



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting

Wednesday June 19, 2019

Agenda Item

Item 5. B. - Savage Fen/Boiling Spring Cost Share

Prepared By

Linda Loomis, Administrator

Summary

Lori Rathjen, is a resident of the LMRWD who lives in Savage. She completed the Master Water Steward program that began last summer. As part of the Master Water Steward Program, Stewards are expected to undertake a capstone project. Ms. Rathjen has chosen to restore a .75 acre of DNR land near Boiling Spring in Savage Fen. As you will see in the application Ms. Rathjen has contacted the DNR and the city of Savage in order to prepare for this project. She has enlisted the DNR's assistance in establishing and maintaining the project area.

Karen Galles of Hennepin County worked with Freshwater to train Master Water Stewards and Karen graciously accepted a resident of Scott County into the program and has worked with her by providing technical assistance and assisting her to find funding for the project.

The LMRWD has \$20,000 in the 2019 budget for the Cost Share Program. So far this year, the LMRWD has received four cost share applications as follow:

• Chimney Pines	\$2,100.00
• Glassen	\$785.00
• Freshwater	\$10,000.00
• Rathjen	<u>\$1,657.40</u>
TOTAL	\$14,542.40

This leaves \$5,457.60 remaining in the 2019 budget for cost share projects.

Attachments

2019 Cost Share application and 2019 Cost Share worksheet completed by Lori Rathjen

Recommended Action

Motion to approve 2019 Cost Share application from Lori Rathjen



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) Raingarden Vegetated Swale Infiltration Basin
 Wetland restoration Lake/creek/wetland buffer Conservation practice
 Shoreline/bank stabilization Pervious hard surface
 Other Restoration

Applicant Information

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

Lori Rathjen (Master Water Steward candidate)

Address (street, city and ZIP code): 7326 132nd Circle Savage, MN

Phone: 763.273.1090 Email address: northgal@gmail.com

Primary Contact (if different from above)

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

Address (street, city and ZIP code):

Phone: Email address:

Project location

Address (street, city and ZIP code): Eagle Creek, near Independence Ave. and Creek Way, Savage, MN

Property Identification Number (PID)

Property Owners:

Minnesota DNR

Project Summary

Title Eagle Creek Oak Savanna Restoration Project

Total Project Cost \$4,563.40 Grant amount requested \$1,627.40

Estimated start date 6/24/19 Estimated completion date 2/2020

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

Project description:

See Capstone project application

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

Description

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

See Capstone project application

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

See Capstone project application

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

See Capstone project application

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

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

How does the project support the goals you checked?

See Capstone project application

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	gal/year
Water infiltrated	gal/year
Phosphorus removed	lbs/year
Sediment removed	lbs/year
Land restored	30,000 sq. ft.

How will you share the project results with your community?

See Capstone project application

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

This project could spur additional habitat restoration along other stretches of the Creek.

Evaluation

How will the project be monitored and evaluated?

- Volunteer engagement and hours will be tracked and reported.
- Project sponsor (Lori) and volunteers will visit site to water new plantings as needed and will report back on success of the seeding/planting

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. X Yes

Authorization

Name of landowner or responsible party _____

Signature _____ Date _____

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

(For questions, contact Linda Loomis at 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

2019 Master Water Steward capstone application form

Submit the first draft of the application by April 15, 2019 to Christina Schmitt: christina.schmitt@hennepin.us. Final application is due May 22, 2019. Application approval is required prior to receiving capstone funds.

Contact information

Master Water Steward candidate name:	Lori Rathjen
Project Name:	Eagle Creek Oak Savannah Restoration Project
Project Location (address):	Restoration along Eagle Creek Aquatic Management Area in Savage, MN

