

VLAWMO TECHNICAL COMMISSION MEETING

8:00 AM May 11th, 2022

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

Action items: 🎵

- I. Call to Order – 8:00am –Chair Jesse Farrell
- II. Approval of Agenda
- III. Approval of Minutes (April 13, 2022)
- IV. Administration & Operations
 - A. Financial Report for Payment – Phil 🎵 pg. 7
- V. Programs
 - A. Education & Outreach – Nick
 - 1. WHEP Pilot Program with Tamarack Nature Center update p. 18
 - B. Cost Share Program
 - 1. LL1 Application 2022-03 Coyne Raingarden– Lauren 🎵 p. 19
 - 2. Soil Health Grant: SHG-2022-06 Folsom – Nick 🎵 p. 36
 - 3. Soil Health Grant: SHG-2022-07 Ripka – Nick 🎵 p. 45
- VI. Projects- Dawn
 - A. 319/Wilkinson BMP update p. 16
 - B. Carp update p. 16
 - C. East Vadnais remnant restoration site prep p. 17
- VII. Commissioner Reports
- VIII. NOHOA
- IX. Ramsey Soil & Water Conservation Division
- X. St. Paul Regional Water Services
- XI. Public Comment
- XII. Next Meetings: TEC: June 8th, Regular Board Meeting: June 22nd, 2022
- XIII. Adjourn

Upcoming events:

May 5th: Resilient Yards webinar
May 10th: Turf Maintenance (MS4)
May 19th: Turf Conversion webinar
May 26th: WAV training
June 9th: Raingarden Palooza Part 1/3

**Vadnais Lake Area Water Management Organization
Technical Commission Minutes
April 13, 2022
Vadnais Heights City Hall, Council Chambers
800 County Road E East, Vadnais Heights, MN 55127**

Commission Members Present:

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

Absent: None

Others in attendance: Phil Belfiori, Brian Corcoran, Dawn Tanner, Lauren Sampedro, Nick Voss (VLAWMO staff); Patricia Orud, Kristie Elfering (NOHOA), Ed Shapland (Watershed Action Volunteers/CAC), Jeremy Erickson (SPRWS), Connie Taillon (City of White Bear Lake)

I. Call to Order

Chair Jesse Farrell called the meeting to order at 8:01 am.

II. Approval of Agenda

It was moved by Commissioner Tessier and seconded by Commissioner Larson to approve the April 13, 2022 TEC agenda as presented. Vote: all aye. Motion passed.

III. Approval of Minutes (March 9, 2022)

It was moved by Commissioner Huntrods and seconded by Commissioner Larson to approve the March 9, 2022 meeting minutes as presented. Vote: all aye. Motion passed.

IV. Administration & Operations

A. Welcome Lauren

Administrator Belfiori introduced VLAWMO's new staff member Lauren Sampedro, Watershed Technician and Program Coordinator. Lauren introduced her background experience in grant programs, water planning, MS4 permitting, and construction site inspections.

B. Financial Report for Payment

Administrator Belfiori directed the TEC to page seven of the packet to discuss the financial report. He highlighted several portions of the spreadsheet including the Wilkinson BMP, Pleasant Lake carp management, and East Goose Lake efforts. Staff recommended approval of the financial report.

It was motioned by Tessier and seconded by Huntrods to recommend approval of the April 2022 financial report for payment. Vote: All aye. Motion passed.

C. TEC Report to the Board

Belfiori summarized the TEC report to the Board as included in the April packet. Highlights included working on a ditch policy, development of an RFP for the Wilkinson BMP, a financial audit, the upcoming subcommittee meeting in June, and recent cost-share activities.

Chair Farrell asked about the Whitaker Pond biochar project, how biochar works, and if other entities have implemented biochar. Belfiori explained how biochar captures e-coli bacteria and stated he will provide examples to him of biochar sand filters that other watershed management organizations have done. He noted that Coon Creek Watershed District has installed a similar sand filter.

It was motioned by Commissioner Duxbury and seconded by Commissioner Tessier to approve the April 2022 TEC Report to the Board of Directors. Vote: all aye. Motion passed.

V. Programs

A. Education & Outreach

1. Community Blue: CB 2022-01 Good Neighbor Guide

Education and Outreach Coordinator Voss summarized the application materials from two Minnesota Water Stewards Ceci and Ed Shapland and explained that the proposed Good Neighbor Guide is an outreach effort in continuation of the Junior Watershed Explorer program from 2020. He explained the guide is intended to be a print-out for cities, townships, and new residents in the watershed to get a basic, yet comprehensive introduction on VLAWMO and water stewardship. Voss said a professional designer would be used for some of the visuals, which is the majority of the project cost. Proposed topics in the guide include pet waste, adopt-a-drain, sedimentation, smart salting, and other key watershed topics frequented in VLAWMO's education and outreach programs.

It was motioned by Commissioner Huntrods and seconded by Commissioner Larson to approve CB 2022-01. Vote: all aye. Motion passed.

2. Community Blue: CB 2022-02 Saint Mary's Raingarden Renovation

Voss summarized the application from Eagle Scout Alex Nelson. The application proposed a raingarden retrofit of a raingarden that was originally installed in 2011. The proposed raingarden renovation work includes a retrofit of its existing basin, weeding and trimming overgrown plants, applying fresh mulch, and planting new native plants as space allows. Voss said Alex Nelson's Eagle Scout troop would help Alex complete the project. Farrell asked for more information on the proposed match for the project and Voss responded the in-kind match from Alex and his Eagle Scout troop is beyond the minimum required match for Community Blue. Commissioner Nelson asked if there is a long-term maintenance agreement for the project. Voss noted that the 10-year maintenance agreement from the original raingarden installation recently expired and the Community Blue program does not require a new agreement, however this project would be a way to continue community connections with Saint Mary's of the Lake and educate their staff on how to continue raingarden maintenance into the future. Nelson recommended including language for the landowner to consult with VLAWMO staff on long-term maintenance to encourage future ongoing maintenance. Farrell also noted it appeared a water standpipe is present in the middle of the raingarden and recommended it be painted blue or at minimum flagged during the raingarden renovation so the Eagle Scouts can ensure the pipe remains clear and accessible.

It was motioned by Commissioner Duxbury and seconded by Commissioner Larson to approve CB 2022-02. Vote: all aye. Motion passed.

3. Community Blue: CB-2022-Mini-Grant-01

Voss summarized the pre-approved Community Blue Mini-Grant application received from Sara Svir, principal at Vadnais Heights Elementary. Vadnais Heights Elementary has proposed to treat the invasive sibirian elm that have invaded and surrounded their existing raingarden. This agenda item served as an educational update and didn't require a TEC motion or vote per VLAWMO Community Blue mini-grant policy on pre-allocated pre-approval.

B. Cost-Share Program

1. SHG 2022-03 - Scherer

Voss summarized the application for a proposed native plant restoration in a priority zone of the watershed including the addition of alternative ground cover, pollinator plantings, and native shrubs and trees that are targeted to replace invasive buckthorn. Voss recommended the cost share application for approval.

It was motioned by Commissioner Huntrods and seconded by Commissioner Farrell to approve SHG 2022-03. Vote: all aye. Motion passed.

2. SHG 2022-04 – City of White Bear Lake

Voss summarized the application for a native plant restoration at the Rotary Nature Preserve and explained that it is phase one of three total phases projected into 2024. He

also noted the education and outreach benefits of the project due to its high visibility to the public and stated it is a good opportunity to continue a partnership with the City of White Bear Lake. He recommended approval of the application. Connie Taillon of the City of White Bear Lake noted the important partnership with the Rotary Club of White Bear Lake and highlighted the overall restoration goals for the project, including the removal of several invasive species. Commissioner Tessier asked for clarification on the park's location and Taillon and Commissioner Huntrods provided directions. Huntrods also noted that the Birch Lake Improvement District is excited about the project and have supported it independently with the City of White Bear Lake.

It was motioned by Commissioner Huntrods and seconded by Commissioner Larson to approve SHG 2022-04. Vote: all aye. Motion passed.

3. LL2 2022-01 North Oaks HOA

Sampedro introduced the application submitted by NOHOA for a proposed filtration basin at the south entrance of NOHOA off of highway 96 and Pleasant Lake Road. The proposed basin is about 2,308 square feet. It is proposed as a filtration basin with an underdrain as opposed to an infiltration basin due to the presence of two adjacent wetlands and a higher water table in the area. Sediment and nutrient reductions from the filtration basin are projected to benefit the longevity of the two adjacent wetlands as well as Sucker Lake. The filtration basin is also replacing an existing pavement area. Elfering represented NOHOA as the applicant and affirmed that the project is in accordance with NOHOA's natural environment philosophy, and that the high public visibility of the area makes it a high priority for continued maintenance.

Chair Farrell asked about the pavement reclamation associated with the project and added that some of the most effective stormwater treatment includes pavement removal.

It was motioned by Commissioner Tessier and seconded by Commissioner Huntrods to approve LL2 2022-01 to the Board of Directors. Vote: all aye. Motion passed.

VI. Projects

A. Wilkinson/319

Tanner summarized recent efforts and activities regarding the Wilkinson 319 BMP, including consulting with the MPCA and announcing the project to the community in the April 2022 North Oaks News edition. The April edition of the newspaper included an additional article and graphic that discussed the long-term focus on natural environment by North Oaks Company (NOC) and highlighted NOC's contribution to the project. These submitted related news items were contributed by NOC. The engineering request for proposals (RFP) for the upcoming project is currently being developed by VLAWMO staff. A recently completed analysis and soil borings, by Barr Engineering, is helping to advance design and inform the RFP.

Commissioner Duxbury clarified that the method and design strategy for the project are not known yet. Tanner affirmed.

B. Vadnais/Sucker Park Buckthorn Removal Update

Tanner summarized the history of the buckthorn removal effort at the Vadnais/Sucker Park at the trail access parking lot off Vadnais Blvd. The effort included a buckthorn removal, smothering with geotextile fabric, and re-seeding. She added that native plant re-establishment is currently underway and initial buckthorn removal is complete at the site. Ramsey County has supported the effort by contributing geotextile fabric and removing several piles of buckthorn. The remaining piles will be allowed to degrade on-site. This effort complements the upcoming wetland restoration effort with Great River Greening, anticipated to start in Fall 2022. Tanner also provided an update that a sentence-to-serve crew has been removing buckthorn at the Vadnais Heights City Hall, which is part of a grant-funded invasive species control effort through the Minnesota Department of Agriculture. Chair Farrell stated buckthorn removal is important for the community and thanked the crew and volunteers.

C. Carp update

Tanner provided an update that WSB Engineering and Carp Solutions are both working to complete carp removal this spring.

VII. Commissioner Reports

Vadnais Heights: Chair Farrell noted that the City of Vadnais Heights has three upcoming project locations that include a potential wetland enhancement project at Bear Park. Implementation is aspired for 2023.

VIII. NOHOA

None

IX. Ramsey Soil & Water Conservation Division

None

X. St. Paul Regional Water Services

None

XI. Public Comment

None

XII. Next Meetings:

Next TEC meeting May 11th, Next BOD meeting April 27th.

XIII. Adjourn

It was moved by Commissioner Tessier and seconded by Commissioner Larson to adjourn the meeting at 8:52 am. Vote: all aye. Motion passed.

VLAWMO Finance Report: May, 2022

Summary

May-22		Actual 5/1/22	Actual to Date	2022 Budget	2021 carry over/Grants	Remaining in Budget	2022 Available	Act vs. Budget
BUDGET #	INCOME							
5.11	Storm Water Utility	\$0	\$440,247	\$1,019,521	\$0	\$579,274	\$1,019,521	43%
5.12	Service Fees	\$0	\$0	\$200	\$0	\$200	\$200	0%
5.13	Interest + mitigation acct	\$154	\$243	\$1,500	\$0	\$1,257	\$1,500	16%
5.14	Misc. income - WCA admin & other	\$0	\$1,876	\$3,000	\$0	\$1,124	\$3,000	63%
5.15	Other Income Grants/ <u>loan</u>	\$0	\$29,519	\$324,500	\$0	\$294,981	\$324,500	9%
5.16	Transfer from reserves	\$0	\$0	\$192,367	\$133,751	\$326,118	\$326,118	0%
	TOTAL	\$154	\$471,885	\$1,541,088	\$133,751	\$1,202,954	\$1,674,839	31%
EXPENSES								
3.1	Operations & Administration							
3.110	Office - rent, copies, post tel supplies	\$2,074	\$10,124	\$27,097	\$0	\$16,973	\$27,097	37%
3.120	Information Systems	\$1,838	\$10,434	\$25,865	\$0	\$15,431	\$25,865	40%
3.130	Insurance	\$0	\$0	\$7,210	\$0	\$7,210	\$7,210	0%
3.141	Consulting - Audit	\$3,465	\$7,875	\$8,191	\$0	\$316	\$8,191	96%
3.142	Consulting - Bookkeeping	\$0	\$0	\$1,500	\$0	\$1,500	\$1,500	0%
3.143	Consulting - Legal	\$104	\$296	\$5,000	\$0	\$4,704	\$5,000	6%
3.144	Consulting - Eng. & Tech.	\$1,014	\$14,602	\$30,000	\$14,000	\$29,398	\$44,000	33%
3.150	Storm Sewer Utility	\$0	\$640	\$14,000	\$0	\$13,360	\$14,000	5%
3.160	Training (staff/board)	\$0	\$7,735	\$12,500	\$0	\$4,765	\$12,500	62%
3.170	Misc. & mileage	\$380	\$966	\$6,300	\$0	\$5,334	\$6,300	15%
3.191	Administration - staff	\$44,062	\$162,699	\$391,400	\$0	\$228,701	\$391,400	42%
3.192	Employer Liability	\$11,385	\$47,053	\$114,425	\$0	\$67,372	\$114,425	41%
3.2	Monitoring and Studies							
3.210	Lake and Creek lab analysis	\$350	\$350	\$18,000	\$0	\$17,650	\$18,000	2%
3.220	Equipment	\$34	\$395	\$3,000	\$0	\$2,605	\$3,000	13%
3.230	Wetland assessment & management	\$0	\$0	\$15,000	\$0	\$15,000	\$15,000	0%
3.240	Watershed Plan Amendment	\$0	\$0	\$15,000	\$0	\$15,000	\$15,000	0%
3.3	Education and Outreach							
3.310	Public Education	\$0	\$67	\$6,000	\$0	\$5,933	\$6,000	1%
3.320	Marketing	\$407	\$4,302	\$17,500	\$0	\$13,198	\$17,500	25%
3.330	Community Blue Ed Grant	\$100	\$100	\$2,000	\$0	\$1,900	\$2,000	5%
<i>Total Core functions: Ops, Monitoring, Education</i>		\$65,213	\$267,638	\$719,988	\$14,000	\$466,350	\$733,988	36%

