

LL1 Grant Application



Submit completed application to:
 Lauren Sampedro
 lauren.sampedro@vlawmo.org



Applicant Information:

Name:	Kelli & Mike Wendland
Address:	10 Radley Place
City/Township, State, Zip:	North Oaks, MN 55127
Phone:	612-802-6501
Email:	kelliwendland@gmail.com

Project Summary:

ESTIMATED TOTAL PROJECT COST (\$)	\$12,391
AMOUNT REQUESTED (\$5,000 reg, \$7,500 curb cut)	\$5,000
EXPECTED PROJECT COMPLETION (Month, Year)	Phase 1: July 2023 Phase 2: Sept 2023

PROJECT TYPE:

- Raingarden/Infiltration Basin: Curb cut
- Raingarden/Infiltration Basin: Regular
- Shoreline/Streambank Stabilization and/or Restoration
- Filtration
- Other

If other, please describe the proposed project: _____

Project Background:

Describe the project location. Does it connect to a lake, stream, ditch, or wetland in VLAWMO? What issues will be addressed with this project?	Phase 1: Native plantings on west property line Phase 2: Roadside ditches on north and east property lines Runoff from our property, approx. 3 properties to our south and approx. 4 properties to our west flows through the drainage ditches. Drainages ditches on our property as well as those along the water flow line are primarily all turf grass, resulting in a high level of water flowing through to Charley Lake.
---	--

Project Background: Continued

<p>Describe how your project will support the goals of the Landscape Level 1 Grant Program. (See LL1 policy)</p>	<p>The vegetated swales and native plantings in our project will meet the program goals of reducing stormwater volume, water runoff and nutrient runoff and will help protect the water quality of Charley Lake.</p> <p>Phase 1: Adding native plants for water filtration Phase 2: Converting roadside ditches to vegetated swales</p>
<p>Briefly describe the planned installation and maintenance activities for your project.</p>	<p>Landscaping company will install native plantings in mulched area for Phase 1 (west property line) and install native plantings directly into turf grass for Phase 2 (roadside ditches). Turf grass is intended to be used for erosion control and limit debris from entering culvert.</p> <p>Maintenance activities will be performed by owner. Activities will include weeding, trimming and watering, as needed, to maintain the health of the swales and native plantings.</p>

Project Specifications:

<p>TOTAL PROPERTY AREA (Acres)</p>	<p>0.63</p>	<p>Total PROJECT SIZE (Sq Ft)</p>	<p>~6,650 sq ft</p>
<p>IMPERVIOUS (HARD) AREA DRAINING TO PROJECT (Sq Ft):</p>	<p>~16,000 sq ft</p>	<p>PERVIOUS (GRASSY, NON-PAVEMENT) AREA DRAINING TO PROJECT (Sq Ft):</p>	<p>~22,000 sq ft + drainage from 3-7 other properties</p>
<p>DEPTH OF PRACTICE (In): <i>Provide if project includes infiltration/filtration</i></p>	<p>N/A</p>	<p>BOTTOM SURFACE AREA (Sq Ft): <i>Provide if project includes infiltration/filtration</i></p>	<p>~1,570 sq ft</p>

Required Attachments:

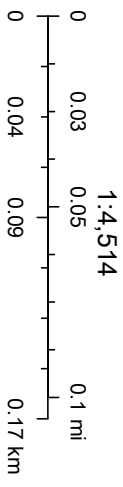
- ⇒ Detailed drawing or plan of the proposed project. If project is complex, VLAWMO may require project final designs to be completed by a qualified professional or engineer. Drawing must include project dimensions that enable VLAWMO staff to model the project for estimated water quality benefits.
- ⇒ At least 2 bids for construction of proposed project.
- ⇒ Detailed project budget estimate with itemized materials and costs that equal the total project cost.