Best Management Practices (BMP) installation project description

- **Project summary:** Briefly summarize the water quality problem you intend to address and your proposed project. Restore .75/1 full acre of land to an Oak Savannah. This parcel of land has been identified as a priority by the AMA/MNDNR owners of the property. It's adjacent to homes and a walking path borders the Eagle Creek. There are 2 types of homeowners here. One wants the area cleaned up and the other encroaches on the DNR property by depositing piles of grass clippings and yard waste. These homeowner's could benefit conservation education. The area has Buckthorn, Sumac and weeds that will be mowed, loped, & sprayed per protocol. The area would then be seeded with a prairie seed mix and 288 Native Plugs will be planted. The plants will include pollinator-friendly plants in hopes of attracting and supporting all pollinators as well as the endangered Rusty-Patched Bumblebee; which has been spotted in Scott County. This parcel of restored land will help protect the water quality of Eagle Creek by education and assisting in the implementation of the project by raking and planting primarily by the neighbors and community. Watering of the plugs will be done on a as needed basis by myself. In the Fall, approximately a dozen Scotch Pines will be removed by the DNR. The wood will be burned on site in the late Fall early Winter when 3 inches or more snow has accumulated. The DNR will maintain the area, including a prescribed burn in approximately 3 years.
- **Please provide contact information of the firm that assisted you with project scoping and design:**

City of Savage: Jesse Carlson, Water Resources Manager, Jon Allen, City of Savage, Parks Dept., Mario Travaline Specialist/Fishing in the Neighborhood DNR, Taralee Latozke, DNR, as well as correspondence with Matthew Petersen, MNDN, Mark Memeth, DNR, Hannah Swenson, DNR, John Hiebert DNR, CO James Fogarty, DNR Legal Dept

- **Project selection:** Describe how and why you chose to complete a project in the location you are proposing. Why is this the right project for this location? What alternatives did you and your designer consider? Reference Watershed Management Plans and/or correspondence with county staff of watershed representatives.

Mr. Allen explained that Eagle Creek is one of the few naturally occurring Brown Trout creeks in our state. Much of the general area is densely covered in Honeysuckle, Buck Thorn, and other invasive plants. Our project area is less densely covered and appropriate for volunteers with primarily hand tools and an Oak Savanna restoration. The DNR has put forth a great deal of improvements already this Spring in this general area by clearing trees and trail restoration. The funding and assistance from our project outside the DNR would really benefit so many neighbors as well as the protection of Eagle Creek and the future of the Brown Trout. Taralee noted that the endangered Rusty-Patched Bumble Bee has seen in Scott County and she will choose the seeding and planting. This bee has also been chosen as our State bee.

A short distance from the restoration area is Boiling Springs; please see the attached pages for some history of the area. We also considered a shoreline restoration project at Warren Butler Park and installing a rain garden at one of the following locations: Savage City Library, Hollywood Park, or Camp Savage.

- **Detailed project description:** Describe the proposed project and your implementation timeline. What will be the end result? Include time-specific major milestones between project initiation and project completion.

This is the project plan as outlined from Mario Travaline, DNR dated 5-1-19

1. Raking can occur ASAP after I mow. I am going to try to get in there next week to mow and as we are still waiting on the permit to finalize that should be ok.
2. Spraying will/can occur (1st spray) after all material has been raked and removed from the area
3. 10 days between Spray 1 and Spray 2
4. 7-10 days between Spray 2 and seeding
5. Plugs can be planted any time after seeding
6. Lopping of sumac should be to ground level
7. I will not mow again before the burn.

The Following is a timeline with some additional information, from Lori

Mowing Mid May, DNR-when their mower is available

Raking/Lopping Sumac & Buck Thorn Neighborhood, MN Rovers

Grass/debris pile disposal- City of Savage, 1-2 days after raking

Stump Treatment Garland 4 or 3A, DNR, after raking

Spray area w Rodeo, DNR

Re-treat area w Rodeo, DNR

Seeding Bought by Lori, MN Native Landscapes, Otsego, MN sown by DNR mid June

Planting Plugs Bought Lori planted by Lori & Neighborhood Celebration-sandwiches & cookies, Gatorade