Capital Improvement Projects and Programs								
3.4	Subwatershed Activity							
3.410	Gem Lake	\$0	\$0	\$10,000	\$0	\$10,000	\$10,000	
3.420	Lambert Creek	\$4,143	\$9,319	\$44,432	\$70,000	\$105,113	\$114,432	8%
3.421	Lambert Lake Loan	\$19,284	\$19,284	\$38,568	\$0	\$19,284	\$38,568	50%
3.425	Goose Lake	\$0	\$19,665	\$70,000	\$10,000	\$60,335	\$80,000	25%
3.430	Birch Lake	\$0	\$4,145	\$10,000	\$0	\$5,855	\$10,000	41%
3.440	Gilf Black Tam Wilk Amelia	\$16,403	\$31,935	\$93,500	\$12,000	\$73,565	\$105,500	30%
3.450	Pleasant Charley Deep	\$8,112	\$15,898	\$35,000	\$10,000	\$29,102	\$45,000	35%
3.460	Sucker Vadnais	\$0	\$373	\$41,500	\$0	\$41,127	\$41,500	1%
3.48	Programs							
3.480	Soil Health Grant	\$68	\$179	\$5,000	\$0	\$4,821	\$5,000	4%
3.481	Landscape 1	\$0	\$0	\$16,000	\$0	\$16,000	\$16,000	0%
3.482	Landscape 2	\$600	\$7,426	\$28,000	\$17,751	\$38,325	\$45,751	16%
3.483	Project Research & feasibility	\$0	\$0	\$0	\$0	\$0	\$0	#DIV/0!
3.485	Facilities Maintenance	\$753	\$35,719	\$102,600	\$0	\$66,881	\$102,600	35%
3.5	Regulatory							
3.510	Engineer Plan review	\$0	\$0	\$2,000	\$0	\$2,000	\$2,000	0%
	<i>Total CIP & Program</i>	\$49,363	\$143,943	\$496,600	\$119,751	\$472,408	\$616,351	23%
	Total of Core Operations & CIP	\$114,576	\$411,581	\$1,216,588	\$133,751	\$938,758	\$1,350,339	30%

Fund Balance	4/1/2022	5/1/2022
4M Account	\$584,134	\$531,109
4M Plus Savings	\$324,240	\$324,302
Total	\$908,374	\$855,411

Restricted funds	5/1/2022
Mitigation Savings	\$21,012
Term Series	\$0

Vadnais Lake Area Water Management Organiz:
Profit & Loss
April 14 through May 11, 2022

3:07 PM

05/04/2022

Cash Basis

Apr 14 - May 11, 22

Ordinary Income/Expense	
Income	
5.1 · Income	
5.13 · Interest	153.98
Total 5.1 · Income	<u>153.98</u>
Total Income	<u>153.98</u>
Gross Profit	153.98
Expense	
3.1 · Administrative/Operations	
3.110 · Office	
Copies	89.06
Phone/Internet/Machine Overhead	295.00
Postage	24.61
Rent	1,665.00
Total 3.110 · Office	<u>2,073.67</u>
3.120 · Information Systems	
IT Support	1,838.19
Total 3.120 · Information Systems	<u>1,838.19</u>
3.141 · Audit	3,465.00
3.143 · Legal	103.50
3.144 · Eng. & Tech.	1,013.77
3.170 · Misc. & mileage	380.37
3.191 · Employee Payroll	
payroll	44,062.01
Total 3.191 · Employee Payroll	<u>44,062.01</u>
3.192 · Employer Liabilities	
Admin payroll processing	44.92
Administration FICA	3,251.60
Administration PERA	3,304.65
Insurance Benefit	4,783.92
Total 3.192 · Employer Liabilities	<u>11,385.09</u>
Total 3.1 · Administrative/Operations	<u>64,321.60</u>
3.2 · Monitoring and Studies	
3.210 · Lake & Creek lab analysis	350.00
3.220 · Equipment	34.00
Total 3.2 · Monitoring and Studies	<u>384.00</u>
3.3 · Education and Outreach	
3.320 · Marketing	407.00
3.330 · Community Blue Education Grant	100.00
Total 3.3 · Education and Outreach	<u>507.00</u>
3.4 · Capital Imp. Projects/Programs	
3.420 · Lambert Creek Restoration	

1 · LL grant \$302,679	4,143.08
Total 3.420 · Lambert Creek Restoration	4,143.08
3.421 · Lambert Lake Loan \$385,689.54	19,284.48
3.440 · Gilfillan Black Tamarack Wilkin	
MDH Grant 7300	7,342.80
Wilkinson 319 grant 320705.50	9,060.24
Total 3.440 · Gilfillan Black Tamarack Wilkin	16,403.04
3.450 · Pleasant Charley Deep	8,111.58
Total 3.4 · Capital Imp. Projects/Programs	47,942.18
3.48 · Programs	
3.480 · Soil Health Grant	67.70
3.482 · Landscape 2	600.00
3.485 · Facilities & Maintenance	753.40
Total 3.48 · Programs	1,421.10
Total Expense	114,575.88
Net Ordinary Income	-114,421.90
Net Income	-114,421.90

Vadnais Lake Area Water Management Organization
Check Detail
 April 14 through May 11, 2022

3:04 PM
 05/04/2022

Type	Num	Date	Name	Item	Account	Paid Amount	Original Amount
Check	eft	05/01/2022	Reliance Standard		Checking - 1987		-266.96
				Insurance Benefit		-81.00	81.00
				Insurance Benefit		-185.96	185.96
TOTAL						-266.96	266.96
Check	5334	05/11/2022	Dawn Tanner		Checking - 1987		-76.05
				3.170 · Misc. & mileage		-76.05	76.05
TOTAL						-76.05	76.05
Check	5335	05/11/2022	Nicholas Voss		Checking - 1987		-217.74
				3.170 · Misc. & mileage		-217.74	217.74
TOTAL						-217.74	217.74
Check	5336	05/11/2022	Brian Corcoran		Checking - 1987		-86.58
				3.170 · Misc. & mileage		-86.58	86.58
TOTAL						-86.58	86.58
Check	5337	05/11/2022	RMB Environmental Laboratories, Inc.		Checking - 1987		-350.00
				3.210 · Lake & Creek lab analysis		-90.00	90.00
				3.210 · Lake & Creek lab analysis		-260.00	260.00
TOTAL						-350.00	350.00
Check	5338	05/11/2022	City Of Roseville		Checking - 1987		-1,838.19
				IT Support		-538.00	538.00
				IT Support		-1,300.19	1,300.19
TOTAL						-1,838.19	1,838.19
Check	5339	05/11/2022	Kennedy & Graven, Chartered		Checking - 1987		-2,321.60
				1 · LL grant \$302,679		-1,969.70	1,969.70
				3.143 · Legal		-103.50	103.50
				3.485 · Facilities & Maintenance		-248.40	248.40
TOTAL						-2,321.60	2,321.60
Check	5340	05/11/2022	SEH		Checking - 1987		-2,412.25
				3.144 · Eng. & Tech.		-238.87	238.87
				1 · LL grant \$302,679		-2,173.38	2,173.38
TOTAL						-2,412.25	2,412.25
Check	5341	05/11/2022	CliftonLarsonAllen		Checking - 1987		-3,465.00
				3.141 · Audit		-3,465.00	3,465.00

TOTAL			-3,465.00	3,465.00
Check 5342	05/11/2022 City of Vadnais Heights	Checking - 1987		-2,073.67
		Rent	-1,665.00	1,665.00
		Phone/Internet/Machine Overhead	-295.00	295.00
		Postage	-24.61	24.61
		Copies	-89.06	89.06
TOTAL			<u>-2,073.67</u>	<u>2,073.67</u>
Check 5343	05/11/2022 Minnesota Pollution Control Agency	Checking - 1987		-19,284.48
		3.421 · Lambert Lake Loan \$385,689.54	-19,284.48	19,284.48
TOTAL			<u>-19,284.48</u>	<u>19,284.48</u>
Check 5344	05/11/2022 Houston Engineering, Inc	Checking - 1987		-1,279.90
		3.144 · Eng. & Tech.	-774.90	774.90
		3.485 · Facilities & Maintenance	-252.50	252.50
		3.485 · Facilities & Maintenance	-252.50	252.50
TOTAL			<u>-1,279.90</u>	<u>1,279.90</u>
Check 5345	05/11/2022 carp solutions	Checking - 1987		-7,648.08
		3.450 · Pleasant Charley Deep	-7,648.08	7,648.08
TOTAL			<u>-7,648.08</u>	<u>7,648.08</u>
Check 5346	05/11/2022 Ramsey County	Checking - 1987		-600.00
		3.482 · Landscape 2	-600.00	600.00
TOTAL			<u>-600.00</u>	<u>600.00</u>
Check 5347	05/11/2022 impressive print	Checking - 1987		-407.00
		3.320 · Marketing	-407.00	407.00
TOTAL			<u>-407.00</u>	<u>407.00</u>
Check 5348	05/11/2022 wsb	Checking - 1987		-463.50
		3.450 · Pleasant Charley Deep	-463.50	463.50
TOTAL			<u>-463.50</u>	<u>463.50</u>
Check 5349	05/11/2022 Sara Svir	Checking - 1987		-100.00
		3.330 · Community Blue Education Grant	-100.00	100.00
TOTAL			<u>-100.00</u>	<u>100.00</u>
Check 5350	05/11/2022 Joseph Crowe	Checking - 1987		-67.70
		3.480 · Soil Health Grant	-67.70	67.70
TOTAL			<u>-67.70</u>	<u>67.70</u>
Check 5351	05/11/2022 City of White Bear Lake	Checking - 1987		-55,180.14

	payroll	-44,062.01	44,062.01
	Administration FICA	-3,251.60	3,251.60
	Administration PERA	-3,304.65	3,304.65
	Insurance Benefit	-4,516.96	4,516.96
	Admin payroll processing	-44.92	44.92
TOTAL		-55,180.14	55,180.14
	Check 5352 05/11/2022 Barr Engineering Co		
	Checking - 1987		-16,403.04
	Wilkinson 319 grant 320705.50	-9,060.24	9,060.24
	MDH Grant 7300	-7,342.80	7,342.80
TOTAL		-16,403.04	16,403.04

Vadnais Lake Area Water Management Organization
Custom Transaction Detail Report
March 1 through May 1, 2022

2:30 PM

05/04/2022

Accrual Basis

Type	Date	Num	Name	Memo	Account	Clr	Split	Amount	Balance
Mar 1 - May 1, 22									
Credit Card Charge	03/02/2022		University of Minnesota	project management - dawn	US Bank CC	√ 3.160	· Training (staff/board)	235.00	235.00
Credit Card Charge	03/02/2022		Google*SVCAPPS_VLAWM		US Bank CC	√	WEB	36.00	271.00
Credit Card Charge	03/09/2022		adobe *photography plan		US Bank CC	√	Software	9.99	280.99
Credit Card Charge	03/18/2022		Prairie Moon Nursery	plants	US Bank CC	√ 3.220	· Equipment	21.00	301.99
Credit Card Charge	03/23/2022		Lenovo	chromebook	US Bank CC	√ 3.320	· Marketing	359.70	661.69
Credit Card Charge	03/23/2022		Amazon.com	cpu supplies - Lauren	US Bank CC	√	Hardware	85.82	747.51
Credit Card Charge	03/28/2022		Adobe *Creative Cloud		US Bank CC	√	Software	32.20	779.71
Credit Card Charge	03/29/2022		Ace Hardware	hammer & bucket	US Bank CC	√ 3.220	· Equipment	62.93	842.64
Credit Card Charge	03/31/2022		Ace Hardware	weed killer for workday	US Bank CC	√ 3.220	· Equipment	69.97	912.61
Credit Card Charge	03/31/2022		Ace Hardware	weed killer for workday	US Bank CC	√ 3.220	· Equipment	47.23	959.84
Credit Card Charge	04/01/2022		Ace Hardware	gloves for workday	US Bank CC	√ 3.485	· Facilities & Maintenance	27.96	987.80
Credit Card Charge	04/01/2022		Ace Hardware	fence mulch for workday	US Bank CC	√ 3.485	· Facilities & Maintenance	111.67	1,099.47
Credit Card Charge	04/04/2022		Google*SVCAPPS_VLAWM		US Bank CC	√	WEB	38.89	1,138.36
Credit Card Charge	04/08/2022		subway	lunch Corrections crew	US Bank CC	3.485	· Facilities & Maintenance	173.53	1,311.89
Credit Card Charge	04/11/2022		University of Minnesota	inspection cert. - Lauren	US Bank CC	3.160	· Training (staff/board)	125.00	1,436.89
Credit Card Charge	04/12/2022		Zoom	subscription	US Bank CC		Software	110.88	1,547.77
Credit Card Charge	04/13/2022		Ace Hardware	weed killer for workday	US Bank CC	3.485	· Facilities & Maintenance	119.98	1,667.75
Transfer	04/21/2022			Funds Transfer	US Bank CC		Checking - 1987	-1,313.19	354.56
								354.56	354.56
Mar 1 - May 1, 22									

TEC Staff Memo – May 11, 2022

IV. Administration & Operations

A. Financial Report for May & Authorization for Payment

Please find the May 2022 Finance Report attached in the ePacket for review and approval.

