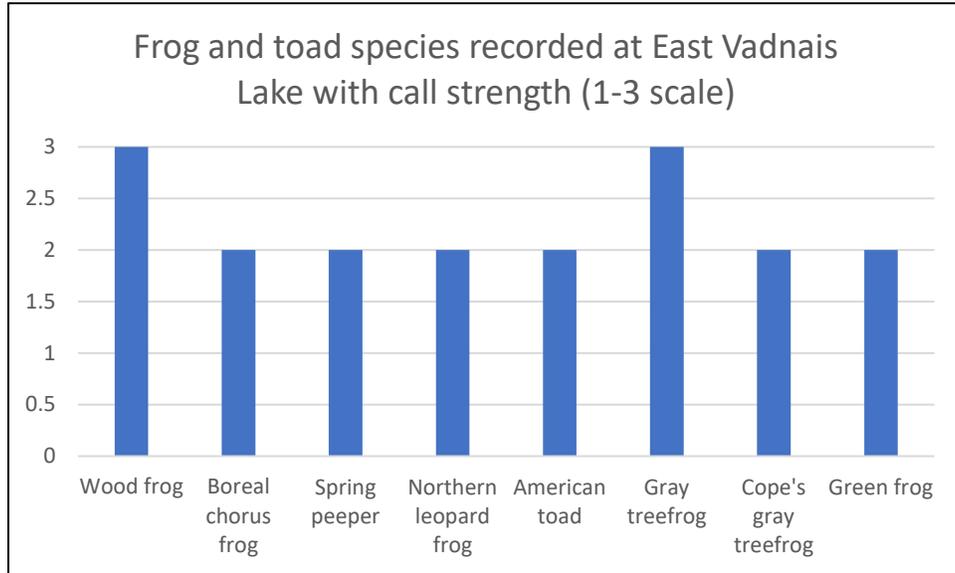
R1S1: Vadnais Heights: On the east side of Lambert Lake. This location is accessible from Centerville Road. There is a small pull-off and meadow to the east of Centerville Road. This is a large, intact wetland with limited diversity (e.g., high cattail and native Phragmites). Only Boreal Chorus frogs and Gray treefrogs were detected at this site.



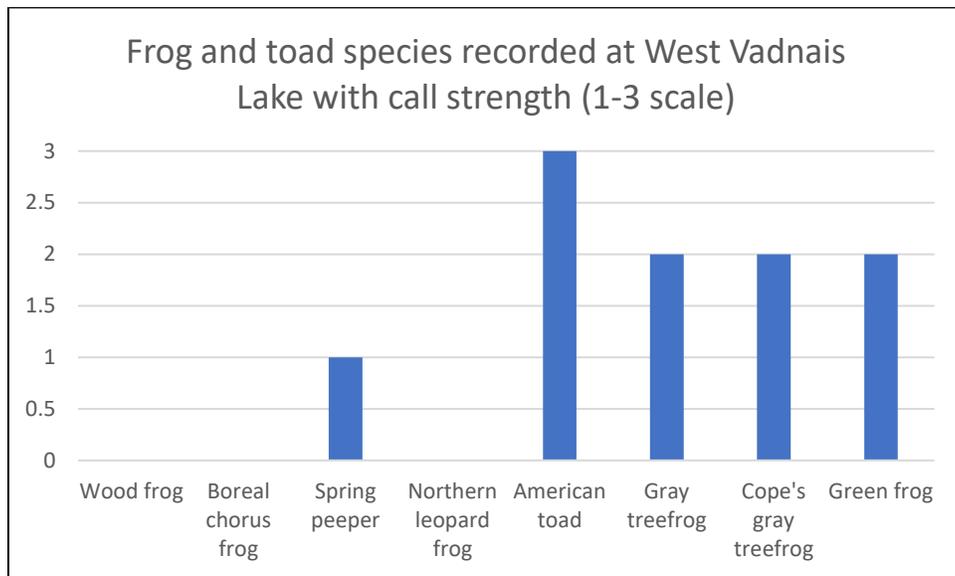
R1S2: Vadnais Heights: This is along the road next to the retention pond and site of future meander construction. There is a small wooded wetland that was built as a mitigation wetland. Higher diversity was heard here than the larger wetland area that is connected within the area. Wood frogs, Boreal chorus frogs, Gray treefrogs, and American toads were heard at this site.

***R1S3: Vadnais Heights:** The north shore of East Vadnais Lake. This area has multiple wetlands. The lake area itself did not have calling frogs and toads. A small wetland on the north end of the lake, next to the parking area and a wooded wetland on the north side of the parking lot both had a lot of species calling. All 8 species were heard at this site. Based on frog and toad diversity, this protected area provides habitat for all species detected as part of this survey. It provides information that may help with

restoration and as baseline information for other wetlands in the watershed. The graph below shows the species detected and maximum call intensity if a species was detected on more than 1 run.



R1S4: Vadnais Heights: The northwest shore of West Vadnais Lake. There is a small wetland on the north end of the lake near the railroad tracks that had a weak Spring peeper chorus. There is also a fairly low plant diversity wetland on the west shore of the lake that supported Green frogs late in the season. Although this area is spatially near and appears connected, frog and toad diversity was lower than the location on East Vadnais Lake. Five species were detected here. A graph of this site is shown for comparison.



***R1S5: Vadnais Heights:** Sucker wetlands. There are various wetlands at this site, both near the lake and

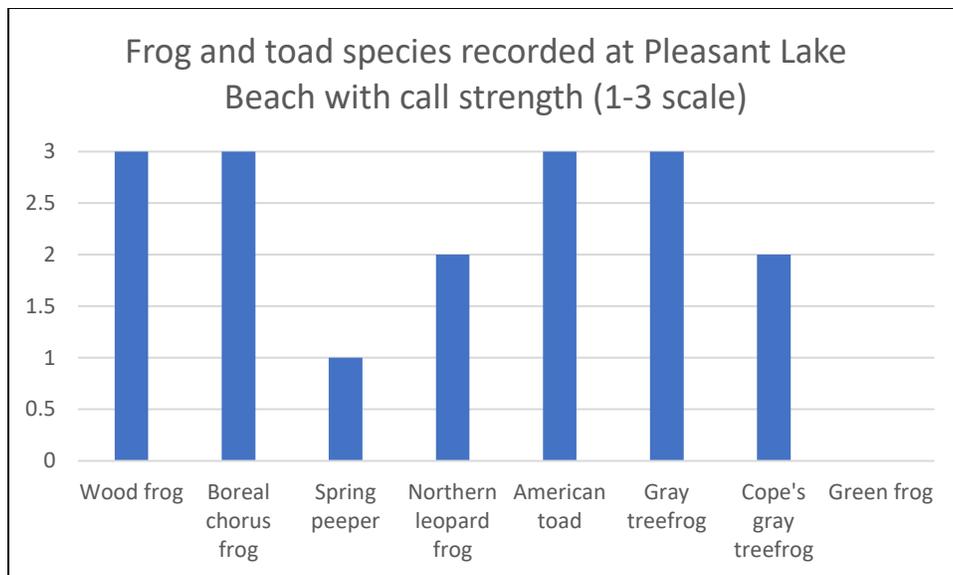
along the park road to the main parking lot. Wood frogs, Spring peepers, Boreal chorus frogs, Gray treefrogs, American toads, and Green frogs were all recorded with strong choruses at this location.

***R1S6: White Bear Lake:** Birch Rotary Nature Preserve. This site supports strong populations and choruses of frogs and toads. Frogs and toads were often calling during the day during pilot trips and visits to the sites for other monitoring reasons. Six species were detected here. Only Northern leopard frogs and Spring peepers were not detected here.

R1S7: White Bear: Goose Lake/Sobota Slough. Boreal chorus frogs, American toads, and Gray treefrogs were detected at this site.

Route #2: North Oaks sites had a high diversity of frog and toad species present. Loud choruses were also heard throughout North Oaks, as observers traveled among sampling locations. Choruses were heard along roads, from numerous wetlands adjacent to these roadways.

***R2S1: North Oaks:** Pleasant Lake Beach. A small wooded wetland located on the north side of the parking lot. This was a high diversity location throughout the season.



***R2S2: North Oaks:** Deep Lake Trail at Chickadee Lane. Seven species were detected at this site. Only Northern leopard frogs were not detected.

***R2S3: North Oaks:** Long Marsh. The survey location is located on the gravel road that is part of the NOHOA hiking trail system. There are wetlands on both sides of the trail. There is a small wooded wetland to one side and a large meandering wetland to the other. This was a highly diverse site with strong choruses documented during each visit. Six species were detected. Northern leopard and Green frogs were not detected.

R2S4: Lino Lakes: Amelia Lake. The survey location is on the north shore of the lake. Five species were detected. Spring peepers, Northern leopard, and Green frogs were not detected.

***R2S5: North Oaks:** Wilkinson on Crescent Lane. This is a mitigation wetland that is supporting a high diversity of frogs and toads. A barred owl was also heard at this site, which caused the chorus to quiet until the owl fly away. Northern leopard and Green frogs were not detected. Spring peeper choruses were especially strong at this site on both the first and second run. This mitigation wetland may be especially important in providing habitat to this species that has been declining in the Twin Cities metro area.

***R2S6: White Bear Township:** Tamarack Nature Center. The sampling location is location behind the nature center on a small pond/wetland area adjacent to the trail system. Six species were detected. Northern leopard and Green frogs were not detected.

***R2S7: North Oaks:** Southern shore of Black Lake. Coyotes were heard at this site. There are also 2 wetland areas. There is a small mitigation wetland to the south and audible from the sampling location. There is also the extensive wetland area near the trail system around Black Lake. Six species were detected. Northern leopard and Green frogs were not detected.

*** 6+ species were detected at these sites.**

Education and outreach component

An article about the survey presentation, *Frogs and toads in North Oaks*, was published in North Oaks News for the June 2019 issue. That article included promotion for an identification and audio training session for residents at the Pleasant Lake Beach. The session was well held on May 31, attended by groups including whole families attending, and a total of ~30 residents. The session was informal, fun, and got people excited about listening to spring and summer sounds in a more meaningful way. VLAWMO and NOHOA plan to make a frog and toad event an annual one and continue to emphasize the importance of healthy landscape connections (wetlands to uplands and waterways) for amphibians and other wildlife.

Conclusions

Spring peepers were detected at 9/14 sampling locations or 64% of the sites; five of those sites were in North Oaks. Spring peepers were heard at 100% of the North Oaks sites. It would be useful to watch Spring peeper presence over time to see if a declining trend is documented. Mitigation wetlands often were documented supporting Spring peepers. These could be more closely monitored and considered for restoration over time if degradation is occurring. Northern leopard frogs were heard at the fewest locations (2/14 or 14%), but these are very quiet callers and may have been covered up by strong choruses of louder species. They overlap in calling timeframe with Boreal chorus frogs, American toads, and others, which had strong choruses in many locations. Northern leopard frogs have not been a species of concern in the watershed nor other areas of the state.

Areas of especially strong choruses and a high diversity of species included many areas of North Oaks and the Vadnais-Sucker Park area. These areas should be priority for further wetland investigation and survey work. Restoration may be warranted in some locations to maintain existing diversity. Wetlands around West Vadnais Lake have been found to have high invasive species presence, as results of vegetation surveys. These areas are connected to the park, which supports both a higher diversity and

stronger choruses (likely larger actual numbers) than the wetlands around West Vadnais. Efforts such as invasive species control and restoration may have the potential to improve these areas for frogs, toads, and amphibians in general. Amphibians are important indicators of environmental health. What we detect in the environment about diversity and abundance likely corresponds to other guilds and ecosystem health more broadly.

Appendix

Appendix A: Data table

Route 1: Highest call index value recorded among 3 runs shown

Species	R1S1	R1S2	R1S3	R1S4	R1S5	R1S6	R1S7
Wood frog	-	1	3	-	3	3	-
Boreal chorus frog	3	3	2	-	3	3	2
Spring peeper	-	-	2	1	2	-	-
Northern leopard frog	-	-	2	-	-	-	-
American toad	-	2	2	3	3	2	3
Gray treefrog	1	3	3	2	3	3	3
Cope's gray treefrog	-	-	-	2	-	2	-
Green frog	-	-	2	3	1	-	-

Route 2: Highest call index value recorded among 3 runs shown

Species	R2S1	R2S2	R2S3	R2S4	R2S5	R2S6	R2S7
Wood frog	3	2	3	1	3	3	3
Boreal chorus frog	3	3	3	3	3	3	3
Spring peeper	1	2	3	-	3	1	3
Northern leopard frog	2	-	-	-	-	-	-
American toad	3	3	3	3	3	3	3
Gray treefrog	3	3	3	3	3	3	3
Cope's gray treefrog	2	3	3	2	2	3	2
Green frog	-	1	-	-	2	-	-

Appendix B: Call descriptions

Calls were recorded and described for Blog posts. The descriptions are included here for future incorporation into an ESRI Storyboard format.

Descriptions of audio recordings

Sounds of a spring evening at Vadnais-Sucker Lakes Regional Park.

When I listen to the recording, the first sound that I focus on is the loud, high-pitched call of the Spring peeper. These frogs are surprisingly loud for their tiny size. Next, I notice Boreal chorus frogs. Their call is often described as running your finger along a comb. Think about clicking the tines of the comb 3-4 times as you run your finger along it pretty quickly. Then notice the lower pitched, kind of grumbling persistent calls, like they're doing a lot of gossiping. These calls are made by Wood frogs and are pretty much continuous in this recording. They are beautiful little frogs with a distinctive black mask. They move from wetland areas to upland habitats after breeding. Connected areas between wetlands and forested areas are important for Wood frogs. They overwinter in the leaf litter in upland areas and travel back to wetlands in the spring to breed. Loud choruses of Wood frogs were detected in the Rotary Nature Preserve at Birch Lake and at Tamarack Nature Center. (Dawn Tanner)

Sounds of an early summer evening at Long Marsh in North Oaks and at Tamarack Nature Center:

The calls in this first recording are on the quiet side. Boreal chorus frogs (that sound like running your finger down a comb) and Spring peepers (loud single peeps) are present again. Add to that the long, steady trill of the American toad, and the loud fluttery trill of Gray treefrogs. In this clip, you can hear how the Gray treefrogs are a little way in the distance and a strong chorus. You will not likely hear any Cope's gray treefrogs standing out with all of the other noise. You will be able to distinguish them in the next recording.

These calls were recorded at the small wetland area at the entrance of Tamarack Nature Center. Here you can clearly hear the higher-pitched, melodic trill of the Gray treefrog. Listen for another call that sounds similar, but is faster and lower pitched. That's the Cope's gray treefrog. American toads come in around 15 seconds with their sustained trill. Boreal chorus frogs are clear and easy to distinguish in this recording also. (Dawn Tanner)

VLAWMO Remote-camera surveys

Monitoring results from 2018-2019

By: Dawn Tanner, PhD
Program Development Coordinator

During 2019, VLAWMO made it a priority to better understand our wetlands in a variety of ways. One way we did that was by conducting initial phases of a remote-camera survey. The survey allows us to focus on areas near waterways and in wetlands to better understand mammal diversity in these areas. Birds are also photographed at remote-camera sites. They are not included in this monitoring report because birds are better sampled by other methods (e.g., point-count call surveys, visual detection, mist netting). Some mammal species are indicators of habitat health and water quality (e.g., River otters). These species are of particular interest to us as we work to learn more about wildlife diversity in our watershed. These data provide baseline information about species present in our watershed and help VLAWMO identify priorities for future monitoring efforts.

Protocol:

We worked with partners to obtain permission to conduct remote-camera monitoring at a range of sites. We targeted larger wetland complexes and wetland areas identified as priority according to the MN DNR Native Plant Communities data layer. This layer is available free from the MN DNR and is also available as a selectable layer on the VLAWMO GIS resource, available on the VLAWMO website.

A collection of 1-10 cameras, depending upon the size of the site, were deployed for a period of 5-11 weeks. To select a camera location, an observer first hiked the area, searching for areas near water or in wetlands with evidence of animal sign (e.g., tracks, scat, trails, dens/burrows, claw marks, feeding sites). We deployed cameras in a widely dispersed network, providing a representative sample of available habitat types. Cameras were used during fall, winter, and spring. Summer sampling was avoided because of rapid vegetation growth that quickly obscures the camera and causes many false captures (i.e., photographs of waving vegetation). Unique site opportunities were considered when possible. For example, in Vadnais-Sucker Regional Park, there are native plant communities, lakes, channels, and the site has high overall habitat diversity. At this site, we moved cameras during the study period to encompass a larger number of locations than our collection of cameras would otherwise allow. For this site, we sampled a total of 9 locations with 5 cameras.

Cameras were set to capture photos during day- and nighttime (full 24 hours). An infrared (IR) sensor captured nighttime images. Flash was not used to avoid disturbing animals and disrupting behavior. IR photos are black and white and often show animals with glowing eyes. Glowing eyes are the result of a physical feature in the animals' eyes called the *tapetum lucidum*. This structure gathers available light and reflects it to allow animals to see in low-light conditions. It also reflects the light back to the camera and gives animals glowing white dots for eyes in the photos.

Cameras were set to rapidfire for 3 images, which means that, when a camera was triggered, it would take 3 photos in rapid succession without a delay between images. If an animal remained in front of the camera and continued to trigger the camera, the camera would continue to take 3 images each time it triggered. For mammals that tend to stay in front of the camera, this results in a high number of photos.

For more secretive and wary species, it means that at least a couple of photos are likely to result before an animal moves out of camera range.

Cameras were positioned along mammal trails/travel routes not perpendicular to them. An animal is likely to move quickly along a trail, and a camera perpendicular to the trail is more likely to miss the animal. A camera aimed along the path of movement is more likely to capture a collection of photos. Cameras were also positioned along other travel routes such as logs leading into wetland areas. Animal structures and high behavior locations (e.g., beaver lodges, muskrat lodges, and otter latrines) were sampled when possible.

Cameras were placed low (~12 inches or 0.3 meters) on trees or other natural vegetation such as cattail stalks using a bungee cord. Cameras were labelled with tags to identify them as part of a VLAWMO project to reduce the threat of theft. No cameras were lost to theft or damage. At a camera set, a small amount of trapping lure was placed on unbleached lambs' wool on the ground or tucked into vegetation/logs in the focal area for the camera field of view.

For each site, a total number of trapnights is included. This is a standard unit of measure in remove-camera studies to allow more meaningful comparisons especially when different numbers of cameras are used in a given site. A trapnight = 1 camera per 1 night of operation. If 5 cameras are monitoring locations at a site for 5 nights, that would be a total of 25 trapnights.

Sites (and property owners) included in 2018-2019 remote-camera survey:

- Birch Rotary Nature Preserve (Birch Rotary Board)
- Lambert Lake (private landowner)
- North Oaks Conservation Area and NOHOA Trail Network (NOHOA)
- Tamarack Nature Center (Tamarack Nature Center)
- Vadnais-Sucker Regional Park (St Paul Regional Water Services)

Site and camera data:

Site	Locations	Total cameras	Dates	Weeks	Trapnights
Birch Rotary Nature Preserve	1	1	May 7-June 12, 2019	~5	36
Lambert Lake	2	1 1	April 2-June 3, 2019 June 3-June 12, 2019	~10	71
North Oaks Conservation Area	7	5 2	Feb. 5-March 8, 2019 Oct. 3-Nov. 8, 2019	~10	227
Tamarack Nature Center	5	5	Oct. 19-Nov. 21, 2018	~5	165
Vadnais-Sucker Regional Park	9	2 1 2 2 1 1	Nov. 26-Dec. 12, 2018 Nov. 26-Dec. 22, 2018 Nov. 26, 2018-Feb. 3, 2019 Dec. 13-Dec. 20, 2018 Dec. 22, 2018-Feb. 3, 2019 Jan. 23-Feb. 13, 2019	~11	276

Summary of mammal species detected across all sites: A total of 16 native mammal species were detected in the watershed. Domestic dogs and cats were rarely seen. A list of mammal species across the watershed includes:

- | | |
|----------------------------|---|
| 1) White-tailed deer | 11) Gray squirrel |
| 2) Coyote | 12) Red squirrel |
| 3) Red fox | 13) Northern flying squirrel |
| 4) River otter | 14) Muskrat |
| 5) Raccoon | 15) Peromyscus (White-footed or deer mouse) |
| 6) Virginia opossum | 16) Red-backed vole |
| 7) Mink | |
| 8) Ermine (or weasel spp.) | 17) Domestic dog |
| 9) Eastern cottontail | 18) Domestic cat |
| 10) Muskrat | |

Notes of interest:

Species of particular interest included: Coyotes, Red fox, and River otters.

Red foxes were only detected on 1 occasion in Vadnais-Sucker Regional Park. Coyotes were abundant in all sites monitored except Birch Rotary Nature Preserve. These results support research documented for other urban areas that shows that coyotes tend to occupy higher quality habitat in parks and other green spaces. In areas where coyotes are abundant, Red fox are likely to shift into residential areas (Mueller *et al.* 2018).

Remote cameras for this monitoring effort were focused on the highest quality habitat areas available in the Vadnais Lake Area Watershed. Consequently, we observed high coyote occupancy and frequently observed coyote behavioral activity in the photographs. There are frequent anecdotal reports of Red fox activity in residential areas. We would expect to see more Red fox activity at camera sites if we focused on these areas.

River otters were frequently photographed in Vadnais-Sucker Regional Park and along Lambert Creek. This was somewhat of a surprise to staff and the general public. As follow-up of initial remote-camera data, VLAWMO requested reports from the public about River otter activity locations. Staff visited sites reported by residents and documented otter-activity sites observed during remote-camera exploration and setup. Many latrines, a den site, tracks, trails, and feeding areas were observed and documented. A map was generated with these results.