Cutting down approx 12 Scotch Pines in the Fall DNR

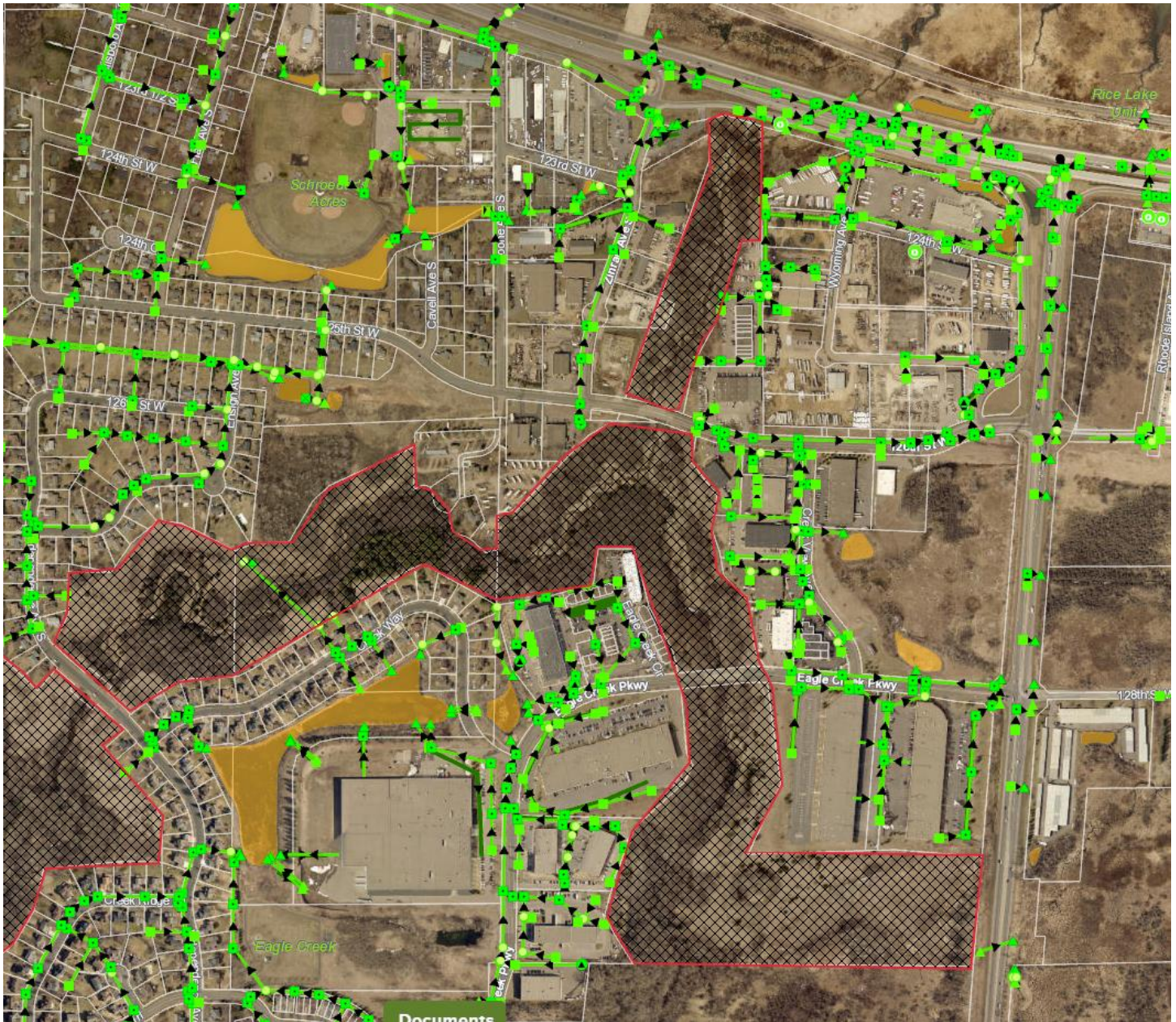
Burning Pine Wood Late Fall Early Winter, when 3 inches of snow is attained, DNR

The end product would be protecting the Brown Trout population by: planting Native plants that percolate rain water and snow melt where it lands and into the ground instead of becoming storm water run-off. This will help keep the Creek cool (49-60 degrees) and clean (especially from homeowners use of fertilizer on lawns/depositing grass clippings & yard waste), slowing the rate of storm-water and reducing soil/water erosion, reducing sedimentation, killing invasive and noxious weeds/shrubs, and replenishing the aquifer. We will be providing a habitat for all pollinators and particularly the endangered Rusty Patched Bumble Bee, which has been spotted in Scott County. The area will become beautiful. Since homeowners will be vested in the project they'll be less likely to illegally dispose of grass clippings & yard waste.

