

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting Wednesday, August 17, 2022

Agenda Item

Item 4. H. – Approve Cost Share Application for 11533 Palmer Circle, Bloomington

Prepared By

Linda Loomis, Administrator

Summary

The LMRWD received a Cost Share application from a Bloomington resident living at 11522 Palmer Circle. On August 3, 2022, I visited the site. The resident purchased a foreclosed home, which had been declared uninhabitable by the City of Bloomington. A map from Hennepin County GIS is attached showing 2-foot contours of the property. The map shows the very steep backyard, which is within the steep slope overlay zone.

The applicant has retained the services of a landscape designer to help with the project. The homeowner plans to have a second project to remove buckthorn and revegetate the slope with natives. There is a electric power line down the west property line and across the backyard. Xcel Energy is planning to trim trees along the power lines, so the Applicant would like to see what Excel does, before planning the project on the slope.

This year the Applicant would like to redirect downspouts to the front yard and to the street. (There are no storm drains in the street). She is planning to remove turf grass and plant natives that will attract pollinators. The downspout on the northwest corner of the house collects rainwater from a significant portion of the house. I did not take pictures while I was at the house, but I will see that we get pictures before any work has begun.

The Applicant's parents live downhill from her and may decide to become part of the backyard project. The backyard drains to a row of homes, across Palmer Road and into Coleman Lake.

Attachments

2022 Cost Share Application from 11533 Palmer Circle, Bloomington Hennepin Property Information Map showing 2-foot contours 2022 Cost Share Grant Agreement between LMRWD and Margaret Thomsen

Recommended Action

Motion to approve grant application for 50% of the cost of the project up to \$2,500 and authorize execution of a Cost Share Grant Agreement.



Cost Share Grant Application 2022

Application type (check one) Mon-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 ■ Buffer/shoreline restoration ■ Conservation practice ➤ Habitat restoration ■ Pervious hard surface ■ Other Grading to Capture/direct water to raingation impervious surface
Applicant Information
Name of organization or individual applying for grant (to be named as grantee): Margaret Thomsen (Peggy)
Address (street city and 7IP code):
11533 Palmer Circle, Bloomington, MN 55437
Phone: 651-333-0160 Email address: peggythomsen @ hotmail.
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):
() Dame as above
Phone: Email address:
Project location Project location
Address (street, city and ZIP code): 11533 Palmer Circle
Property Identification Number (PID) 2002724310057
JR Graves & MA Thomsen
Project Summary
Title Palmer Circle watershed Awareness
Total project cost \$10,000 approx. Grant amount requested \$2,500.00
Estimated start date Sept 1, 2022 Estimated completion date June 30, 2023*
s project tributary to a water body? No, water remains on site Yes, indirectly Yes, directly adjacent
project requires fall seeding. * depending on plant availability should be okay!! (")
should be okay! (")

o Yes treatment beyond permit requirement on a separate page.)
roject timeline D roof of property ownership ant list &planting plan (if project includes plants) at site conditions, as well as site history, and past poring properties. ary 2021. In 1960 a home was built on this lot tucked trace 6th Addition. Owner of the property from the which included the addition of fill and created eman Lake) and accelerated erosion. Evidence of cing that is partially buried along the southern portion to including unchecked growth of invasive plants: d and possibly others yet to be identified.
owner directly to the south. Unchecked invasive
omes? Give any additional project details. If and erosion, and to be a source of inspiration to area bluff area and the watershed district. Its, etc.) The additional project details. Its area and the watershed district. Its, etc.)
check all that apply) foster water resource stewardship tershed resources plutions to improve waters
ed?
ff
G project details.



Project Details

The "Palmer Circle Watershed Awareness" project will be implemented to capture and filter runoff and will bring awareness of the vulnerability of our watershed resources to the neighbors and homeowners of the south-most area of Bloomington who own property directly and indirectly draining into the Minnesota River. The project will employ grading and planting solutions that protect watershed resources by water capture and filtration. The project will be attractive and well-maintained to capture attention and educate in hopes that neighbors in this bluff area will consider making improvements on their properties to protect our water resources.

Property Overview & Past Management

We purchased this condemned property in January 2020. This property has compacted lawn. There is evidence of erosion and runoff. In 2021 we installed a rain garden in the backyard area within 40 feet or so at the rear of the house. This significantly reduced runoff to the steepest area of the south slope. This 2021 project was completed at 100% homeowner expense with reclaimed materials and with homeowner labor.