Otter Sign in the Watershed

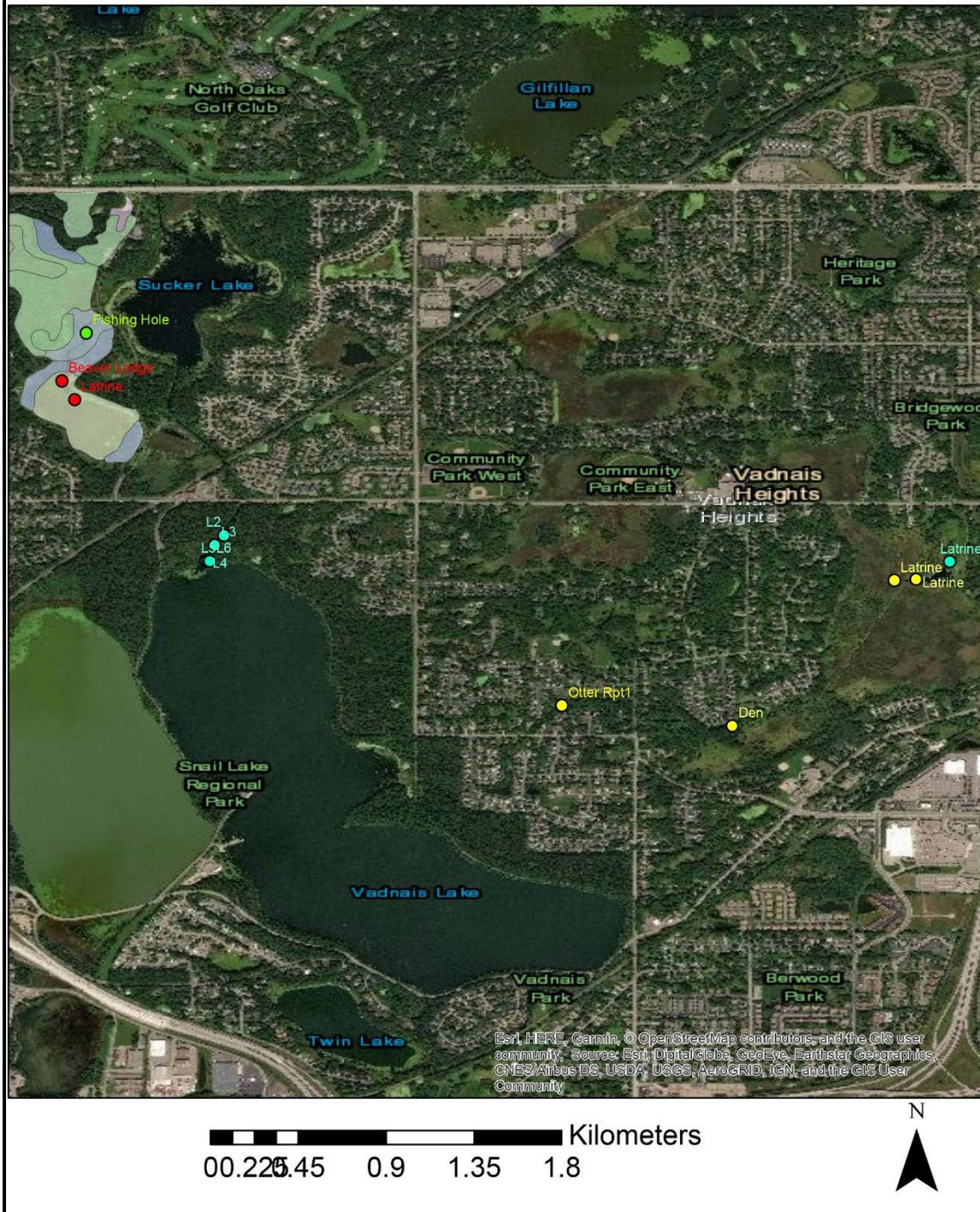


Figure 2: Otter sign observed during fall, 2018, through spring, 2019.

River otters are of particular interest to VLAWMO because they are apex predators that bioaccumulate environmental toxins (e.g., PBDEs, PCBs, lead, mercury) and are indicators of water quality and habitat health (Dornbos *et al.* 2013; Nelson & Schulte 2015; Holland *et al.* 2018). A healthy population of otters bodes well for water quality, which is of additional importance because East Vadnais Lake is the drinking-water reservoir for many residents of St. Paul and surrounding communities. Otters need healthy wetlands and sympatric species closely associated with water (e.g., beavers). Urban otters may face more challenges surviving (e.g., high quality habitat areas separated by road networks) and have increased exposure to disease and pollutants than their more rural otters. Research has shown that Sea otters are 3 times more likely to be infected by *Toxoplasma gondii*, a parasite carried by domestic cats, near freshwater flow areas (Shapiro *et al.* 2019). Otters and other mustelids are also more likely to be infected by this parasite in urban areas (Barros *et al.* 2018). The risk of Toxoplasmosis to a developing human fetus is the reason pregnant women are advised to avoid cleaning the litter box. As a watershed with important freshwater resources and a highly urbanized landscape, these kinds of disease issues are important to understand more clearly. These are issues VLAWMO is working to pursue as we increase focus on improving water quality and better understanding, conserving, and restoring wetlands in the watershed.

Remote cameras provide potentially useful information about activity patterns of wildlife. A recent paper published in Science conducted a global study of published research that used remote cameras and radio telemetry. The authors found that many wildlife species are shifting activity patterns to be more nocturnal in urban areas. They hypothesized that animals do this to avoid negative encounters with humans by separating themselves in time rather than space (Gaynor *et al.* 2018). The authors recognized that there may be negative consequences to this shift including: reduced foraging/feeding time, increased stress hormone production, and overall decreased activity. The study concluded that “such responses can result in marked shifts away from natural patterns of activity, with consequences for fitness, population persistence, community interactions, and evolution.”

In the watershed, there is not an opportunity to conduct a full-scale research project to look at River otter activity patterns. However, we were able to conduct monitoring of a single latrine site in a rural location (near Long Prairie, Minnesota, along the Long Prairie River) and compare that activity to data collected in the watershed (Figures 3, 4, and 5). The results of that comparison support the conclusions of the global paper referenced above. We saw higher River otter activity throughout 24 hours in the rural setting. We saw greatly reduced activity during daylight hours in the urban setting.

As a result of remote camera monitoring, VLAWMO is working with partners to conduct a small radio telemetry study on River otters. Otter activity and habitat use will help us prioritize wetland areas for increased protected, conservation efforts, and restoration. A wetland survey and delineation is also scheduled for summer 2020 and focused in the East Vadnais and Sucker Lake subwatershed. The otter telemetry study and wetland delineation will further illuminate wetland needs and prioritization for the watershed.

Figures 3, 4, and 5: Otter activity at rural (~17 months of data collected) versus urban (~6.5 months of data collected) latrine sites.

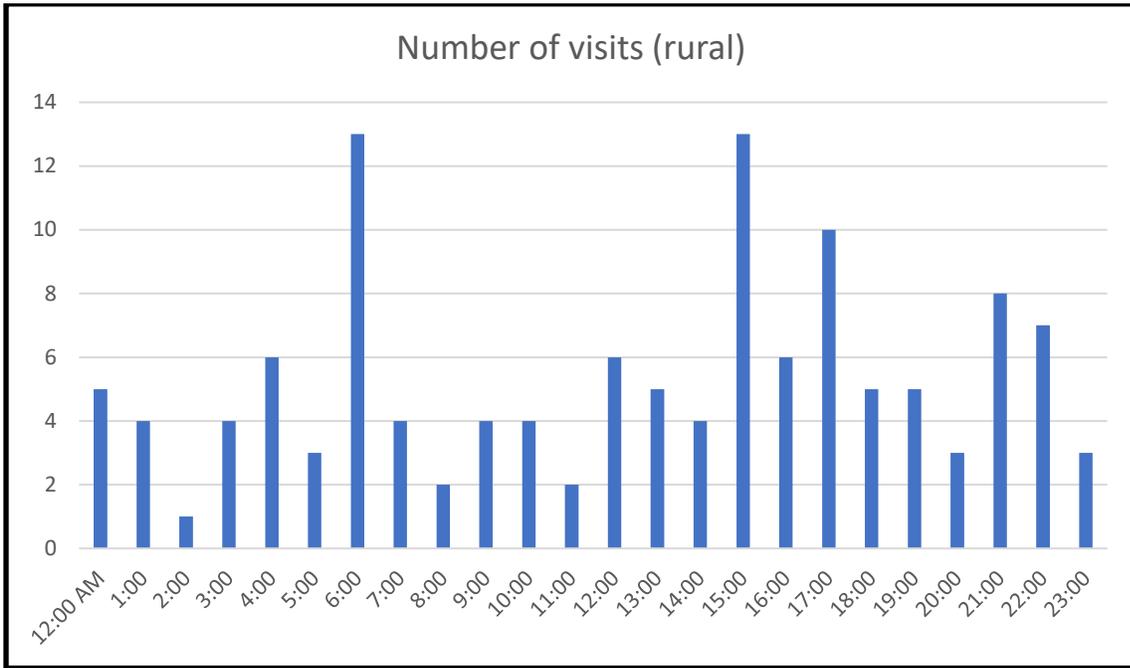


Figure 3: Otter activity at latrine sites (rural)

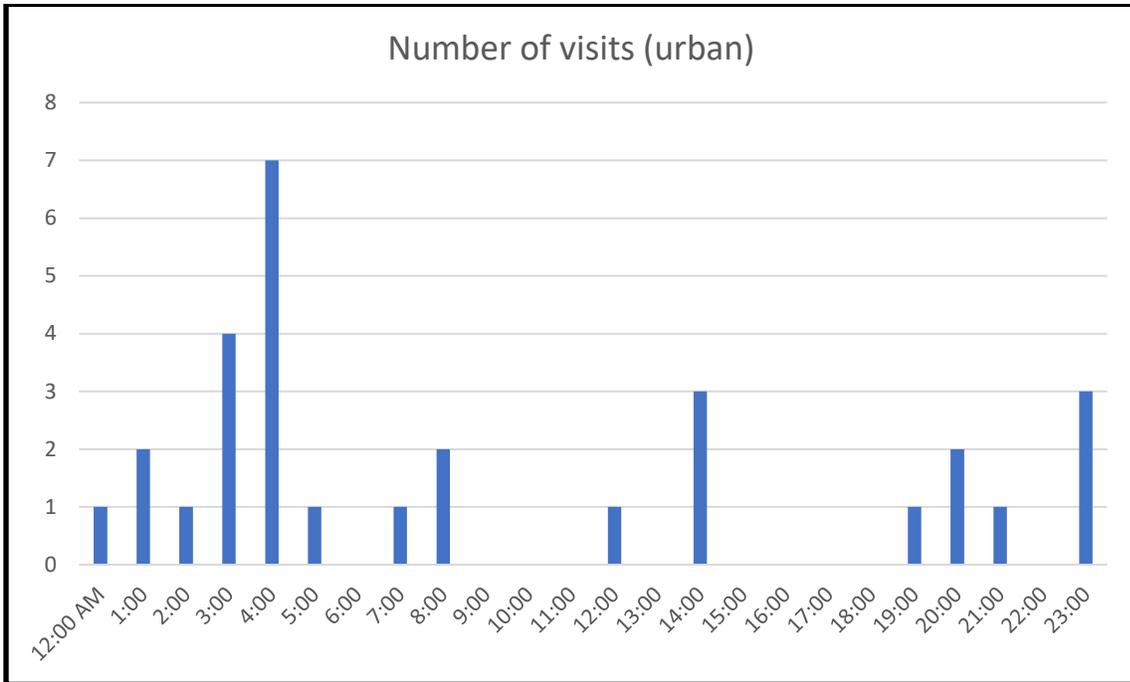


Figure 4: Otter activity at latrine sites (urban)

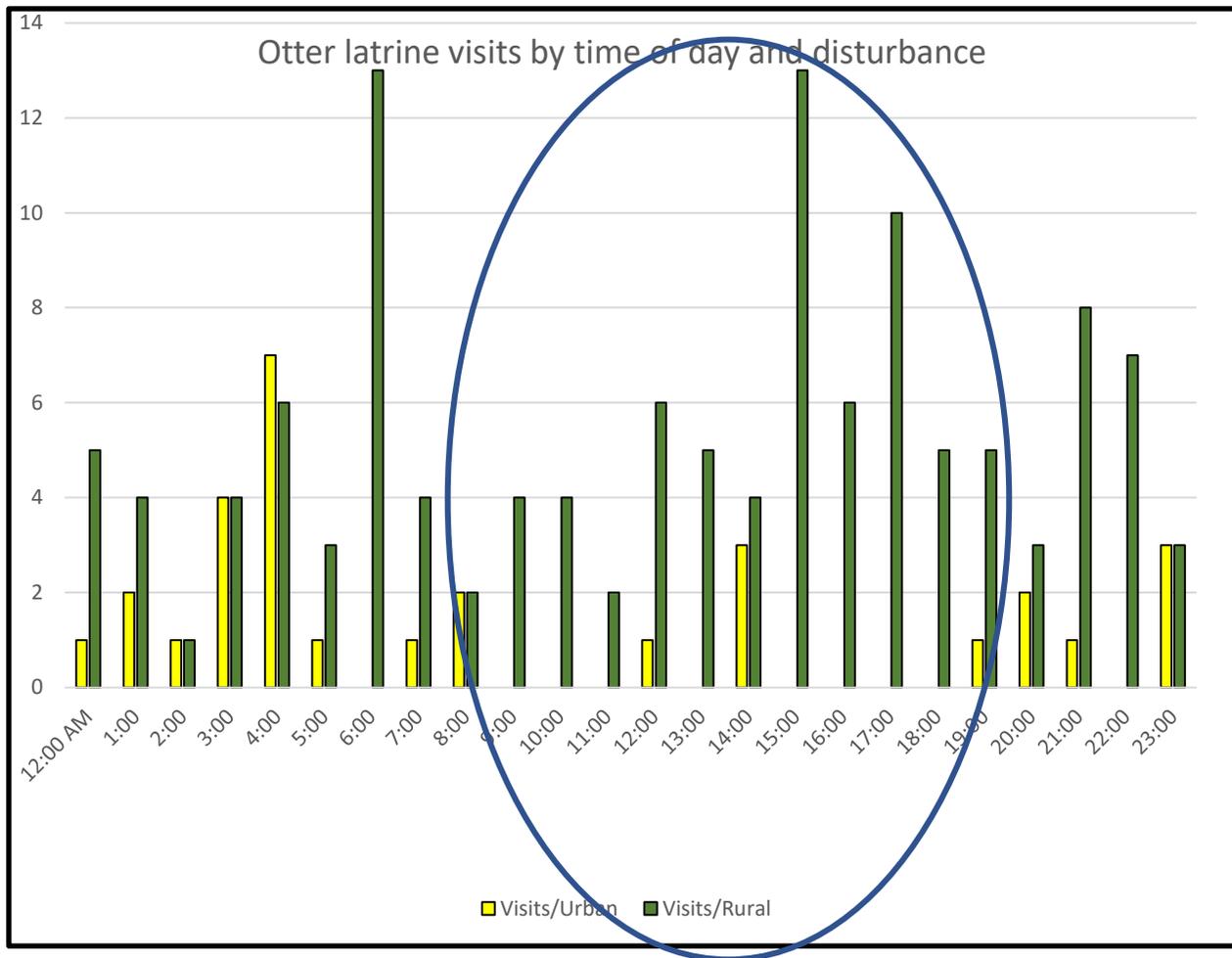


Figure 5: This graph shows urban and rural visits at latrine sites by River otters side by side. Otters are active throughout day and night hours at the rural site. Visits to the latrine during daylight hours are greatly reduced at the urban site.

Mammal species detected on 2018-2019 survey by site including short descriptions and notes:

Birch Rotary Nature Preserve: This site is among the smaller habitat areas included in the camera study. The nature preserve is ~31 acres, and much of the area is wetland. There are high densities of frogs and toads and many interesting plant species. The camera location was located south of the boardwalk and accessible by kayak. A small, natural, muddy platform was found that was kept clear by geese grazing. The camera was aimed at this open area and mounted on a metal post sunk into the peat. Mammal diversity was low at this camera site. There were interesting avian visits including a family of Wood ducks, Great blue heron, and Sandhill cranes. **Mammals included: Mink and Raccoon.**

Birch Rotary Sample Photos

Mink



Raccoon



Great blue heron



Sandhill crane



Wood duck family



Wood duck family



Lambert Lake/Pond: Lambert Creek flows through this wetland area and storm pond. Lambert Lake is 182 acres. The area is the site of an upcoming large construction project including a remainder of the creek and replacement of vinyl sheetpile with steel. As part of site visits and prep for upcoming construction, staff noticed an otter latrine site on the creek just before it flows into Lambert Pond. A camera was placed at this location and produced fascinating results including interesting behavioral interactions. Otter and coyote activity were both high. Behavioral observations included otters breeding (4/19/19) and a coyote/otter interaction where both species were at the site at the same time (3 coyotes and 1 otter). The otter appeared first, the coyotes were on the scene shortly after with their ears perked up, and the otter moved toward the coyotes from the creek in an aggressive fashion. The coyotes jumped back, and then came back in to further investigate. The otter appeared to retreat to water safely. There were many instances where an otter would come during the night and roll all around in the grass leaving large, distinguishable grass balls behind. A coyote would come by shortly after, kick in the grass, defecate, and otherwise work to scent over what the otter left behind. This location was also a popular Wild turkey lekking site, and White-tailed deer activity was regular throughout the day.

Mammals included: White-tailed deer, Coyote, River otter, Raccoon, Mink, and Virginia opossum.

Lambert Lake Sample Photos

White-tailed deer



River otter



Coyote



3 Coyotes



Mink



Wild turkey



North Oaks Conservation Area: North Oaks includes large wetland complexes and a 620-acre conservation easement with Minnesota Land Trust. The trail system is owned and management by the North Oaks Home Owners' Association (NOHOA). This large network of natural habitat is home to many mammal species. During the first monitoring session in Jan.-Feb. 2019, the coldest part of winter hit with deep snow and frigid temperatures. Mammal diversity at the cameras was low. We only saw: White-tailed deer, Coyotes, Short-tailed weasel, and Domestic dog. Coyote behavior was very interesting. In an area with fairly low human disturbance, coyotes appear curious and actively investigated the camera sites, even rolling in the snow and blowing it out of the way with their noses. Because diversity at the camera sites was lower than expected, we came back during fall 2019 with two University of Minnesota Service-Learning students. They each set up their own camera location and let it run for ~5 weeks. With only these 2 cameras, we saw 9 mammal species including fascinating behavior of diurnal and nocturnal squirrels actively caching food for the winter in the same log. Mice fed on the cached food when the squirrels weren't around. A weasel came by looking for mice and investigated the very place where they had been only moments earlier. A pair of flying squirrels visited the site together and, of course, curious coyotes checking things out everywhere and chewed up the lambs' wool/lure. A total of 11 mammal species were documented among locations at this site.

Mammals included: White-tailed deer, Coyote, Raccoon, Short-tailed weasel/Weasel spp., Virginia opossum, Eastern cottontail, Gray squirrel, Red squirrel, Northern flying squirrel, Peromyscus (White-footed or Deer mouse), and Domestic dog.

North Oaks Conservation Area Sample Photos

Coyotes



Coyote



Northern flying squirrel



Raccoon



Red squirrel



Weasel spp.



Tamarack Nature Center: This was the first site that VLAWMO placed cameras for this survey. The nature center has a variety of habitat types including small ponds, Fish Lake, Tamarack Lake, large wetlands, restored prairie, and woodland areas that are currently the focus of invasive Buckthorn removal. Cameras were placed to focus on wetland and lakeshore areas. A total of 9 mammal species was documented. Coyotes were recorded at all 5 camera locations. One camera was placed pointed directly at an active muskrat lodge. Activity at this site was especially interesting and included the pair working together to prepare the lodge for winter.

Mammals included: White-tailed deer, Coyote, Short-tailed weasel, Virginia opossum, Muskrat, Gray squirrel, Red squirrel, Peromyscus, and Red-backed vole.

Tamarack Nature Center Sample Photos

Pileated woodpecker



Short-tailed weasel



White-tailed deer



Red-backed vole



Virginia opossum



Muskrats



Vadnais-Sucker Regional Park: This park has a high diversity of native wetland habitats. Remote cameras were placed to sample all of the habitat types indicated in the area according to the MN DNR Native Plant Communities layer. River otter activity was especially high in this park. Coyote activity was too. This is the only location where we documented Red fox presence. A total of 12 species were documented (11 native species and Domestic cat).

Mammals included: Coyote, Red fox, Raccoon, River otter, Mink, Short-tailed weasel, Eastern cottontail, Muskrat, Gray squirrel, Red squirrel, Peromyscus, and Domestic cat.

Vadnais-Sucker Regional Park Sample Photos

River otter



Raccoon



River otter



River otter



Red fox



Coyote



Eastern cottontail



Coyote and Trumpeter swans



Coyote interaction and Mink
(from separate photos at the same location)



Coyote



Coyote behavior (Compiled)



Red squirrel



Education and outreach component

Videos and slideshows were published on the VLAWMO website and facebook page as site monitoring was completed. Posts were popular and generated a high amount of social-media traffic. Articles were featured in the White Bear/Vadnais Heights Press and North Oaks News. *Upcoming photo exhibit captures wildlife in area wetlands* was published in the White Bear/Vadnais Heights Press, March 6, 2019, and *Remote cameras glimpse wetland life in North Oaks* was published in the North Oaks News in the April 2019 issue. A photo exhibit featuring wildlife in the watershed was on display at the White Bear Lake Ramsey County Library during March-May, 2019. An otter themed event was hosted by VLAWMO in celebration of World Otter Day for a children's storytime session on May 24, 2019. Storytime was well attended and featured an otter story, puppet skit, and live music with otter prizes for the kids.

Conclusions

Remote cameras are a useful tool in helping managers understand species present in an area. They are not the only tool and others are better for understanding density and abundance. Baseline information, such as that reported here, is important in informing effectiveness of initiatives and projects with goals of improving water quality and habitat function. Particular species, indicators of habitat health and water quality, can help us explore further and identify locations for prioritization within the watershed.

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Cover It Up! Citizen Science Project

COLLECTING INITIAL SITE INFORMATION

Welcome to the Research Team!

