



# LOWER MINNESOTA RIVER WATERSHED DISTRICT

## Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting

Wednesday, March 18, 2020

### **Agenda Item**

**Item 5. D. - 2020 Cost Share Application - Sullivan - 4419 West Old Shakopee Road**

### **Prepared By**

Linda Loomis, Administrator

### **Summary**

The LMRWD received an application for the 2020 Cost Share Program. The homeowner is planning to install several rain gardens and other native plant gardens on the site to reduce run off. The applicant is asking for cost share of \$1,240.50. The application is attached and staff recommends approval.

### **Attachments**

Sullivan Cost Share Application  
Location map

### **Recommended Action**

Motion to approve Cost Share for 4419 West Old Shakopee Road



LOWER MINNESOTA RIVER  
WATERSHED DISTRICT

### Cost share grant application 2020

Application type (check one)  Homeowner \_\_\_ Non-profit - 501(c)(3) \_\_\_ School  
\_\_\_ Business or corporation \_\_\_ Public agency or local government unit

Project type (check all that apply)  Rain garden \_\_\_ Vegetated Swale \_\_\_ Infiltration Basin  
\_\_\_ Wetland restoration \_\_\_ Lake/creek/wetland buffer  Conservation practice  
\_\_\_ Shoreline/bank stabilization \_\_\_ Pervious hard surface  
\_\_\_ Other \_\_\_\_\_

#### Applicant Information

Name of Organization or Individual Applying for Grant (to be named as Grantee):

Aaron Sullivan

Address (street, city and ZIP code):

- site: 4419 West Old Shakopee Rd, Bloomington, MN, 55437

Phone: 612-443-9102

Email address: malahan@gmail.com

#### Primary Contact (if different from above)

Name of Organization or Individual Applying for Grant (to be named as Grantee):

- mail to: Aaron Sullivan

Address (street, city and ZIP code):

8212 Quinn Rd Bloomington, MN, 55437

Phone: \_\_\_\_\_

Email address: \_\_\_\_\_

#### Project location

Address (street, city and ZIP code):

4419 West Old Shakopee Rd., Bloomington, MN, 55437

Property Identification Number (PID)

19-027-24-42-0026

Property Owners:

Aaron Sullivan

#### Project Summary

Title Rainwater sequestration native planting on high traffic intersection

Total Project Cost \$2,481

Grant amount requested \$1,240.50

Estimated start date May 15, 2020

Estimated completion date Oct 15, 2020

Is project tributary to a water body? \_\_\_ No, water remains on site  Yes, indirectly \_\_\_ Yes, directly adjacent

The neighborhood water drains to South Glen Playground, I believe.  
It is visible on the location map



Project description:

Fifteen wildflower + two tree species, chosen for their outsized importance to wildlife, will be planted along a high-traffic street. The plantings will demonstrate a landscaping option which sequesters rainwater, hosts wildlife, is carbon-positive, and is beautiful.

Is this work required as part of a permit?  No  Yes

(If yes; describe how the project provides water quality treatment beyond permit requirement on a separate page.)

Project Details

Checklist To be considered complete the following must be included with the application.

- location map
- site plan & design schematic
- itemized budget or contractor bid
- project timeline
- proof of property ownership
- plant list & planting plan (if project includes plants)

Description

Describe the current site conditions, as well as site history, and past management

The site contains a mixture of soils: in some areas poor, red soil, in other areas, good brown or black soil. Sun exposure varies between the different garden beds planned for, from shade to nearly full sun.

All of the planned beds were previously mown to 2" in height, retained very little rainwater, hosted very little wildlife, and were polluted by fertilizers, pesticides, herbicides, and possible gas spills.

What are the project objectives and expected outcomes? Give any additional project details.

- Educate the public
- Filter rainwater
- Eliminate runoff/sequester rainwater
- Benefit wildlife
- Demonstrate low-carbon/carbon-positive landscaping
- Reproduce itself by sending seeds + plant offsets to other places in the watershed
- Cool the hot urban environment via shade from 2'-60' plants and via evaporative cooling from the same.