V. Programs

A. Education and Outreach

1. Wetland Health Evaluation pilot program with Tamarack Nature Center

On April 27th, 2022 the VLAWMO Board of Directors approved a draft MOU outlining the pilot Wetland Health Evaluation Program (WHEP) with Ramsey County Parks and Tamarack Nature Center (TNC). As of the May, 2022 VLAWMO TEC meeting, project partners are reviewing the MOU.

The pilot project is an educational effort to monitor and learn from the Teal Pond wetland within Tamarack Nature Center. The location pairs with the site of the Teal Pond habitat restoration that started in 2020 in partnership between Ramsey County Parks and VLAWMO. The WHEP program enables a way to track and follow the ecological changes that occur as the restoration matures.

The pilot WHELP project is also a combined effort between VLAWMO and Tamrack Nature Center Volunteers. This strategy aspires to build comradery and support between the volunteer groups, culminating in an end-of-year volunteer banquet with both entities involved.

The wetland evaluation consists of monitoring wetland vegetation as well as aquatic macroinvertebrates. The monitoring effort is informed by the long-standing success of Dakota and Hennepin County's WHEP program. Trainings and monitoring sessions will take place between June and August of 2022, followed by a period of data assessment. As outlined in the MOU, a report of the findings and resulting education opportunities to both volunteers and the broader communities of VLAWMO and TNC.

Please see the attached MOU document included in the May TEC packet for more details and an outline of the project scope.

B. Cost Share Program

1. LL1 Application: LL1-2022-03 Coyne Raingarden

Landowner Joe Coyne submitted a Landscape Level 1 grant application for a 1,000 sq ft raingarden for his property in the City of North Oaks. The raingarden would capture runoff from the property's impervious surfaces as well as from neighboring properties and Skillman Lane through a steep drainage ditch on the east side of the property. The project area directly drains to Pleasant Lake, which is impaired for nutrients. HabAdapt provided a design for the project, which would reduce total phosphorus by about 0.56 lbs/year (23%) and TSS by 102 lbs/year (23%). The applicant obtained two bids for the project including one bid from HabAdapt totaling \$10,290.86 and a second bid from Woodland Restorations LLC totaling \$12,240.75. Staff recommends approval of

- Landscape Level 1 Grant 2022-03 contingent upon the addition of an erosion and sediment control detail on the design plans, in the amount of 50% of eligible project expenses, not to exceed \$5,000 in accordance with program guidelines.
2. **SHG Application: SHG-2022-06 Folsom Native Planting**
Aaron Folsom has submitted a Soil Health Grant application for a 350 sq ft native shade planting for his property in the City of North Oaks. Folsom will be doing the work himself, and has submitted a photo and sketch diagram of the anticipated project in addition to a detailed cost estimate. The total estimated cost is \$325.15, and the VLAWMO requested funds are \$243.84. The proposed native planting accompanies a septic mound, which will enhance the soil and assist in protecting the septic mound area. Folsom is also a Master Naturalist through the University of Minnesota, and utilized the “Shade Garden for Pollinators” template produced by the MN Board of Water and Soil Resources for his project design. Per the Soil Health Grant policy, Folsom has begun site preparation before grant approval, and will not be reimbursed for any associated expenses related to site preparation. After review of the application, cost estimate, review of required 25% match, project plan, and plant list, staff is recommending approval of Soil Health Grant 2022-06 in the amount of \$243.84.
 3. **SHG Application: SHG-2022-07 Ripka Native Planting**
Mary Ripka has submitted a Soil Health Grant application for a 417.2 sq ft native planting and turf replacement for her property in Vadnais Heights. Mary and her daughter Becca will be contracting with EcoScapes for project site prep and planting. The application includes an aerial diagram in addition to a scope of possible plants to be used and project description from the contractor. The total estimated cost is \$1,800, and the VLAWMO requested funds are \$750. After review of the application, project plan, and plant list, in addition to an on-site visit consultation with staff, staff is recommending approval of Soil Health Grant 2022-07 in the amount of \$750.

VI. Projects

A. 319/Wilkinson BMP update

Barr Engineering completed a geotechnical report for soil borings collected at the Wilkinson project site. The geotechnical report and recommendation memo were presented to the Board at the April Board meeting. With these documented completed by Barr Engineering, VLAWMO has wrapped up activities for the Minnesota Department of Health grant by SPRWS for preliminary project preparation for the Wilkinson project. Invoices have been submitted to SPRWS, and VLAWMO staff will continue to work on grant close-out.

Following the April regular Board meeting, VLAWMO staff announced the engineering Request for Proposals (RFP) for the Wilkinson BMP project. VLAWMO staff also sent the RFP to 4 qualified firms, as directed by the Board. Proposals are due on May 24, 2022. Submitted proposals will be reviewed and evaluated by staff and the Policy and Personnel Subcommittee. The subcommittee will provide a recommendation to the full Board at the June regular Board meeting.

B. Pleasant Lake Carp Update

VLAWMO staff continue to monitor carp movement and locations with telemetry. Prep for stream removal with Carp Solutions is well underway. Carp Solutions installed barriers, a

PIT antenna monitoring station, and remote camera in the channel between Deep and Wilkinson Lakes at the location of the planned removal. Movement of carp is being monitored by VLAWMO staff and Carp Solutions.

Carp stream removal preparation



C. East Vadnais remnant restoration site prep

VLAWMO staff and University of Minnesota CEL students finished prepping a small, roadside, remnant prairie area this spring. This site was suggested is also receiving support (seed and planting) by a concerned and trained (in restoration) volunteer who lives just down the street. VLAWMO staff and students fenced the area, got the area marked by local utilities, and set up a smothering with geotextile fabric to control weeds. This site will be monitored and maintained over the summer; it will be seeded to supplement natives in the fall.

Remnant restoration area set up at Vadnais and Twin Lakes Blvd



To: VLAWMO Board of Directors
From: Nick Voss, VLAWMO Education and Outreach Coordinator
Date: 4/27/22
Re: **V. A. Consider WHEP MOU pilot project with Tamarack Nature Center and Ramsey County**

VLAWMO and Tamarack Nature Center aspire to improve upon their partnership following the Teal Pond restoration and subsequent volunteer engagement from 2021. The proposed pilot project reflected in the corresponding MOU is a volunteer wetland monitoring, evaluation and education program focused on Teal Pond or other wetlands or lakes within Tamarack Nature Center (TNC).

The pilot program is modeled after the Wetland Health Evaluation Program (WHEP) from Dakota and Hennepin Counties, which has been a successful program with a large volunteer network for 20+ years. Starting with consultations with the WHEP coordinator in Dakota County, VLAWMO and TNC learned about how volunteers are trained and engaged to conduct surveys on wetland health. The surveys consist of two parts: 1) Sampling and identifying aquatic macroinvertebrates and 2) identifying wetland vegetation.

The surveys are projected to occur in the summer of 2022, followed by a period of assessment and the development of a pilot program report. The effort shows potential to be an annual occurrence, building a database that allows for tracking changes over time, and potentially expanding to survey other wetlands in the VLAWMO watershed beyond Tamarack Nature Center. The tracking and monitoring of Teal Pond is especially of interest both for VLAWMO and TNC, as well as Ramsey County, due to the recent Teal Pond wetland restoration that all parties have invested in from 2020-2021. Through the partnership and sharing of responsibilities, staff time is minimal outside of the specified dates outlined in the proposed MOU. Highlighted portions of the MOU signify remaining details pending confirmation with project partners.

The pilot project's accumulation will be TNC's end-of-year volunteer banquet hosted at TNC in October, 2022. This event will allow all VLAWMO volunteers from all project areas to join in a larger volunteer celebration and be thanked for their efforts. The exceptional use of TNC facilities and the expanded volunteer invite is projected to be a valuable resource for both volunteer groups, serving to develop community, network, and provide greater gestures of volunteer appreciation than what VLAWMO is able to accomplish alone.

After the October, 2022 volunteer appreciation event, volunteers will be encouraged to serve as educators to the greater Ne Metro community about what was discovered and why wetland health is important to the community. The pilot completes in April, 2023 with an assessment and review between all parties on what the next stages should be, what level of volunteer investment and interest there is after the pilot, and if the effort should continue in the future.

Staff Recommendation

Staff recommends approval the proposed MOU, enabling VLAWMO staff to conduct the pilot program as outlined in the MOU specified in agenda item V.A.

VLAWMO LANDSCAPE LEVEL 1
GRANT APPLICATION FORM



Vadnais Lake Area Water Management
Organization 800 County Road E East
Vadnais Heights, MN 55127
www.vlawmo.org (851) 204-6075

Please submit form and required materials to:
LAUREN SAMPEDRO
lauren.sampedro@vlawmo.org

Please fill in the application as best as possible and use additional pages if necessary. Refer to the Grant Guidance document for further information or contact staff with any questions.

APPLICANT INFORMATION

NAME: Joe Coyne DATE: 4/26/22
ADDRESS: 11 Skillman Lane city: North Oaks ZIP: 55127
PHONE: 612.720.5099 EMAIL: coyne.joe@gmail.com

PROJECT SUMMARY

ESTIMATED TOTAL COST OF YOUR PROJECT: \$ 10,290.86 AMOUNT OF GRANT REQUESTED: \$ 5,000.00
(\$5,000 MAXIMUM)
WHEN DO YOU PLAN TO COMPLETE YOUR PROJECT? June 2022

TYPE OF PROJECT THAT WILL BE COMPLETED:

Raingarden/
Infiltration Basin

Shoreline
Restoration

Hard
Surface
Runoff
Reduction

Other

If other, please describe
proposed project:

PROJECT BACKGROUND

Describe your property: does your property connect to a lake, stream, ditch, or wetland in VLAWMO? What issues are you planning to address with your project?
2.2 acres adjoining Pleasant Lake. The goal of the project is to capture and infiltrate runoff and stop it from running into the lake.

Describe how your project will support the goals of the Landscape Grant Program (see guidance materials for more information). Does your proposed project directly reduce, capture, or treat stormwater?
The project will capture stormwater that currently overflows directly into the lake.

Please briefly describe anticipated maintenance activities of your project.
Weeding and plant replacement as needed.

PROJECT SPECIFICATIONS

In order to determine the water quality benefit of your project (amount of stormwater and pollutants captured), specific information is required for VLAWMO staff to perform the calculations. If you are working with a professional landscaper, they should be able to provide you with this information.

<p>TOTAL PROPERTY AREA (Acres): <u>2.2</u></p>	<p>TOTAL PROJECT SIZE (SQ.FT.): <u>1000</u></p>
<p>IMPERVIOUS AREA DRAINING TO PROJECT (SQ.FT.): <u>20200</u></p>	<p>PERVIOUS AREA DRAINING TO PROJECT (SQ.FT.): <u>53,330</u></p>

IF YOUR PROJECT INCLUDES INFILTRATION, PLEASE PROVIDE THE FOLLOWING INFORMATION

SOIL INFILTRATION RATE (INCHES/HR): <u>2946</u>	DEPTH OF RAINGARDEN BASIN (INCHES): <u>5.5</u>
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ADDITIONAL REQUIRED ATTACHMENTS

TO COMPLETE YOUR APPLICATION, PLEASE INCLUDE:

- Detailed drawing or plan set of the proposed project, drafted by either the landowner or a contractor. Dependent upon the complexity of the project, VLAWMO may require project final designs be completed by a qualifying professional or Engineer. Drawing must include project dimensions that enable VLAWMO staff to model the project for water quality benefits or stormwater reductions.
- Detailed project budget estimate with clear cost and material breakouts that equate to your total project cost estimate. Please review the VLAWMO Landscape Level 1 Cost Share Guidance document for eligible project materials that are applicable for grant funding.

****This information, along with the application, may be scanned and emailed to Lauren Sampedro, VLAWMO Watershed Technician & Program Coordinator at lauren.sampedro@vlawmo.org****

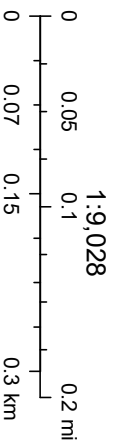
LL1 2022-03 Coyne Raingarden



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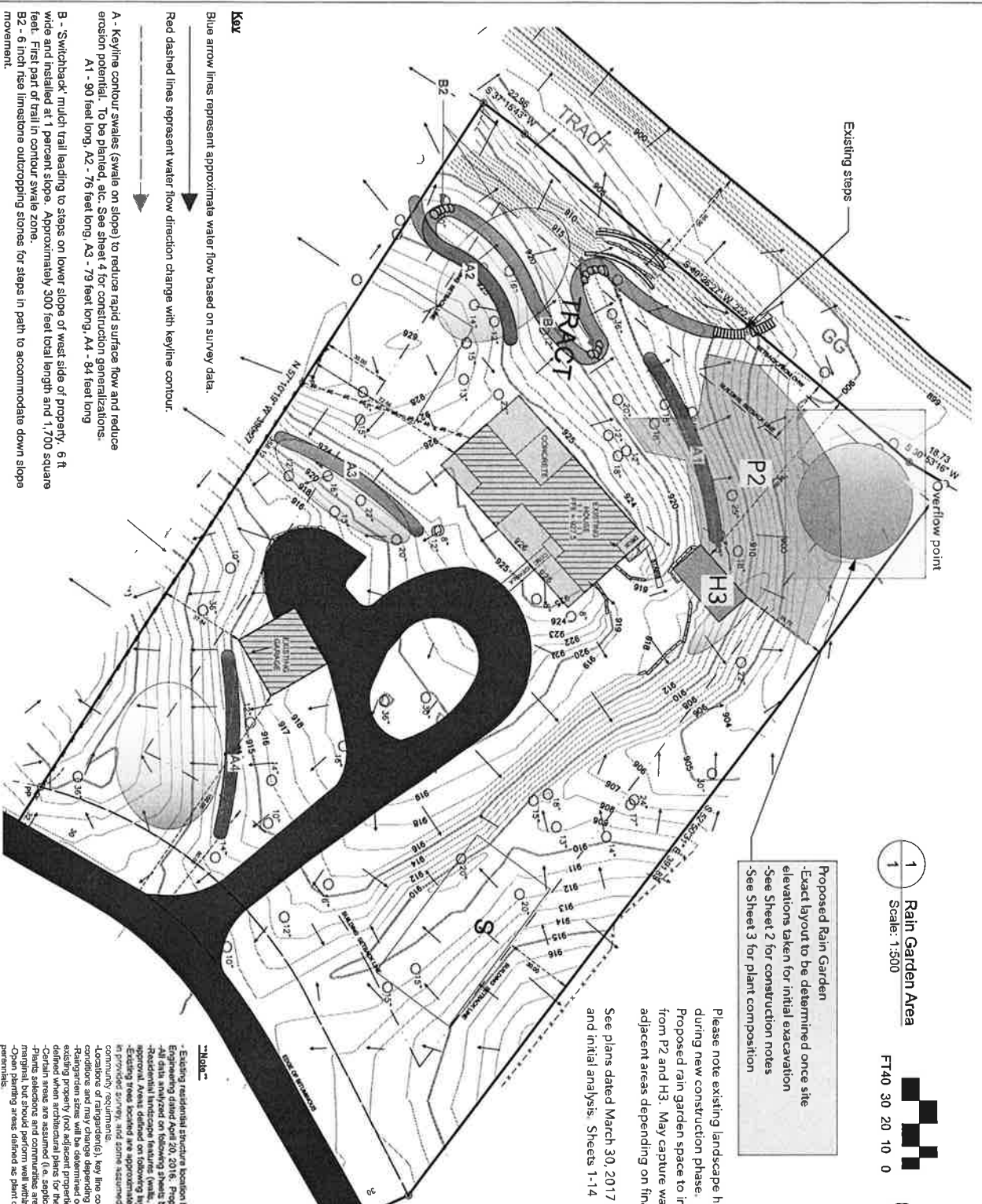
- VLAWMO Boundary 2020
- Project Location