Thank you for joining us in this statewide effort to explore how we can use native plants to control buckthorn in our forests and woodlands. As part of the research team, you will be responsible for conducting the experiment at your selected site. UMN research staff will be available to support you along the way as you have questions, email coveritup@umn.edu.

Data Collection Instructions

Once you have selected your experiment site, please follow these instructions to collect some initial site information. We will use this information to get to know your site, the forest type, species present, soils and hydrology. We will also use this information to start a site profile for you, which will include key attributes and updates about your site.

There are three main steps involved in this initial data collection phase.

1. Collect Site Photos - page 2
2. Collect Site Location - page 2-5
3. Submit Information - page 6

Want to learn more?

Visit the Cover It Up! Citizen Science project website for details about the project timeline & activities, the project commitments, seed mix, and more.

coveritup.umn.edu

Collect Site Photos

Using your cell phone, take 4-6 photos of your experiment site. Photos should include some of the following views of your site:

2-3 photos looking up at the tree canopy as you stand within your experiment site.

See example below.



2-3 photos looking in at the experiment site as you stand just outside of it.

See example below.



Collect Site Location

Using a cell phone, computer, or GPS unit, collect your experiment site's coordinates (latitude and longitude).

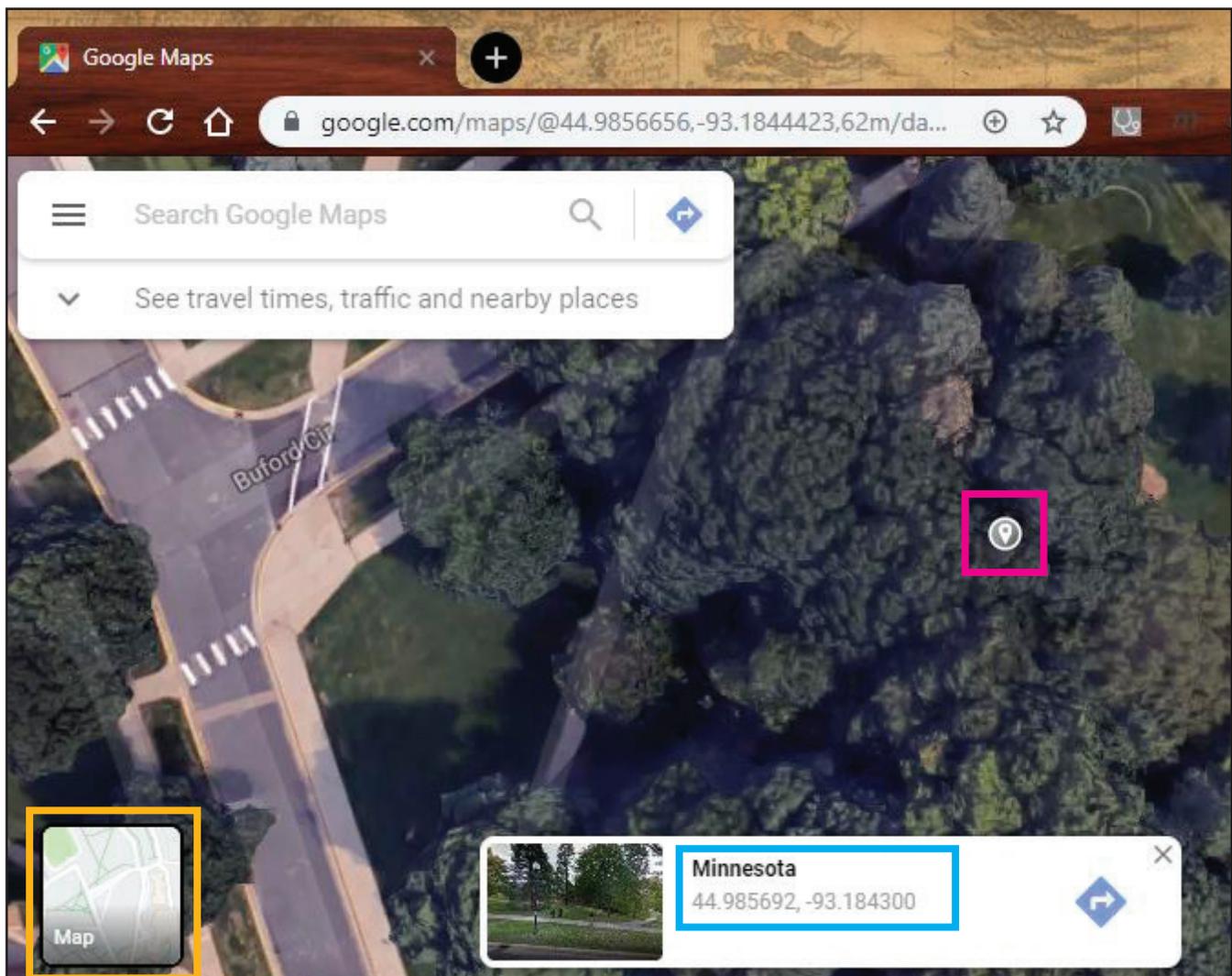
If you are able to identify where your experiment site is located via a satellite image in Google Maps, you can use your computer to find your experiment site's coordinates. See page 3 for instructions on collecting coordinates using Google Maps on your computer.

If you cannot identify your experiment site via a satellite image, you can use a GPS unit or your cell phone. See page 4 for instructions on collecting coordinates on the Google Maps app on your Android or iPhone. See page 5 for instructions on collecting coordinates on the Apple Maps app for iPhone.

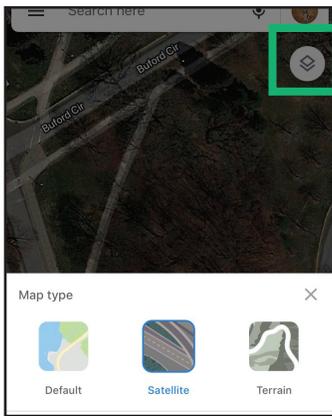
NOTE: Site locations may be shared as a dot on a statewide map showing participating sites in the study, or in a tally of sites per county. However, exact site location information will be kept confidential.

Google Maps on your Computer

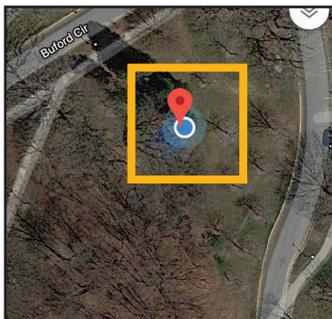
1. Go to Google Maps (<https://maps.google.com>).
2. Switch to Satellite view by toggling the Satellite/Map icon in the lower left (see **gold box** below).
3. Zoom in on your experiment site.
4. Click once on the approximate location of your experiment site. A gray pin will appear where you click (see **pink box** below).
5. Coordinates will appear at the bottom of the screen (see **blue box** below). Write your site's coordinates down or copy/paste them into the Site Selection Form, see page 6 for instructions.



Google Maps app (Android and iPhone)



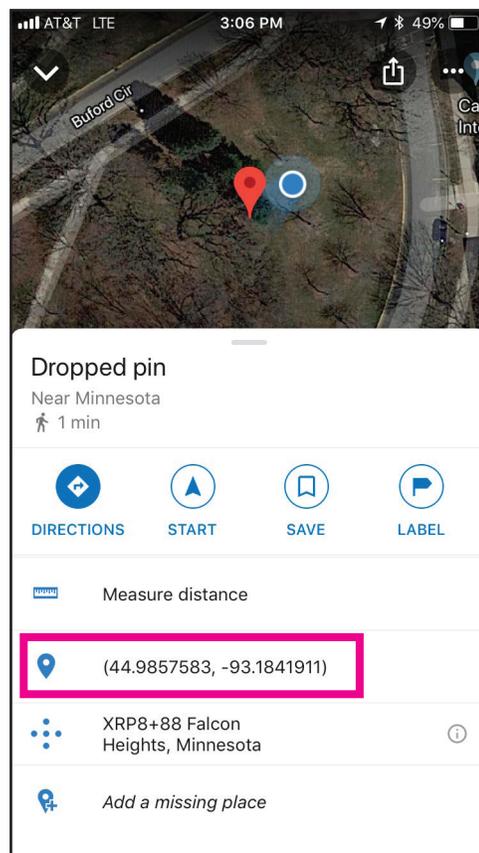
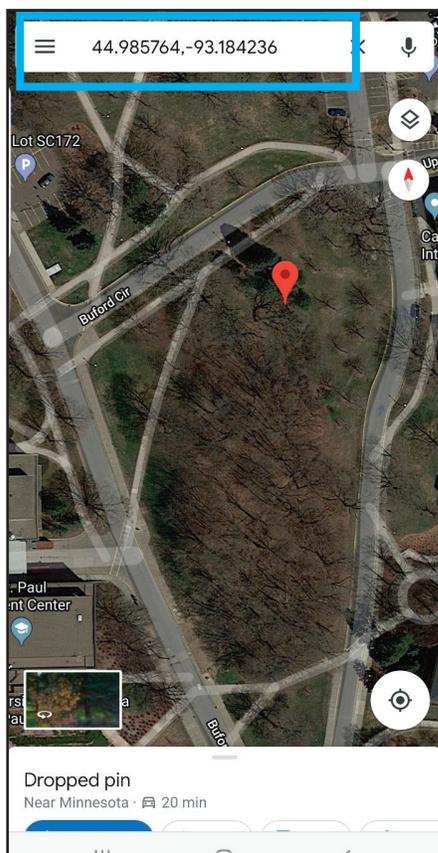
1. While standing at your experiment site, open the Google Maps app on your phone. If you want to switch to Satellite view, you can tap the overlapping diamonds icon on your screen (see **green box** to the left). Map type options will appear at the bottom of your screen.

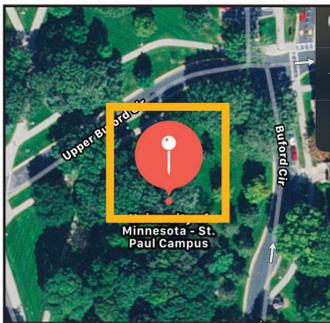
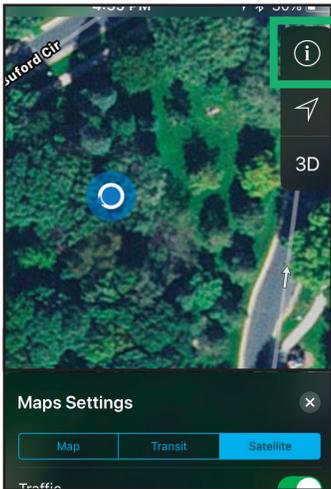


2. Zoom in on your location near the experiment site, your location should appear as a blue dot on your screen. Hold your finger near the blue dot until a red pin appears (see **gold box** to the left). Do not select the blue dot directly.

3. If you are an Android user, you will find the coordinates in the search bar at the top of your screen (**blue box** below). If you are an iPhone user, you will find the coordinates within the dropped pin information (**pink box** below).

4. Write your site's coordinates down and copy them into the Site Selection Form, see page 6 for instructions.

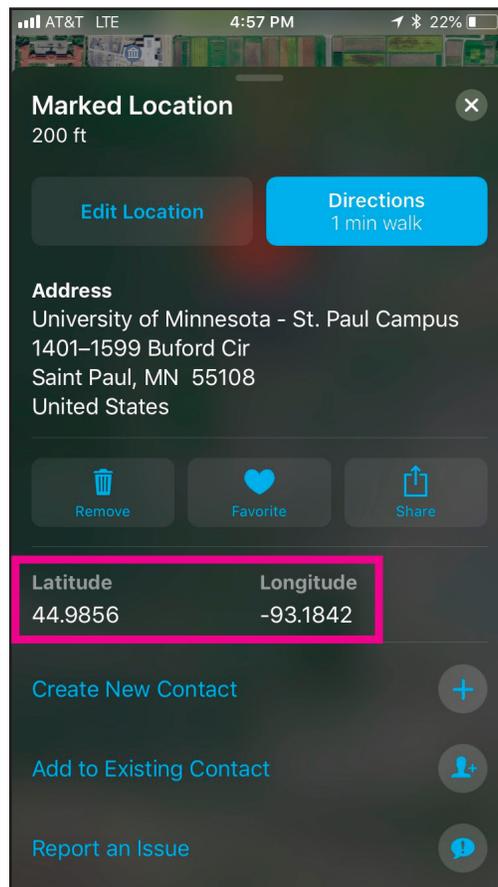




Apple Maps app (iPhone only)



1. While standing at your experiment site, open the Apple Maps app on your iPhone. If you want to switch to Satellite view, you can tap the information icon on your screen (see **green box** to the left). Map setting options will appear at the bottom of your screen.
2. Zoom in on your location near the experiment site, your location should appear as a blue dot on your screen. Hold your finger near the blue dot until a red pin appears (see **gold box** to the right). Do not select the blue dot directly.
3. You will find the coordinates within the dropped pin information (see **pink box** below).
4. Write your site's coordinates down and copy them into the Site Selection Form, see page 6 for instructions.



Submit Site Information

Once you have collected site photos and site location, you can use the **Cover It Up - Site Selection Form** to submit your site information. You will need a Google Account in order to submit information to the Site Selection Form. However, if you do not have a Google Account, please let us know and we'll send you the form in a word document and you can respond via email.

Site Identification

Prior to each data submission, we will request site ID information to help us to track each experiment. In addition to your name and email, we are asking for you to select a Site Name. This will be the name of your site's experiment for the duration of the study. Feel free to make it something fun and easy to remember (e.g. Blue Hills Farm, Fox Den Woods, etc.).

1. Enter your Site Name, your full name, and your email into the form.

Site Information

1. Enter your experiment site's coordinates into the form (see **green box** below).
2. Upload your site photos to the form. Click on 'ADD FILE' to open the upload window (see **gold box** below).

Site Information

See PDF instructions for collecting this information. We will use this information to get to know your site, the forest type, species present, soils and hydrology (note: exact location information will be kept confidential). We will also use this information to start a site profile for you, which will include key attributes and updates about your site.

Site Coordinates (e.g. 44.9857583, -93.1841911)

Your answer

Site Photos

ADD FILE

Want to learn more?

Visit the Cover It Up! Citizen Science project website for details about the project timeline & activities, the project commitments, seed mix, and more.

coveritup.umn.edu

Questions?

Contact Lori Knosalla, Program Coordinator

coveritup@umn.edu



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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: Dawn Tanner

Date: December 11, 2019

Re: IV. C. Lawns to Legumes Blue Thumb Announcement

Feel welcome to share this announcement with your communities and especially residents who might be interested. Applications are submitted online directly through Blue Thumb. Our priority area the watershed is in the immediate vicinity of East Goose Lake.

<https://bluethumb.org/apply-for-lawns-to-legumes-assistance/>

Apply for Lawns to Legumes Assistance:

All Minnesota residents are eligible to apply for a \$350 cost-share in order to establish pollinator habitat in their yards. Applications will be chosen through a randomized drawing, though priority will be given to projects within higher priority areas (see [priority map](#)), and to equitable geographic distribution.

To apply for individual assistance please fill out the form at the link above, and thoroughly read through the program criteria and the Resident Agreement.

This first application period will run through February 28th. A second application period will open March 1st.

Please note: [Free technical guidance resources](#) are available online to all landowners.

*Please note that applying for Lawns to Legumes cost-share funding does not guarantee you will receive funding. If your application is awarded funding it will be in the form of a reimbursement. We will work with awardees unable to afford the upfront cost of a project to find a way to still participate in the program.

Please fill out your information and then under "Resident Agreement" please read the program criteria and click "agree" if you find each criterion acceptable.

To: Board of Directors

From: Stephanie McNamara, Administrator

Date: December 2019

Re: V.A.1. Goose Lake update and discussion

Background: Dawn and Stephanie attended the Oct. 22 White Bear Lake City Council meeting, just before the last Board meeting. Dawn presented an excellent summary of the science behind the recommendation to temporarily restrict boating on Easy Goose Lake if an alum treatment were to take place. The city council asked good questions. The presentation from the waterskiers was done by Lindsey Carpenter and expressed their concern with restricting waterskiing. They brought friends and fellow ski otters to the meeting several of whom spoke. There were some misconceptions which we sought to [clear up through the letter](#) (link) that was sent after the last meeting.

While the response of the WBL city council and the potential grant are yet to be determined, at the point, the staff would urge the board to stay the course and keep the recommendation in place. We understand the ordinance may not pass at this time. The reasons to keep the recommendation are multiple.

- When the VLAWMO recommendation was sent to the city there was a real chance that no restrictions would be enacted. White Bear Lake requested the best science available to addressing the benefits of an alum treatment and boating restrictions being beneficial to Goose Lake. Waterskiing restrictions, especially on West Goose were identified in the Goose Lake 2014 TMDL study. The benefits and the limitations were addressed with the VLAWMO recommendation. The recommendation also follows up on the suggestion from BWSR staff that considering restrictions would make our grant proposal stronger. Just a bit of background. Barb Peichel was the project manager for our TMDL study when she was at the MPCA. Now she is the BWSR grant coordinator. She remains consistent in recommending waterskiing restrictions would help Goose Lake.
- Rescinding the recommendation may indicate a lack of confidence in the science. The staff does not doubt that the boat action stirs the lake sediments, makes conditions unfavorable for healthy lake vegetation and fisheries and could impact the longevity of an alum treatment. Retracting the recommendation shifts the discussion to *questioning the science* rather than considering the community desires for Goose Lake.
- VLAWMO's mission is to "protect and enhance the water and natural resources within the watershed." Making the recommendation allows VLAWMO to be that voice for the lake. If VLAWMO is awarded the grant, having the recommendation in place gives VLAWMO a stronger, more consistent voice to work with the neighbors. It also speaks to the state agencies that VLAWMO is consistent and its actions rooted in science. If we don't get the grant, the waterski question is back on hold. The time may not be ripe to restrict boat traffic. Both VLAWMO and the City can certainly host conversations about Goose Lake management. But the discussion about restrictions should primarily happen with the agency who would do the restricting, the city.

- Just so you are aware, the press coverage has brought out some of the ‘other’ Goose Lake neighbors who don’t waterski. Some have come to our stakeholder meetings and at least one has stopped by the office to express concern that perhaps the feedback from the skiers would mean that no treatment of the lake would take place. Normal shallow lake vegetation was seen as desirable. They may come to the Board meeting next week. I don’t know if we could say they support the recommendation but they are concerned that work on Goose won’t go forward.

The staff advocates that the recommendation that was sent to the City of WBL should stand and allow the city ordinance to proceed. To do otherwise will damage VLAWMO’s credibility and ability to do its job.

December 2019

To: The Board of Directors

From: Stephanie McNamara, Administrator

Re: V.A.2. 2019 Fund Balance designation

Operations Fund balances in specific areas need to be encumbered to pay for already approved 2019 expenses or to build a special purpose fund balance. **The payroll carry over** is to allow for the possibility some overlap time with the upcoming change of staffing. This will ensure a smooth transition. The training carry over is for new staff training.

Capital budget. In 2019 VLAWMO implemented programs and projects as identified in the 2017 – 2026 Comprehensive Water Management Plan. The following budget items, their purpose and amount are reflected in the table below. This table is included in Resolution 08-2019 for Board consideration. Following is some discussion of the carry-over or fund balance amounts recommended and then the table of recommended fund balance transfers to 2019.

3.4 Capital Improvement Projects and Programs

3.42 Lambert Creek. The Whitaker Wetland project funds break even. We spend the money and the grant reimburses us. The Whitaker doesn't appear in the budget because of grant but it does appear in the cash accounting. Of the \$224,913 actual cash spent so far in the Lambert Creek budget, \$167,055 is for the Whitaker Wetland project. Most of the rest of the \$57,900 in expenses is for the engineering work done by Houston and the corrections crew. We had \$163,290 in the Lambert budget. Subtracting the Houston/crew work leaves us with \$105,300 left in the Lambert budget. **\$63,275 is recommended as carry over to be added to the \$120,000 in 2020 giving us \$183,275 to address a Lambert Lake project.**

3.425 Goose Lake. The recommendation is to carry over all of the \$150,316 so it is available next year. There's a lot going on with costs still to be determined on some of it. Two items are anticipated for the Watershed based funding grant: \$20,000 for local match and \$29,520 for the 1st half already received. At this point, we still don't know what BMP or the cost of installation so **I was considering carrying it all over to 2020. There is \$60,000 in the 2020 budget for a total of \$183,275.** We may need more for the WBF installation practice. We may also need it for either a Goose Lake alum treatment if we get the grant (local match \$45,000) or the Oak Knoll spent lime pilot (cost unknown – although we have verbally committed to monitoring costs).

3.430 Birch Lake. Recommendation: the remaining \$39,067 be carried over for the 4th and Otter project. We anticipated local match of \$15,000. We will be putting this out for construction bids in January. Bids came in higher than the engineers estimate last time. As some grant funds have already been expended, having enough on hand for installing the project is essential.

3.440. Wilkinson-Gilfillan-Amelia. Recommended: \$50,000. Several studies were done on Wilkinson recently as well as additional monitoring. The next step is an engineering study.

3.450. Pleasant-Charley-Deep. The carp study has completed the first year. Tracking and management are planned in 2020. A sediment survey was identified for Pleasant lake to assess possible deposition in West Pleasant and Charley. Costs for that are still coming in. Pleasant is one of our impaired lakes without a TMDL.

3.460. Sucker Vadnais. The work on the channel is complete except for the four more years of restoration area maintenance (2020 – 2023) at a cost of \$8,000. There is only \$12,000 in the 2020 budget so this leaves a fairly modest \$14,000 to potentially start working on West Vadnais.

Resolution 10-2018 is recommended for Board consideration that includes the following carry over funds.