LL1 2023-01 Wendland Vegetated Swales

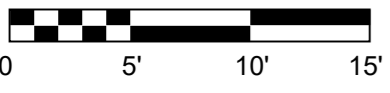


6/2/2023, 3:10:18 PM

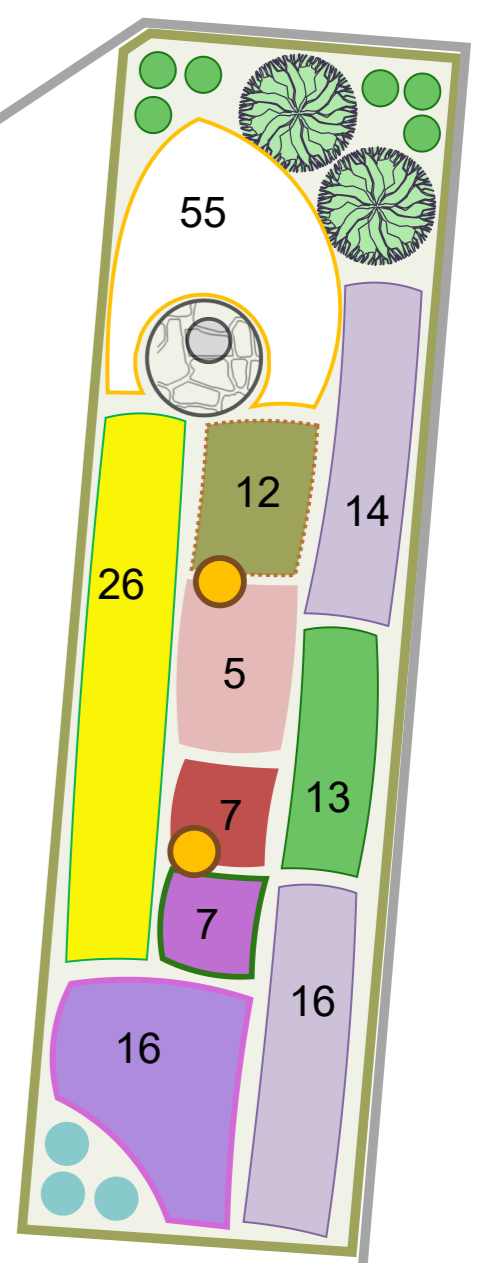
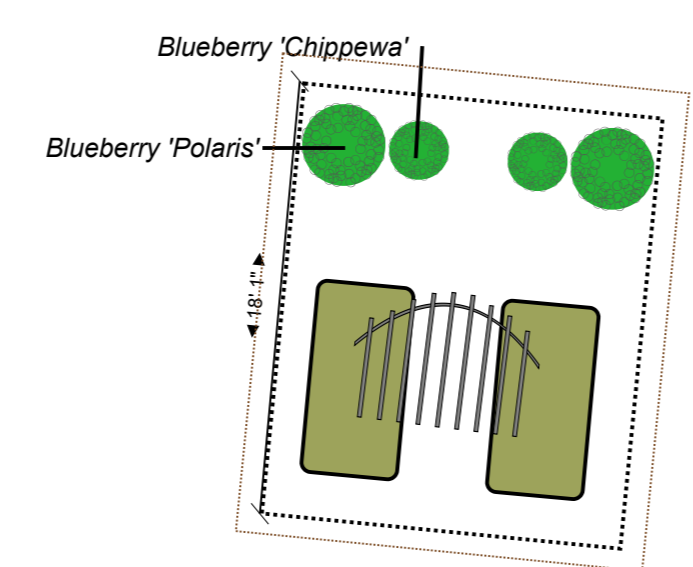