- VLAWMO roads
- VLAWMO streams
- VLAWMO lakes



Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

County of Ramsey, Esri, HERE, Garmin, GeoTechnologies, Inc., Intermap, USGS, EPA | Esri, HERE |



1 Rain Garden Area
 Scale: 1:500
 FT40 30 20 10 0
 N

Proposed Rain Garden
 -Exact layout to be determined once site elevations taken for initial excavation
 -See Sheet 2 for construction notes
 -See Sheet 3 for plant composition

Please note existing landscape has changed during new construction phase.
 Proposed rain garden space to infiltrate water from P2 and H3. May capture water from other adjacent areas depending on final grades.

See plans dated March 30, 2017 for site details and initial analysis. Sheets 1-14

Key
 Blue arrow lines represent approximate water flow based on survey data.
 Red dashed lines represent water flow direction changes with keyline contour.
 A - Keyline contour swales (swale on slope) to reduce rapid surface flow and reduce erosion potential. To be planted, etc. See sheet 4 for construction generalizations.
 A1 - 90 feet long, A2 - 75 feet long, A3 - 73 feet long, A4 - 84 feet long
 B - 'Switchback' much trail leading to steps on lower slope of west side of property. 6 ft wide and installed at 1 percent slope. Approximately 300 feet total length and 1,700 square feet. First part of trail in contour swale zone.
 B2 - 6 inch rise limestone outcropping stones for steps in path to accommodate down slope movement.

Notes
 -Existing residential structure location based on provided site survey completed by Johnson and Scofield Inc., Surveying and Engineering dated April 20, 2016. Property lines are based on provided site survey.
 -All data analyzed on following sheets based on survey elevation data.
 -Recreational landscape features (walk, paths, formalized plantings) to be completed upon architectural structure design approval. Areas defined on following notes.
 -The site is shown as indicated in provided site survey. Minor - 200' all existing trees are located in provided survey, and some assumed locations are made. Tree survey to be completed upon project approval, or per community requirements.
 -Location of landscape(s), key line contour swales, soil berms, hardscape features are subject to change depending on site conditions and may change depending on site conditions during installation phase(s).
 -Planting areas are assumed (i.e. sapling system placement) and are subject to change.
 -Certain areas are assumed to be planted with the landscape based on microclimate conditions.
 -Open planting areas defined as plant community types on planting layouts, or left open intentionally for using existing plants.
 -Colors shown on plan are intended for visual representation only, and may not represent actual color of materials installed."

Client	Joe Coyne 11 Skilman Lane North Oaks, MN 55127
Designer	Habadaapt Daniel A. Peterson, MGA P.O. Box 22424 Robbinsdale, MN 55422
Project Title	Landscape Management
Drawing Title	Rain Garden Area
Date	February 28, 2017 March 30, 2017 August 20, 2021
Scale	See Design
Drawing No.	3 Total Sheets 1 of 3

Surface Areas and Water Flow Calculations

Area ID	Area square Feet	Rooftop Coefficient	Outflow Volume per 1.5 inch per hour event	Total Water Volume per 1 inch rain event
H1	1671	0.9	1396.62	1002.6
H2	1452	0.9	1211.84	871.2
H3	502	0.9	418.97	301.2
H4	800	0.9	667.68	480
H5	4326	0.9	3510.49	2585.6
H6	3231	0.9	2701.61	1941.2
H7	655	0.9	546.67	399
H8	1277	0.9	1064.22	786.2
H9	473	0.22	179.12	131.8
V1	1142	0.22	263.24	192.4
V2	878	0.22	199.26	146.4
V3	663	0.22	152.56	111.6
V4	663	0.22	152.56	111.6
V5	497	0.22	107.40	79.2
V6	646	0.22	131.79	98.6
V7	453	0.22	92.42	68.4
B1	4134	0.15	515.04	388.4
B2	1861	0.17	229.38	171.6
B3	1069	0.17	136.52	102.4
B4	1997	0.17	249.82	187.2
B5	1501	0.17	188.63	141.6
B6	1315	0.17	167.31	125.4
B7	137	0.22	27.95	21.2
B8	137	0.22	27.95	21.2
B9	359	0.22	114.04	85.6
B10	1071	0.22	138.50	103.6
B11	6956	0.22	1419.12	1064.4
B12	328	0.22	65.56	49.2
B13	1202	0.22	246.23	184.4
B14	318	0.22	330.09	247.2
B15	11627	0.33	3558.11	2668.4
R2	147	0.33	44.99	33.6
R3	3252	0.33	993.18	744.4
R4	1808	0.33	552.29	414.4
R5	6864	0.33	2100.53	1575.6
R6	10397	0.33	3181.70	2386.4
R7	1396	0.33	186.30	140.4
R8	1447	0.38	559.91	420.4
R9	7123	0.38	2329.68	1766.4
R10	4269	0.38	1308.34	984.4
R11	1270	0.38	512.01	382.4

H = Hard Surface (concrete, asphalt, roof surfaces);
 Y = Wooded/Grass/Perennial/Turf Light Slope
 R = Wooded/Grass/Perennial/Turf Medium Slope
 P = Wooded/Grass/Perennial/Turf Heavy Slope

Rooftop coefficient based on slope and vegetation type

Outflow rates based on site modifications as designed.

Total outflow gallons per 1.5 inch per hour rain event on all hard surfaces	10931.89
Total outflow gallons per 1.5 inch per hour rain event on all non-hard surfaces	21554.14
Total outflow gallons per 1.5 inch per hour rain event	32486.04

Water Outflow Formula Per 1.5 inch per Hour Event
 Outflow Formula indicates total water volume potentially leaving property in case of 1.5 inches of rain in one hour
 Total Volume Gallons = 0.6 Gallons x square feet
 Total water volume formula indicates total gallons falling on property per one inch rain fall (total water volume received determined by multiplying by total inches)

Gallons per 1 inch rain event

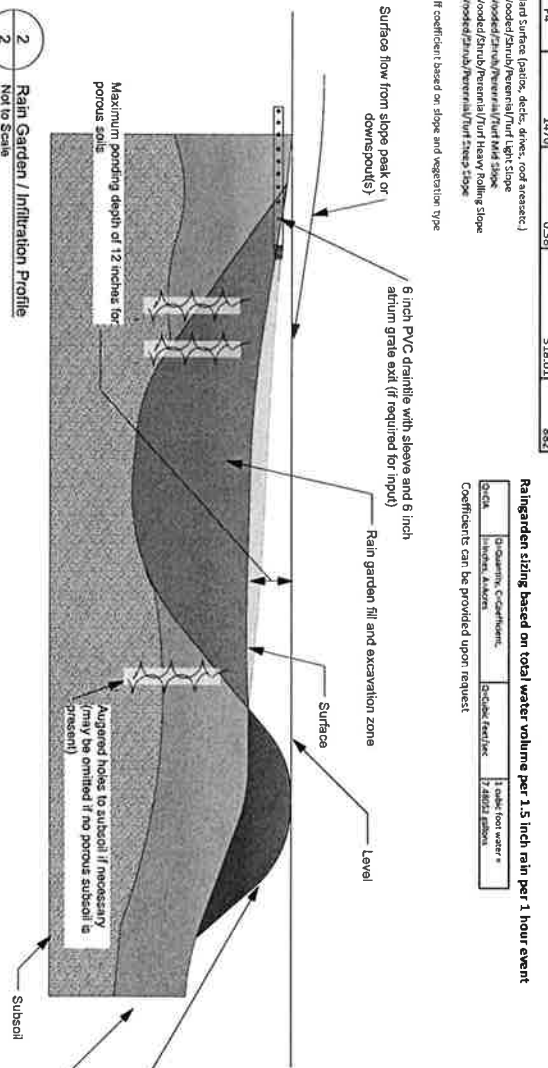
Total gallons received per 1 inch rainfall on all hard surfaces	7365.80	per 1.5 inch event	11348.7
Total gallons received per 1 inch rainfall on non-hard surfaces	49163.40	per 1.5 inch event	73745.1
Total gallons received per 1 inch rainfall on all surfaces	56529.20	per 1.5 inch event	85123.8

Approximate raingarden sizes and locations to be determined when house plans and landscape foundation plans are completed.

Rain Garden Size Notes

Raingarden sizing based on total water volume per 1.5 inch rain per 1 hour event	2946.7	2000 sq ft	0.45 ft depth
Total Gallon Capacity for 1.5 inch per hour rain event		Constructed Surface Area	Depth of excavation and modified soil (assumed infiltration coefficient of .33)

Rain garden to infiltrate water from area P2 and H3



2 Rain Garden / Infiltration Profile
 Not to Scale

Construction notes are a guideline only. Actual installation may vary slightly depending on material used. Use details as guideline only. Percolation rates may result in adjusted construction depth(s).

Calculating Rain Garden Area

Catchment Area (various surfaces x factored soil surface flow)
 -Infiltration Rate factor per 6 inch excavated raingarden (0.19-0.25 for sand, 0.30-0.37 for silt, 0.45-0.55 for clay)

Formulas:

- (AR) Area of Raingarden for 1 inch rainfall excavated 6 inches = Catchment area x infiltration rate factor (Note: Area or depth can be multiplied by number of inches rainfall for desired for catchment infiltration)
- (DRG) Designed raingarden square feet
- (DRG) Designed raingarden holding capacity per six inch excavation = DRG / AR (DRG) Designed raingarden holding capacity per six inch excavation = DRG x DRG
- Volume water per square foot per inch impervious surface (i.e. roof, patio, drive, etc.) = inches x 0.6 = gallons per square foot

Rain Garden and Rain Infiltration Zone Construction

- Fill a uniform mix of the following
 - 20 to 30% composted rice hull
 - 20% sand (may not be required if native soil is high in gravel and sand)
 - 15 to 20% composted bark
 - 45 to 55% native soil
- **May be reduced if native soil is heavy clay in which case additional sand and compost will be utilized**
- All excavation to be completed with mini excavator from edges to reduce compaction of existing soil and fill mix
- Any compaction due to excavation to be loosened with grading bar
- Excavation to be a minimum 24 inches or to the existing subsoil which ever is greater
- Excavation may be less and rain garden / infiltration zone increased if obstacles found in excavation zone (i.e. bed rock, utilities, etc.)
- Several auger holes may be required to reach subsoil if subsoil is deeper than 2.5 feet to allow water movement through soil column **If no porous subsoil is present raingarden / infiltration zone area will be increased to handle 2 inch rain event.
- Excavated material used for down slope side berm
- Planting of rain garden / infiltration zone to be completed within 24 hours of final grading of rain garden
- Plantings to be a mix of woody and herbaceous species
- Drain tile outlet aluminum grate exposed if input tile is used.
- Swales to be constructed without major soil modifications
- Excavated top horizon soil binned on down slope
- Overflow location if rain garden
- No overflow if infiltration basin
- Existing topsoil or top soil horizon



Client: Joe Coyne
 11 Skillman Lane
 North Oaks, MN 55127

Designer: Daniel A. Peterson, MAg.
 P.O. Box 22424
 Robbinsdale, MN 55422
 Landscape Management