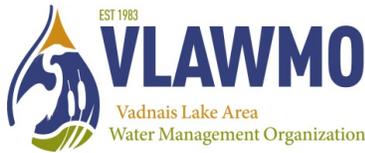
Fund	Description	Purpose	Amount
General	Information systems	Purchase of IT equipment & help	\$2,000
General	Legal assistance	Project contracting assistance	\$2,500
General	Training	Staff, TEC & Board training	\$800
General	Misc & mileage	Mileage reimburse, mtg expense	\$1,000
General	Admin-Payroll	Assist with staffing adjustment;	\$62,000
General	Monitoring & Equipment	Survey equipment & extra monitoring	\$10,000
General	Education & Marketing	Program materials & swag replacement	\$1,000
General	Community Blue	Ongoing projects	\$2,000
General	Lambert Creek	Lambert maintenance project	\$63,275
General	Goose Lake	Fund for implementation; feasibility	\$150,316
General	Birch Lake	Match funds for iron filter project	\$39,067
General	Gil, Black, Tam, Wilkin	Feasibility study	\$50,000
General	Pleasant Charley Deep	Implementation funding for SLMP	\$9,000
General	Sucker Vadnais	Sucker channel maint. SLMP W Va	\$10,900
General	Landscape 1 cost share	Approved projects not complete	\$11,500



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General	Landscape 2 cost-share	Approved projects not complete	\$11,361
General	Facilities Maintenance	Ongoing maintenance of creek and VLAWMO installations	\$29,176
	Total		\$455,495

VLAWMO BUDGET 2020		Approved	2019	Apvd w-FB	Actual	Carry over 2020	Approved	Working Budget	
EXPENSE		2019 Budget	Fund balance	2019	2019 (11-8)	Fund balance -DR	2020	2020	
3.1	Operations & Administration	\$517,450	\$42,400	\$559,850	\$453,771	\$68,800	\$554,000	\$622,800	budget
	3.110 Office	\$24,980	\$0	\$24,980	\$23,905	\$0	\$25,200	\$25,200	
	3.120 Information systems	\$22,000	\$2,500	\$24,500	\$15,985	\$2,000	\$20,000	\$22,000	
	3.130 Insurance	\$5,200	\$400	\$5,600	\$7,628	\$0	\$5,800	\$5,800	
	3.141 Consulting -Audit	\$6,700	\$0	\$6,700	\$6,450	\$0	\$6,700	\$6,700	
	3.142 Consulting - Bookkeeping	\$2,000	\$0	\$2,000	\$563	\$0	\$1,500	\$1,500	
	3.143 Consulting - Legal	\$4,000	\$3,000	\$7,000	\$2,985	\$2,500	\$4,000	\$6,500	
	3.144 Consutling - Eng. & Tech.						\$30,000	\$30,000	
	3.150 Storm Sewer Utility	\$13,500	\$2,000	\$15,500	\$6,195	\$0	\$14,000	\$14,000	
	3.160 Training - staff, board,TEC	\$4,500	\$1,000	\$5,500	\$2,271	\$1,500	\$4,500	\$6,000	training for new staff
	3.170 Misc & contingency	\$5,500	\$1,000	\$6,500	\$5,640	\$800	\$5,500	\$6,300	
	3.191 Employee payroll	\$340,260	\$24,000	\$364,260	\$293,339	\$50,000	\$347,200	\$397,200	overlap time
	3.192 Employee liability	\$88,810	\$8,500	\$97,310	\$88,810	\$12,000	\$89,600	\$101,600	\$790
3.2	Monitoring & Studies	\$26,000	\$9,200	\$35,200	\$22,316	\$10,000	\$26,000	\$46,000	
	3.210 Lake & creek program lab analysis	\$24,000	\$4,000	\$28,000	\$12,965	\$10,000	\$22,000	\$32,000	-\$2,000 savings from new lab
	3.220 Equipment	\$2,000	\$5,200	\$7,200	\$9,351	\$0	\$4,000	\$4,000	\$2,000 More auto equipment
	3.230 Wetland assessment & mangagement						\$10,000	\$10,000	
3	Education & Outreach	\$28,000	\$7,800	\$35,800	\$27,518	\$3,000	\$26,000	\$29,000	
	3.310 Public Education	\$9,500	\$1,100	\$10,600	\$10,092	\$1,000	\$8,500	\$9,500	-\$1,000 No Master Water stewards
	3.320 Outreach and marketing	\$8,500	\$2,400	\$10,900	\$9,643	\$0	\$7,500	\$7,500	-\$1,000 No Master Water stewards
	3.330 Community Blue education grant	\$10,000	\$4,300	\$14,300	\$7,783	\$2,000	\$10,000	\$12,000	\$0
3	Capital Improvement Projects & Subwatershed Activity	\$259,200	\$326,192	\$591,392	\$205,792	\$373,696	\$291,000	\$633,334	10.9%
	3.410 Gem Lake subwatershed	\$1,200	\$0	\$1,200	\$0	\$0	\$0	\$0	
	3.420 Lambert Creek subwatershed	\$45,000	\$50,000	\$95,000	\$31,725	\$63,275	\$120,000	\$183,275	ditch athourity \$40k
	3.425 Goose Lake subwatershed	\$67,000	\$113,696	\$183,696	\$33,380	\$150,316	\$60,000	\$210,316	alum dosing & WBF BMP Matches: 45k+15k
	3.430 Birch Lake subwatershed	\$10,000	\$63,923	\$78,923	\$39,856	\$39,067	\$10,000	\$49,067	18923+45000=63923 \$90,000 iron enhncd sand filter
	3.440 Giffillan Black Tamarack Wilkinson	\$54,000	\$0	\$54,000	\$0	\$50,000	\$30,000	\$80,000	Wilk BMP, SLMP study
	3.450 Pleasant Charley Deep subwatershed	\$15,000	\$5,000	\$20,000	\$10,942	\$9,000	\$10,000	\$19,000	Charley sed. Study carp or wetland rest.
	3.460 Sucker Vadnais subwatershed	\$2,000	\$64,900	\$66,900	\$38,605	\$10,000	\$12,000	\$22,000	Sucker channel carp or wetland rest. Veg studies
	3.48 Programs	\$63,000	\$28,673	\$91,673			\$49,000		
	3.481 Landscape 1 - cost-share	\$24,000	\$0	\$24,000	\$7,140	\$11,500	\$24,000	\$35,500	
	3.482 Landscape 2	\$20,000	\$1,500	\$21,500	\$10,139	\$11,361	\$20,000	\$31,361	
	3.483 Project research and feasibility - wa	\$14,000	\$0	\$14,000	\$31,009	\$0	\$0	\$0	
	3.484 Maintenance & operations	\$5,000	\$27,173	\$32,173	\$2,996	\$29,176	\$5,000	\$34,176	
4	Regulatory	\$2,000	\$0	\$2,000	\$0	\$0	\$2,000		
	3.510 Engineering plan review	\$2,000	\$0	\$2,000	\$0	\$0	\$2,000	\$2,000	
	Total budget	\$832,650	\$385,592	\$1,224,242	\$548,965	\$455,496	\$899,000		7.38%
	INCOME								Increase
5		Ap. 2019	FB 2019	2019	Actual 2019		Ap 2020		\$66,350 budget
	5.11 Storm Sewer Utility	\$826,150		\$826,150	\$442,299		\$890,800	\$64,650	SSU inc. 7.83%
	5.12 Fees for Service	\$200		\$200	\$700		\$200	\$46.80	2019 SSU
	5.13 Interest	\$1,300		\$1,300	\$10,902		\$5,000	\$50.46	est. '20 SSU
	5.14 Misc. income - WCA admin grant	\$5,000		\$5,000	\$3,802		\$3,000	\$3.66	inc in SSU
	5.15 Other funding sources - grants, dor	\$0		\$0	\$26,016		\$0		
	5.16 Transfer from reserves or fund bal	\$0	\$385,592	\$385,592	\$0		\$0		
	Total income	\$832,650		\$1,218,242	\$483,719		\$899,000		\$314,650.00 Fund Balance target



RESOLUTION 08-2019

Of the Vadnais Lake Area Water Management Organization (VLAWMO)

December 11, 2019

The Board of Directors of the Vadnais Lake Area Water Management Organization met in a regular meeting at the Vadnais Heights City Hall on Wednesday, the 11th day of December, 2019 at 7:00 o'clock p.m.

The following members were present:

- Marty Long, City of North Oaks*
- Patricia Youker, City of Vadnais Heights*
- Ed Prudhon, White Bear Township*
- Dan Jones, City of White Bear Lake*
- Jim Lindner, City of Gem Lake*
- Rob Rafferty, City of Lino Lakes*

The following members were absent:

Director _____ introduced the following resolution and moved its adoption. Director _____ seconded the motion.

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

<u>Fund</u>	<u>Description</u>	<u>Purpose</u>	<u>Amount</u>
General	Information systems	Purchase of IT equipment & help	\$2,000
General	Legal assistance	Project contracting assistance	\$2,500
General	Training	Staff, TEC & Board training	\$1500
General	Misc. & mileage	Mileage reimburse, mtg. expense	\$800



General	Admin-Payroll	Assist with staffing adjustment;	\$62,000
General	Monitoring & Equipment	Survey equipment	\$10,000
General	Education & Marketing	Program materials & swag replacement	\$1,000
General	Community Blue	Ongoing projects	\$2,000
General	Lambert Creek	Lambert maintenance project	\$63,275
General	Goose Lake	Fund for implementation; Alum treatment & WBF project	\$150,316
General	Birch Lake	Match & grant funds for iron filter project	\$39,067
General	Gil, Black, Tam, Wilkin	Wilkinson feasibility	\$50,000
General	Pleasant Charley Deep	Implementation funding SLMPs	\$9,000
General	Sucker Vadnais	Sucker channel & others	\$10,000
General	Landscape 1 cost-share	Approved projects not complete	\$11,500
General	Landscape 2 cost-share	Approved projects not complete	\$11,361
General	Facilities Maintenance	Ongoing maintenance of creek and VLAWMO installations	\$29,176
	Total		\$455,496

The Board of Directors of the Vadnais Lake Area Water Management Organization, Minnesota this 11th day of December, 2019 passed the foregoing resolution.

CHAIR (or authorized): _____ Date: _____

ATTEST: Signed: _____ Date: _____



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

To: Board of Directors

From: Stephanie McNamara, Administrator

Date: December 6, 2019

Re: V. A. 1. Approval of Auditing proposal for 2019 & 2020 Audits

After release of Request for Proposal (RFP) for professional financial reporting and auditing services for fiscal years 2019 & 2020, 2 proposals were received from Clifton Larson Allen LLP (CLA, current auditor) and Abdo Eick & Meyers LLP. The Clifton Larson Allen proposal outlines continuing reporting and auditing services not-to-exceed \$6,893 in 2019 & \$7,025 in 2020. The Abdo Eick & Meyers proposal lists not-to-exceed amounts of \$8,000 in 2019 & \$8,200 in 2020. Staff has had nothing but good experiences with CLA in past years of service, and with lower proposals of more than \$1,000 for both 2019 & 2020, staff is recommending authorization to proceed with Clifton Larson Allen for auditing services according to their RFP.

Recommendation: staff recommends the Board authorize staff to select Clifton Larson Allen for professional services in financial reporting and auditing for 2019 & 2020, and to schedule VLAWMO's 2019 audit.

Proposal for Audit Services

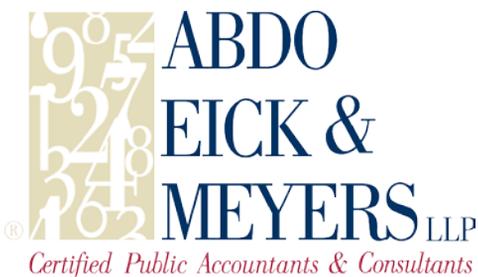
Vadnais Lake Area Water Management Organization

December 2, 2019

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December 2, 2019

Vadnais Lake Area Water Management Organization
Attn: Stephanie McNamara, Administrator
800 County Road E East
Vadnais Heights, Minnesota 55127

Dear Stephanie:

Thank you for the opportunity to submit this proposal to the Vadnais Lake Area Water Management Organization (the Organization) for audit services. We appreciate the opportunity to work with you again. Based on our experience with clients like you, we are confident that Abdo, Eick & Meyers, LLP (the Firm) would be a great fit.

We work hard for those who matter most - clients, employees, family, and community - and celebrate their successes as our own. Our success has been driven by our philosophy of going beyond the numbers for our clients. This belief is represented through our commitment to people and knowledge, process and you. We will utilize staff that is experienced and dedicated in the area of government. Our Process is centered on meeting your needs, exceeding your expectations, and incorporating technology to deliver unparalleled solutions. This includes delivering prompt and effective service of the highest quality to you. The quality of our service allows us an opportunity to be an integral part of your finance team. We believe this investment should make a difference for you, our valued client. We focus on the challenges and needs that are relevant to your organization, which allows us to be thoughtful in our approach in providing you with the best solutions, and leaves you assured in the value of our deliverable.

The attached proposal will demonstrate to you that we will be a great service provider and partner for your Organization. We look forward to meeting with you to discuss our proposal, and appreciate this opportunity to present our firm for your consideration. We will follow up with you within two weeks to answer any questions or concerns you may have and to provide any further information you may need.

Sincerely,

ABDO, EICK & MEYERS, LLP
Certified Public Accountants & Consultants



Andrew K. Berg, CPA
Governmental Services Partner

Table of Contents

Executive Summary	4
Government Experience	5
Audit Approach	6
Technology	7
Your Team	8
Value	9
What Our Clients Say	10
Why AEM	11
Appendix A: Proposer Guarantees	
Appendix B: Peer Review Letter	



Executive Summary

We are pleased to present our proposal for audit services to the Vadnais Lake Area Water Management Organization. We have prepared our proposal based on our understanding of your organization's needs from the request for proposal we received and the very informational information we received from Stephanie McNamara, during which we were provided with an opportunity to get to know you better.

We understand that the key requirements of your selected advisors include:

- Access to partners and staff for assistance in answering questions throughout the year
- Deliver both concise and informative information to the Board
- Demonstrate familiarity, knowledge and experience in the industry
- Provide a timely and efficient audit

We understand that the requested work to be completed includes the following services:

- Annual Financial Statement Audit
- Single Audit (If applicable)
- Management Letter
- Presentation to the Board

Based on our work with more than 200 local governments similar to yours, we confidently believe we can meet your requirements and exceed your expectations for the reasons listed below and referenced in our proposal.

- We provide timely services and currently adhere to an 18 day turnaround time from fieldwork for the delivery of draft financial statements to the client.
- We work with multiple watershed districts.
- Our Board presentation uses ratios and comparisons of trends that give snapshots of metrics for your Organization through graphs and charts.
- We have a dedicated team of 40 partners, managers and staff that serve governments exclusively.
- Our government experience extends beyond just audit and compliance. We also provide the following services to government organizations.
 - Human Resource solutions
 - Long-term financial planning
 - One-on-one personalized and group-focused training opportunities
 - Process improvement- lean process and process evaluation
 - Arbitrage services
- Integral to our mission is a philosophy that we help organizations reach their maximum potential through open communications and teamwork. **We enjoy answering questions any time of the year, and at no cost!**

We commit to providing an excellent level of client service and helping you move beyond the numbers through communication, support and customized guidance. As you review the details of this proposal, please do not hesitate to contact us with questions or for clarification. We look forward to partnering with the Vadnais Lake Area Water Management Organization.

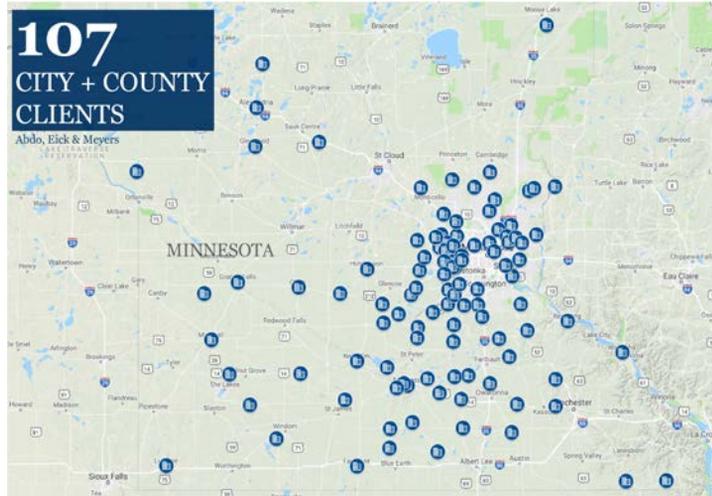


Government Experience

You can have confidence in our 55 years of quality auditing services and partnership in the government space. Since 1963, we've served cities just like yours. With an unwavering commitment to streamlining processes, training staff, and finding technology-based solutions, we proudly offer excellence in city auditing.

Out of our 160-strong, talented staff, over 40 team members are 100% focused on government clients, including services for over 100 cities and various municipalities, including watershed districts. By serving watershed districts across Minnesota, we have become experts in the nuances of how to best support your Organization.

Our expertise affords you an audit experience that's painless. We do this by communicating up front, coming better prepared, and being available throughout the year to support you.



OUR PROCESS

Our methods are centered around incorporating technology to deliver unparalleled solutions for government organizations. In addition to our audit experience, our firm expertly performs outsourcing for governments giving us a wealth of experience in a finance director role. We don't believe in a one-size-fits-all mentality so together, we'll focus on the needs that are relevant to your city and provide the right services to meet them with a tailored audit approach. We're focused on efficiency and deliver the audit draft within 3 weeks of completing fieldwork is completed bringing you accuracy and value.

OUR FOCUS

Through continuous training and growth opportunities, we've established an environment with a focus on serving city governments. We spend more than 100 hours training and onboarding to ensure success for our clients.

We truly hope that you allow us to be your partner. Together, we'll go beyond the numbers to best support your city.

OUR QUALIFICATIONS

- GFOA and MnGFOA Association members
- We speak and train on government accounting and auditing topics
- Audit services for watershed districts
- We've assisted many cities in preparing for the GFOA's *Certificate of Achievement for Excellence* awards in financial reporting
- Our clients represent top tier governments with 19 municipal clients receiving the GFOA's *Certificate of Achievement for Excellence in Financial Reporting*
- Audit services for over 100 cities





Audit Approach

AUDIT SERVICES THAT MOVE THE VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION BEYOND THE NUMBERS

We deliver auditing services that are more than just a compliance service. We exceed what's considered "standard audit support," placing a strong emphasis on a relationship-driven approach that facilitates a partnership with your organization. We work together to ensure we have a clear understanding of your organization's needs, challenges and financial information. Together with your organization's team, we'll help to leverage this information to increase efficiency and effectiveness.

PARTNERSHIP

Integral to our mission is a philosophy that we help organizations reach their maximum potential through open communication and teamwork. **We enjoy answering questions any time of the year, and at no cost!** We also believe in:

- Consistent, clear, proactive communication that offers suggestions and makes your work easier
- Returning phone calls and questions promptly
- Gathering information through dialog, not checklists
- Conducting listening calls with you outside of the engagement to understand your organization, build a long-term relationship with you and learn how we can improve.

PEOPLE

Our value comes from our experience and the education we can provide. Our professionals go beyond the required standards to make sure we have a clear understanding of your organization. We work with your management team to leverage this information to increase efficiency and profitability. You can learn more about your audit team in the team section.

PROCESS

While we will audit the financial statements of your Organization for the year ended December 31, 2019 and 2020, in accordance with the applicable regulatory standards, our process is designed to go far beyond that. Our process enables us to gain a thorough understanding of the processes, procedures, and general operations of your Organization.

1. Client Understanding

2. Planning & Interim Fieldwork

3. Year-end Audit Fieldwork

4. Reporting



Technology

AEM Technology

We believe technology should enhance our service offerings, making our work less intrusive, our time with you more productive and keep everyone's data more secure. Our use of technology in financial statement preparation enables us to streamline our work. It also helps us to automate certain functions of our audit, so we are free to spend more time analyzing our results and working directly with you.

Some of the technology we use to enhance our client experience are:

- Utilize Engagement Organizer for customized to-do lists via a secure online web based portal.
- MindBridge is a data analytics software used to quickly identify unusual transactions and potential errors.
- Utilize Zoom technology to enhance remote work relationships with clients and team members.



Wolters Kluwer



zoom



MindBridge™



AEM takes the security of our data and our client's data very seriously. Many systems are in place to ensure the safety of your organization's data with us. We operate in a completely remote hosted environment. This not only allows to work from any computer, anywhere, any time, but also provides large scale, cutting edge technology and security for your data. Your data is housed in a secure data warehouse, not on laptops or local servers.

It also means:

- All firm staff use dual authentication for every login to our remote environment
- Our data is saved on redundant servers so if one server fails the other will immediately take over
- Our data is backed up continually
- All email and embedded links are scanned for viruses prior to landing in our inbox



Your Team

In assembling our team to serve the Vadnais Lake Area Water Management Organization, we have assigned experienced individuals who know and understand your unique financial accounting and audit needs. Our proposed delivery team has substantial experience working with organizations similar to yours, including audit and accounting experience. Our team members and their respective experience are briefly profiled below.

	MEMBER	TITLE	YEARS OF EXPERIENCE
	Andy Berg, CPA	Partner	25
	Tom Olinger, CPA	Partner	22
	Justin Nilson, CPA	Manager	8
	Greta Pudas, CPA	Senior Accountant	4
	Erik Wagner	Staff Accountant	2



Value

We at AEM help our clients improve their Organization and achieve their financial goals.

Our fees range from \$95 to \$365 per hour based upon the experience and level of the individuals to be assigned to perform the audit. Fees are also based on the assumption that your Organization’s staff will be assisting us whenever possible with audit schedules. We will provide a detailed audit plan and prepare a list of requested schedules upon proposal acceptance.

We do not believe in charging for a phone call, emails, etc. at any time during the year. We encourage clients to call us for questions, advice, or just update us on what is happening in their organization throughout the year. We want to be a resource for you throughout the year without consideration of whether or not the meter is running. When our communications identify additional service needs, we will provide you with an expected fee range.

We have not anticipated any additional hours for new audit or accounting standards. Accounting or audit standard changes may result in increased hours.