Runoff from 11533 Palmer Circle spills into Palmer Circle and runs west to Palmer Road where the street slopes to the south. The water enters storm drains at the lower section of Palmer Road. When there is increased rainfall the runoff crosses Palmer Road where Palmer Road turns to the left at the bottom of the hill. All of these storm drains deliver runoff directly into the swamp area leading straight to Coleman Lake and ultimately to the Minnesota River. Sadly, the grade of Palmer Road is so steep that street maintenance crews use a significant amount of road salt or other treatments that are ultimately washed into the river by runoff each spring thaw. Water also sheds from the west onto neighboring properties and ultimately follows downhill to the same storm drains.

Front Yard (North) - the focus of this grant application.

East Side Yard - 2021 removed buckthorn, regraded to capture rainwater and installed native plants including bee lawn. Work completed by us with no grant funding.

West Side Yard - Presently has erosion problems caused by downspout from the roof sending water to the side and south towards the bluff line. This proposed plan redirects runoff away from the bluff to be filtered and absorbed by the front yard water management features.

Back Yard (South) - This portion of the property is the more complex area including steep grade, significant erosion concerns, unstable soil, drainage towards Coleman Lake and Minnesota River, invasive species, power lines that are overgrown (Xcel Energy has scheduled line maintenance along the south line of our property for August 2022). Back yard will be the focus of restoration in 2023 after we have learned from this Phase 1 project in 2022.

Justification for Completion of Front Yard First

We will complete front yard restoration and water management next because:

- it is important to capture sediment and reduce runoff that drains to Coleman Lake and the MN River,
- · improvements will reduce runoff that contributes to accelerated runoff and erosion,
- learning from the front yard phase will be an educational step to help as we plan for the more complex problems on the steep slope to the south,
- South slope will be restored after Xcel has completed maintenance that will disrupt soil and plant material on the steep slope,
- · the front yard water management plan is more visible and educational for the neighborhood, and
- because my husband needs to see improvements in the front yard soon or he will buckle and simply install sod without regard for water protection. (Insert sad face!)



Project Details

When the Palmer Circle Watershed Awareness Project is Complete

- A dry creek bed will carry roof/gutter runoff into a rain garden redirecting water that presently runs south and over the bluff.
- Front yard will be regraded to absorb and filter driveway runoff into the yard and a second rain garden instead of allowing driveway runoff to spill into the street
- Native plants will improve soil quality to increase absorption rather shedding water into the storm drains.
- No yard chemicals will be used that would be carried towards Coleman Lake and the Minnesota River.
- Runoff that currently sheds into neighboring properties to the west will be captured and directed to dry creek bed and rain garden.
- · Native plants will require significantly less water than the present turf grass.
- Neighbors will be attracted by the innovative landscaping installation and potentially be inspired to learn how to install water-protective features on their property.
- Native plants will improve the eco-system for beneficial pollinators and wild life.



Current Runoff - Homeowner Calculations

Impervious Surfaces	Square Feet	Gallons/Year	
North-facing Roof	700	13.090	
Driveway	1165	21,785	
Garage	682	12,753	
Front Steps and Sidewalk	120	2,244	
Compacted Lawn	2992	41,403	
TOTAL estimated runoff/yea	91,275		

The calculation above is only for the front yard and west side yard that are the target of this grant application for 2022.

Formulas used are based on Dakota County Landscaping for Clean Water Intro Course. Assumptions are 30" annual precipitation, 100% runoff for impervious surfaces, 74% runoff rate for compacted lawn.

1000 square feet x 30/12 feet rain/year = 2500 cubic feet of water 2500 cubic feet x 7.48 gallons per cubic foot = 18,700 gallons/year

Example - According to this formula:

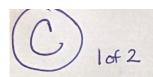
- each 1000 square feet of impervious surface results in 18,700 gallons of runoff per year.
- each 1000 square feet of compacted lawn results in 13,838 gallons of runoff per year.