BMP project design detail

Please attach drawings of your intended project.

- Include detail on drainage area calculations that were used to appropriately size any water retention or infiltration features included in plan.
- Please review the [Hennepin County Sustainable Landscaping guidelines](#) for preferred plant lists. Note that plants on the “Plants to Avoid” list may not be included in your project. If you are proposing to plant species on the “Exception” list note that these species require regular maintenance and watering.
- If applicable, detail your plans and commitments for plant maintenance and water in this space.



This is a larger map of Eagle Creek, which runs to the North. It is a short Creek at 2.1 miles. The project area is on the West Bank 8 houses North of the bridge on Independence Ave. lower left hand corner.

Location: North of Independence Bridge and North of Creek Way on the South bank of Eagle Creek along City of Savage trail. 0.75 acre oak savannah.



Project area in red. .75 acres. Park on Independence Ave. near Creek Way. Walk approximately 300 yards North along a walking path. There's a clearing on the right where the project is planned. Be advised there are many Wood Ticks in the area





Community outreach plan description

- **Topics:** Which topics will you cover in your outreach and education efforts (select all that apply):
 - Erosion or sediment
 - Road salt
 - General water quality
 - Groundwater
 - Critical habitat
 - Other (please list):

The primary education piece for my project is to educate the neighbors of the project. By educating, inviting, involving them in the restoration, they become invested in protecting the area. I'll go door to door inviting the neighbors to rake & plant; this truly is a community project.

Secondarily, I'm inviting them to join the program, Adopt A Drain as outlined on adoptadrain.org organized by Hamlin University & Clean Water MN. A nonprofit organization offering education on reducing sediment, road salt & improving water quality in our lakes, streams, & watersheds by individuals committing to sweep up a storm drain twice a month. The volunteers commit by signing up online eliminating the concern of sharing personal information with me. I would also be willing to promote Adopt-A-Drain at another site or two within Hennepin County or at the State Fair.

- **Outreach goals:** What are your goals for your outreach and education efforts/what changes are you hoping to affect in your community? 60 percent participation in the restoration project.
Promote Adopt-a-drain program 50 percent of the people who attend the event sign up.
- **Describe your audience:** Include a description of the audience you intend to reach.
- **Larger Single family home owners, primarily middle class families most with school aged children.**
- **Project activities:** Describe the activities you plan to do to engage your audience in learning about and/or taking action to protect water. Include a timeline of activities. Tell us about the educational resources you plan to use.

Speak/educate, use poster, invite neighborhood to rake and plant during the implementation of my project. Sweep a drain at the information night.

From: **Travaline, Mario (DNR)** <mario.travaline@state.mn.us>
Date: Fri, May 10, 2019 at 8:32 AM
Subject: Special Use Permit for City of Savage Capstone Project Eagle Creek AMA
To: Hiebert, John F (DNR) <john.hiebert@state.mn.us>, Jesse Carlson <JCarlson@ci.savage.mn.us>, Lori Rathjen <northgal@gmail.com>
Cc: Ellison, Daryl G (DNR) <daryl.ellison@state.mn.us>, Petersen, Matthew (DNR) <matthew.petersen@state.mn.us>, Latozke, Taralee (DNR) <taralee.latozke@state.mn.us>, Swenson, Hannah (DNR) <hannah.swenson@state.mn.us>

Attached you will find the Special Use Permit for a Capstone Project with Lori Rathjen in conjunction with the City of Savage (Jesse Carlson) reviewed, signed, and approved by West Metro Fisheries Area Office. I have the original signed copy. The work is to take place from April 1, 2019 to December 31, 2019 but the majority of the project work will take place in June, 2019.