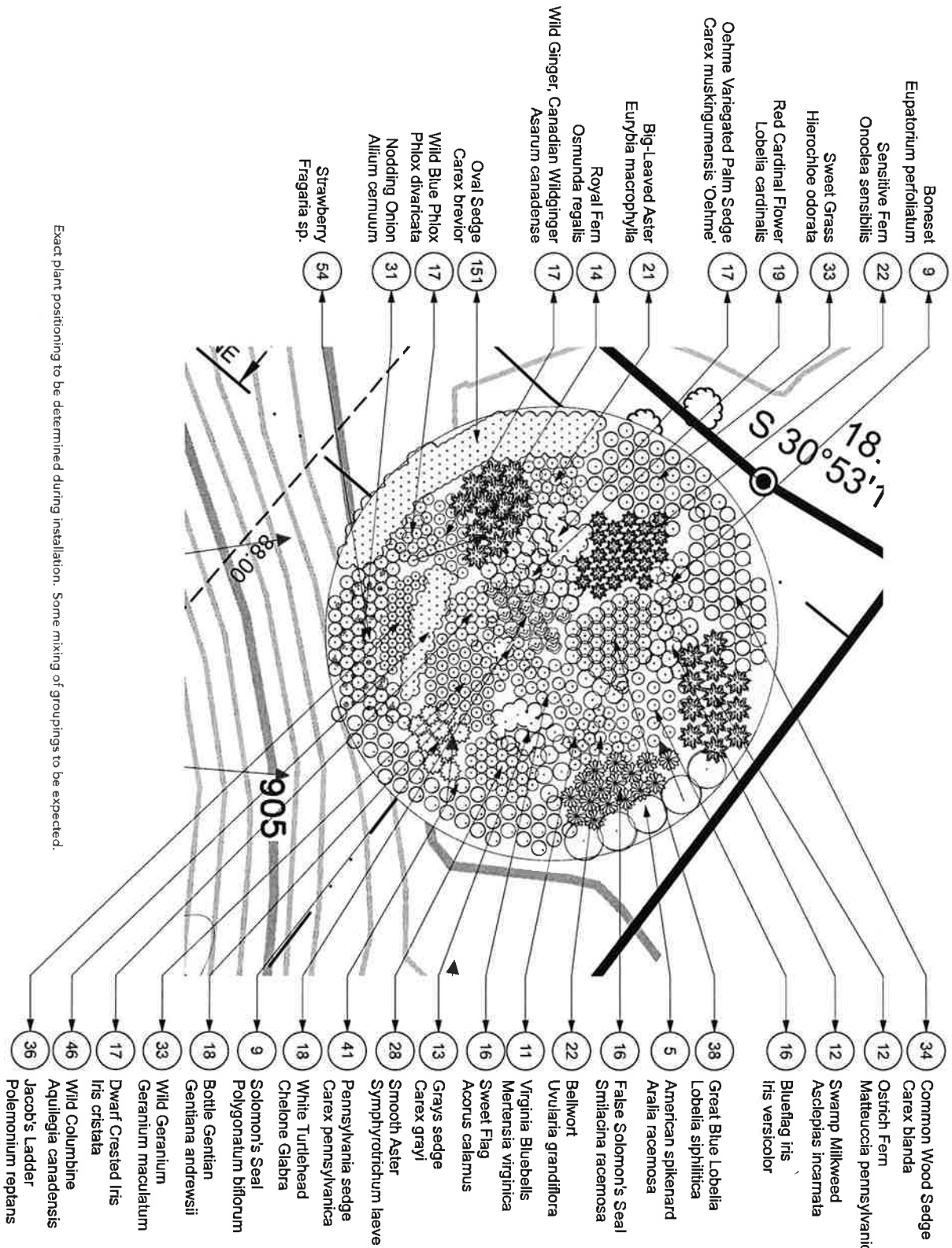
Project Title: Rain Garden Construction Guidelines and Information Tables

Date: February 28, 2017
 August 20, 2021

Scale: See Design

Drawing No: 3 Total Sheets

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Exact plant positioning to be determined during installation. Some mixing of groupings to be expected.

- 9 Bonaset
- 22 Eupatorium perfoliatum
- 33 Sensitive Fern
- 19 Oncoclea sensibilis
- 17 Sweet Grass
- 19 Hierochloa odorata
- 17 Red Cardinal Flower
- 17 Lobelia cardinalis
- 17 Oehme Variegated Palm Sedge
- 17 Carex muskingumensis 'Oehme'
- 21 Big-leaved Aster
- 14 Eurydia macrophylla
- 17 Royal Fern
- 17 Osmunda regalis
- 17 Wild Ginger, Canadian Wildginger
- 17 Asarum canadense
- 151 Oval Sedge
- 17 Carex brevior
- 17 Wild Blue Phlox
- 31 Phlox divaricata
- 54 Nodding Onion
- 54 Allium cernuum
- 54 Strawberry
- 54 Fragaria sp.

- 34 Common Wood Sedge
- 12 Carex blanda
- 12 Ostrich Fern
- 12 Matteuccia pennsylvanica
- 12 Swamp Milkweed
- 16 Asclepias incarnata
- 16 Blueflag Iris
- 16 Iris versicolor
- 38 Great Blue Lobelia
- 5 Lobelia siphilitica
- 5 American spikenard
- 16 Aralia racemosa
- 16 False Solomon's Seal
- 22 Smlacina racemosa
- 16 Bellwort
- 11 Uvularia grandiflora
- 11 Virginia Bluebells
- 16 Mertensia virginica
- 16 Sweet Flag
- 13 Acorus calamus
- 13 Grays sedge
- 28 Carex grayi
- 41 Smooth Aster
- 18 Symphyotrichum laeve
- 18 Pennsylvania sedge
- 18 Carex pennsylvanica
- 18 White Turtlehead
- 9 Chelone glabra
- 18 Solomon's Seal
- 9 Polygonatum biflorum
- 18 Bottle Gentian
- 18 Gentiana andrewsii
- 33 Wild Geranium
- 17 Geranium maculatum
- 17 Dwarf Crested Iris
- 46 Iris cristata
- 36 Wild Columbine
- 36 Aquilegia canadensis
- 36 Jacob's Ladder
- 36 Polemonium reptans

1

Rain Garden Area Plantings

Scale: 3/32" = 1'-0"

FT 16 12 8 4 0

Notes

- Locations of rain garden(s), key tree contour swales, soil texture, and other site conditions are shown on site drawings.
- Planting on site conditions during installation phase(s).
- Planting sizes will be determined once soil percolation testing has been completed. Preliminary water volumes from existing property (not adjacent properties) are provided for water management layout. Rain garden(s) shall be installed in accordance with the site plan and the structure are approved.
- Certain areas are assumed (i.e. septic system placement) and are subject to change.
- Plant selections and quantities are based on using USDA zone 5/2 hardy plant material. Some plant material landscape based on microclimate conditions.
- Open planting areas defined as plant community types on planting layouts; or left open intentionally for using existing permeable.

Client	Joe Coyne
Project	11 Skilman Lane North Oaks, MN 55127
Designer	Habitadapt Daniel A. Peterson, MAg. P.O. Box 22424 Robbinsdale, MN 55422
Project Title	Landscape Management
Drawing Title	Rain Garden Area Plants
Date	February 28, 2017 March 30, 2017 August 20, 2021
Scale	See Design
Drawing No.	3 Of 3
	3 Total Sheets

Bid 1

HabAdapt

Design Sept 23, 2021
Pricing April 28, 2022



HabAdapt
 P.O. Box 22424
 Robbinsdale, MN 55422

612.735.9321

Date September 23, 2021
Revised April 28, 2022

Customer
 Joe Coyne
 11 Skillman Lane
 North Oaks, MN 55127

Option 2
Landscape Project 1
 Estimate
 West rain garden space per design dated August 20, 2021. Size reduced by 50%

Materials & Labor

Material or Labor	Description	Quantity	Price Per Unit (price includes Tax)	Total Price
Rain Garden Installation Install rain garden per design dated August 20, 2021. 1000 square foot coverage. See Plans for details.				
Rain garden soil mix	Rain garden soil mix. Used to amend existing soils once plant material and sod material has been removed. Per cubic yard	6	\$59.35	\$356.10
Eupatorium perfoliatum	Boneset. #1 container	5	\$8.37	\$41.85
Onoclea sensibilis	Sensitive Fern. #1 container	11	\$8.37	\$92.07
Hierochloë odorata	Sweet grass. 3 inch container	17	\$5.13	\$87.21
Lobelia cardinalis	Cardinal Flower. 1 quart container	10	\$5.94	\$59.40
Carex muskingumensis 'Oehme'	Oehme sedge. #1 container	9	\$7.11	\$63.99
Eurybia macrophylla	Big leaved aster. 3 inch container	11	\$5.13	\$56.43
Osmunda regalis	Royal Fern. #1 container	7	\$8.37	\$58.59

Asarum canadense	Wild Ginger. #1 container	9	\$8.37	\$75.33
Carex brevior	Oval Sedge. 6 pack	13	\$10.26	\$133.38
Allium cernuum	Nodding Onion. 3 inch container	16	\$5.13	\$82.08
Phlox divaricata	Blue phlox. #1 container	9	\$8.37	\$75.33
Fragaria sp./	Strawberry. 3 inch container	27	\$5.13	\$138.51
Carex blanda	Wood sedge. 3 inch container	17	\$5.13	\$87.21
Matteuccia pennsylvanica	Ostrich Fern. #1 container	6	\$8.37	\$50.22
Asclepias incarnata	Swamp Milkweed. 3 inch container	6	\$5.13	\$30.78
Iris versicolor	Blue Flag Iris. 3 inch container	8	\$5.13	\$41.04
Lobelia siphilitica	Blue Lobelia. 3 inch container	19	\$5.13	\$97.47
Aralia racemosa	American spikenard. #1 container	3	\$12.96	\$38.88
Smilacina racemosa	False Solomon's Seal. #1 container	8	\$8.37	\$66.96
Uvularia grandiflora	Bellwort. #1 container	11	\$8.37	\$92.07
Mertensia virginica	Virginia Bluebells. #1 container	6	\$8.37	\$50.22
Acorus calamus	Sweet flag. 3 inch container	8	\$5.13	\$41.04
Carex grayi	Grays sedge. 1 quart container	7	\$8.21	\$57.47
Symphoricarpon laeve	Smooth Aster. 3 inch container	14	\$5.13	\$71.82
Carex pennsylvanica	Pennsylvania sedge. #1 container	21	\$8.12	\$170.52
Chelone glabra	White Turtlehead. 3 inch container	9	\$5.13	\$46.17
Polygonatum biflorum	Solomon's seal. #1 container	5	\$8.37	\$41.85
Gentiana andrewsii	Bottle Gentian. 1 quart container	9	\$7.02	\$63.18
Geranium maculatum	Wild Geranium. 3 inch container	17	\$5.13	\$87.21
Iris cristata	Dwarf Crested Iris. #1 container	9	\$8.37	\$75.33
Aquilegia canadensis	Wild Columbine. 3 inch container	23	\$5.13	\$117.99
Polemonium reptans	Jacob's Ladder. #1 container	18	\$8.37	\$150.66
Rabbit scram	Rabbit scram application installed after planting.	1	\$50.00	\$50.00
Composted pine fines	Pine fine mulch for top dress of rain garden space. per yard	6	\$37.75	\$226.50
Equipment Fees	Equipment used for excavating soil area and hauling equipment. Estimate	Estimate	\$700.00	\$700.00

Delivery Fees	Delivery fees charged by distributors for delivering bulk material and plant material (plant material to be hand selected prior to delivery)	Estimate	\$650.00	\$650.00
Labor				\$5,866.00
Notes:				
Excavation fees may change depending on underground obstructions that may be present. Communication will be provided in Prices are subject to change. Prices quoted for materials are 2021 prices and may adjust for 2022 season.				
Daniel Peterson Principle and Owner at HabAdapt Landscape Design will be onsite for entire project. Any subcontractors used will not be left unsupervised.				
HabAdapt Landscape Design will contact Gopher State One two weeks prior to project initiation to have utilities marked.				
Additional fees may be applicable if buried debris is located in any excavation zone (i.e. buried rubble / concrete, hazardous material, etc.)				
Additional work performed will result in change order billing. All additional work will be communicated in writing (email) prior to initiation. Hourly rate for change order projects is \$110 per labor hour rounded to the nearest 0.25 hour.				
All pavement cutting tools will be either dust vacuuming or wet cutting to reduce aerosolized particulate matter.				
All power equipment used by HabAdapt will be run with generators or gas powered. No power to be drawn from the facility.				
Equipment will be moved in and out of work zone in one location to minimize collateral damage during installation phase.				
Assumed HabAdapt Landscape Design will have access to water throughout project for irrigation, wetting product and washing				
No pesticides or herbicides will be used during the installation of the project.				
Labor quote / price is guaranteed 60 days from bid / estimate generation date unless prior agreement has been made.				
Plant species will be itemized out when specific species are determined. Assumed most of the perennial species indicated in the plans will be used with additional species added depending on availability.				
All plant material is hand selected. If we can get quantity discounts or the same material from an alternative vendor, the price savings will be passed on with the final invoice				
*Equipment, delivery and disposals are estimates. Typically, the estimates are higher than what is usually needed, however, if more deliveries, disposals, etc. are required pricing may adjust accordingly. If ordered are combined some of the delivery and equipment costs may be combined.				
*All product pricing is wholesale cost (we do not mark up materials). Should materials be acquired for less the price will be adjusted on the final invoice upon project completion.				

*Herbaceous plants and non-warranted plants will be replaced at cost of new plant material plus delivery fees if applicable. Herbaceous plants are any grasses, perennials that typically die back to the ground at the end of the season.

*Plant warranty is valid for one replacement.

Hardscape Warranty

*All hardscape construction is guaranteed for 5 years. Should hardscape construction (i.e. pavers, walls, etc.) fail during specified time frame, the hardscape feature will be repaired to condition originally designed. Hardscape warranty does not cover natural disaster occurrence (storms, floods, etc.), mechanical damage (damage resulting from other construction activities, vehicular collision, etc.), or chemical damage (salt and abrasive cleaners).

*Natural stone may weather with time (crack, oxidize, etc.)

Bid 2

Woodland Restorations LLC

Design HabAdapt Sept 23, 2021
Pricing April 27, 2022

From: Woodland Restorations, LLC quickbooks@notification.intuit.com
Subject: Estimate 1623 from Woodland Restorations, LLC
Date: April 27, 2022 at 7:36 PM
To: coyne.joe@gmail.com



Dear Joe Coyne,

Please review the estimate below. Feel free to contact us if you have any questions.
We look forward to working with you.