SUMMARY SCHEDULE OF PROFESSIONAL FEES

	Year End December 31	2019	2020
Audit	Not-to-Exceed Amount	\$8,000	\$8,200



What Our Clients Say

Client References

We have long-term relationships with many organizations in Minnesota. Our clients listed below would be a good representation of audit clients. All have partner, president, manager or supervisor staffing for the fieldwork process.

<p>Prior Lake - Spring Lake Watershed District</p>	<p>South Washington Watershed District</p>
<p>Diane Lynch 952.447.4166</p>	<p>Matt Moore 651.714.3729</p>
<p>Engagement Partner – Andrew Berg</p>	<p>Engagement Partner - Andrew Berg</p>
<p>Comfort Lake - Forest Lake Watershed District</p>	<p>City of Vadnais Heights</p>
<p>Mike Kinney 651.209.9753</p>	<p>Bob Sundberg 651.204.6020</p>
<p>Engagement Partner – Andrew Berg</p>	<p>Engagement Partner – Steve McDonald</p>



Why AEM

Abdo, Eick & Meyers, LLP, established in 1963, has a professional staff of more than 150 in its Edina and Mankato offices. The two offices serve clients of all sizes and industries. Our services include audits, reviews and compilations, monthly accounting, tax planning and preparation, and management advisory services. In addition, Abdo, Eick & Meyers, LLP is recognized as one of the Top 150 firms in the United States and the 11th largest firm in Minnesota.

We're here because our clients need solutions to their challenges--not a commodity product. Through our dedication to teamwork, development and relationships, we will help our clients thrive. The investments into our People + Process make a difference for you, our valued client. We focus on the challenges and needs that are relevant to your business or government agency. This allows us to be thoughtful in our approach in providing you with the best solutions, and leave you assured in the value of our deliverable.

The Firm is a member of the American Institute of Certified Public Accountants Division of Firms and has received an unmodified opinion on its Peer Review. Our Peer Review, was completed in 2017 and resulted in a pass rating. A copy of this letter can be found in Appendix B.

The Firm has not had any federal or state desk reviews or field reviews of its audits in the last three years. We have had no disciplinary action taken or pending against the Firm during the past three years with state regulatory bodies or professional organizations.

We maintain library facilities which include current professional literature and specific information for the industries we serve. The Firm library is also reviewed as part of the external quality review program. The Firm has in-house training programs specific to our government clients. We also perform auditing and accounting updates for our clients that are organized by our staff. These practices ensure the quality of our staff over the term of engagement.



WE LISTEN

You will know you're in the right hands well before delivery, but be assured that we will get you a great value for the investment of your time.



WE ENGAGE

Active engagement with DFK International and domestic industry associations allows us to provide maximum value to your Organization.



WE DELIVER

Combining our internal expertise and technological resources with what we've learned about you allows us to deliver a solution that exceeds your expectations.



Appendix A

Proposer Guarantees

1. Proposer warrants that it is willing and able to comply with State of Minnesota Laws with respect to foreign (non-State of Minnesota) corporations.
2. Proposer warrants that it is willing and able to obtain an "errors and omissions" insurance policy providing a prudent amount of coverage for the willful or negligent acts, or omissions of any officers, employees or agents thereof.
3. Proposer warrants that it will not delegate or subcontract its responsibilities under an agreement without the prior written permission of the Vadnais Lake Area Water Management Organization.
4. The proposer certifies that it can and will provide and make available at a minimum, all services set forth in Section II, Nature of Services Required.
5. Proposer warrants that all information provided in this proposal is true and accurate.



Signature of Official _____
Name (typed) _____ Andrew K. Berg, CPA _____
Title _____ Partner _____
Firm _____ Abdo, Eick & Meyers, LLP _____
Date _____ December 2, 2019 _____



Appendix B



CERTIFIED PUBLIC ACCOUNTANTS
AND CONSULTANTS

REPORT ON THE FIRM'S SYSTEM OF QUALITY CONTROL

January 30, 2018

To the Partners of
Abdo, Eick and Meyers, LLP
and the Peer Review Committee of the Minnesota Society
of Certified Public Accountants

We have reviewed the system of quality control for the accounting and auditing practice of Abdo, Eick & Meyers, LLP (the firm) in effect for the year ended May 31, 2017. Our peer review was conducted in accordance with the Standards for Performing and Reporting on Peer Reviews established by the Peer Review Board of the American Institute of Certified Public Accountants (Standards).

A summary of the nature, objectives, scope, limitations of, and the procedures performed in a System Review as described in the Standards may be found at www.aicpa.org/prsummary. The summary also includes an explanation of how engagements identified as not performed or reported in conformity with applicable professional standards, if any, are evaluated by a peer reviewer to determine a peer review rating.

Firm's Responsibility

The firm is responsible for designing a system of quality control and complying with it to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. The firm is also responsible for evaluating actions to promptly remediate engagements deemed as not performed or reported in conformity with professional standards, when appropriate, and for remediating weaknesses in its system of quality control, if any.

Peer Reviewer's Responsibility

Our responsibility is to express an opinion on the design of the system of quality control and the firm's compliance therewith based on our review.

Required Selections and Considerations

Engagements selected for review included engagements performed under *Government Auditing Standards*, including a compliance audit under the Single Audit Act; audits of employee benefit plans, an audit performed under FDICIA and an examination of a SOC 2 service organization.

As a part of our peer review, we considered reviews by regulatory entities as communicated by the firm, if applicable, in determining the nature and extent of our procedures.

Opinion

In our opinion, the system of quality control for the accounting and auditing practice of Abdo, Eick & Meyers, LLP in effect for the year ended May 31, 2017, has been suitably designed and complied with to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Firms can receive a rating of *pass*, *pass with deficiency(ies)* or *fail*. Abdo, Eick & Meyers, LLP has received a peer review rating of *pass*.

A handwritten signature in black ink that reads "Brady Martz". The signature is written in a cursive, flowing style.

Brady Martz and Associates, P.C.



CLA (CliftonLarsonAllen LLP)
220 South Sixth Street, Suite 300
Minneapolis, MN 55402-1436
612-376-4500 | fax 612-376-4850
CLAconnect.com

November 29, 2019

Ms. Stephanie McNamara, Administrator
Vadnais Lake Area Water Management Organization
800 County Road E East
Vadnais Heights, MN 55127

Dear Ms. McNamara:

Thank you for inviting us to propose continuing our services with you. We gladly welcome the opportunity to share our approach to continue helping the Vadnais Lake Area Water Management Organization (VLAWMO) meet your needs for assurance and compliance services. The enclosed proposal responds to your request for auditing services for the fiscal years ending December 31, 2019 and 2020.

At CliftonLarsonAllen LLP (CLA), our greatest strengths correspond to your most critical needs; we possess the full spectrum of resources needed to most effectively help VLAWMO's management team meet their goals – all at a very competitive rate. We believe we are the most qualified firm to audit VLAWMO because of:

- **Credibility, Reputation, and Resources of a top 10 Firm.** Without sacrificing the small-firm touch. Our CPAs and consultants can help you analyze and address financial, operational, and regulatory issues so you can focus attention on serving your citizens.
- **National Reach with Local Presence.** At CLA, we have the benefit of having the resources of a national firm while being able to serve you from our Minneapolis office.
- **Experience Auditing Minnesota Governments.** We audit more than 300 government entities including many municipalities, airports, and special districts. We understand the requirements of the Minnesota Statutes, and the unique reporting requirements for Minnesota municipalities.
- **An Efficient and Effective Work Plan.** We understand VLAWMO's complexities, not just from a compliance standpoint but also from an operational point of view. We have developed an effective work plan that takes into consideration your needs for high quality audit services, as well as timely deliverables.
- **Engagement Team.** We know that quality people drive quality results, which is why our commitment to you starts with the engagement team members who are selected based on their experience, focus on serving governments, and who is the best fit for you. Our goal is to provide quality, client service by developing strong professional relationships with VLAWMO staff for the VLAWMO's audit. Christopher Knopik, Principal, will be the main contact for VLAWMO.

Thank you for this opportunity to present our letter of interest. If you have any questions about our offerings, please do not hesitate to contact me.

Sincerely,

CliftonLarsonAllen LLP

Christopher Knopik, CPA, CFE, Principal
612-397-3266
christopher.knopik@CLAconnect.com

Firm Qualifications and Experience

CLA exists to create opportunities for our clients, our people, and our communities through industry-focused wealth advisory, outsourcing, audit, tax, and consulting services. Our broad professional services allow us to serve clients more completely — from startup to succession and beyond.

Our professionals are immersed in the industries they serve and have specialized knowledge of their operating and regulatory environments. With more than 6,200 people, more than 120 U.S. locations, and a global affiliation, we bring a wide array of approaches to help clients in all markets, foreign and domestic.



CLA serves more than 3,300 governmental entities across the country of which more than 300 are located within Minnesota. Our client base across the United States includes full state wide audits, federal departments, counties, cities, school districts, and special districts.

We respond to your stated needs in a thorough and easy-to-follow manner. We understand your most important and relevant needs are:

- **A team of professionals carefully-selected for compatibility with Vadnais Lake Area Water Management Organization's needs and circumstances** — Your service team understands the strategic, operational, and regulatory issues impacting local governments and non-profit organizations. These professionals dedicate a substantial percentage of their time assisting public sector entities with financial, regulatory, and information security matters.
- **Efficiency** — Our goal is to provide exceptional client service at the lowest possible cost. A well-planned and well-executed engagement by an experienced service team will minimize disruption to your staff and enable timely completion of all deliverables.
- **Industry experience** — By engaging CLA, you will be served by an engagement team with enthusiasm and desire to meet and exceed expectations. We are confident that our industry experience will reveal new ideas, new approaches, and new opportunities for VLAMO.
- **We are local!** — All of the personnel assigned to your engagement team are located in our Minneapolis, Minnesota office, so we are available to meet with you at your request without additional constraints for travel and additional costs.
- **A high principal/staff ratio** — One of the indicators of audit quality is principal/staff ratio. VLAMO can count on one point of contact, Christopher Knopik, and greater principal attention than many other firms provide. Our principal/staff ratio of 1-to-6 allows CLA to provide a high level of executive attention with national reach and resources.
- **Competitive professional fees** — CLA's professional fees are comparable to other national firms, and we have national resources available to assist with local engagements.



Location from which work will be performed

Your engagement will be managed from our Minneapolis, Minnesota office. The location of the office is as follows:

CliftonLarsonAllen LLP
220 South Sixth Street, Suite 300

Minneapolis, MN 55402



Principal, Supervisory and Staff Qualifications and Experience

The professionals at CLA operate as a team. We have found that the best way to thoroughly meet the needs of our clients is to work together, utilizing each other's areas of specialty. Our principals and managers stay closely involved with all of our clients so you know your engagement will be handled with the highest degree of accuracy and professionalism.

Christopher G. Knopik, CPA, CFE	
Position	Audit Principal
Functional Responsibility	Chris will oversee all engagement responsibilities for the audit.
Professional Certifications	<ul style="list-style-type: none"> • Certified Public Accountant, licensed in Minnesota • Certified Fraud Examiner(national certificate)
Professional Affiliations	<ul style="list-style-type: none"> • American Institute of Certified Public Accountants • Minnesota Society of Certified Public Accountants • Minnesota Government Finance Officers Association • Association of Certified Fraud Examiners • National Association of College and University Business Officers
Education	Bachelor of science, accounting, Bemidji State University
Years of Experience	16
Relevant Experience	<p>Chris works exclusively with state and local government clients, including cities, towns, counties, colleges and universities, and special districts, and has extensive experience with single audits of federal grant programs under the Uniform Guidance. A sampling of his governmental clients includes:</p> <ul style="list-style-type: none"> • City of Avon • City of Delano (including Fire Relief Association) • City of Eden Prairie (including Fire Relief Association) (GFOA award recipient) • City of Elk River (including Fire Relief Association) (GFOA award recipient) • City of Gem Lake • City of Lakeville (including Fire Relief Association) (GFOA award recipient) • City of Little Canada (GFOA award recipient) • City of Mahtomedi (GFOA award recipient) • City of Stillwater (GFOA award recipient) • Minnesota State Colleges and Universities • Stillwater Water Commission • White Bear Township (GFOA award recipient) • Dakota County (GFOA award recipient) • Sherburne County (GFOA award recipient) • Carver County (GFOA award recipient)
Relevant Continuing Professional Education	<ul style="list-style-type: none"> • GFOA Certificate Program reviewer • Federal single audit internal training • CLA Local Government Training Academy • Annual A&A updates



Liz Towne, CPA	
Position	Audit Manager
Functional Responsibility	Liz will be the manager for the audit and manage all fieldwork personnel.
Professional Certifications	<ul style="list-style-type: none"> • Certified Public Accountant, licensed in Minnesota
Professional Affiliations	<ul style="list-style-type: none"> • American Institute of Certified Public Accountants • Minnesota Society of Certified Public Accountants
Education	Bachelor of science, accounting, University of Arizona: Eller College of Management
Years of Experience	5
Relevant Experience	Liz works with public sector clients ranging from special districts, non profits, colleges, and universities.
Relevant Continuing Professional Education	<ul style="list-style-type: none"> • Federal single audit internal training • Annual A&A updates

Andrew Suel	
Position	Audit Senior
Functional Responsibility	Andrew will serve the senior accountant on the engagement.
Education	Bachelor of arts, accounting, University of St. Thomas
Years of Experience	2
Relevant Experience	Andrew works exclusively with state and local government clients, including cities, towns, counties, colleges and universities, and special districts, and has extensive experience with single audits of federal grant programs under the Uniform Guidance.
Relevant Continuing Professional Education	<ul style="list-style-type: none"> • Federal single audit internal training • CLA Local Government Training Academy • Annual A&A updates • Minnesota school district internal training

Commitment to Staff Continuity

We are committed to maintaining staff continuity throughout the engagement, and have one of the lowest staff turnover rates in the industry. In fact, our consistently low staff turnover rate is a key factor in our ability to provide consistent, timely service. We recognize the importance of staff continuity, and have developed several firm wide initiatives to recruit and retain talented professionals. We place high importance on employee work-life balance, and provide our professionals with extensive career and professional development opportunities, as well as dedicated mentoring relationships.

In the unforeseen event of staff turnover, we will notify appropriate management as soon as possible. Since changes in key personnel cannot always be prevented, it is important that similar replacements are available. Due to our extensive governmental resources and experience serving entities similar to the VLAWMO, we have an abundance of qualified staff to provide high quality service over the term of the engagement. Furthermore, we understand the VLAWMO retains the right to approve or reject replacements.



Audit Experience

VLAMO will be served by knowledgeable CPAs who are committed to serving local governments. This is our focus – it is not an “off-season” sideline. Our firm has more than 50 years of experience in government auditing. Our experience includes providing auditing and consulting services to more than 300 governmental entities across Minnesota; we are the largest Minnesota-based public accounting firm with a very heavy emphasis in servicing local governments.

In addition to audit services, we have assisted our government organizations with the following services:

- Assistance in retaining the Certificate of Achievement for Excellence in Financial Reporting Award
- Tax consultation availability for income, sales and use, and payroll related matters (including the Affordable Care Act)
- Close monitoring of the ongoing activity of the Minnesota Legislature to keep abreast of the latest legislative intents and proposals in order to be a resource to our clients when they are evaluating the impacts of pending legislation

Governmental experience

CLA offers the credibility, reputation, and resources of a leading professional services firm — without sacrificing the small-firm touch. We bring unsurpassed levels of technical excellence, commitment, and dedication to our clients, which have made us one of the most successful CPA firms serving governmental entities. Our strong reputation for serving state and local government units provides VLAMO the confidence in their decision to select CLA as their professional service provider.

CLA has one of the largest governmental audit and consulting practices in the country, serving more than 3,300 governmental clients nationwide. Public sector clients represent approximately one-quarter of all firm-wide revenue, and each of the government



services team members are thoroughly versed in the issues critical to complex governmental entities.

Our professionals have deep, technical experience in serving governmental entities. As a CPA firm experienced in serving state and local units of government, we are very aware of the financial and legal compliance requirements that government officials are faced with daily. This creates complexities and

service issues within a unique operational and regulatory environment. Because of our experience, we have become adept at providing our clients with insights in this environment not typical of other CPA firms.

Our continuous growth in working with the government sector has come about because we continually provide assistance to our clients in meeting their objectives.

We have been constructive and supportive with as little interruption to their activities as is possible. We have pointed out inefficiencies, poor accounting practices, and in some instances, suspected fraud.



Experience with tax-exempt bonds

Our firm is routinely involved with the issuance of government debt, both large and small. We are very familiar with both the underlying professional standards and underwriter requirements. We understand the need for acting expeditiously when opportunities present themselves to our clients, and we stand ready to serve our clients. Any request by VLAMO to provide comfort letters associated with any debt offerings will be considered at the time such request is made, giving consideration to environmental and regulatory factors and the nature of the items on which we are requested to provide “comfort.” Comfort letters represent a report of our firm, as do our audit opinions, and are therefore subject to the same quality review processes and procedures as our audits.

Accessibility

CLA’s success is based on providing clients with excellent service on a timely basis. Therefore, Christopher Knopik, the principal-in-charge of your engagement will be available for routine questions – whether addressed in person, via telephone, or email – at no additional charge – a welcome investment in an ongoing relationship. All of our principals and managers have constant access to e-mail. In addition, you will be provided with cell phone numbers of every member of your engagement team. Team members will respond to all questions and requests on the same day that the request is made whenever possible.

The close, personal attention from our senior level personnel, combined with our low principal-to-staff ratio, sets CLA apart from many other CPA firms.

Billing Rates

We propose a fee of \$6,893 (including out-of-pocket expenses and fees) to perform the audit and draft the financial statements and notes for the year ended December 31, 2019 and \$7,025 for the year ended December 31, 2020. See the detail rate and fee schedules below:

**Schedule of Professional Fees and Expenses
for the Audits of the December 31, 2019 and 2020 Financial Statements of
Vadnais Lake Area Water Management Organization**

	2019			2020		
	Hours	Discounted Hourly Rate	Total	Hours	Discounted Hourly Rate	Total
Principals	8	180	1,440	8	180	1,440
Manager	10	120	1,200	10	125	1,250
Senior	15	95	1,425	15	100	1,500
Staff	30	75	2,250	30	75	2,250
Secretarial	5	50	250	5	50	250
Subtotal	68		6,565	68		6,690
<i>Out of Pocket Expenses:</i>			-			-
Technology and Client Support Fee (5%)			328			335
Total All-Inclusive Maximum			6,893			7,025

NOTE #1: Rate charged for accounting services will be at the discounted rates indicated above .

NOTE #2: Additional fees related to a single audit are estimated to be **\$2,500** per major grant, if required.

NOTE #3: The amounts shown above include all out of pocket expenses .

NOTE #4: The amounts above include assistance with filing the OSA financial reporting form.

Our last word on fees – we are committed to serving you. Therefore, if fees are a deciding factor in your selection of an accounting firm, we would appreciate the opportunity to discuss with you the scope of our audit plan.

At CliftonLarsonAllen, it’s more than just getting the job done.