Jesse & Lori – Please have a copy of this permit ON HAND while conducting work on Eagle Creek. C.O. James Fogarty has been informed about this project as it is taking place in his area. He recommends neon yellow construction vests for workers and volunteers when raking and planting occurs so that the group can be easily identified should Officer Fogarty patrol that area while work is commencing. Please adhere to the permit guidelines at all times.

Any questions can be directed to me and thanks.

Mario Travaline

Specialist | Fishing in the Neighborhood

Minnesota Department of Natural Resources

7050 County Road 101, Suite 100

Shakopee, MN 55379

Phone: 952-496-4141 ext. 225

Email: Mario.Travaline@state.mn.us



**Aquatic Management Area
Special Use Permit**

Date: April 22 nd 2019
Permit Number: 2019-0023
Aquatic Management Area: Eagle Creek AMA
From: April 1, 2019 To: December 31, 2019

Name: Jesse Carlson
Address:
 Water Resources Manager
 City of Savage
 6000 McColl Drive
 Savage, MN 55378
 952.882.2686

Activity:
 This permit serves as written approval to grant permission to:
 Jesse Carlson – Water Resource Manager – City of Savage and designated agents - 6000 McColl Drive - Savage, MN 55378 jcarlson@ci.savage.mn.us
 To enter upon the above Aquatic Management Areas (AMAs) to perform invasive species control. The project will remove invasive trees, brush and vegetation to improve conditions for native plant communities on the AMA. It is understood that the above named person, field crew, and volunteers have a clear understanding of the purpose and long-term goal of State AMAs. In keeping with this purpose, they shall always conduct their activities in a manner that is least disruptive to the on-going natural processes of these areas. All activities carried out must be in accordance with the attached proposal submitted. Permission must be received from the AMA Program, Area And Regional Fisheries offices if the permittee desires or anticipates deviating from this permit. In addition, the following conditions are placed on the proposal submitted:

Lori:
The City of Savage will provide assistance on this project, which will include removing the piles from the roadway as we have done in the past. If I can get a trailer I will do that as well.

We will plan to be on-site during the volunteer event assuming we will be able to coordinate schedules, etc.

Thank You,

Jesse Carlson, CESSWI, CPESC, CPSWQ
Water Resources Manager
6000 McColl Drive, Savage, MN 55378

Hi Lori-

Our MNL Mesic Prairie Mix is \$660/acre. That is at our recommended rate of 15 PLS lbs/acre. We could deliver the seed and plugs to you in Savage for a delivery fee of \$150, or you could pick up in either Otsego or Foley with advanced notice (give us a week lead time if possible).

Wes Olmschenk
Phone: 763-295-0010
Email: Wes@MNLcorp.com

MnNativeLandscapes.com

Lori
The pricing for plugs as discussed on the phone is \$1.10/plant for full flats of the same species (36 plants to a flat) and \$1.25/plant for mixed flats of up to 6 species.

Thank You!!

Cassandra Bush
Minnesota Native Landscapes

Here's the proposed plant list, 1/2 flat= 18 plug plants of the following.

- Sneezeweed
- Mountain Mint
- Purple Prairie Clove
- Lead Plant
- Rough Blazing Star
- Prairie Blazing Star
- Giant Blue/Anise Hyssop
- New England Aster

Full Tray, 36 plug plants of the following.

- Butterfly Milkweed
- Big Blue Stem 2 trays
- Rough Dropseed or Little Blue Stem

To complete project in this area, it would be a tragedy to not include a brief history of the area surrounding our project. The following is a compilation of facts from newspaper clippings found at the Savage Library. This area is several hundred feet from the project area, but the creek does flow through the project area. Eagle Creek is a small creek measuring 2.1 miles in length in several branches.