Thanks for your business!
Woodland Restorations, LLC

----- Estimate -----

P.O. Box 396
Hugo, MN 55038 US
651-888-1617

Estimate #: 1623
Date: 04/27/2022
Exp. Date: \$12,248.75

Address:

Joe Coyne
11 Skillman Lane
North Oaks, MN 55127

Date	Description	Qty	Rate	Amount
04/27/2022	Rain Garden Installation - Design From HabAdapt			11,400.00
	Includes all Labor and Material			
SubTotal:				\$11,400.00
Tax:				\$848.75
Total:				\$12,248.75

Woodland Restorations, LLC
P.O. Box 396
Hugo, MN 55038
woodlandrestorations@yahoo.com



Project Information

Calculator Version: Version 4: July 2020
 Project Name: Joe Coyne Raingarden
 User Name / Company Name:
 Date: 5/2/22
 Project Description: Proposed raingarden to capture runoff coming from steep drainage ditch on property, street, and a few neighboring properties.
 Construction Permit?: No

Site Information

Retention Requirement (inches): 1.1
 Site's Zip Code: 55127
 Annual Rainfall (inches): 31.8
 Phosphorus EMC (mg/l): 0.3
 TSS EMC (mg/l): 54.5

Total Site Area

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land		2.75			2.75
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed		1.2			1.2
			Impervious Area (acres)		1
			Total Area (acres)		4.95

Site Areas Routed to BMPs

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land					0
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed		1			1
			Impervious Area (acres)		0.46
			Total Area (acres)		1.46

Summary Information

Performance Goal Requirement

Performance goal volume retention requirement:	3993	ft ³
Volume removed by BMPs towards performance goal:	450	ft ³
Percent volume removed towards performance goal	11	%

Annual Volume and Pollutant Load Reductions

Post development annual runoff volume	3.0349	acre-ft
Annual runoff volume removed by BMPs:	0.6863	acre-ft
Percent annual runoff volume removed:	23	%

Post development annual particulate P load:	1.3621	lbs
Annual particulate P removed by BMPs:	0.308	lbs
Post development annual dissolved P load:	1.114	lbs
Annual dissolved P removed by BMPs:	0.252	lbs
Total P removed by BMPs	0.56	lbs
Percent annual total phosphorus removed:	23	%

Post development annual TSS load:	449.9	lbs
Annual TSS removed by BMPs:	101.7	lbs
Percent annual TSS removed:	23	%

BMP Summary

Performance Goal Summary

BMP Name	BMP Volume Capacity (ft ³)	Volume Recieved (ft ³)	Volume Retained (ft ³)	Volume Outflow (ft ³)	Percent Retained (%)
1 - Bioretention basin (w/o underdrain)	450	1837	450	1387	24

Annual Volume Summary

BMP Name	Volume From Direct Watershed (acre-ft)	Volume From Upstream BMPs (acre-ft)	Volume Retained (acre-ft)	Volume outflow (acre-ft)	Percent Retained (%)
1 - Bioretention basin (w/o underdrain)	1.5192	0	0.6863	0.8329	45

Particulate Phosphorus Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Bioretention basin (w/o underdrain)	0.6818	0	0.308	0.3738	45

Dissolved Phosphorus Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Bioretention basin (w/o underdrain)	0.5579	0	0.252	0.3059	45

Total Phosphorus Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Bioretention basin (w/o underdrain)	1.2397	0	0.56	0.6797	45

TSS Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Bioretention basin (w/o underdrain)	225.21	0	101.74	123.47	45

BMP Schematic





SOIL HEALTH COST SHARE GRANT APPLICATION

What is VLAWMO's Soil Health Grant?

The Soil Health Grant is a **reimbursement** grant program to inspire, assist, and enable residents to install small-scale watershed best management practices that improve water quality and native habitat within VLAWMO. Applicants may apply for up to \$750 in Soil Health Grant funding, with a 25% applicant project match (example: total applicable project cost is \$1,000, where \$750 would be available for grant funding, and the applicant is responsible for paying \$250 of the project cost). If a project is in either a Targeted Habitat or Volume Reduction Zone, the applicant may apply for up to \$1,000 in grant funding.

Eligible Projects include:

- Native plantings & pollinator gardens
- Pollinator-friendly yards or turf replacement
- Downspout or yard raingardens
- Native planting buffer strips
- Erosion control or stabilization with native species

Ineligible Projects include:

- Purely landscaping or decorative projects with no native plant incorporation
- Rock or block decorative retaining walls
- Surface water chemical treatment of nuisance vegetation

Soil Health Grant Process

Soil Health Grant funding is available to residents for projects on property within the VLAWMO watershed boundary, and the grant program funding is first-come, first-serve, with limited program funding available for 2022. If you are interested in applying for a grant, please contact Tyler Thompson to schedule a site visit on your property to discuss your proposed project and to ask and answer questions regarding the Soil Health Grant process. Applications must be submitted by the 4th Friday of the month for review of eligibility, and applications will be considered for funding at VLAWMO's monthly Technical Commission meetings on the 2nd Wednesday of each month on the Commission's Consent Agenda.

1. Please contact Tyler Thompson to schedule a site visit of your property to discuss your project *before* submitting a grant application
2. After discussing with VLAWMO staff, please move forward with completing your grant application, along with the required attachments
3. Staff will confirm receipt of your submitted application and will begin the review process, or will inform the applicant if more information or detail is needed
4. Staff will inform the applicant if their application has passed application scoring criteria and will be heard for approval at the next VLAWMO Technical Commission meeting on the 2nd Wednesday of the month

Funding Agreement

Each project selected and approved for funding must enter into an agreement with VLAWMO defining the obligations of the applicant and VLAWMO. This includes, but is not limited to, such items as terms of the agreement, use of funds, cost overruns, and cancellation. The agreement also allows VLAWMO access to the project area for evaluation and promotion of the project. Applicant is responsible for securing any and all permits for the work. This agreement must be signed by both parties prior to commencement of work on the project; funding will only cover work done after the agreement has been signed, and work that was included for funding in the VLAWMO-approved grant application. **Questions regarding the grant program and completed applications can be sent to:**

Nick Voss, Education and Outreach Coordinator

(651) 204-6070 Email: nick.voss@vlawmo.org

Vadnais Lake Area Water Management Organization

800 County Rd E East Vadnais Heights, MN 55127

Grant Program Details

- Eligible materials are those which stay on the property such as plants, erosion control blanket, mulch, and drainage infrastructure. Ineligible materials would include work gloves, shovels, tools and equipment used to implement the project but may be used again for future projects (rented equipment IS an eligible expense).
- Eligible labor costs must be those expenses associated with a qualified landscaper/contractor and are subject to approval by VLAWMO staff. Ineligible labor would include the use of friends or a volunteer group helping to implement the project. VLAWMO reserves the right to adjust costs submitted for reimbursement, based upon final receipts and invoices.
- For all projects, only plants and vegetation native to Minnesota are eligible towards grant reimbursement. Hybrids of native plants are not counted as native. You must provide a list of plants that will be used to allow for review and comment by VLAWMO staff. Native restoration projects must be 100% native species. Projects may incorporate non-native or cultivar plants or vegetation within their project, but they are not eligible towards grant funding.
- **Projects completed or in progress are not eligible for funding.** A grant application must be approved for funding and grant agreement must be signed by the applicant and VLAWMO prior to the commencement of work to be eligible for VLAWMO grant funds. However, the landowner may begin project site preparation before grant approval, but will not be reimbursed for any associated expenses.
- A site visit by VLAWMO staff is required once the project is complete, for final project inspection, before a reimbursement check is released to the Grantee.
- Grantee must complete project and request a closeout inspection within one (1) year from date of grant approval. All receipts and invoices for applicable grant expenses must be submitted to VLAWMO staff for audit and for the grant reimbursement request to begin. Grant reimbursement checks are approved and mailed monthly, after approval by the VLAWMO Technical Commission at their monthly meeting.
- **Grantee must agree to maintain the project area for a minimum of 5 years.** Common maintenance includes weeding, watering, removal of invasive species, replacement of plants, repair of inlets/outlets, and other duties. The site may be inspected by VLAWMO staff on an annual basis to ensure compliance. VLAWMO staff may provide technical assistance and resources for project maintenance.
- Property owners may receive one grant every 2 years, unless opting into education incentives (below). If wanting to apply over the course of multiple years to complete projects in phases, your current project must be complete prior to the approval of a subsequent grant.

Applicant Landowner Information

Name: Aaron Folsom
Address of property where project will be implemented: 24 N Oaks Rd
City, State, Zip: North Oaks, MN 55127
Phone: 612-396-9650
Email address: folso001@umn.edu

Grant Specifics

ESTIMATED TOTAL COST OF YOUR PROJECT:	\$ 325.15	AMOUNT OF GRANT REQUESTED: (\$750 MAXIMUM)	\$ 243.84
		(\$1,000 Maximum if within Targeted Priority Zone)	

WHEN DO YOU PLAN TO COMPLETE YOUR PROJECT? _____

PROJECT TYPE:

Raingarden
 Native Restoration/Pollinator Planting
 Turf Replacement
 Other

If other, please describe proposed project: _____

Project Background

Describe your property: Does your property connect to a lake, stream, ditch, or wetland in VLAWMO? What is the purpose of your project?

I want to create a native flower pollinator garden to replace part of my lawn, which is in the VLAWMO watershed. The garden will be roughly 30 feet X 12 feet and essentially follows the attached "Shade Garden for Pollinators" template provided by the Minnesota BWSR. The garden site has been partly prepared, by covering it with cardboard to smother the remaining turf. I will obtain free compost from Ramsey County for and cover the cardboard with 5 inches of compost and later wood chip mulch. I will purchase approximately 60 bare root or plugs from a native nursery, plant, and care for them.

Describe how your project will support the goals of the Soil Health Grant Program (see guidance page for more information). Does your proposed project directly reduce, capture, or treat stormwater?

VLAWMO's list of eligible projects includes creating pollinator gardens with native plants. Replacing turf with a pollinator garden will reduce water use on my lawn and will benefit useful insects. It will also reduce rain runoff from the adjacent hill and from my roof and patio through my yard. I am a MN Master Naturalist and am qualified to carry out this project.

Please briefly describe anticipated maintenance activities of your project:
 After planting the garden, I will water it initially as needed, mulch it to preserve water, and weed it regularly so that the native plants thrive. I will do this for at least the 5 years required, and if any plants need replacing I will do this at my own expense.

Project Specifications

In order to determine the water quality benefit of your project (amount of stormwater and pollutants captured), specific information is required for VLAWMO staff to perform the calculations. If you are working with a professional landscaper, they should be able to provide you with this information.

TOTAL PROPERTY AREA (Acres):	<u>1.5</u>	TOTAL PROJECT SIZE (SQ.FT.):	<u>360</u>
IMPERVIOUS AREA DRAINING TO PROJECT (SQ.FT.):	<u>1,746</u>	PERVIOUS AREA DRAINING TO PROJECT (SQ.FT.):	<u>23,457</u>

IF YOUR PROJECT INCLUDES INFILTRATION, PLEASE PROVIDE THE FOLLOWING INFORMATION

SOIL INFILTRATION RATE (INCHES/HR):	<u>NA</u>	DEPTH OF RAINGARDEN BASIN (INCHES):	<u>NA</u>
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Additional Required Attachments

To complete your application, please include:

- Detailed drawing or plan of the proposed project, drafted by either the landowner or a contractor.
- Detailed project budget estimate with clear cost and material breakouts that equate to your total project cost estimate.

****This information, along with the application, may be scanned and emailed to VLAWMO GIS Watershed Technician, Tyler Thompson (tyler.thompson@vlawmo.org)****

Opting in to the education incentives would allow reapplying for Soil Health Grant funds the consecutive year after being awarded grant funding. Incentives entail committing to three of the following four options for 2 years:

1. Documenting seasonal photos, organizing them, and sending them to VLAWMO via jump drive or email, to show the progress and growth of the project.
2. Provide a neighborhood spotlight article featuring a photo of participants posing in front of the project, as well as a mini-interview 1-2 years after the project was installed to speak to their experience in install, maintenance, any problems, and enjoyment for others to learn from.
3. Participate as a host site for VLAWMO's annual neighborhood BMP tour working in conjunction with VLAWMO Master Water Stewards.
4. Help coordinate VLAWMO's annual native plant swap with Master Water Stewards. This entails saving seeds, dividing and potting mature plants for sharing with other residents or public raingardens, or taking plants from the plant swap for the home project as needed.

Projects must be maintained for a minimum of 5 years, and applicants must be willing to participate in VLAWMO's Education & Outreach and project sharing efforts. The applicant is responsible for Project maintenance items referenced in the Soil Health Grant Guidance document for a 5 year period, after Project completion. VLAWMO is not responsible for completing maintenance activities, but will assist with staff guidance. A project may be visited and inspected by VLAWMO staff during the 5 year maintenance period. Please inform VLAWMO if you move within the 5 years of project implementation so we may provide the new owners with information and guidance on the Project.

Are you willing to commit to the following Soil Health Grant requirements?

- Maintain the project for at least 5 years after its implementation? YES NO
- Participate in VLAWMO's outreach and project sharing efforts? YES NO
- Do you understand that your Project may be visited and inspected by a VLAWMO representative during the 5 year Project maintenance period? YES NO

Please print and sign below to indicate that the above information and attachments are accurate and complete, and constitute a complete and submitted grant application. If approved by the VLAWMO Technical Commission or Board, a VLAWMO staff signature will constitute an executed grant agreement between the grantee and the Vadnais Lake Area Water Management Organization (VLAWMO).

APPLICANT/GRANTEE

Print Name Aaron Folsom

Signature  Date 4/14/22

VLAWMO STAFF

Signature _____ Date _____

Nursery	Species	Number	Cost
Landscape Alternatives	Oval Sedge	12	\$19.00
	Penn Sedge	6	\$31.50
	Alumroot	12	\$19.00
	Ohio Spiderwort	6	\$9.50
	Fragrant hyssop	6	\$9.50
	Cardinal flower	6	\$9.50
	Wild Bergamot	6	\$9.50
	Culver's root	6	\$9.50
	Green headed cone flower	6	\$9.50
	Zig-zag goldenrod	6	\$9.50
Morning Star Nursery	Downy Yellow Violet	8	\$64.00
	Calico Aster	6	\$8.95
	Yarrow (seed)	1 pack	\$4.00
Cane Creek Meeadows	Wild Geranium	10	\$16.00
	Solomon's Seal	15	\$29.57
	Edging		\$45.00
	Subtotal		\$303.52
	tax 7.125%		\$325.15
Match		25%	\$81.31
Total requested			\$243.84

Shade Garden for Pollinators

There are great native plant options for a shady spot. The plants featured here also selected for their beautiful foliage as well as continuous bloom from spring to fall.