List other key participants and their roles (provide contact information for each partner and his/her expected contribution to the project)

Craigstad is an inexpensive + reliable source for native plants + labor. Prairie Moon Nursery: stocks ca. 2,000 species of native plants, locally sourced in So. MN. Reed; Elizabeth: suppliers of local native plants. Caleb; Devlin: suppliers of labor. Phone numbers available upon request.

Which cost share goals does the project support? (check all that apply)

- 1.  improve watershed resources
- 2.  increase awareness of the vulnerability of watershed resources
- 3.  increase familiarity with and acceptance of solutions to improve waters
- 4.  Foster water resource stewardship

How does the project support the goals you checked?

1. The native plantings will sequester + filter rainwater; the larger plants can absorb large amounts of water during rainfall events.
- 2, 3, 4. The site is on a very busy street; on the opposite corner is a huge ornamental garden - these facts will draw the public's attention to a landscape which absorbs rainwater, benefits wildlife, and yet appears civilized with its single-species beds. Tours of the site will allow detailed elaboration on methods + benefits.



### Project Details (continued)

**Benefits** Estimate the project benefits in terms of restoration and/or **annual** pollution reduction. If you are working with a designer or contractor, they can provide these numbers. If you need help contact the district Administrator.

Benefit	Amount
Water captures	7,045.5 gal/year
Water infiltrated	uncertain gal/year
Phosphorus removed	uncertain lbs/year
Sediment removed	uncertain lbs/year
Land restored	366 sq. ft.

Based on  
 $366 / 1,000 \times 550 \times 35 = 7045.5$   
 366 = sq footage  
 31" avg annual rainfall } 35" annual rain  
 4" rain from 5d snow }  
 This is the first time I've calculated water capture.  
 I can't be certain how accurate the # is.

How will you share the project results with your community?

I will host garden tours for Wild Ones and other groups which promote native plantings and water-retaining landscaping. As flowers bloom in bright yellow, white, purple, and crimson, hopefully people will see the large yet orderly patches, each of just one species, and

Are there other projects that could be initiated as a result of this one?

Other projects would definitely result from this one. Each of the wildflowers in question reproduces easily, as does the pagoda dogwood, and it's already a part of the overall plan that their offspring should establish themselves in places

### Evaluation

How will the project be monitored and evaluated?

The homeowner will monitor and maintain the plantings. It is anticipated that each species is being employed at a fitting location, but should any fail to thrive there, other species can replace them in their assigned bed.

### Maintenance agreement

I acknowledge that receipt of a grant is contingent upon agreeing to maintain the project for the number of years outlined in the cost share guidelines.  Yes

### Authorization

Name of landowner or responsible party Aaron Sullivan

Signature  Date 3-5-2020

Type or handwrite your answers on this form. Attached additional pages as needed

(For questions, contact Linda Loomis at [NaiadConsulting@gmail.com](mailto:NaiadConsulting@gmail.com) or call 763-545-4659.)

Mail the completed application to:

or Email to:

Lower Minnesota River Watershed District  
 c/o Linda Loomis, Administrator  
 112 E. Fifth St., Suite 102  
 Chaska, MN 55318

Linda Loomis, Administrator  
[naiadconsulting@gmail.com](mailto:naiadconsulting@gmail.com)