Partial Listing of our Governmental Clients

A listing of our governmental clients for the fiscal year ending **December 31, 2018**, follows:

Municipality	County	Public Utilities
Bennington Township	Aitkin County	Aitkin Public Utilities
Buffalo Township	Becker County	BENCO Electric Cooperative
City of Adams	Beltrami County	Brainerd Public Utilities
City of Alden	Benton County	Delano Water Light and Power Commission
City of Austin	Blue Earth County - 2019	Glencoe Light and Power Commission
City of Avon	Bois De Sioux Watershed District	Nobles Cooperative Electric
City of Barnesville	Carver County	Northland Connect Broadband LLC
City of Bigfork	Cottonwood County	Renville-Sibley Cooperative Power Association
City of Blue Earth	Countryside Public Health Services	Runestone Electric Association
City of Brainerd	Crow Wing County	Stearns Electric Association
City of Brandon	Dakota County	Steele-Waseca Cooperative Electric
City of Breezy Point	Des Moines Valley Health and Human Services	Traverse Electric Coop Inc.
City of Brooklyn Park	Dodge County	Water and Light Commission of the City of Moose Lake
City of Browns Valley	Douglas County	
City of Buffalo	East Central Regional Development Commission	
City of Carlos	Freeborn County	Other Governmental Entities
City of Clarks Grove	Gateway Corridor Commission	Alexandria Firemen's Volunteer Relief Association
City of Conger	Goodhue County	Becker County EDA
City of Courtland	Hennepin County Environmental Services	Buffalo Firemen's Relief Association
City of Crosby	Horizon Public Health	Cedar River Watershed District
City of Crosslake	Human Services Of Faribault & Martin Counties	Courtland Firemen's Relief Association
City of Deerwood	Itasca County	City of Hastings Fire Relief Association
City of Delano	Jackson County	Delano Fire Department Relief Association
City of Dexter	Kanabec County	Destination Medical Center Corporation
City of Eden Prairie	Lac qui Parle County	Eden Prairie Firefighters Relief Association
City of Elk River	Lincoln County	Elk River Fire Relief Association
City of Fifty Lakes	Lyon County	Hayward Fire Department Relief Association
City of Garfield	Mower County	Lafayette Community Fire Protection Association
City of Garrison	Nobles County	Lake Johanna Firefighter Relief Association
City of Gem Lake	Pine County	Lakeville Fire Relief Association
City of Glencoe	Pope-Douglas Solid Waste	Little Canada Firefighter's Relief Association
City of Grant	Ramsey County	Minnesota Armory Building Commission
City of Greenwood	Ramsey/Washington Suburban Cable Commission	Minnesota Municipal Money Market Fund
City of Hayfield	Region 4 South Adult Mental Health	Onamia Firemen's Relief Association
City of Hopkins	Rice County	Pequot Lakes Firemen's Relief Association
City of Independence	Rice-Steele Consolidate Dispatch	Sauk Centre Fire Department Relief Association
City of Ironton	Rock County	SE Minnesota Emergency Communications Board
City of Kenyon	Rock County Rural Water	Sourcewell
City of Kimball	Rock Soil & Water Conservation District	Southeast Minnesota Violent Crime Enforcement Team
City of Lakeville	Rock-Nobles Community Corrections	Stillwater Board of Water Commissioners
City of Little Canada	Sherburne County	Turtle Creek Watershed
City of Littlefork	Southwestern MN Adult Mental Health Consortium	
City Of Mahtomedi	St Louis County	
City of Marine on St. Croix	Swift County	Special Districts
City of Minnetrista	Stearns County	Minnesota Sports Facilities Authority
City of Moose Lake	Todd County	Ramsey/Washington Suburban Cable Commission
City of North Branch	Todd Soil & Water Conservation District	Sherburne Wright County Cable Comm. Commission
City of Onamia	Todd-Wadena Community Corrections	Viking Library System
City of Orono	Wadena County	Airport and Transit Authority
City of Ortonville	Washington County	Albert Lea Port Authority
City of Owatonna	Western Lake Superior Sanitary Sewer District	Port Authority of the City of St. Paul
City of Ranier	Wright County	
City of Redwood Falls		
City of Rice Lake		
City of Royalton		
City Of Sauk Centre	Housing Authorities	
City of Stillwater	Austin Housing & Redevelopment Authority	
City of Trimont	Bluff Country HRA	
City of Warren	Brainerd Housing & Redevelopment Authority	
City of Windom	Chippewa County Housing & Redevelopment Authority	
Foster Township	Crosby Housing & Redevelopment Authority	
Franklin Township	Crow Wing County HRA	
Grafton Township	Cuyuna Range Housing, Inc.	
Laketown Township	Housing & Redevelopment Authority Of Moose Lake	
Marysville Township	Mower County Housing & Redevelopment Authority	
Mission Township	Owatonna Housing & Redevelopment	
New Market Township	Sauk Centre Housing and Redevelopment Authority	
Ravenna Township	St. Croix Chippewa Housing Authority	
Sylvan Township		
Town of May		
Vadnais Lake Area Water Management Organization		
White Bear Township		GFOA Certificate Program CAFR



Proposed Segmentation for the Engagement

Our audit approach for each year will have certain consistent elements. Our audit objective extends beyond the issuing of an opinion on financial statements. We believe that a good audit will yield substantial information for management, and will be a valuable tool in recognizing opportunities and identifying areas that can be strengthened. An effective audit performed by our team will also provide:

- An objective look at your policies and procedures
- Valuable suggestions for improvements in your financial operations and other areas
- An analysis of trends and unusual variations from year-to-year
- Protection for current and future resources through improved internal controls
- A deterrent to embezzlement and other fraudulent activities

Benefits of CLA's Risk-Based Approach

Our audit services are designed to protect the interests of management by concentrating on high-risk areas. Risk identification is the first step of the audit process, providing the basis upon which the overall plan is developed. Our risk assessment process involves consideration of the following types of risk:

- **Inherent risk** - that an error in the accounting and reporting process may occur
- **Control risk** - that internal control systems designed to prevent/detect errors may fail
- **Audit detection risk** - the risk that audit procedures may fail to detect errors

Through careful consideration of the above risks and their interrelationships, we will develop an audit plan and related programs that concentrate our efforts on those elements of your financial statements that involve the greatest risk. At the same time, we will avoid the unnecessary application of commonplace and traditional procedures to low-risk areas.

We expect that the majority of our audit hours will be concentrated in the high-risk audit areas. Our approach is not to review every account with extensive substantive testing. While substantive testing remains part of the process, we first identify relationships and truly learn about your operations.

Commitment to Communication with Management

Continual communication starts when an engagement letter is issued and continues until the completion or closeout of an engagement. We believe effective communication is critical to a successful engagement. This communication includes the exchange of ideas and advice as changes are considered or implemented by the entity or the accounting profession.

Upon notice of the issuance of an engagement letter, team members will meet with you to plan the start of the work and to further discuss the audit process.



We will conduct our audit in four primary phases:

- Phase 1 – Planning & Strategy
- Phase 2 – Systems Evaluation
- Phase 3 – Testing & Analysis
- Phase 4 – Reporting & Follow-Up

Phase 1 – Planning & Strategy

The main objective of the planning phase is to identify significant areas and design efficient audit procedures. We will accomplish our planning by following the methodology below:

- Conduct an entrance meeting with VLAWMO. Chris Knopik will meet with VLAWMO personnel to mutually agree on an outline of responsibilities and timeframes. The agenda will include but not be limited to the following:
 - Establish audit approach and timing schedule
 - Assistance to be provided by the VLAWMO personnel
 - Application of generally accepted accounting principles
 - Initial audit concerns
 - Concerns of the VLAWMO’s management
 - Establishment of report parameters and timetables
 - Progress reporting process and
 - Establish principal contacts
- Gain an understanding of the operations of the VLAWMO including its organization, management style and internal and external factors influencing the operating environment and changes from the prior year. We will utilize reference materials such as the budget and related materials, organizational charts, manuals and programs, and financial and other management information systems.
- Identify significant accounts and accounting applications, critical audit areas, significant provisions of laws and regulations, and relevant controls over operations.
- Determine the likelihood of effective Information Systems (IS) - related controls.
- Perform a preliminary overall risk assessment.
- Confirm protocol for requesting information from and meeting with VLAWMO staff.
- Establish a timetable for the fieldwork phase of the audit.
- Determine a protocol for using Interactive Data Extraction and Analysis (IDEA), our data extraction and analysis software, to facilitate timely receipt and analysis of reports from management.
- Prepare initial comprehensive list of items to be prepared by the VLAWMO, establish clear deadlines and review with VLAWMO management.



We will document our planning through preparation of the following:

- **Entity Profile.** This profile will help us gain an understanding of the VLAWMO activities, organizational structure, services, management, key employees and regulatory requirements.
- **Preliminary Analytical Procedures.** These procedures will assist in planning the nature, timing and extent of auditing procedures that will be used to obtain evidential matter. They will focus on enhancing our understanding of the financial results, and will be used to identify any significant transactions and events that have occurred since the last audit date, as well as to identify any areas that may represent specific risks relevant to the audit.
- **General Risk Analysis.** This will contain our overall audit plan, including materiality calculations, fraud risk assessments, overall audit risk assessments, effects of our IS assessment, timing, staffing, client assistance, a listing of significant provisions of laws and regulations and other key planning considerations.
- **Account Risk Analysis.** This document will contain the audit plan for the financial statements, including risk assessment and the extent and nature of testing by assertion.
- **Prepared by Client Listing.** This document will contain a listing of schedules and reports to be prepared by VLAWMO personnel with due dates for each item.

One of the key elements in the planning of this audit engagement will be the heavy involvement of the Principal and Manager/Director. We will clearly communicate any issues in a timely manner, and will be in constant contact with VLAWMO as to what we are finding and where we expect it will lead.

We will develop our audit programs during this phase. Utilizing the information we have gathered and the risks identified we will produce an audit program specifically tailored to VLAWMO. This program will detail by major section the nature and types of tests to be performed. We view our programs as living documents subject to change as conditions warrant. We will hold an entrance conference with VLAWMO to discuss the audit timeframes, and will meet the appropriate VLAWMO personnel at least one month prior to the start of each audit.

Phase 2 — Systems Evaluation

During the systems evaluation phase, we will gain an understanding of the internal control structure of VLAWMO for financial accounting and relevant operations. Next, we will identify control objectives for each type of control that is material to the financial statements, and then identify and gain an understanding of the relevant control policies and procedures that effectively achieve the control objectives. Finally, we will determine the nature, timing and extent of our control testing and perform tests of controls.

This phase of the audit will include extensive testing of controls over transactions, financial reporting and compliance with laws and regulations. Whenever possible, we will use dual-purpose tests to reduce the need to select multiple samples for internal control and compliance testing. We will be as efficient as possible, thereby reducing the disruption to your operations while achieving our audit objectives.

We will test controls over each critical audit area. One of our audit efficiency initiatives is to rely heavily on internal controls when appropriate and to creatively look at internal control testing to make it as efficient as possible. This means not routinely performing detailed tests of transactions using large samples. We first seek to identify key controls, and then identify possible testing through alternative methods, such as observation, interviews and re-performance. These tests serve not only to gather evidence about the existence and effectiveness of internal control for purposes of assessing control risk, but also to gather evidence about the reasonableness of an account balance.



We will also develop our internal control tests to assess the compliance with certain provisions of laws, regulations, contracts and grants for which noncompliance could have a direct and material effect on the determination of financial statement amounts. Our use of multi-purpose tests allows us to provide a more efficient audit without sacrificing quality.

Our assessment of internal controls will determine whether VLAWMO has established and maintained internal controls to provide reasonable assurance that the following objectives are met:

- Transactions are properly recorded, processed and summarized to permit the preparation of reliable financial statements and to maintain accountability over assets
- Assets are safeguarded against loss from unauthorized acquisition, use or disposition
- Transactions are executed in accordance with laws and regulations that could have a direct and material effect on the financial statements

We will finalize our audit programs during this phase. We will also provide an updated Prepared by Client Listing based on our test results and our anticipated substantive testing.

During the internal control phase, we will also perform a review of general and application Information Systems (IS) controls for the applications that are significant to financial statements to conclude whether IS general controls are properly designed and operating effectively, and consider application controls as part of the internal control assessment in the financial statement audit. Our strategy for the IS review of the applications will involve reviewing all of the general control activities, including the computerized and manual processes. We will determine the scope of work by applying the concepts of materiality and risk assessment to effectively reduce examination inefficiencies. When planning this examination, we will gain an understanding of VLAWMO's operations by reviewing its current controls and control objectives as documented, and will also review prior years audit work and the status of corrective actions.

Based on our preliminary review, we will perform an initial risk assessment of each critical element in each general control category, as well as an overall assessment of each control category. We will then proceed to assess the significant computer-related controls.

For IS-related controls that we deem to be ineffectively designed or not operating as intended, we will gather sufficient evidence to support appropriate findings and will provide recommendations to improve internal controls. For those IS controls that we deem to be effectively designed, we will perform testing to determine if they are operating as intended through a combination of procedures, including observation, inquiry, inspection and re-performance.

Phase 3 — Testing & Analysis

The extent of our substantive testing will be based on results of our internal control tests. It has been our experience that governmental entities, like VLAWMO, often have a system of internal control that, with appropriately designed tests and correlation to account balances, can be used to limit the extent of account balance substantiation testing.

Audit sampling will be used only in those situations where it is the most effective method of testing. Before deciding to sample, we will consider all possible approaches and audit techniques. Items where, in our judgment, acceptance of some sampling risk is not justified will be examined 100 percent. These may include unusual items or items for which potential misstatements could individually equal or exceed tolerable error.



After identifying individually significant or unusual items, we will decide on the audit approach for the remaining balance of items by considering tolerable error and audit risk. This may include (1) testing a sample of the remaining balance, (2) lowering the previously determined threshold for individually significant items to increase the percent of coverage of the account balance or (3) applying analytical procedures to the remaining balance. When we elect to sample balances we will use IDEA to efficiently control and select our samples.

Our work papers during this phase will clearly document our work as outlined in our audit programs. These audit work papers will be retained for a minimum of three (3) years, unless notified in writing by VLAWMO of the need to extend the retention period. We will also provide VLAWMO with status reports during the course of the audit fieldwork. As in all phases of the audit, we will be in communication with VLAWMO to ensure that all identified issues are resolved in a timely manner. We will also hold a final exit conference with VLAWMO to summarize the results of our fieldwork and review significant findings.

Phase 4 — Reporting & Follow-Up

Reports to management will include oral and/or written reports regarding:

- Independent Auditors' Report
- Independent Auditors' Report on Internal Control over financial reporting and on compliance and other matters based on an audit of Financial Statements Performed in Accordance *with Government Auditing Standards*
- Independent Auditors' Report on Compliance for Each Major Federal Program and Report on Internal Control over Compliance Required by the Uniform Guidance, as applicable
- Management Letter
- Written Communication to Those Charged with Governance, which includes the following areas:
 - Our responsibility under auditing standards generally accepted in the United States of America
 - Changes in significant accounting policies or their application
 - Unusual transactions
 - Management judgments and accounting estimates
 - Significant audit adjustments
 - Planning timing and scope of the audit
 - Management representations
 - Other information in documents containing the audited financial statements
 - Disagreements with VLAWMO
 - VLAWMO's consultations with other accountants
 - Major issues discussed with management prior to retention
 - Difficulties encountered in performing the audit
 - Fraud or illegal acts

Once the final reviews of working papers and financial statements are completed, which is a process that actually starts while the fieldwork is in process, our opinion, the financial statements and management letter will be issued.

VLAWMO will be provided a draft of any comments that we propose to include in the management letter, enabling you to review the comments for accuracy prior to final release. Any items that come to our attention that are not what we consider major items may be discussed verbally with management and not included in the management letter. Our management letter will include items noted during our analysis of your operations. We will also make a formal presentation of the results of the audit to those charged with governance of VLAWMO, if requested.



To: VLAWMO Board of Directors
From: Nick Voss, Tyler Thompson
Date: December 11, 2019
Re: **V. A. 4 Cost-share and Community Blue Policy changes**

Cost Share Landscape Level 1 Proposed Changes

Staff is recommending to the Board for approval of 3 policy change to the Landscape Level Cost Share program that would:

- 1.) Provide funding amounts up to \$4,000 instead of the normal cap of \$2,000. Eligibility for the increased funding is for projects that infiltrate 40% or more of the total site (parcel) volume within the Targeted Volume Reduction Zones (TVRZs) within VLAWMO (shown on map).
- 2.) Reduce applicant match amount from the usual 25% to 10% for projects with total costs **up to** \$750 within areas of Targeted Habitat Priority Zones (THPZs) that include DNR Native Plant Communities and high potential habitat areas of the Rusty Patched Bumble Bee, the new state bee.
- 3.) Allow awarding of funding to projects that have already commenced work for the purposes of invasive species or vegetation removal or excavation work, due to seasonal constraints or advantages. No costs associated with these prior activities may be eligible for grant funding.

Community Blue Threshold for Application Review

The staff are inquiring as to what the threshold for Community Blue applications will be, in terms of whether applications are reviewed by the TEC or the BOD. Previous grants have gone to the BOD at a \$5,000 threshold, and anything below that was reviewed and approved by the TEC. Staff will inquire whether this should be adjusted to a different number or if the \$5,000 threshold is suitable.

New Community Blue Grant Coverage Policy

To accommodate for VLAWMO's new involvement in the Master Water Stewards Program, VLAWMO staff and Policy & Personnel have re-designed Community Blue's grant policies. The Master Water Stewards Program fosters champion volunteers through a one-year training and a capstone project, with participating host sites across the Metro. VLAWMO now has two Master Waters Stewards that have completed their training and capstone project. Being new to the program, VLAWMO staff discovered that it's common for graduating Master Water Stewards to complete their capstone project on their home property, accompanied by required public outreach and education efforts. Because Community Blue is VLAWMO's vessel for community and education-oriented projects, it is an asset for future Master Water Stewards. To be ready for capstone projects in the future, staff and Policy & Personnel have designed this system to reflect the cost-share program in terms of projects on private property, and to prioritize education programs over physical installations. See the Community Blue Guide for the complete description. The summarized table for funding coverage is as follows:

Coverage Limits: Approved grant coverage dependent on available funds, subject to VLAWMO review and adjustment. Funding renewed annually.

	Project type	Coverage %	Match %	Funding Available
Homeowner: Master Water Steward, WAV or CAC member. <i>VLAWMO Cost-share grants are defined as separate projects.</i>	Community education, workshops, trainings	100%	Minimum 25% in-kind	Up to \$10,000
	Demonstration project: Public/community property	100%	Minimum 25% in-kind	Up to \$4,000
	Demonstration Project: private property	75%	Minimum 25% cash Additional 25% in-kind	Up to 2,000
Group: Scouts, neighborhood assc., local government, congregations, external organization, business, etc.	Community education, workshops, trainings	100%	Minimum 25% in-kind	Up to \$10,000
	Demonstration project	100%	Minimum 25% in-kind	Up to \$4,000

Scoring System:

Education and Outreach staff have improved the Community Blue grant review process. The reason for this is to provide upfront clarity in project planning and scope, to improve grant efficiency and documentation, and to assist applicants in facilitating projects in partnership yet independent of VLAWMO staff. The goal of this effort is for VLAWMO to have a long-term, perpetual program that empowers community members to be education leaders on watershed topics. While the score chart is more detailed than VLAWMO’s other grant programs, it is these details that are a tool for preparing grant applicants to lead successful projects. The scoring chart also provides VLAWMO staff, TEC, and BOD with a platform to ask questions in reviewing incoming grants, and a guide for project prioritization should multiple applications be submitted at once. BOD, TEC, and Staff are invited to serve as a Community Blue scoring committee when applications are received and presented to BOD and TEC for approval. Please see the score sheet document below.

Community Blue: Application Score Chart

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	
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	
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	
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	
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	
Budget (10%) Funding request is detailed and appropriate. Sub-costs in objectives clearly add up to final cost.	1-10	
Timeline (10%) Timeline is clear and realistic given the scope of the project.	1-10	
Total:	100	

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	
SMART measurements (40%): Objectives include front-end, middle, and back-end measurements according to the examples outlined on page 3. 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	
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	
Total:	50	
Suggestions for application improvement: Text, phrasing, outlining objectives, design of measurables, allocated budget, etc.		

Grand Total: _____ / 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.

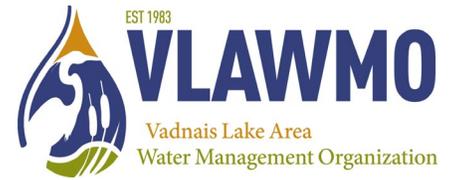
Community Blue Past Project Examples:

- White Bear Water Symposium: Actor/Educator Presentation
 - White Bear School District
 - June, 2017
 - \$700
- Clean Storm Drains: Community stormdrain labeling and clean-up effort
 - John Mitchell Neighborhood Association, East Vadnais Lake area
 - June, 2019
 - \$663
- Connect the Drops: Water Stewardship and Youth Leadership with local congregations
 - Frassati Academy, Christ the Servant Lutheran, Peace United Methodist, Growing Green Hearts
 - April 2018-November 2019
 - \$5,625
- Vadnais Heights Elementary School: “The Bear’s Backyard” Raingarden
 - Vadnais Heights Elementary School
 - February, 2013
 - \$15,000
- Birch Lake Picture Posts: Citizen science phenology using photos and picturepost.edu for shoreline and wetland monitoring.
 - Birch Lake Improvement District (BLID)
 - November, 2018
 - \$350
- Creative Landscaping: Master Water Stewards Ed and Ceci Shapland
 - Home installation: erosion control, sedge groundcover, raingarden. Community education through a neighborhood bus tour of VLAWMO cost-share projects including Ed and Ceci’s property, neighborhood newsletter articles, photo documentation of construction and project establishment for VLAWMO’s promotional and educational use (workshops, videos, presentations, social media, etc.). Continuing Neighborhood tours in future years.
 - Summer, 2019
 - \$6,369

For more details on these and other Community Blue past project, visit the Community Blue portion of the VLAWMO website here: <http://www.vlawmo.org/grants/community-blue/cb-featured-projects/>

VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION

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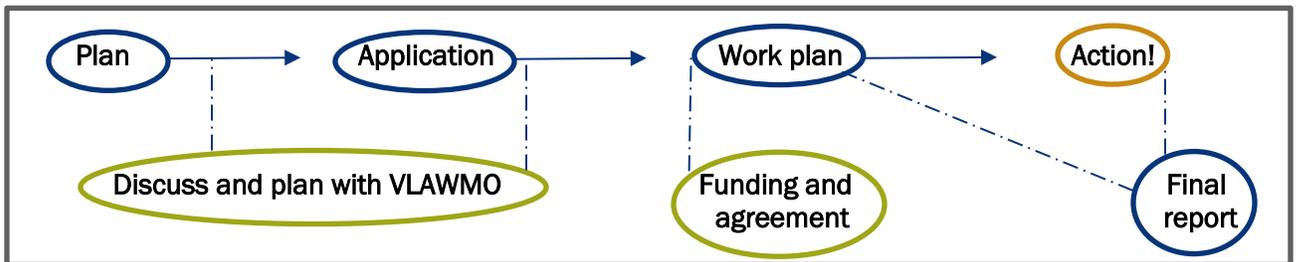


COMMUNITY BLUE GRANT GUIDE

Program Overview:

Community Blue is a grant program that fosters environmental education, community service, and citizen engagement. Its projects promote an understanding of watershed stewardship while exhibiting leadership in stewardship behaviors.

The program is designed in the following order:



All grant applications are evaluated by the VLAWMO Technical Commission (TEC) for approval. The application and the work plan must be completed and submitted together. Approval is subject to available funding and the prospective project's relevance to VLAWMO's mission.

Grant amounts: \$200 - \$10,000

Contract duration: Contracts are set according to project need. Minimum of 1 year, maximum of 3 years.

Funding dispersal: Upon application and plan acceptance, projects funding is segmented according to the outlines objectives in the application. VLAWMO will approach each grant's funding segments on a project-by-project basis due to the uniqueness of community collaboration projects. General guidance in this process is 80% upfront once application is approved ("project initiation"), and the remaining 20% of funds disbursed upon completion of 75% or more of the work plan.

Match: Cash or in-kind depending on nature of the project, mandatory 25%

Application deadline: None – funding renews each year on January 1st and is available until depleted. Applications up to \$4,999 are reviewed monthly through the VLAWMO Technical Commission (TEC), and applications \$5,000 and greater are reviewed through both the TEC and the VLAWMO Board of Directors, which meets every other month.

Eligibility:

Any community group is eligible to receive a Community Blue grant. Examples of applicants include:

- Girl Scouts/Boy Scouts
- community service or service learning groups
- non-profits and faith organizations
- public entities/local government
- business owners
- schools, teachers, and educators
- neighborhood groups/associations
- Master Water Stewards in conjunction with Freshwater Society
- Watershed Action Volunteers (WAV) or Citizen Advisory Committee (CAC) members with a completed application and active volunteer role

Project Examples:

Grant projects must be for public benefit, be publically visible, and occur within VLAWMO. Examples include:

- community education programs/curriculum
- demonstration projects: citizen science, aquatic invasive species (AIS) research and management, neighborhood clean-ups
- workshops or trainings on water conservation
- educational material development/signage
- Support for events focused on water conservation: food (accompanying at least one other relevant component) and water-related entertainment.