Project TimeLine

As soon as we have a signed grant agreement work will begin in the following order:

- Remove turf lawn and weeds
- Grading yard for rain gardens, capture of driveway runoff, and dry creek bed
- Install mulch path and edging
- Seed cover crop to hold soil
- power rake and sow native seed mixes after cover crop is mowed
- Source and pick up plant material from nurseries
- Install plants, mulch and temporary protective fencing
- plan for and produce materials for QR code, social media education, and 2023 National Night Out
- Expected completion by June 30, 2023 . . . although maintenance will continue and we will need to be patient to give plants time to become established.

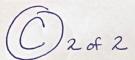


Labor Costs

ervice provider	Task	# hours	Rate/hour		Requested funds from LMRWD	Matching /in kind funds	Total cost
omeowner	Install mulch path	8		\$18.00		\$144.00	\$144.00
lomeowner	Remove existing juniper	a	ready	come	leted.		
Organic Bob	Grade garden to direct runoff from driveway and roof to raingardens, dig raingarden and dry creek, install dry creek		J				\$3,200.00
Organic Bob	Sow cover crop, after it grows and is mowed, power rake and sow native seed mixes	607					\$300.00
Organic Bob	Power rake and dormant sow prairie grass after cover crop is mowed						\$500.00
Organic Bob	Install stone edging						\$400.00
Homeowner	Source and pick up plants from nurseries	4		\$18.00	Carlo	\$72.00	\$72.00
Homeowner	Shop for oak trees and plant oak trees	2	2	\$18.00		\$36.00	\$36.00
Homeowner	Mow cover crop very short when it's a few inches tall	1		\$18.00		\$18.00	\$18.00
Homeowner	Install plants, mulch, fence	30		\$18.00		\$540.00	\$540.00
Homeowner	Spray Liquid Fence on Forbs 3x, 1 week apart	1.5	5	\$18.00		\$27.00	\$27.00
Pasque Ecological Design	Design front yard, cost estimate	16	6	\$90.00		\$1,440.00	\$1,440.00
Pasque Ecological Design	Lay out plants, spray paint location of raingarden, assist with sourcing plants and materials	4	1	\$90.00	Manufacture and the second sec	\$360.00	\$360.00
Total					\$0.00	\$2,637.00	\$7,037.00

Material Costs

Project Materials	Unit cost	Units			Matching Funds	Total cost
Mycorrhizae and compost tea						
application	125		1	\$125.00		\$125.00
hoses and sprinkler	50		4	\$200.00		\$200.00



ugs	2	each	986	\$1,972.00		\$1,972.0
native plants	5	each	30	\$150.00		\$150.0
GAL Oak Tree	30	each	1	\$100.00		\$100.0
erviceberry Shrubs	25	each	3	\$75.00		\$75.00
erviceberry Tree	25	each	1	\$25.00		\$25.00
hokeberry Shrubs		each	3	\$0.00		\$0.00
ack Currant shrubs	20	each	3	\$60.00		\$60.00
tone edging	16	lf	50	\$800.00		\$800.00
ry Creek materials						
nd bridge stone	1	lump sum	50	\$50.00		\$50.00
" Cedar mulch for	\mathcal{A}_{i}					
lug groups and oak						
ree, 4" mulch for path	65	су	7	\$455.00		\$455.00
Cover crop seed plus						005.00
shipping cost		sf		\$25.00		\$25.00
MNL shortgrass prairie						000.00
seed		sf	1000	\$60.00		\$60.00
Blue gramma/buffalo						
grass seed plus			205	075.00		\$75.00
shipping cost	450	sf	325	\$75.00		\$150.00
Mulch delivery	150		1	\$150.00		\$150.00
Temporary Plant						
Protection Fence						
around serviceberries	100	per 50 lf	1.5	\$100.00		\$100.00
and oak trees	100	per 50 ii	1.0	\$100.00		\$100.00
Temporary Plant						
Protection Fence			20	0400.00		\$120.00
Stakes		each	20	\$120.00		\$120.00
Herbicide for lawn		lump sum	1	\$125.00 \$30.00		\$30.00
Plant identification signs		Contract of the last of the la	3	\$50.00		\$50.00
	= Will use free website = QR tale 50				\$0.00	\$4,747.00
Total				\$4,747.00	\$0.00	\$4,747.00

TOTAL

\$4,747.00 \$2,637.00 \$4,467.00

Prepared for:

Peggy Thomsen and John Graves

11533 Palmer Circle, Bloomington, MN 55437 Bloomington, MN 55437

PLANT LIST

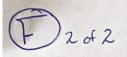
8/6/2022

Prepared by:

Pasque Ecological Design

office: 612.868.8033

Code	Scientific Name	Common Name	Blooming Months	Blossom Color	Maximum Ht/Size	Notes	Spacing	Quantity	Recommended Min. Size to buy
Ar	Amelanchier alnifolia 'Regent'	Regent Serviceberry			4-6'	Fragrant flowers, orange red fall color, very high wildlife value; edible fruit. These taste AMAZING straight off the shrub! They lose a lot of flavor after they have been in the fridge.	4'	3	GAL
Arl	Amelanchier laevis	Allegheny Serviceberry	spring	wht	20 x20'	Fragrant flowers, orange red fall color, very high wildlife value; edible fruit, these taste AMAZING straight off the tree! They lose a lot of flavor after they have been in the fridge.	NA	1	GAL
At	Anemone patens	Pasque Flower	AM	pur	0.5'		NA	6	Plugs
An	Antennaria neglecta	Pussytoes	AMJ	wht	0.5'	Larvae host for the American Painted Lady	12"	20	Plugs
Am	Aronia melanocarpa	Black Chokeberry	-MJ	wht	This would be a good spot for them if you still have 1 or more from the plant sale; or you can plant other fruit bearing shrubs here (eg other currants or honeyberries); supports Pollinators, Birds, Edible. Bitter, but can be eaten raw. Good for preserves and pies. High antioxidants - even higher than elderberry.			3	GAL or bare root
Ab	Asclepias tuberosa	Butterfly Weed	JJA	org	2-3'	Butterfly magnet	12"	6	Plugs
Ao	Aster oblongifolius	Aromatic Aster	ASO	vlt	2'	Attractive to pollinators	12"	18	Plugs
Acr	Astragalus crassicarpus	Ground Plum	-MJ	pur	1'		12"	3	Plugs
Ba	Baptisia australis or alba	Wild Blue or White Indigo	-MJJ	blu	2-4'		NA	3	GAL or 4"
Ba	Bouteloua gracilis	Blue Grama		a or the	0.5-1'	This could be seed instead	12"	127	Plugs and seed
Bd	Buchloe dactyloides	Buffalo Grass			3"-8"		NA		seed
Dm	Dodecatheon meadia	Midland Shooting Star	AMJ	wh/la	1'		NA	10	Plugs
EI	Echinacea angustifolia	Narrow Purple Coneflower	JJ	pnk	3-5'	*threatened Ottoe Skipper's life cycle depends greatly on this plant	12"	18	Plugs
Еу	Eryngium yuccifolium	Rattle Snake Master	JAS-	wht	3	Pollinators, Butterflies, Deer Resistant, Host Plant	NA	7	Plugs
Gt	Geum triflorum	Prairie Smoke	AMJ	red	0.5'		8"	24	Plugs
Jt	Juncus tenuis	Path Rush			0.5-1'	SCHOOL STATE OF THE STATE OF TH	12"	84	Plugs
La	Liatris aspera	Rough Blazingstar	JASO	pur	2-3'		12"	18	Plugs
Lr	Lupinus perennis	Wild Lupine	-MJJ	blu	2'	Host plant for endangered Karner Blue Butterfly	12"	15	Plugs
Pp	Phlox pilosa	Prairie Phlox	-MJJ	pnk	0.5-1.5'		12"	15	Plugs
Qm	Quercus macrocarpa	Bur Oak			75-100 x60-100	very majestic tree form, very high wildlife value	NA	1	GAL
Ri	Ribes species	Currant			4-6'x3-4'	Ribes americanum is native in MN, some equally tasty cultivars include 'Gloire de Sablons' and 'Crandall's Clove currants	3'	3	GAL or bare root
Sa	Sisyrinchium angustifolium	Stout Blue Eyed Grass	MJ	blue	1'		12"	36	Plugs
Sz	Solidago nemoralis	Gray Goldenrod	ASO	yel	0.5-2'		12"	9	Plugs
Sh	Sporobolus heterolepis	Prairie Dropseed		yei	2-4'		24"	30	GAL or 4"
Vpe	Viola pedata	Bird's Foot Violet	AMJ-AS-	vit	0.5		NA	8	Plugs



Prepared for:

Peggy Thomsen and John Graves

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PLANT LIST

8/6/2022

Prepared by:

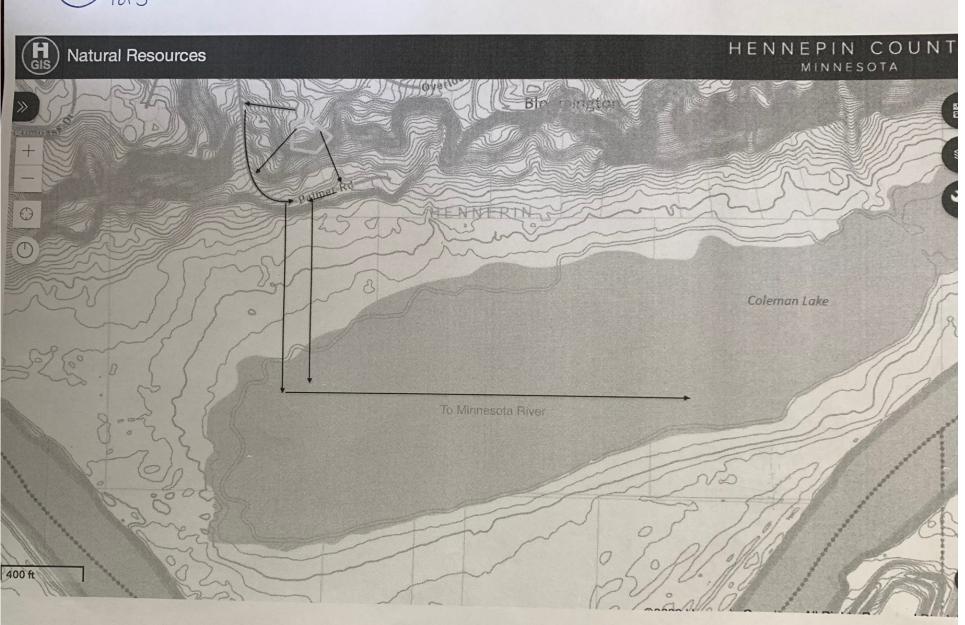
Pasque Ecological Design

office: 612.868.8033

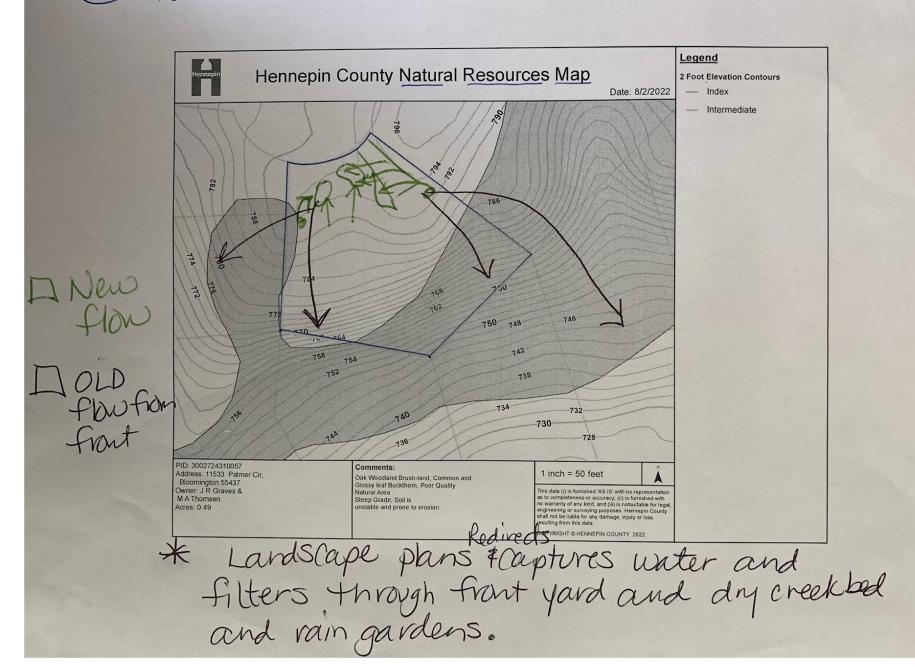
8/6/2022									Recommended
		Common Name			Maximum	Notes	Spacing	Quantity	Min. Size to buy
Code Sc	ientific Name	Common name	Months	Color	Ht/Size				