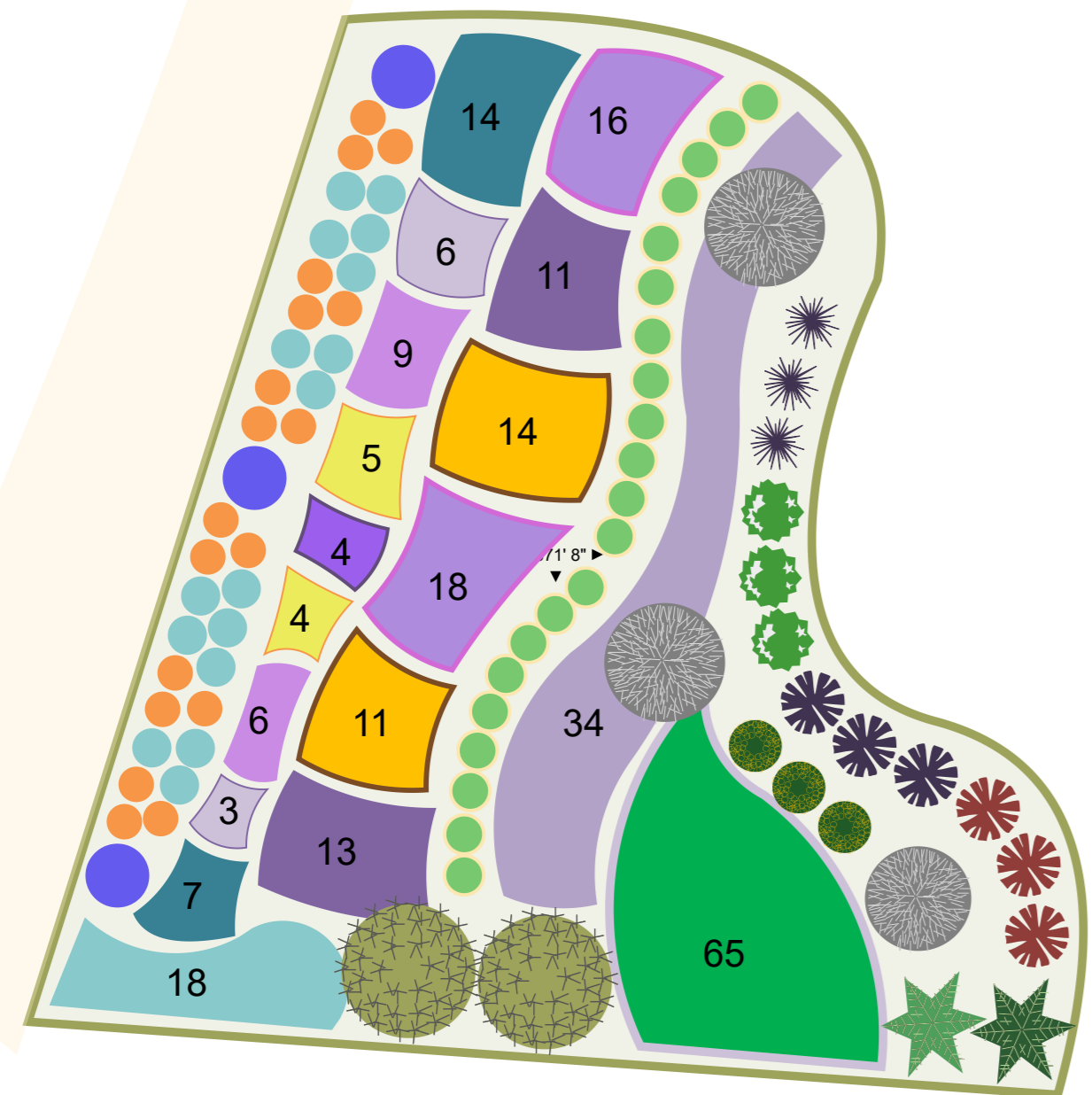
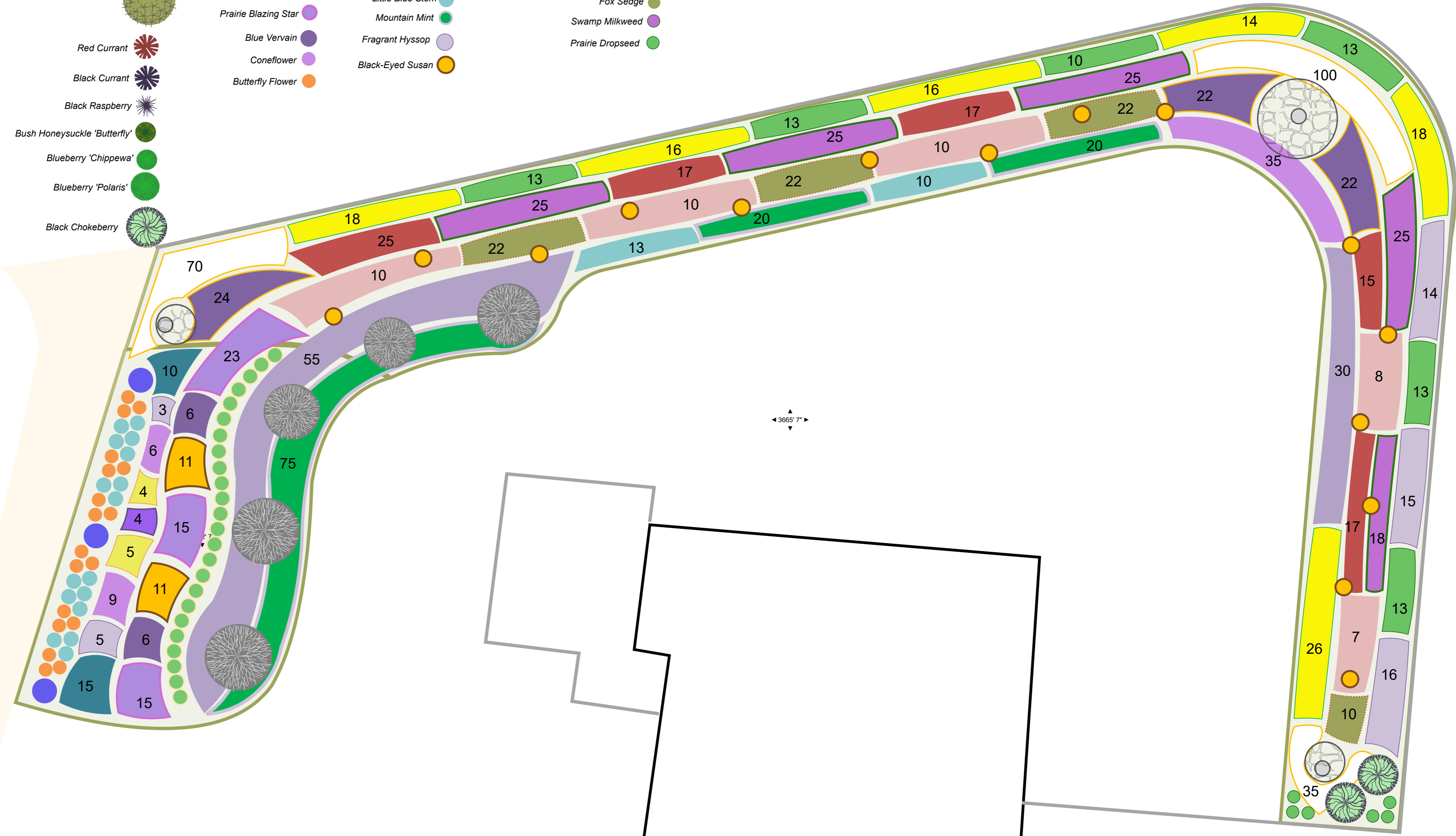
-  VLAWMO Boundary 2020
-  VLAWMO lakes
-  Project Location
-  Flow Arrows



Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, County of Ramsey, Esri, HERE, Garmin, GeoTechnologies, Inc., ArcGIS Web AppBuilder
County of Ramsey, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA |



- Elderberry 'Bob Gordon'
- Elderberry 'Adams'
- Gooseberry 'Hinnomaki Red'
- American Hazelnut
- Red Currant
- Black Currant
- Black Raspberry
- Bush Honeysuckle 'Butterfly'
- Blueberry 'Chippewa'
- Blueberry 'Polaris'
- Black Chokeberry
- Tickseed
- Goldenrod
- Blue Wild Indigo
- Smooth Blue Aster
- Prairie Blazing Star
- Blue Vervain
- Coneflower
- Butterfly Flower
- Great Blue Lobelia
- Canadian Anemone
- Bee Balm
- Yellow Prairie Grass
- Little Blue Stem
- Mountain Mint
- Fragrant Hyssop
- Black-Eyed Susan
- Blue Flag Iris
- Cardinal Flower
- Joe Pye Weed
- Fox Sedge
- Swamp Milkweed
- Prairie Dropseed





ESTIMATE

Native plantings; west landscape and drainage ditch on north and east side of property.

Rustic Hills Garden Co.
17440 West 66th Street
Eden Prairie, Minnesota 55346
United States

Mobile: 952-314-3298
www.RusticHillsGardenCo.com

BILL TO
Kelli Wendland
Kelli Wendland
10 Radley Place
North Oaks, Minnesota 55127
United States

(612) 802-6501
kelliwendland@gmail.com

Estimate Number: 183

Estimate Date: May 22, 2023

Expires On: June 6, 2023

Grand Total (USD): \$12,391.24



ESTIMATE

Native plantings; west landscape and drainage ditch on north and east side of property.

Rustic Hills Garden Co.
 17440 West 66th Street
 Eden Prairie, Minnesota 55346
 United States