Project Types:

COMMUNITY EDUCATION	DEMONSTRATION PROJECTS WITH EDUCATION PLANS	WORKSHOPS & TRAININGS
<p>Community education programs are learning opportunities, programs, or printed signage with public exposure. Examples include guest speakers relating to water resources or watershed education, contracting with actor/educator performances, storytellers, artists, acquiring a license for a relevant movie/documentary screening, creating a water-friendly carwash kit, or printing signage to accompany a best management practice (BMP). Education programs may require printing, guest speaker honorariums, or assistance for advertising.</p>	<p>Demonstration projects are BMP (best management practice) installations with outlined education plans. BMP's include raingardens, lo-mow turf, native plantings, bee lawns, bioswales, shoreline restorations, rain guardian catch basins, or other stormwater improvement practices recognized by the VLAWMO cost-share program. Education plans must be defined with at least three years of annual maintenance, outlined budget, contact information of participants and their roles, and three of the following:</p> <ul style="list-style-type: none"> • Annual community maintenance events supported by an ongoing list of active volunteers. • Annual open house or tours in combination with other local BMPs (bus/van rental within grant application) • A phenology picture post with entries posted a minimum of monthly • Printed watershed education materials on hand (assisted by VLAWMO) • Seasonal updates on the BMP status posted to websites, email blasts, or social media. 	<p>Workshops or trainings are single events or a short series that fosters watershed awareness to a community. Topics can range from teacher curriculum training, green infrastructure presentations, professional conferences, turf management or de-icing best practice training, or in-home water conservation. Grants may cover workshop materials, guest speakers, promotion materials, or tools such as space rental or low-flow faucet aerators.</p>

Goals & Objectives:

Community Blue program goal

The goal of Community Blue is to support community-oriented, publically visible, and educational projects that promote water conservation, stewardship, and stormwater BMP's (best management practices) within the VLAWMO watershed.

Individual project goals & objectives

Each accepted project must identify a goal that relates to the Community Blue program goal, supported by one or more measurable objectives. Grantees are expected to evaluate their activities.

Planning SMART goals & objectives

To organize the project, applicants are encouraged to specify the objectives of the project.

While the goal is a general guiding statement, the objectives tell the story of the project broken down into steps. Planning for the objectives should be SMART: Specific, measurable, attainable, realistic, and timely. Effective objectives include front-end, middle, and back-end measurements. For example, "submitting a minimum of 2 newspaper articles" is front-end measure, that lists something the applicants will *do*. "Acquiring a minimum of 10 participants to an event" is a middle measure that describes what happens in the project. "Documenting a 50% increase in improved lawn maintenance habits", "gallons of water infiltrated annually by a BMP", "sq. footage of turf converted into lo-mow fescue" or "inspiring 15 adopt-a-drain sign-ups" are back-end evaluations that are results beyond the project's tasks or timeframe. Back-end results describe what remains when the project is said and done. Objectives early in the project (1-2) generally reflect front-end, and objectives at the end (4-5) generally reflect the back-end, or the final results. VLAWMO works with applicants to outline an entire project at the time of the application, which will serve as a guide over the course of the project. VLAWMO will assist with the creation of back-end evaluation strategies and measurements.

Completing the work plan

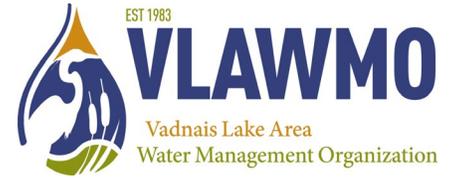
The work plan becomes the final report of the project, in addition to several follow-up questions custom to the project scope. Each objective is broken down into sub-tasks according to the needs and scope of the project. Hours and costs are documented along the "story" of the work plan. Other points covered in the work plan include listing expected barriers, how barriers will be met, and describing how the project supports community awareness, knowledge, skills, and behaviors. VLAWMO staff is available to assist in the completion of the work plan with technical support and project guidance.

Eligible Expenses:

What expenses will make the project a success? Eligible expenses should be reasonable, necessary, and approved in the Work Plan. Examples of eligible expenses include:

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- Staff time: Administration, coordination, data collection, planning, or assessment
- Purchasing supplies and materials
- Professional services
- Facilities or equipment rental
- Contracted professional services.
Contractors must outline costs and invoices in congruence with the grant application.
- Prints, mail-outs, newspaper advertising
- Expenses eligible if accompanying another expense listed above
 - Mileage (IRS rate)
 - Food

Fees for professional services:

1. VLAWMO does not specify compensation rates. Instead, compensation for professional services, (including teachers, teaching artists, and staff) contract hour rates, and compensation for support services such as project management, evaluation, planning, marketing, technical work, etc. should reflect industry standards, market rates, and the skill and experience of the worker. Rates are reviewed by the VLAWMO Technical Commission, should be appropriate to the project's needs, and be clearly justified in the project work plan.
2. For contributing professional assistance (including teachers, teaching artists, and staff) please give a brief description of qualifications or experience within the grant application.

Ineligible Expenses:

Unallowable costs include but are not limited to:

- Paying of debts, late fees, investment fees
- Fundraising
- Gifts or prizes
- Lobbying or political contributions
- Activities outside of the VLAWMO watershed or failing to serve residents who live within VLAWMO's watershed.

Scoring Criteria: Procedure for VLAWMO Board and Technical Commission in reviewing, weighing, and/or modifying received applications.

Category	Points
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	1-20

defined. A minimum of 25% match-funds are outlined. Projects within VLAWMO cost-share target zones are weighed more.	
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
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
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
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
Budget (10%) Funding request is detailed and appropriate. Sub-costs in objectives clearly add up to final cost.	1-10
Timeline (10%) Timeline is clear and realistic given the scope of the project.	1-10
Total:	100

Coverage Limits: Approved grant coverage dependent on available funds, subject to VLAWMO review and adjustment. Funding renewed annually.

	Project type	Coverage %	Match %	Funding Available
Homeowner: Master Water Steward, WAV or CAC member. VLAWMO Cost-share grants are defined as separate projects.	Community education, workshops, trainings	100%	Minimum 25% in-kind	Up to \$10,000
	Demonstration project: Public/community property	100%	Minimum 25% in-kind	Up to \$4,000
	Demonstration Project: private property	75%	Minimum 25% cash Additional 25% in-kind	Up to 2,000
Group: Scouts, neighborhood assc., local government, congregations, external organization, business, etc.	Community education, workshops, trainings	100%	Minimum 25% in-kind	Up to \$10,000
	Demonstration project	100%	Minimum 25% in-kind	Up to \$4,000

Application Criteria: Tools for applicants in writing applications as well as VLAWMO review.

Category	Points
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
SMART measurements (40%): Objectives include front-end, middle, and back-end measurements according to the examples outlined on page 3. 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
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
Total:	50

Past Projects:

- Actor/educator presentations on water quality from theater groups
- Collaboration with local congregations to promote water-related service projects, events, and public education
- Alternative turf groundcovers accompanied by neighborhood tours and open-house demonstrations with Q&A
- Installation of picture posts to monitor phenology (changes in the environment over time) in or around lakes, streams, or wetlands.
- Education signage for native plantings

Visit vlawmo.org/grants/community-blue for more examples. If you're thinking of a project but are unsure how to get started or how it would fit into Community Blue, contact VLAWMO for assistance at (651) 204-6070.

VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION

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



In-kind Matching

In-kind matches include the value of goods and services donated to the project. A minimum of 25% is requested, but up to 100% is possible to boost community engagement and maintenance activities when applicable. The in-kind value for volunteer time is \$25/hr. Other examples include donated services, donated materials (specific to this project), complementary advertising, use of space for seminars, and printing. VLAWMO reserves the right to award full or partial support for proposed expenses.

Publicity and Acknowledgement Requirements

VLAWMO is happy to help advertise projects. Please send information six weeks before your event so we can post it on our web site and send it via our list serve.

All projects, publications, and publicity generated or developed as part of this project must include public acknowledgement of VLAWMO as a partner and funder. Printed or digital publications that are to be dispersed publically must contain the VLAWMO logo, which will be provided by VLAWMO staff.

To obtain the VLAWMO logo contact the Education and Outreach staff. If signage is a part of the grant it must be approved by the VLAWMO Education and Outreach Coordinator.

Final Report Requirements

All grantees are required to track and report information about project participation (measurables that are defined in the objectives). Priority will be given to applicants with clear, effective, and relevant measurables as deemed by the VLAWMO Technical Commission (TEC). Projects that receive grant funding must complete a work plan submitted to VLAWMO, which becomes the final report. Work plan spreadsheet provided by VLAWMO, project photographs, surveys, or other outcome materials are presented separately as deemed appropriate

VLAWMO Staff Access

Grant applicants agree to provide access to private property or buildings for VLAWMO staff to photograph and inspect project installations, for as long as the project is in existence. Specific visit guidelines such as timing and accessibility are to be established between the property owner and VLAWMO.

Acronyms

TEC: Technical Commission

BOD: Board of Directors

WAV: Watershed Action Volunteers

CAC: Citizen Advisory Committee

BMP: Best Management Practice



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

To: Board of Directors
From: Stephanie McNamara, Administrator
Date: December 3, 2019
Re: V. A. 5. Health Saving Account policy change

VLAWMO has offered a small group health insurance plan for its employees for the last few years. It is a high deductible –low premium plan. VLAWMO covers the cost of the premium for employees and provides \$1,000/year toward a health savings account to help offset the high deductible. Options are limited with a group as small as ours. The deductible is now going to be over \$4,000/yr. per employee and over \$8,000 for a family policy. An increase of an additional \$1,000 (total HSA contribution from VLAWMO of \$2,000/yr.) would cover close to half of the out of pocket deductible expenses. The budget impact of \$5,000 is covered by the fund balance carry over amount under Employer Liability. This is recommended by Policy and Personnel as a change for 2020.

RECOMMENDATION: Approval of a total annual contribution of \$2,000 per employee to a Health Saving Account starting in January 2020.

To: VLAWMO Board of Directors

From: Dawn Tanner

Date: December 11, 2019

Re: V. B. 1. and 2. Wetlands

1. Minnesota Conservation Corp (MCC) Grant Proposal:

The round is open for submissions. We applied last year for 4th and Otter. That site may have been too small for MCC's priorities. Projects funded by the program last year include restoration funds to Nine Mile Creek Watershed District, Middle St. Croix WMO, Minnehaha Creek Watershed District, Mississippi WMO, Ramsey Washington Metro Watershed District, Capitol Region Watershed District, and others. We are considering submitting a proposal for restoration of the 20 acres at City Hall. This area is Class #7 Wooded Wetland and Class #5 Shallow Open Water wetland. MCC recommends submitting a proposal, but it is difficult to calculate load reductions for a project like this. MIDS, the tool Tyler usually uses from BWSR, doesn't support wetland restoration. Load reduction will likely be low. Would you like to see us pursue these funds with the understanding that funding might not be likely? The time commitment to apply is fairly low. The deadline is Dec. 15.

Language used in this proposal could likely be used in a future Conservation Partners Legacy grant proposal with MN DNR, if a proposal goes forward and is not funded by MCC.

Staff and TEC request authorization from the Board to submit the MCC proposal (Due Dec. 15).

2. Survey work for 2020 from Ramsey County Soil and Water Conservation Division:

Ann WhiteEagle and staff put together a proposal for requested lake surveys for 2020. We completed West Vadnais early when we put it into our plans for summer 2019. Sucker and East Vadnais remain for required information in our Sustainable Lake Management Plan for 2020. The proposal from RCSWCD is attached in the packet.

Staff request allocation of funds for RCSWCD survey work including aquatic macrophytes, bathymetry, and shoreline vegetation. Total quoted cost is: \$6880 for Sucker and \$8608 for East Vadnais.
Total = \$15,488

2020 VLAWMO Lake & Vegetation Survey Proposals

Sucker & East Vadnais Lakes

November 25, 2019

Prepared for:
Vadnais Lake Area Water Management Organization

Prepared by:
Ramsey County Parks & Recreation, SWCD

Scope of Services

Macrophyte Surveys

Macrophyte surveys will consist of data sampling at evenly spaced geo-referenced points throughout the lake to characterize the diversity and abundance of aquatic vegetation using a point intercept survey method. RC-SWCD staff members will also use Lowrance unit and transducer to generate data to produce a biovolume map showing concentration of aquatic vegetation growing in the lake.

Bathymetry Surveys

Bathymetric surveys are completed by connecting a Lowrance unit + transducer to the boat and following pre-determined transect lines across the lake to capture lake bottom depth data. This data is then processed, corrected using physically measured field data points where necessary, and then used to create new contour lines with ArcGIS software. It may be completed in conjunction with Macrophyte surveys when there is a clear enough sonar signal in the lake.

Shoreline Surveys

Macrophyte surveys will consist of data sampling using the Releve survey method adapted from the Minnesota Department of Natural Resources County Biological Survey and Natural Heritage Program throughout the lake to characterize the diversity and abundance of representative vegetation. RC-SWCD staff members will also use these data to create maps and tables of the onsite vegetation conditions.

SUCKER LAKE

Macrophyte & Bathymetry Survey*

Sucker Lake Macrophyte Survey Estimate*, Summer 2020

Task	Cost/hr	Hours	Cost
Boat Use	unit	-	\$50
BioBase Upload	unit	-	\$300
Lake Survey Prepwork	\$72	10	\$720
Field Work, 1 day (2 people)	\$72	16	\$1,152
Data entry	\$72	5	\$360
GIS Post-processing and Mapping	\$72	8	\$576
Report Completion	\$72	9	\$648
TOTAL		48	\$3,806

Shoreline Vegetation Survey*

Sucker Lake Macrophyte Survey Estimate*, Summer 2020

Task	Cost/hr	Hours	Cost
Boat Use	unit	-	\$50
Shoreline Survey Prepwork	\$72	8	\$576
Field Work, 1 day (1 people)	\$72	12	\$864
Data entry and post survey analysis	\$72	6	\$432
GIS Post-processing and Mapping	\$72	8	\$576
Report Completion	\$72	8	\$576
TOTAL		42	\$3,074

Deliverables

The report will include:

- Description of Methods
- Tables of aquatic, emergent, and upland vegetation detected showing location, species abundance, and % occurrence.
- Bathymetry Map, Bio-Volume Map, numbered Survey Point map to match with aquatic species tables, and shoreline transect locations
- Shapefiles including Biovolume, 2020 Contour Lines, Point Intercept Location layers, and transect line locations



EAST VADNAIS LAKE

Bathymetry and Macrophyte Survey

West Vadnais Lake Macrophyte & Bathymetry Survey Estimate, Summer 2019

Task	Cost/hr	Hours	Cost
Boat Use	unit	-	\$50
BioBase Upload	unit	-	\$300
Lake Survey Prepwork	\$72	11	\$792
Field Work, 2 days (2 people)	\$72	32	\$2,304
Data entry (Species & Depths)	\$72	5	\$360
GIS Post-processing and Mapping	\$72	8	\$576
Report Completion, Contour Generation	\$72	10	\$720
TOTAL		66	\$5,102

Shoreline Vegetation Survey*

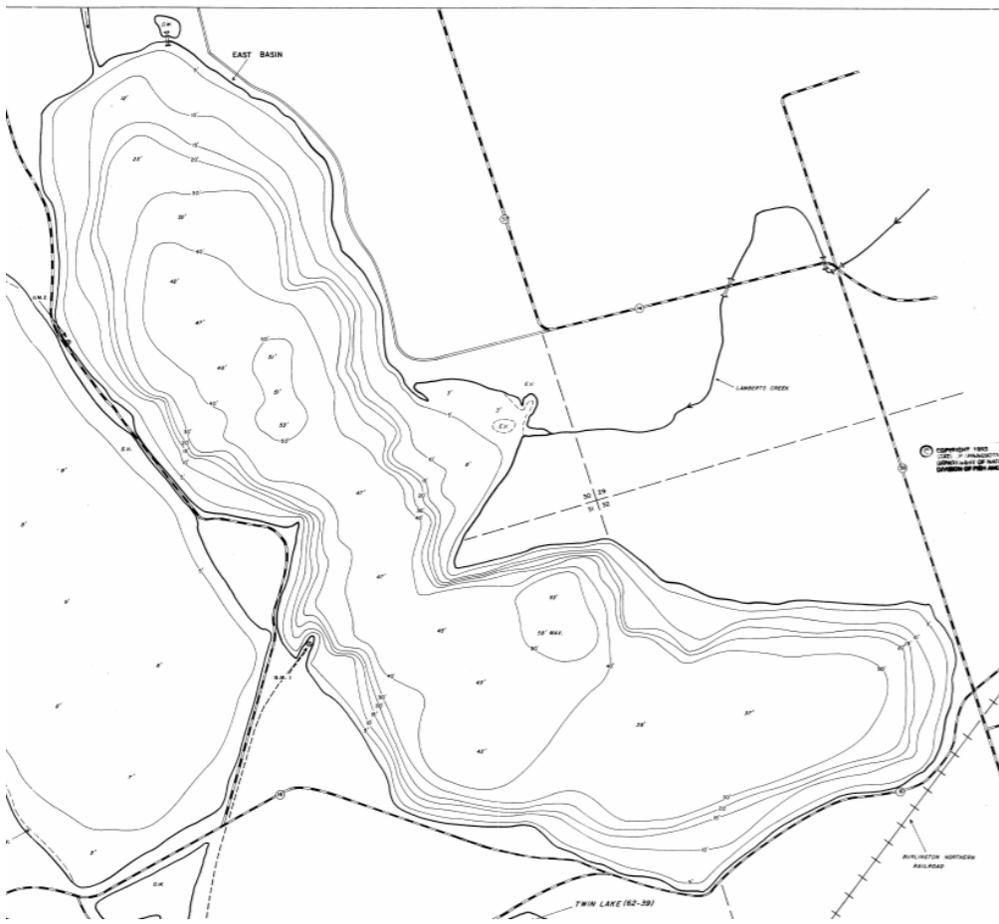
Sucker Lake Macrophyte Survey Estimate*, Summer 2020

Task	Cost/hr	Hours	Cost
Boat Use	unit	-	\$50
Shoreline Survey Prepwork	\$72	8	\$576
Field Work, 2 day (2 people)	\$72	16	\$1152
Data entry and post survey analysis	\$72	7	\$504
GIS Post-processing and Mapping	\$72	9	\$648
Report Completion	\$72	8	\$576
TOTAL		48	\$3,506

Deliverables

The report will include:

- Description of Methods
- Tables of aquatic, emergent, and upland vegetation detected showing location, species abundance, and % occurrence.
- Bathymetry Map, BioVolume Map, numbered Survey Point map to match with aquatic species tables, and shoreline transect locations
- Shapefiles including Biovolume, 2020 Contour Lines, Point Intercept Location layers, and transect line locations



LEGEND

EMERGENT VEGETATION	E.V.
SHORELINE VEGETATION	S.V.
FLUORINE LEAF VEGETATION	F.L.
STREAM	
CULVERT	
RAILROAD	
SECTION LINE	
TACTIC NUMBER	30
PLATE ROAD	
COUNTY STATE AND HIGHWAY	
STATE NUMBER TRAIL HIGHWAY	
ROADCUT	
OPEN WATER	O.W.

WEST BASIN	
PLANIMETERED AREA	216 ACRES
LITTORAL AREA	214 ACRES (97%)
LENGTH OF SHORELINE	24 MILES
MEDIAN DEPTH	7 FEET
EAST BASIN	
PLANIMETERED AREA	394 ACRES
LITTORAL AREA	388 ACRES (98%)
LENGTH OF SHORELINE	42 MILES
MEDIAN DEPTH	30 FEET

S.M. - WATER LEVEL UNDER PUMPHOUSE
 OF 80 FEET WATER HEAD
 W.S.E. - 0.24' READING ON GAUGE
 S.M. - 0' STAGE SPINE IN BASE OF P.S.B.A.
 COTTAGEWOOD THREE MILES N.W. OF EAST BASIN
 UNDESIGNED GAPT OF ROAD BETWEEN VADNAIG AND
 WEST ARM OF VADNAIG
 W.S.E. OF WEST BASIN - 4.6' BELOW S.M.
 W.S.E. OF EAST BASIN - 4.6' BELOW S.M.
 CONTOUR DRAWN FROM APT. AERIAL PHOTO
 62-2

REPRODUCTION OF THIS MAP REQUIRES PROPER
 CREDIT TO: DIVISION OF FISH AND WILDLIFE,
 MINNESOTA DEPARTMENT OF NATURAL RESOURCES.

SCALE IN FEET

Minnesota's Department of Natural Resources
 Part of the Department of Administration
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 652.387.3000 or our
 Internet Website at www.dnr.state.mn.us

FINANCED WITH AID OF DANIEL J. GARDNER FUND	
STATE OF MINNESOTA	
DEPARTMENT OF NATURAL RESOURCES	
DIVISION OF FISH AND WILDLIFE	
ECOLOGICAL SERVICES SECTION	
VADNAIG LAKE (62-38)	
RAMSEY COUNTY	
T. 26 N.	R. 22 E. S. 32
SECTION 347, R.D. 2	SHEET 7-32-01
DATE 6-1-79	M.S. 8871 40 PW 19-24, 25



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

To: Board of Directors
From: Nick Voss, EOC
Date: December 2019
Re: V. C. 1. 2020 Education and Outreach goals, 2019 review

Contained in the BOD packet is a 2019 Education and Outreach Plan (EOP) review. This chart conveys the nine EOP goals (left column) and the six desired results (top row). Over the course of the 2017-2026 water plan, this annual review method will allow VLAWMO to track progress in its Education Outreach efforts, which stems from VLAWMO Priority Issue #3: Need for Education and Outreach.