# Location Map

Google Maps

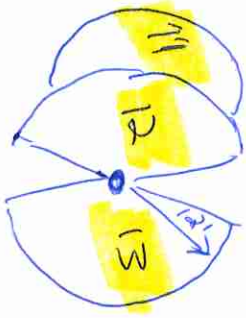
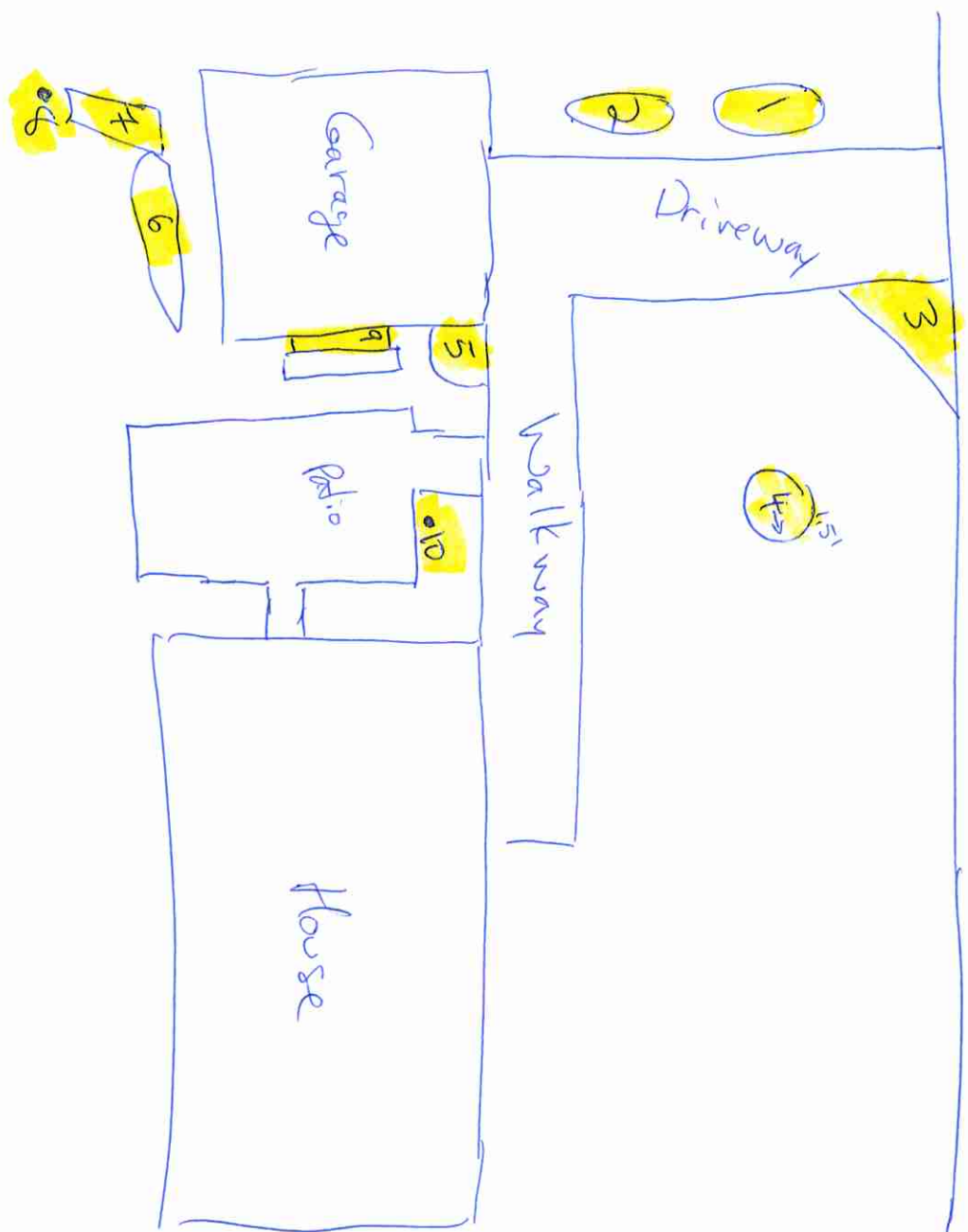