Mobile: 952-314-3298
www.RusticHillsGardenCo.com

Items	Quantity	Price	Amount
Materials Cost	1	\$5,766.00	\$5,766.00
Native plantings for 6,650 square feet.			
1,485 plants			
Sambucus canadensis 'Bob Gordon'			
Sambucus canadensis 'Adams'			
Ribes uva-crispa 'Hinnomaki Red'			
Corylus americana			
Ribes rubrum 'Redlake'			
Ribes nigrum 'Black Consort'			
Rubus occidentalis 'Jewel'			
Diervilla sessilifolia 'Butterfly'			
Vaccinium 'Chippewa'			
Vaccinium 'Polaris'			
Coreopsis lanceolata			
Solidago speciosa			
Baptisia australis			
Aster laevis			
Liatris pycnostachya			
Verbena hastata			
Echinacea purpurea			
Lobelia siphilitica			
Anemone canadensis			
Monarda fistulosa			
Sorghastrum nutans			
Schizachyrium scoparium			
Pycnanthemum virginianum			
Agastache foeniculum			
Rudbeckia hirta			
Iris versicolor			
Lobelia cardinalis			
Eupatorium maculatum			
Grass, Carex vulpinoidea			
Asclepias incarnata			
Asclepias tuberosa			
Aronia melanocarpa elata			
Sporobolus heterolepis			
Labor	1	\$6,200.00	\$6,200.00
Set up, tear down, sorting and planting, bagging organic matter, clean up.			



ESTIMATE

Native plantings; west landscape and drainage ditch on north and east side of property.

Rustic Hills Garden Co.
17440 West 66th Street
Eden Prairie, Minnesota 55346
United States

Mobile: 952-314-3298
www.RusticHillsGardenCo.com

Subtotal:	\$11,966.00
Ramsey Cty 7.375%:	\$425.24
<hr/>	
Total:	\$12,391.24
<hr/>	
Grand Total (USD):	\$12,391.24

If you would like to pay by card, transaction fees will be added to your invoice as follows: 1% for bank payments, 2.9% for Visa, Mastercard or Discover, 3.4% for American Express.

Project Information

Calculator Version: Version 4: July 2020
 Project Name: Wendland Vegetated Swales
 User Name / Company Name:
 Date: 5/31/2023
 Project Description: Proposed roadside ditch conversion to vegetated swales to capture more runoff coming from impervious surfaces from home and several neighboring properties to the north, west, and south, of the property.
 Construction Permit?: No

Site Information

Retention Requirement (inches): 1.1
 Site's Zip Code: 55126
 Annual Rainfall (inches): 31.6
 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	0				0
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed	0.5				0.5
			Impervious Area (acres)		0.61
			Total Area (acres)		1.11

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	0.23				0.23
			Impervious Area (acres)		0.3
			Total Area (acres)		0.53

Summary Information

Performance Goal Requirement

Performance goal volume retention requirement:	2436	ft ³
Volume removed by BMPs towards performance goal:	598	ft ³
Percent volume removed towards performance goal	25	%

Annual Volume and Pollutant Load Reductions

Post development annual runoff volume	1.5512	acre-ft
Annual runoff volume removed by BMPs:	0.5932	acre-ft
Percent annual runoff volume removed:	38	%

Post development annual particulate P load:	0.6962	lbs
Annual particulate P removed by BMPs:	0.316	lbs
Post development annual dissolved P load:	0.57	lbs
Annual dissolved P removed by BMPs:	0.218	lbs
Total P removed by BMPs	0.534	lbs
Percent annual total phosphorus removed:	42	%

Post development annual TSS load:	229.9	lbs
Annual TSS removed by BMPs:	104.5	lbs
Percent annual TSS removed:	45	%

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 (%)
0 - Swale Side Slope	1239	439	439	0	100
2 - Swale Side Slope	12	759	12	746	2
0 - Swale main channel	146	746	146	600	20

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 (%)
0 - Swale Side Slope	0.3045	0	0.3045	0	100
2 - Swale Side Slope	0.4278	0	0.0451	0.3827	11
0 - Swale main channel	0.0249	0.3827	0.2436	0.164	60

Particulate Phosphorus Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
0 - Swale Side Slope	0.1367	0	0.1367	0	100
2 - Swale Side Slope	0.192	0	0.0202	0.1718	11
0 - Swale main channel	0.0112	0.1718	0.1594	0.0236	87

Dissolved Phosphorus Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
0 - Swale Side Slope	0.1118	0	0.1118	0	100
2 - Swale Side Slope	0.1571	0	0.0166	0.1405	11
0 - Swale main channel	0.0091	0.1405	0.0894	0.0602	60

Total Phosphorus Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
0 - Swale Side Slope	0.2485	0	0.2485	0	100
2 - Swale Side Slope	0.3491	0	0.0368	0.3123	11
0 - Swale main channel	0.0203	0.3123	0.2488	0.0838	74

TSS Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
0 - Swale Side Slope	45.15	0	45.15	0	100
2 - Swale Side Slope	63.41	0	6.69	56.72	11
0 - Swale main channel	3.69	56.72	52.63	7.7799999999	87

BMP Schematic