The Hattenberger-Hirsch family bought many acreage surrounding Eagle Creek in the 1850's thru the 1990's. The original family was from France and farmed land, built a grist mill, and grew grapes. Eagle Creek is fed by many springs along its course as well as a unique area named Boiling Springs. It's a geological phenomenon due to a crack in the aquifer. Every few minutes this area still visibly bubbles up. Although the name is "Boiling" the water is a constant 49 degrees, so it doesn't freeze over in the winter, it makes the perfect temperature for brown trout, & sand is carried up with the bubbling action and dispersed along the creek bed for spawning. In the 1800's Springs would rumble so loud they could be heard 200 feet away, and would bubble up 4-6 feet above the normal water level. In 1858, the Dakota & Ojibewa Indians fought over this sacred area. One Indian story tells the Springs being the center of the world, the home of God of Waters and the Underworld. One tradition tells that Eagle Creek got its name after an Eagle flew out of the Springs and turned into Buffalo Calf Woman. She gave a sacred pipe to guide the Dakota. Indians would come to this area to meditate and seek guidance here; they still do. From the 1890's through the 1940's the Hattenberger family installed some bridges and fencing around an area of quick sand, turning the area around the Springs into a park like setting. They would charge 10 cents a car load of people and sell wine made from their grapes. During the Prohibition they would make and sell ice cream and candy. He advertised the Springs as "A Natural Wonder of World" on postcards and pamphlets. They were prosperous for many years as they bought three more farms in the area. As the owners aged the farmland was leased, the park closed, and the Bloomington Ferry Bridge was built over the Minnesota River. The population of the city of Savage doubled in a few years and kept growing. The owner became elderly and a developer wanted to buy the land and build a large subdivision This plan set off a fierce debate among the many stakeholders all the way to the Capital. When all was done, Minnesota got its first Aquatic Management Area designation of the MNDNR. The subdivision was built and many best management practices were put in place to protect Eagle Creek. Boiling Springs was listed on the Register of Historic Places. The Shakopee Mdewankaton Sioux people are very active in conservation efforts on their land and do many prescribed burns for the City of Savage. Trout Unlimited also contributes a great deal by conservation work days on the East Branch of Eagle Creek.

I hope this information has been an enriching. I truly enjoyed the journey that lead me to discover this rich history in my community; all due to this class and the wonderful people in our community and government overseeing, protecting, and managing it.

Thank-you. for this wonderful opportunity.

2019 Cost Share Worksheet

Labor Costs (Contractors, Consultants, In-Kind Labor)

Service Provider	Task	# Hours	Rate/Hour	Requested Funds from LMRWD	Matching/In-Kind Funds	Total
DNR	Mowing, Stump Treatment, Site preparation (2x spray with Rodeo), Seeding, Tree removal (12 scotch pines), Burning wood pile	40	\$30		\$ 1,200.00	\$ 1,200.00
City of Savage	Grass/debris pile disposal, participation in volunteer event	8	\$67		\$ 536.00	\$ 536.00
Volunteers (neighborhood, MN Rovers)	Raking/lopping - sumac and buckthorn, planting plugs	100	\$12		\$ 1,200.00	\$ 1,200.00
				Total:	\$ -	\$ 2,936.00

Project Materials

Material description	Unit Cost	Total # of Units	Requested funds from LMRWD	Matching/In-Kind Funds	Total
Seed (from Minnesota Native Landscapes)	\$660	1	\$ 660.00		\$ 660.00
Plugs (from Minnesota Native Landscapes) - full flats	\$1.10	144	\$ 158.40		\$ 158.40
Plugs (from Minnesota Native Landscapes) - half flats	\$1.25	144	\$ 180.00		\$ 180.00
MNL Delivery Charge & Tax	\$234.00	1	\$234.00		\$ 234.00
Volunteer Event supplies (rakes, gloves, trowels, bug spray, vests)	\$340	1	\$340		\$ 340.00
Volunteer Event appreciation supplies (cookies, sandwiches, gatorade)	\$85	1	\$85		\$ 85.00
Chemical (Garland, Rodeo) - DNR					
			Total:	\$ 1,657.40	\$ -

Total Requested Funds from LMRWD*:	<u>\$ 1,657.40 (A)</u>
Total Matchin/In-Kind Funds:	<u>\$ 2,936.00 (B)</u>
Project Total:	<u>\$ 4,593.40 (C)</u>

*Please note: total requested funds (A) cannot be more than 50% of the Project Total (C)