A grass-like woodland ground-cover, **Pennsylvania sedge** provides habitat for nesting pollinators and larva. Low growing and fine textured.

PS 9 plants



Spring ephemerals **Yellow Violets** emerge and bloom before the other plants in the garden, providing valuable early food for pollinators.

YV 7 plants



A low-growing native coral bell, **Alumroot** provides early blooms and nectar and season-long foliage interest in a shady garden.

AR 5 plants



Solomon's Seal gracefully adds texture to a shady garden. It is pollinated by bumblebees and other native bees. Blue berries in late summer provide food for other wildlife.

SS 3 plants



Pagoda Dogwood a sculptural small tree, producing copious flowers in late spring. Violets planted beneath it will flower before Pagoda Dogwood leaves out. Prune lower branches to allow space for other plants.

PG 1 plant



Wild Geranium is a beautiful scented, spreading powerhouse. It is easy to transplant and share its shallow rhizomes with your neighbors or your other gardens when it outgrows its space

WG 4 plants



Ohio Spiderwort flowers in the morning and closes its buds during the heat of day. It looks great planted in front of textured foliage plants like Solomon's seal and Spikenard. *won't survive in deep shade.

OS 3 plants



Common Yarrow attracts bees and butterflies and blooms in the hottest time of the summer when pollinator foods are sometimes scarce. Beautiful lacy foliage.

CY 5 plants



Callico Aster's lacy flowers look best supported by other plants. It is a host plant for Silvery Checkerspot larva. Blooms last from summer into late fall. Fluffy seed heads add winter interest.

CA 3 plants



Bloom Time

May

June

Back

July

August

September-Oct.

Note:
To make this planting smaller, eliminate one side of the design. Keep plants in groups to create more visual impact and make it easier for pollinators to forage efficiently.
Low growing plants are in the front, taller plants in the back.



Featured Pollinator:
Silvery Checkerspot
Chlosyne nycteis

Caterpillar hosts include **calico aster**
Nectar plants include **Alumroot, Wild geranium, Pagoda Dogwood, and Common Yarrow Pg. # 042**

Substitutions for selected species

Use plants found within their natural range, this helps protect nearby native plant communities and provides plant species that are sure to be compatible with local insect populations.

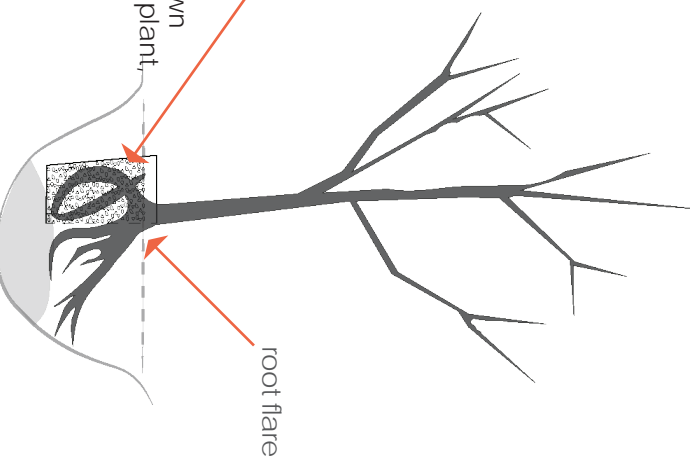
Pennsylvania Sedge: Wood Sedge, Oval Sedge, Wild Ginger, Woodland Pussytots, Hepatica, Bloodroot, Rue Anemone, Common violet, Bishop's Cap, Blue Eyed Grass*,	Downy Yellow Violet: Virginia Bluebells, Dutchman's Breeches, Hepatica, Bloodroot, Rue Anemone, Common violet, Bishop's Cap, Bleeding Heart*, Spring Beauty,	Alumroot: Bishop's Cap, Wild Columbine, Wild Ginger, Bloodroot, Hepatica, Large-flowered Bellwort, Sessile-leaf Bellwort, Foam Flower, Jack-in-the- Pulpit	Solomon's Seal: False Solomon's Seal, Starry False Solomon's Seal, Hairy Solomon's Seal, Large-flowered Bellwort, Mist Flower, Ligularia*, Bugbane, Dwarf Bush Honeysuckle	Wild Geranium: Harebells, Turtlehead, Rue Anemone, Jacob's Ladder, Foam Flower, Blue Giant Hyssop*, Cardinal Flower, Foxglove Beards-tongue, Pale Corydalis*	Pagoda Dogwood: Round leafed Dogwood, Red Osier Dogwood, Spikenard, White Bugbane, Red Baneberry, American Hazelnut, Service-berry, Redbud•	Ohio Spiderwort: Woodland Phlox, Clasping Dogbane, Swamp Milkweed, Poke Milkweed, Bottle Gentian, Rough Blazing Star*, Blue Lobelia	Common Yarrow: Turtlehead, Swamp Milkweed, Monarda*, Obedient Plant, Green-Headed Coneflower, Woodland Phlox, Coneflower, Virginia Mountain Mint*, Bottle Gentian, Rough Blazing Star*, Obedient Plant*	Calico Aster: Big-leaf Aster, Heart-leaf Aster, Green-Headed Coneflower, Woodland Phlox, Virginia Mountain Mint*, Bottle Gentian, Rough Blazing Star*, Obedient Plant*
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Planting Tips for new gardeners

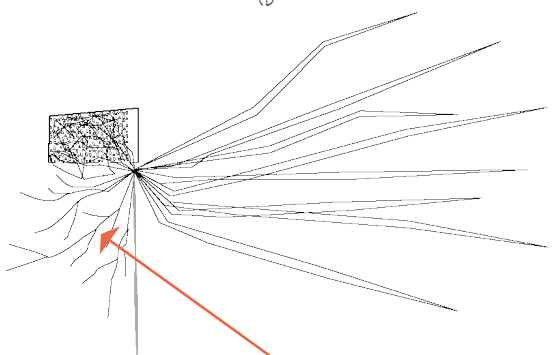
• not native to MN * Needs part-sun, will not thrive in dense shade.

TREES & SHRUBS

- Prepare your new garden bed. Use methods found on BWSR's Creating Residential Pollinator Habitat page
- Dig a hole as deep and 2-3 sizes wider than the pot. Remove the pot.
- Loosen roots and remove any roots that have growing a circle around the base of the plant.
- The soil level should be just below the flare of the tree or shrub and the base of your plant.
- Spread roots, then re-fill hole. Tamp soil down gently around the roots. Mulch around the plant but don't place mulch against the trunk.
- Water immediately after planting, then once a week for the first summer

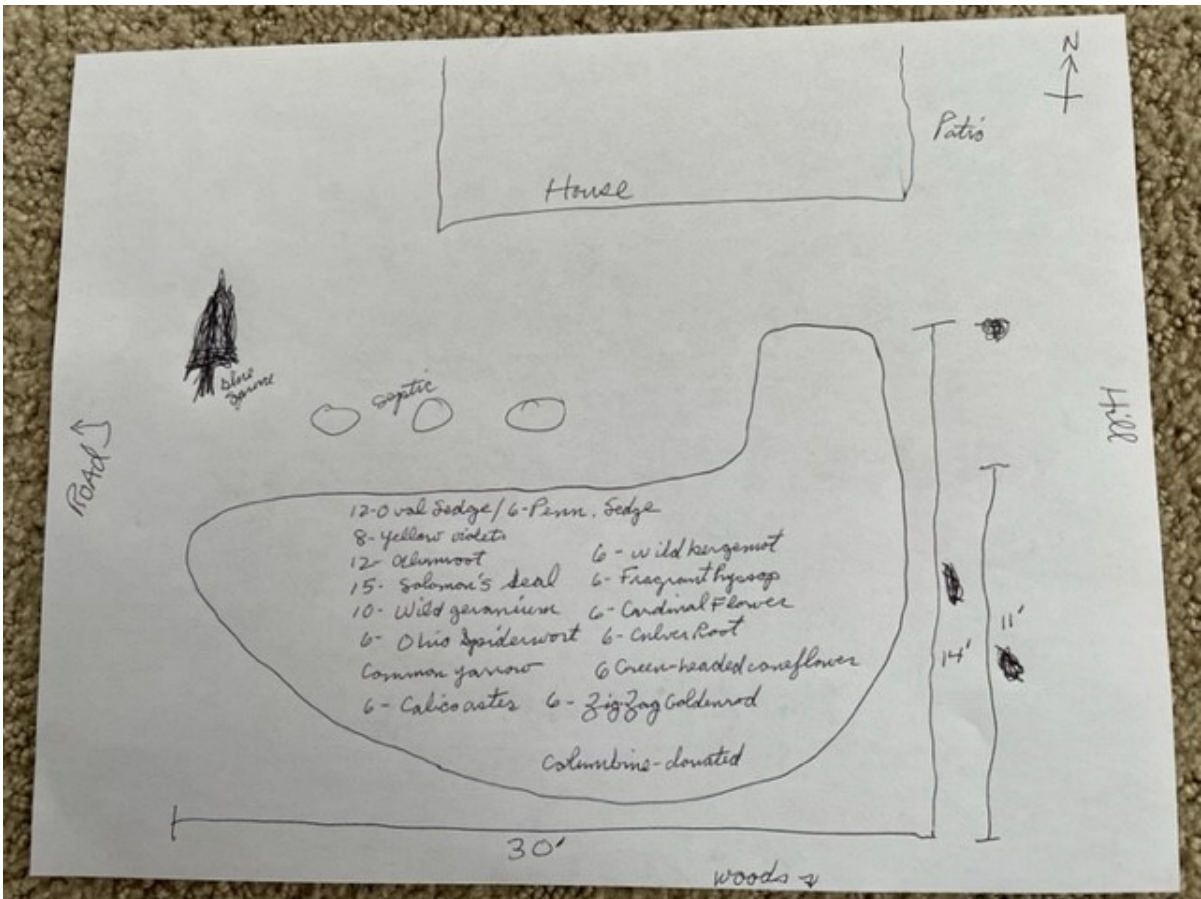


PERENNIAL PLANTS



- Prepare your new garden bed. Use methods found on BWSR's Creating Residential Pollinator Habitat page
- Dig a hole as deep and 2-3 sizes wider than the pot.
- Remove the pot.
- Loosen roots and remove any roots growing in a circle around the base of the plant.
- Mulch around the plant, but don't place mulch against the stem.
- Water immediately after planting, then once a week for the first summer.

SHG 2022-06—Folsom





SOIL HEALTH COST SHARE GRANT APPLICATION

What is VLAWMO's Soil Health Grant?

The Soil Health Grant is a **reimbursement** grant program to inspire, assist, and enable residents to install small-scale watershed best management practices that improve water quality and native habitat within VLAWMO. Applicants may apply for up to \$750 in Soil Health Grant funding, with a 25% applicant project match (example: total applicable project cost is \$1,000, where \$750 would be available for grant funding, and the applicant is responsible for paying \$250 of the project cost). If a project is in either a Targeted Habitat or Volume Reduction Zone, the applicant may apply for up to \$1,000 in grant funding.

Eligible Projects include:

- Native plantings & pollinator gardens
- Pollinator-friendly yards or turf replacement
- Downspout or yard raingardens
- Native planting buffer strips
- Erosion control or stabilization with native species

Ineligible Projects include:

- Purely landscaping or decorative projects with no native plant incorporation
- Rock or block decorative retaining walls
- Surface water chemical treatment of nuisance vegetation

Soil Health Grant Process

Soil Health Grant funding is available to residents for projects on property within the VLAWMO watershed boundary, and the grant program funding is first-come, first-serve, with limited program funding available for 2022. If you are interested in applying for a grant, please contact Tyler Thompson to schedule a site visit on your property to discuss your proposed project and to ask and answer questions regarding the Soil Health Grant process. Applications must be submitted by the 4th Friday of the month for review of eligibility, and applications will be considered for funding at VLAWMO's monthly Technical Commission meetings on the 2nd Wednesday of each month on the Commission's Consent Agenda.

1. Please contact Tyler Thompson to schedule a site visit of your property to discuss your project *before* submitting a grant application
2. After discussing with VLAWMO staff, please move forward with completing your grant application, along with the required attachments
3. Staff will confirm receipt of your submitted application and will begin the review process, or will inform the applicant if more information or detail is needed
4. Staff will inform the applicant if their application has passed application scoring criteria and will be heard for approval at the next VLAWMO Technical Commission meeting on the 2nd Wednesday of the month

Funding Agreement

Each project selected and approved for funding must enter into an agreement with VLAWMO defining the obligations of the applicant and VLAWMO. This includes, but is not limited to, such items as terms of the agreement, use of funds, cost overruns, and cancellation. The agreement also allows VLAWMO access to the project area for evaluation and promotion of the project. Applicant is responsible for securing any and all permits for the work. This agreement must be signed by both parties prior to commencement of work on the project; funding will only cover work done after the agreement has been signed, and work that was included for funding in the VLAWMO-approved grant application. **Questions regarding the grant program and completed applications can be sent to:**

Tyler Thompson, VLAWMO GIS Watershed Technician
(651) 204-6071

Email: tyler.thompson@vlawmo.org

Vadnais Lake Area Water Management Organization
800 County Rd E East
Vadnais Heights, MN 55127

Grant Program Details

- Eligible materials are those which stay on the property such as plants, erosion control blanket, mulch, and drainage infrastructure. Ineligible materials would include work gloves, shovels, tools and equipment used to implement the project but may be used again for future projects (rented equipment IS an eligible expense).
- Eligible labor costs must be those expenses associated with a qualified landscaper/contractor and are subject to approval by VLAWMO staff. Ineligible labor would include the use of friends or a volunteer group helping to implement the project. VLAWMO reserves the right to adjust costs submitted for reimbursement, based upon final receipts and invoices.
- For all projects, only plants and vegetation native to Minnesota are eligible towards grant reimbursement. Hybrids of native plants are not counted as native. You must provide a list of plants that will be used to allow for review and comment by VLAWMO staff. Native restoration projects must be 100% native species. Projects may incorporate non-native or cultivar plants or vegetation within their project, but they are not eligible towards grant funding.
- **Projects completed or in progress are not eligible for funding.** A grant application must be approved for funding and grant agreement must be signed by the applicant and VLAWMO prior to the commencement of work to be eligible for VLAWMO grant funds. However, the landowner may begin project site preparation before grant approval, but will not be reimbursed for any associated expenses.
- A site visit by VLAWMO staff is required once the project is complete, for final project inspection, before a reimbursement check is released to the Grantee.
- Grantee must complete project and request a closeout inspection within one (1) year from date of grant approval. All receipts and invoices for applicable grant expenses must be submitted to VLAWMO staff for audit and for the grant reimbursement request to begin. Grant reimbursement checks are approved and mailed monthly, after approval by the VLAWMO Technical Commission at their monthly meeting.
- **Grantee must agree to maintain the project area for a minimum of 5 years.** Common maintenance includes weeding, watering, removal of invasive species, replacement of plants, repair of inlets/outlets, and other duties. The site may be inspected by VLAWMO staff on an annual basis to ensure compliance. VLAWMO staff may provide technical assistance and resources for project maintenance.
- Property owners may receive one grant every 2 years, unless opting into education incentives (below). If wanting to apply over the course of multiple years to complete projects in phases, your current project must be complete prior to the approval of a subsequent grant.