4419 West Old Shakopee Rd.

At the corner of West Old Shakopee Rd and Little Ave

# Site Plan + Design Schematic

← Little Ave S →



Old Skatopee Rd →  
Sidewalk



**Plant List; Planting Locations for 4419 W. Old Shakopee Rd.**

Species		Quantity	Location on Site Plan
Solomon's Seal	<i>polygonatum biflorum</i>	15	1
False Solomon's Seal	<i>smilacina racemosa</i>	15	2
or Starry False Solomon's Seal	<i>smilacina stellata</i>		
Bee Balm	<i>monarda didyma</i>	30	3
Anise-Hyssop	<i>agastache foeniculum</i>	10	4
Bergamot	<i>monarda fistulosa</i>	20	5
Cow Parsnip	<i>heracleum maximum</i>	30	6,9
Sweet Joe Pye Weed	<i>eupatorium purpureum</i>	15	7
Pagoda Dogwood	<i>cornus alternifolia</i>	1	8
Bur Oak	<i>quercus macrocarpa</i>	1	10
Cup Plant	<i>silphium perfoliatum</i>	15	11
Fiddlehead Fern	<i>matteuccia struthiopteris</i>	40	12,13
Cranesbill Geranium	<i>geranium maculatum</i>	96	14
Bigleaf Aster	<i>aster macrophyllum</i>	40	15
Sweet Black Eyed Susan	<i>rudbeckia subtomentosa</i>	10	16
Wild Senna	<i>senna hebecarpa</i>	10	17
Butterfly Weed	<i>asclepias tuberosa</i>	10	18
Narrow Leaved Mountain Mint	<i>pycnanthemum tenuifolium</i>	20	19

Notes on species:

Seventeen different species are to be planted, offering nectar in all seasons, as well as hosting caterpillars and providing shelter to insects.

The monarda species will draw hummingbirds to the yard, and the superlative charisma of those birds will encourage passers-by (of whom there will be many) to plant their own flowers.

Many species of butterfly are only able to reach maturity if there are specific species of plants available for them to munch on, as their larval stages are adapted to eat only that type of plant. We will host a variety of species.

Host species: Cow Parsnip -- Black swallowtail butterflies require plants in the wild carrot family as hosts.

Host species: Butterfly Weed -- Monarch butterflies require plants in the milkweed family as hosts.

Asters, Joe Pye weeds, cranesbill geraniums, black eyed Susans, milkweeds, and monardas are listed by Professor Douglas Tallamy as being among the most valuable forbs for butterflies. They are able to host 112, 42, 23, 17, 12, and 7 different species of lepidopterans respectively. The oak genus hosts a staggering 534 species.

[https://enst.umd.edu/sites/enst.umd.edu/files/\\_docs/Table%201%20from%20Doug%20Tallamy%20Sheet1.pdf](https://enst.umd.edu/sites/enst.umd.edu/files/_docs/Table%201%20from%20Doug%20Tallamy%20Sheet1.pdf)

Because the chicks of 96% of songbird species require insects as food to fledge, and because caterpillars represent the lion's share of of the meat they consume, the fact that these 17 species of plants can host a great range of lepidopteran species (moths and butterflies) is a great boon to the songbirds, whose numbers have fallen by roughly 50% in the last 50 years. (source: Douglas Tallamy's books and videos; also Carl Zimmer's 2019 article in the NY Times). A single chickadee chick requires over 9,000 caterpillars in order to reach maturity, for example.

Some Latin species names are being changed as genetic testing reveals more accurately the relations among species within a family or genus of plants. The names used above have been in common use for decades, and may not reflect the very latest newly assigned genus and species names.

**Project Timeline; Itemized Budget for 4419 W. Old Shakopee Rd.**

**Project Timeline**

Estimated Start Date: May 15, 2020

Estimated Completion Date: October 15, 2020

-If the ground thaws earlier, work can begin earlier.

-If all work can be completed in the spring, it will be; some plantings can be conducted in fall if need be.

-Turf grass will need to be eliminated and roots removed; soil will need to be amended in certain locations so as to create a water-retaining loam; plants must be planted and mulched.

**Itemized Budget**

48 hours' labor	\$576.00
378 plants from plant list:	\$1905.00
Total:	\$2481.00

Homeowner contribution: \$1240.50

Watershed District contribution: \$1240.50

**Budget Notes**

Plants and labor from Craigslist to be used in order to maximize 'the bang for the buck'.

Craigslist often offers native plants with more root and at lower prices than do nurseries.

See Plant list for quantity and location of specific species; \$5 per plant is budgeted.

17 species of plants are to be used.



4419 west old shakop

Move map to  
4419 W Old Shakopee Rd, Minneapolis, MN  
55437, USA

From Google [show all on map](#)

4419 W Old Shakopee Rd