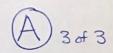
Plant Group A Recommended Quantity Spacing Blossom Maximum Percent Min. Size to buy Blooming Notes Common Name Scientific Name Months Color Ht/Size Code Plugs 28 early nectar source; attracts bees, 12" 5% 1-3' AMJ---rd/or butterflies, and hummingbirds Columbine Aquilegia canadensis Plugs Ad 12" 28 5% 3' Big-Leaved Aster --ASO wht 417 Plugs 12" Aster macrophyllus 75% Tolerates foot traffic; semi-evergreen 0.5-1 Pennsylvania Sedge Carex pensylvanica Spreads by runners and can quickly colonize Ср 17 Plugs 12" 3% 0.5 AMJ---wht Wild Strawberry Fragraria virginiana an area Fv 39 Plugs 12" 7% beautiful fall color 2-3' Wild Geranium AMJJ--lav 28 Plugs Geranium maculatum 5% 12" Gm 1-3' Zig Zag Goldenrod ----ASO yel Solidago flexicaulis 556 Total Sf

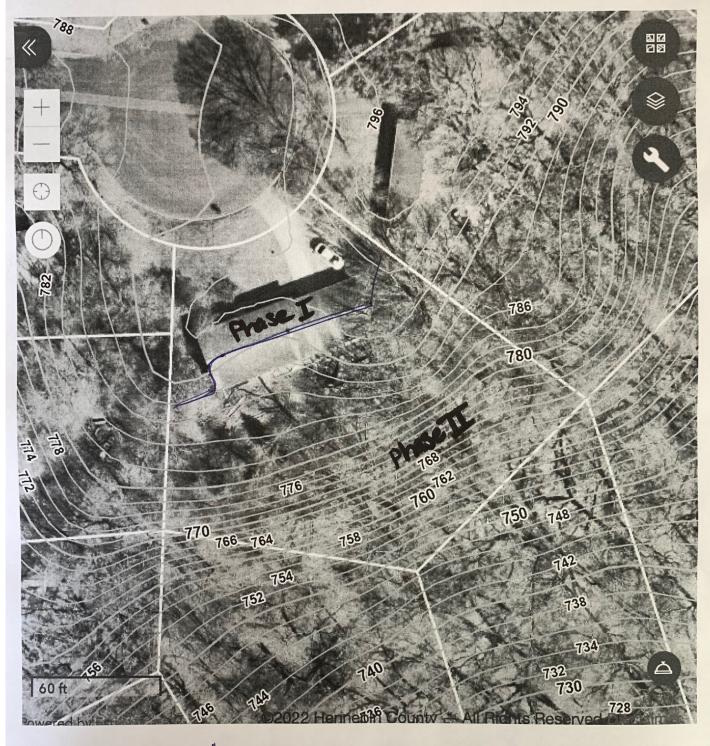




A) 2 of 3 with contours that show grading





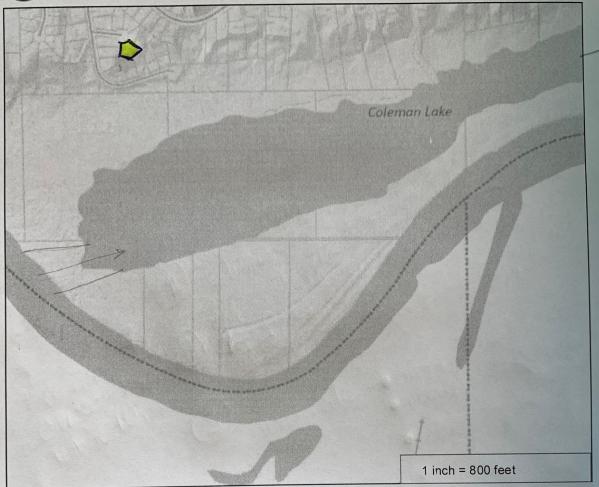


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Hennepin County Property Map

Date: 8/5/2022



PARCEL ID: 3002724310057

OWNER NAME: J R Graves & M A Thomsen

PARCEL ADDRESS: 11533 Palmer Cir, Bloomington MN 55437

PARCEL AREA: 0.49 acres, 21,548 sq ft

A-T-B: Torrens

SALE PRICE: \$263,500

SALE DATA: 01/2021

SALE CODE: Excluded From Ratio Studies

ASSESSED 2021, PAYABLE 2022 PROPERTY TYPE: Residential HOMESTEAD: Homestead MARKET VALUE: \$339,000 TAX TOTAL: \$4,267.24