Applicant Landowner Information

Name:
Address of property where project will be implemented:
City, State, Zip:
Phone:
Email address:

Grant Specifics

ESTIMATED TOTAL COST OF YOUR PROJECT: \$ _____ AMOUNT OF GRANT REQUESTED: (\$750 MAXIMUM) \$ _____
(\$1,000 Maximum if within Targeted Priority Zone)

WHEN DO YOU PLAN TO COMPLETE YOUR PROJECT? _____

PROJECT TYPE:

Raingarden Native Restoration/Pollinator Planting Turf Replacement Other

If other, please describe proposed project: _____

Project Background

Describe your property: Does your property connect to a lake, stream, ditch, or wetland in VLAWMO? What is the purpose of your project?

Describe how your project will support the goals of the Soil Health Grant Program (see guidance page for more information). Does your proposed project directly reduce, capture, or treat stormwater?

Please briefly describe anticipated maintenance activities of your project:

Project Specifications

In order to determine the water quality benefit of your project (amount of stormwater and pollutants captured), specific information is required for VLAWMO staff to perform the calculations. If you are working with a professional landscaper, they should be able to provide you with this information.

TOTAL PROPERTY AREA (Acres):	_____	TOTAL PROJECT SIZE (SQ.FT.):	_____
IMPERVIOUS AREA DRAINING TO PROJECT (SQ.FT.):	600	PERVIOUS AREA DRAINING TO PROJECT (SQ.FT.):	300

IF YOUR PROJECT **INCLUDES INFILTRATION**, PLEASE PROVIDE THE FOLLOWING INFORMATION

SOIL INFILTRATION RATE (INCHES/HR):	_____	DEPTH OF RAINGARDEN BASIN (INCHES):	_____
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Additional Required Attachments

To complete your application, please include:

- Detailed drawing or plan of the proposed project, drafted by either the landowner or a contractor.
- Detailed project budget estimate with clear cost and material breakouts that equate to your total project cost estimate.

****This information, along with the application, may be scanned and emailed to VLAWMO GIS Watershed Technician, Tyler Thompson (tyler.thompson@vlawmo.org****

Opting in to the education incentives would allow reapplying for Soil Health Grant funds the consecutive year after being awarded grant funding. Incentives entail committing to three of the following four options for 2 years:

1. Documenting seasonal photos, organizing them, and sending them to VLAWMO via jump drive or email, to show the progress and growth of the project.
2. Provide a neighborhood spotlight article featuring a photo of participants posing in front of the project, as well as a mini-interview 1-2 years after the project was installed to speak to their experience in install, maintenance, any problems, and enjoyment for others to learn from.
3. Participate as a host site for VLAWMO’s annual neighborhood BMP tour working in conjunction with VLAWMO Master Water Stewards.
4. Help coordinate VLAWMO’s annual native plant swap with Master Water Stewards. This entails saving seeds, dividing and potting mature plants for sharing with other residents or public raingardens, or taking plants from the plant swap for the home project as needed.



Estimate

Mary & Rebecca Ripka
819 Hiawatha Avenue
Vadnais Heights, MN 55127
Home 651-484-5407
Cell 651-808-3486
rebeccaripka@gmail.com

Project: Landscape Renovation

Date: April 13, 2022

Proposal #1: Remove existing unwanted plants and weeds in corner planting surrounding electric pole and tree in front yard. Create a nice flowing border to the planting beds. Install 180 – 3” potted native perennials and 4 yards of mulch to complete new native planting. Layout to be completed onsite with homeowner approval.

\$2700.00

Proposal #2: Remove 4 failing Spruce trees in side yard, roots and all as well as all removing all weedy woody species below trees. Haul away all brush and roots. Install 5 – 20 gal White Pine trees with new mulch rings. , Regrade and seed turf into all areas disturbed by the removal and shade of previous trees. Layout to be completed onsite with homeowner approval.

\$4000.00

Proposal #3: Create new planting bed to surround large maple tree on the back corner of the house. Remove all weeds and grass from around tree. Prepare new planting bed. Install 5 – 2-5gal native shrubs, 72– 3” potted native perennials, and 2 yard of shredded hardwood mulch.

\$1800.00

Total

Contract Terms

This is an agreement between "Customer", defined above, and Ecoscapes LLC. Under the terms set forth below, Customer agrees to purchase the services of Ecoscapes LLC in preparing and constructing the landscaping and/or brick paving and/or retaining wall design as set forth in the Proposals, and Ecoscapes LLC agrees to render such services.

As consideration, Customer agrees to pay Ecoscapes LLC the amount shown as “Total”(“Contract Price”) in exchange for performing the services described in the Proposals that are initialed or agreed to. The parties further agree as follows:

Payments

Customer will pay Ecoscapes LLC as stated in proposal or 50% of the Contract Price upon acceptance of the Proposal. Ecoscapes LLC will invoice Customer for the remaining balance along with any change orders due to site conditions, customer’s changes or additions, and design changes, when work is substantially complete, as determined by Ecoscapes LLC. The invoice shall be paid by Customer within 15 days of the invoice date. If the total balance is not received by Ecoscapes LLC. by the end of the



15-day period, interest will be paid on that balance by Customer at a rate of 1.5% per month. Failure by Customer to pay the remaining balance within 105 days will constitute breach of this agreement. Upon breach of this agreement, Customer agrees to pay all costs of collecting any remaining balances, including attorney's fees. No warranties will be issued until full payment is received.

Brick Paving/ Retaining Walls

Ecoscapes LLC warrants that brick paving or retaining wall material used in this contract will be free from defects and the installation will be functional for a period of two (2) years from the date of completion of the Contract, provided the installation was used as was intended when the project was designed, and was not misused. Any repairs/replacements made to any installation after expiration of the warranty will be made at Customer's expense. Any repairs made to any installation by any party other than Ecoscapes LLC voids any warranties offered by Ecoscapes LLC.

Plants

Ecoscapes LLC will offer one-time only replacement of any tree, shrub, evergreen, woody vine, or perennial that has died within one (1) year from the date of installation, provided the plant has been cared for as instructed, and not abused. Ecoscapes LLC will not replace plants killed by animals, rodents, insects, mechanical damage, neglect, natural disasters or other reasons over which Ecoscapes LLC has no control. This warranty does not cover annuals, seeds, bulbs, roses and non-winter hardy plants. An additional labor charge for plant removal and reinstallation will apply. Any repairs/replacements made to any installation after expiration of the warranty will be made at Customer's expense. Any repairs made to any installation by any party other than Ecoscapes LLC voids any warranties offered by Ecoscapes LLC.

Underground Work

Ecoscapes LLC is not responsible for underground obstructions not marked by Gopher State One Call, or improperly marked by property owner including but not limited to dog fences, irrigation lines, gas grill, or any other private utilities.) Removal of any unforeseen or unmarked underground item including but not limited to large boulders, concrete, stumps, or debris will be billed at an hourly rate. Ecoscapes LLC will notify customer as soon as possible if then items are un-earthed.

Changes

Ecoscapes LLC will make reasonable efforts to complete the Contract as designed. Circumstances may arise beyond the control of Ecoscapes LLC that may prevent construction of the Contract exactly as planned. Ecoscapes LLC will make reasonable efforts to minimize this impact on the design and construction. Customer acknowledges this possibility and accepts the action Ecoscapes LLC will take to minimize the potential change in design. If Customer wishes to change any part of the installation after this agreement is signed, but prior to commencement of installation, which results in additional material or labor costs for Ecoscapes LLC or results in delays in the completion of the Contract, said costs will be added to the remaining balance of the Contract and billed as part of the original Contract. Any changes in the design or Contract, whether the changes result in additional time, cost, or neither, must be made in



writing and signed by both parties, using an Additional Work Order Form.

Permits

Customer is responsible for securing all necessary permits. Unless specified in writing, Ecoscapes LLC is not responsible for code violation made at Customer request.

PROJECT START AND COMPLETION

An estimate of the number of days to complete the contracted work and an expected start date are provided as a courtesy. There may be delays in the beginning date and completion date due to poor weather or other circumstances beyond the control of Ecoscapes LLC. Those delays will not alter or invalidate any part of this Contract, nor will they entitle Customer to additional rights under the Contract

Termination

This agreement may be canceled by Customer by mailing written notice to Ecoscapes LLC before midnight the third business day after Customer has signed this agreement. If after that time Customer wishes to terminate this Contract, Customer must give Ecoscapes LLC five (5) days advance written notice. Ecoscapes LLC will retain any monies paid by Customer up to the effective date of termination, and is entitled to any expenses for materials or other expenses incurred by Ecoscapes LLC.

Estimates

Ecoscapes LLC will make reasonable effort to accurately estimate the materials needed to complete the Contract. However, Customer acknowledges that there may be differences between the estimate and the final price. If the actual price is less than the estimated Contract Price, that amount will be discounted on the final payment due Ecoscapes LLC. If the actual price is more than the estimated Contract Price, that additional amount will be added to the final payment due Ecoscapes LLC. Customer will pay Ecoscapes LLC that additional amount.

Notice of Lien Rights

AS REQUIRED BY THE MINNESOTA CONSTRUCTION LIEN LAW, BUILDER HEREBY NOTIFIES OWNER THAT PERSONS OR COMPANIES FURNISHING LABOR OR MATERIALS FOR THE CONSTRUCTION ON OWNER'S LAND MAY HAVE LIEN RIGHTS ON OWNER'S LAND AND BUILDINGS IF NOT PAID. THOSE ENTITLED TO LIEN RIGHTS, IN ADDITION TO THE UNDERSIGNED BUILDER, ARE THOSE WHO CONTRACT DIRECTLY WITH THE OWNER OR THOSE WHO GIVE THE OWNER NOTICE WITHIN 60 DAYS AFTER THEY FIRST FURNISH LABOR OR MATERIALS FOR THE CONSTRUCTION. ACCORDINGLY, OWNER PROBABLY WILL RECEIVE NOTICES FROM THOSE WHO FURNISH LABOR OR MATERIALS FOR THE CONSTRUCTION, AND SHOULD GIVE A COPY OF EACH NOTICE RECEIVED TO THE MORTGAGE LENDER, IF ANY, TO SEE THAT ALL POTENTIAL LIEN CLAIMANTS ARE DULY PAID.

The failure of Ecoscapes LLC to enforce any right accruing under this agreement shall not be construed as a waiver of a subsequent right of Ecoscapes LLC to enforce the same or any other right, term or condition.



This agreement shall be interpreted and enforced in accordance with the laws of the State of Minnesota.

To agree to individual proposals of contract, initial next to price of agreed proposal and write in calculated total contract price in space provided. Sign contract below to create a binding agreement.

Customer Signature _____ Date _____

Name	Scientific name
Native Trees & Shrubs	
Red Oak	<i>Quercus rubra</i>
Shadblow Serviceberry	<i>Amelanchier canadensis</i>
Pin Cherry	<i>Prunus pensylvanica</i>
Showy Mountain Ash	<i>Sorbus decora</i>
Shrubs	
Elderberry	<i>Sambucus canadensis</i>
Dwarf Bush Honeysuckle	<i>Diervilla lonicera</i>
Gray Dogwood	<i>Cornus racemosa</i>
American Black Currant	<i>Ribes</i>
Nannyberry	<i>Viburnum lentago</i>
Skunkbush	<i>Rhus aromatica</i>
Red Snowberry	<i>Symphoricarpos orbiculatus</i>
Native Perennials	
Pale Purple Coneflower	<i>Echinacea pallida</i>
Blue Wild Indigo	<i>Baptisia australis</i>
Northern Dropseed	<i>Sporobolus heterolepis</i>
Meadow Blazing Star	<i>Liatris ligulstylis</i>
Wild Bergamot	<i>Monarda fistulosa</i>
Swamp Milkweed	<i>Asclepias incarnata</i>
Spotted Joe Pye Weed	<i>Eupatorium purpureum</i>
Wild Geranium	<i>Geranium maculatum</i>
Foxglove Beardtongue	<i>Penstemon digitalis</i>
Lady Fern	<i>Athyrium filix femina</i>
Sensitive Fern	<i>Onoclea sensibilis</i>
Pennsylvania Sedge	<i>Carex pennsylvanica</i>
Heart-leaved Aster	<i>Aster cordifolius</i>
Early Meadow Rue	<i>Thalictrum dioicum</i>
Big-leaved Aster	<i>Aster macrophyllus</i>
Canada Anemone	<i>Anemone canadensis</i>
Jacob's Ladder	<i>Polemonium reptans</i>
Big-leaved Aster	<i>Aster macrophyllus</i>
Little Bluestem	<i>Schizachyrium scoparium</i>
Mountain Mint	<i>Pycnanthemum virginianum</i>

SHG 2022-07—Ripka