The Education and Outreach Goals are adjusted annually to reflect program growth, new partnerships, and evolving circumstances in our partner organization. For example, Goal #1 is redesigned to accommodate for changes in the MS4 General Permit, to be active in 2020. Other goals are adjusted to reflect our growing volunteer program and the evolving focus of VLAWMO's greater projects. The goals included in the BOD packet are an extraction of the larger 2020 EOP document.

The VLAWMO website contains more thorough information on these documents, including a complete list of all of our 2019 activities, events, and publishings, and the complete 2020 Education and Outreach Plan. Visit the "about" > "annual reports + plan" page or find it at this link:

<http://www.vlawmo.org/about/why-water-matters/>

Being familiar with the annual EOP document will support BOD and TEC members by providing talking points, inviting participation when relevant in community interactions, and ensuring an understanding of E/O activities and project partners.

Evaluation of how 2019 goals and their underlying objectives brought about the Education and Outreach Plan (EOP) Desired Outcomes

EOP Desired Outcomes

EOP Goals

		1: Have a citizenry that understands natural resource protection and responsible use	2: to observe citizens demonstrating watershed protection behaviors	3: To observe resident volunteers educating their fellow citizens	4: To confirm that MS4 partners are collaborating, using resources, and making progress on MS4/SWPPP reports	5: To have active programs and partnerships that foster participation, relevant to residents and VLAWMO alike.	6: To observe evidence that VLAWMO communities are knowledgeable and engaged in VLAWMO's direction, policies, meetings, and projects.
Professional Support	1: VLAWMO provides assistance in MS4 permitting	Active social media (6+ posts/yr) in VH and WBT. WBL, VH, Gem Lake Salt Symposium Attendance.			WBT pet waste mailing (200), WBL Adopt-a-Drain partnership focused on Goose Lake.	Cooperative adopt-a-raingarden and controlled prairie burn, buckthorn removal assistance.	1 City Council Presentation: Vadnais Heights. Smart Salting improvements from workshop reported from WBT, WBL
	2: Key personnel have continued to advance their knowledge of water and related natural resources.	1 board member, 1 CAC member attended Salt Symposium					70% TEC/BOD attendance at Water Matters education events, 2019 Watershed celebration event
Formal Education	3: Place-based watershed education that applies to multiple age demographics.	Watershed Game at Frassati Academy, Macroinvertebrates at AFSA Academy				3 classrooms utilized a raingarden and local watershed knowledge as an education tool.	No responses indicating school exposure from end-of-year survey. Estimated 4% of school-age population reached in watershed.
	4: Schools have established and maintained stormwater BMP's embracing educational value.		Central Middle School raingarden maintenance conducted independently			Chippewa Middle School and Vadnais Heights elementary conducted raingarden maintenance in partnership w/ VLAWMO.	
Informal Education / Interpretation	5: Community members are educated on VLAWMO water issues and projects.	7 2019 workshop attendees pursued cost-share consultation visits on home property. 2 visits from 2018 workshop attendees.	2 workshop attendees completed a cost-share grant on home property.	Frassati Academy teachers and students: adopt-a-drain song, photos, and outreach . 2 Master Water Stewards facilitated a neighborhood raingarden/ native plant tour	VH Commons native planting with education signage.		38 new email registrations resulting from public booth events. 6,000 website views reported. 20 public visitors to VLAWMO meetings. 77 workshop registrations.
	6: Community members utilize watershed knowledge to act on watershed issues with help from VLAWMO's tools and resources.	End-of-year public survey results: 60% increase in home stewardship behavior activities, 66% water knowledge increase. 69% awareness increase. 56% attitude increase.	37% increase in adopt-a-drain participants (67 current). 15 reported cleaning hours, 521 lbs debris removed.		VH custom wetland and yard waste disposal flyer.	11 workshop participants engaged in VLAWMO in ways other than the cost-share program (volunteer, event, etc.) . 4 of 12 lakes monitored for AIS.	73% cost-share funds used, one landscape level 2 project initiated, 24% of rainbarrel funds used.
	7: Appreciation for local natural resources is established, fostering ecological awareness and community reflection.	Growing social media audience: 453 (Facebook) 221(Twitter) 142 (Instagram). Consistent posts weekly, active engagement.		2 neighborhood newsletter publications from Community Blue/Master Water Stewards			16 responses indicating exposure to nature/reflection web articles, reported form end-of-year public survey.
	8: A continually growing volunteer base that learns and leads.		21 stormdrains labeled with educational signage. 5 out of 6 public raingardens adopted and maintained at least once/yr.	4 volunteers acted as educators/leaders . 9 active watershed action volunteer (WAV) members. 652 reported volunteer hours.		28 volunteers from schools, cities, and residents assisted in buckthorn removal Sept-Oct, 2019.	5 volunteers contributed to the Citizen Advisory Committee (CAC)
	9: A water-focused congruency between community groups and agendas exists in VLAWMO.	19 newspaper or city newsletter publications.		2 events from Community Blue programs open to the public.		4 Community Blue grants and 2 mini-grants completed in 2019, fostering 6 partnerships.	

2.1 Desired Results & General Outcomes

How is Education and Outreach Measured?

VLAWMO designs education and outreach goals as a means to accomplish specific desired results. The desired results exemplify programs, knowledge, and cultural habits that VLAWMO deems is evidence of progress in its 10-year Water Plan. Each goal has one or more measurable objectives, which are either specific tasks VLAWMO strives to complete throughout the year, or countable outcomes that represent tangible action in connection to its corresponding goal.

The goals and objectives function as the fulfillment of the VLAWMO Water Plan Priority Issue #3: Need for education and outreach. Some objectives are especially relevant to this or other priority issues. These references are included in parenthesis after the objectives, phrased as “(PI #-#-#)”.

Desired Results: *“Through the EOP, VLAWMO desires to...”*

1. Witness a citizenry that grapples with the complexity of water resources, culture, and climate change, and advocates for solutions that promote water quality improvement and long-term stewardship to local governments.
2. To observe citizens independently demonstrating watershed protection behaviors.
3. To observe resident volunteers educating their fellow citizens, supported by knowledge and skills.
4. To confirm that MS4 partners are collaborating, using resources, and making progress in their MS4 permits and SWPPP reports.
5. To have active programs and partnerships that foster participation and are relevant to residents.
6. To observe participation and an active pursuit of learning among key personnel and the public at VLAWMO meetings such as TEC, BOD, and CAC.

General Outcomes: *Tangible program participation that indicates the fulfillment of the goals. Because many outreach tactics can have diverse results depending on public reception, interest, and motivation, objectives in pages 19-25 with no specified outcomes revert to this outcome pool.*

- Utilize at least 75% of the budget for Landscape Level 1 and rainbarrel cost-share funding.
- Complete at least one Landscape Level 2 cost-share grant.
- Observe a minimum of 10% annual growth in adopt-a-drain volunteers, exceed 20 reported hours, 500 lbs debris
- Grow email subscriptions and social media following by 15% annually.
- Reach 200 students annually through school visits.
- 5% increase in end-of-year public survey results in knowledge, awareness, attitude, and behavior concerning water resources. Compare from previous year survey results. Measured by annual public review survey, questions #3, 7 (Appendix B, p. 37).
- Monthly phenology posts made at each picture post, at least one new participant engaging in program. .
- Complete at least one Community Blue grant annually.
- At least 15 workshop and/or cost-share participants participate in two or more VLAWMO events/workshops.
- At least 5 public raingardens are adopted and annually maintained by volunteers.
- Observe at least 20 public and VLAWMO visitors at TEC/BOD meetings and Water Matters sessions annually.
- Achieve over 500 reported volunteer hours through volunteer opportunities such as leading a short-term service projects, citizen science, specific or custom volunteer roles, advising VLAWMO through the Citizen Advisory Committee (CAC), or utilizing a VLAWMO education display at an existing community event.

2.2 Goals and Objectives

Annual education/outreach goals strive to achieve the long-term desired outcomes. Each goal has one or more measurable objectives for VLAWMO to track progress and identify opportunities for improvement.

Professional Support: MS4 permit support, VLAWMO BOD/TEC

Goals

1. VLAWMO supports its partner Cities and Townships in making progress in their MS4's.
 - A. MS4's in VLAWMO comply with MS4 permit guidelines and seek collaboration with VLAWMO under **Minimum Control Measure #1 (Education and Outreach)**. Annual required tasks include:
 - Distribute educational materials on salt use for deicing (impacts on receiving waters, methods to reduce salt use, proper storage protocols).
 - Distribute educational materials on pet waste (impacts on water quality, proper management of pet waste, permittee regulatory mechanisms)
 - Give consideration to Environmental Justice (EJ) audience
 - Document estimated audience for completed activities.
 - Additional optional actions for supporting MCM #1 and annual SWPPP report:
 - Hosting VLAWMO staff and stakeholders to facilitate The Watershed Game.
 - Hosting commission/board workshops or including presentations on meeting agendas to educate city councils and commissions on the watershed, VLAWMO programs, or low impact development (LID).
 - Watershed relevant articles and promotions in City newsletters and/or utility bills.
 - Posting announcements and information on the City web page and social media, content provided by VLAWMO. Document VLAWMO's presence at community events (Goal 5.A.)
 - Educating public on proper hazardous waste disposal, chlorinated water discharge, and who to call to report illicit discharge (IDDE) and improper construction site runoff control. Document hazardous waste disposals.
 - Custom flyer creation in collaboration with VLAWMO regarding wetland buffers, yard waste disposal, lawn irrigation, or other watershed related topic. Collaboration in web dispersal and hardcopy mailing, with the establishment of seasonal routines and communication of tasks among staffs.
 - B. Each MS4 in VLAWMO will utilize VLAWMO for at least **one** project under **Minimum Control Measure #2 (Public Participation/Involvement)** Annual project options include:
 - Becoming a member of Adopt-a-Drain and working with VLAWMO for program promotion.
 - Promoting or hosting storm drain clean-up events and/or trash pick-up events. Host standalone events or integrate effort into existing city/township clean-up days and events.
 - Collaborate with VLAWMO in hosting or promoting annual raingarden, native plant, groundcover, shoreline restoration, or BlueThumb sponsored workshop.
 - Collaborate with VLAWMO in utilizing citizen leaders for reporting illicit discharge detection (IDDE) and construction site runoff infringements.
 - Documentation of annual activities including date(s), location(s), description of activities, and estimated number of participants.
 - C. City/Township staff attend one or more annual trainings in Smart Salting, BMP, or turf maintenance best practices. Annual progress made in **MCM #6: Good Housekeeping**.

Desired Result #4

Sub-watershed: all

Outreach Tool(s): Print materials, workshops, multimedia, displays, supplies

Priority issue: #3

Target audience: MS4 partners, key personnel

2.2 Goals and Objectives

How VLAWMO directs education/outreach efforts to achieve the desired outcomes. The following goals in each EOP program are intended to achieve the desired outcomes. Measurable objectives follow each goal.

Professional Support: Cities, Townships, MS4's, BOD, TEC, CAC

Goals

2. Key personnel (BOD, TEC, CAC) have continued to advance their knowledge of water and related natural resources.
 - A. VLAWMO will provide two enrichment opportunities annually in the form of a supplementary presentation titled "Water Matters". Presentations will invite guest speakers on watershed related topics from the greater Twin Cities metro. Each presentation will be recorded and posted on the VLAWMO website, and the public invited.
75% BOD and TEC attendance annually.
 - B. VLAWMO staff will forward relevant news and research to TEC and BOD members for supplementary learning when available. Presentation summaries made during meetings when time allows and when necessary for conveyance. Measurements for this effort fall to the **general outcomes** found on **page 18**.

Desired outcome: #1, 6

Priority issue: #4

Sub-watershed: all

Target audience: Key personnel

Outreach tool(s): Reports/summaries, print materials, events

2.2 Goals and Objectives

Formal Education: Schools

Goals

3. Establish place-based watershed education in local schools.
 - A. **Visit each school at least once/year** for water-focused lesson and activity. Education activities are listed at vlawmo.org/students (PI 3-3-2).
 - B. VLAWMO will strive for having **3 classrooms utilize local watershed maps, lake fact sheets, or basic talking points** independently of VLAWMO in support of their planned curriculum activities, such as Race to Reduce.
4. Schools have established and maintained stormwater BMP's while embracing their educational value.
 - A. VLAWMO will provide at least one BMP maintenance event annually within the WMO, either in school hours or during after hours care. (PI 3-2-2) **One school each year will schedule and complete raingarden maintenance with or without VLAWMO staff present.**
 - B. Local teachers, school staff, or parent volunteers will use and understand the tools and resources that VLAWMO provides to schools to help them partake in maintenance independently. **One school each year will schedule and complete raingarden maintenance independently.**

Desired Result: #2, 5

Target audience: Schools, Public: families

Outreach tool(s): Curriculum, surveys, print materials, fieldwork

Priority issue: #3

Sub-watershed: all

2.2 Goals and Objectives

Informal Education and Interpretation

Goals

5. Community members are educated on VLAWMO issues and projects.
 - A. VLAWMO will attend and present relevant water information and project updates at annual community events as opportunities arise. Examples include MarketFest in White Bear Lake and Hot Dog with a Cop in Vadnais Heights (PI 3-2-2). Measurements for this effort fall to the **general outcomes** found on **page 18**.
 - B. VLAWMO will utilize community partnerships to promote VLAWMO events and projects. (PI 3-2-1). Examples include education events derived from Community Blue, wetland walks, or presentations on remote camera efforts. An educational, partnership-derived event will occur at least once VLAWMO annually. Measurements for this effort fall to the **general outcomes** found on **page 18**.
 - C. VLAWMO will utilize the VLAWMO.org blog, VLAWMO YouTube channel, E-newsletter, and social media a minimum of twice each week to promote awareness and build community report. Topics will include lake and stream monitoring, annual reports, VLAWMO publications, local ecology, tips on water-friendly behaviors such as yard care practices, and current news relating to water resources SLMP's (3-2-2). Measurements for this effort fall to the **general outcomes** found on **page 18**.

Desired outcome: #2, 6

Sub-watershed: all, Goose Lake

Outreach tool(s): Booth displays, branding, multimedia

Priority issue: #1, 3

Target audience: Public: at large, events

2.2 Goals and Objectives

Informal Education and Interpretation

Goals

6. Community members utilize watershed knowledge to act on watershed issues, with help from VLAWMO’s tools and resources.
- A. VLAWMO will offer native plant, raingarden, and/or yard-care workshops annually. In the past two years, **10 workshop attendees will pursue a cost-share consultation visit, 5 workshop attendees from the same year or year before will complete a cost-share grant** as a result of attending VLAWMO workshops.
 - B. In the past year, **4 workshop attendees will have engaged VLAWMO in ways other than the cost-share program** (WAV, presentations, TEC/BOD meetings, events, etc). To find this, question #2 in the annual review public survey will capture this measure (See Appendix B).
 - C. VLAWMO will continually promote and evaluate the use of watershed stewardship activities through social media, newspaper submissions, and surveys (PI 3-3-1). Watershed stewardship activities include:
 - Water-friendly yard care strategies (keeping lawn at 3” height, keeping grass clippings on the lawn, etc.) A full list of strategies is listed at vlawmo.org/residents/water-stewardship/
 - Adopting a stormdrain (Adopt-a-Drain.org)
 - Adopting a raingarden (vlawmo.org/get-involved)
 - Properly disposing hazardous waste
 - Planting a raingarden, bioswale, or native plant buffer. Installing permeable pavers.
 - Redirecting downspouts away from pavement.
 - Practicing salt and de-icer best practices

Measurements for this effort fall to the **general outcomes** found on **page 18**.
 - D. VLAWMO will produce and publish neighborhood spotlight articles that highlight cost-share and yard-care success stories. A minimum of 3 articles will be developed annually. Measurements for this effort fall to the **general outcomes** found on **page 18**.

Desired outcome: #1, 2

Sub-watershed: all, Goose Lake

Outreach tool(s): Workshops, print materials, multimedia

Priority issue: #1, 2, 3, 6

Target audience: Public: at large, workshops

Informal Education and Interpretation—continued

7. An appreciation of natural resources is established in the community, fostering ecological awareness, participation, and a sense of place.
 - A. Continued use of remote cameras to photograph local wildlife and use photos for educational messaging, schools, newspapers, blogs, and presentations. Measurements for this effort fall to the **general outcomes** found on **page 18**.
 - B. VLAWMO staff will host at least 1 Frog and Toad call education event annually. Measurements for this effort fall to the **general outcomes** found on **page 18**.
 - C. VLAWMO will produce and publish an article series titled ‘Faces of Wetlands’, featuring ecological knowledge on wetland wildlife while relating it to a local sense of place. Measurements for this effort fall to the **general outcomes** found on **page 18**.
 - D. VLAWMO will organize and interpret citizen science/service initiatives for community members to participate in. These include LeafPack macroinvertebrate monitoring, pollinator monitoring, or picture posts (phenology). Resulting data will be displayed on the website and interpreted in terms of watershed health (PI 3-3-1). Measurements for this effort fall to the **general outcomes** found on **page 18**.

8. Coordinate an active volunteer base that learns and leads.
 - A. VLAWMO will creatively recruit volunteers through relationship building, and nurture its existing volunteer base. Examples include Master Water Stewards, VLAWMO-designed volunteer positions, and the Citizen Advisory Commission (CAC) (PI 3-3-1). **A minimum of five volunteers will act as educators to their local citizen peers annually.**
 - B. VLAWMO plans out annual projects for the Watershed Action Volunteers (WAV) with volunteer and CAC input. Activities for 2020 include: Neighborhood BMP tour, Leaf Pack Macroinvertebrate monitoring at four sites on Lambert Creek, Shoreline restoration open house, native plant swap, raingarden maintenance. **All five 2020 volunteer events completed.**
 - C. VLAWMO provides a variety of short-term opportunities for volunteers to act as educators to their local citizens (PI 3-3-1). Examples include community stormdrain clean-ups for Scouts and community groups, a water-friendly carwash kit, and promotion of Adopt-a-Drain and Adopt-a-Raingarden programs. Measurements for this effort fall to the **general outcomes** found on **page 18**.
 - D. Trained volunteers will help monitor the status of Aquatic Invasive Species (AIS) in the watershed. VLAWMO will partner with the Ramsey County Soil and Water Conservation Division to host volunteer trainings. **One trained AIS volunteer will report and monitor at least once on each lake in VLAWMO annually.**

Desired outcome: #1, 2, 3

Sub-watershed: all, Goose Lake

Outreach tool(s): Workshops, print materials, multimedia, branding, fieldwork

Priority issue: #1, 5, 6

Target audience: Public: at large, events

Informal Education and Interpretation—continued

9. A watershed congruency between community groups exists in VLAWMO.
- A. Notes and minutes from VLAWMO each meeting will be posted on the website for stakeholders and the public. Measurements for this effort fall to the **general outcomes** found on **page 18**. (PI 3-2-1, 3-2-3).
 - B. Workshops, outreach, programs, social media, and events will all promote the Community Blue program. **A minimum of one Community Blue program will be completed annually**, assuming that a Community Blue grant inherently engages VLAWMO’s external communities and builds relationships. Examples include a shallow lakes forum with a homeowner association, a youth leadership event with local congregations, an ice-cream social or film screening with a citizen group, a service project with a youth group, or a water reuse/smart irrigation presentation to local businesses (PI 3-2-1, 3-3-1)
 - C. VLAWMO will produce and submit at least 10 newspaper articles annually. Measurements for this effort fall to the **general outcomes** found on **page 18**.

Desired outcome: #5

Priority issue: #1, 5, 6

Sub-watershed: all, goose lake

Target audience: Public: At large

Barriers: What challenges will be faced when pursuing the goals?

1. Many watershed features in VLAWMO (lakes, wetlands) are difficult to access and are also generally out of sight to the public. This creates difficulty in building personal interaction and appreciation with local natural resources. Finding ways to foster local, place-based appreciation of water resources (lakes, wetlands, etc.) is an important strategy for inspiring behavior change and watershed stewardship (water friendly yard care, etc.).
2. Maintaining a variety of activities that appeal to a wide range of communities on a limited budget. With a wide range of age groups, political affiliations, and professions in the watershed, VLAWMO is unable to focus on one particular group.
3. Competing for attention and focus from the public. To get educational messages across in newspapers, social media, or email, they must compete with many more news stories, email distributions, advertisements, and social functions. This inundation of information has the potential to turn community members off to watershed education and messages.
4. A trend of disassociation to place and water resources. Having many causes, priorities, and interests active in the watershed allows for many different focuses. A particular niche may or may not require attention to the local environment or water resources to function. This creates space for an assumption that water resources are irrelevant to some, and the responsibility of others. As a watershed organization, VLAWMO focuses on the interconnectivity of water resources, recognizing that everyone who lives or works in the watershed impacts water resources. A challenge VLAWMO faces is to assist in making this interconnectivity visible, relevant, and accessible to all interests and priorities.
5. Perceived complexity, intimidation, or conflict concerning water management. The notion of not being an expert may inhibit some from pursuing actions or policies that strive to improve water quality. Education focused on new behaviors regarding land use and watershed connectivity may also reveal differences in attitudes, norms, and priorities. Gridlock, conflict, or disengagement may occur when these differences require cultural, political, or social reflection within the discussion. Such reflection demands a degree of voluntary personal interest and a receptiveness to difference, which can vary. Potential reflective topics include land use and water use, climate change, private property ethics, or yard care routines.



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To: Board of Directors

From: Tyler Thompson

Date: December 6, 2019

Re: V. D. 1. Birch Lake – 4th & Otter authorization for bidding

Barr Engineering has reworked the projects specs and bid documents of the iron-enhanced sand filter to clarify misunderstandings of bidders and include structural project changes to reduce bid costs. These changes include pouring the concrete filter base on-site instead of pre-cast, and removing the decorative stone façade from the design plans and, instead, painting or coloring the concrete wall. The bid documents will also allow for more flexible timeframes for constructions, which should also decrease bid costs.

Recommendation: staff recommends the Board authorize staff to submit the 4th & Otter project for re-bid upon receiving final Project bid documents.