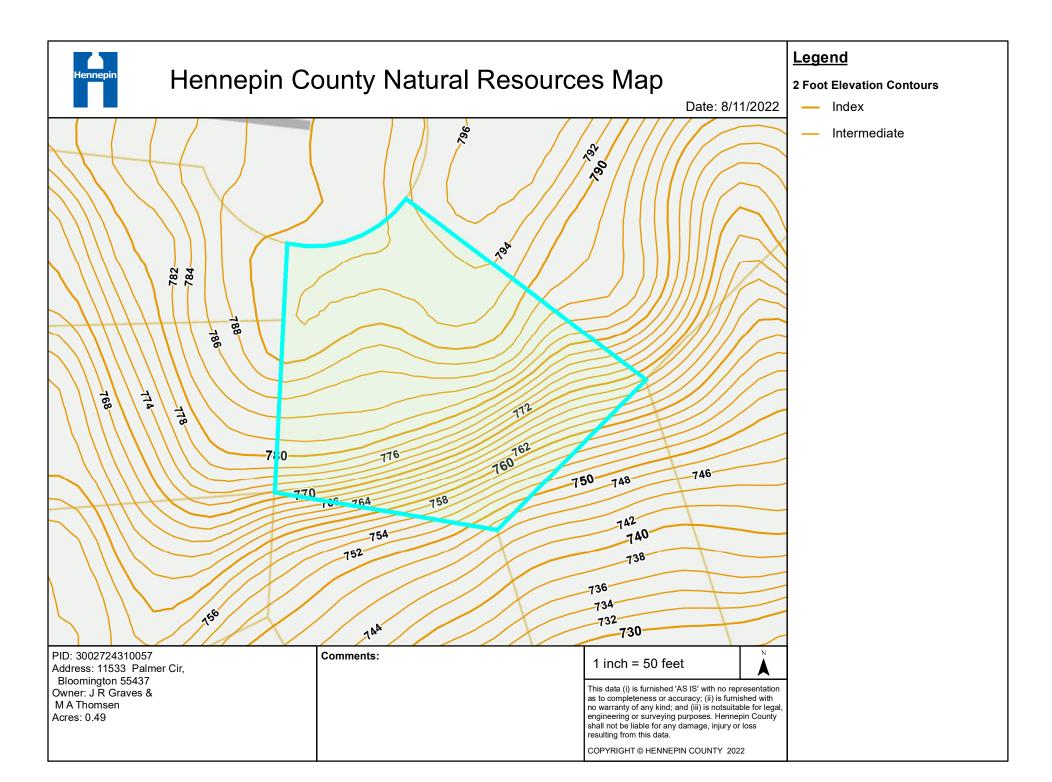
ASSESSED 2022, PAYABLE 2023
PROPERTY TYPE: Residential
HOMESTEAD: Homestead
MARKET VALUE: \$393,700

Comments:

Location is on river bluffs above Coleman Lake. All runoff drains to the Minnesota River.

This data (i) is furnished 'ASIS' with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this data.

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LOWER MINNESOTA RIVER WATERSHED DISTRICT 2022 COST SHARE INCENTIVE AND WATER QUALITY RESTORATION PROGRAM Cost Share Grant Agreement

The parties to this Agreement, made this 17th day of August 2022, are the Lower Minnesota River Watershed District, a Minnesota Watershed District ("LMRWD") a public body with purposes and powers set forth in Minnesota Statutes Chapters 103B and 103D and Margaret Thomsen ("APPLICANT"). The purpose of this Agreement is to provide for the installation and maintenance of a project designed to protect and improve natural resources within the District. by managing storm water and said project to be located at: 11533 Palmer Circle, Bloomington, MN 55437.

- 1. <u>Scope of Work.</u> APPLICANT will install the Project in accordance with the Application submitted to the LMRWD, attached as Exhibit A. A final report must be presented to the LMRWD at the time a request is made for reimbursement of expenses as specified in Section 2 of this Agreement.
- 2. <u>Reimbursement.</u> When the installation of the project is complete in accordance with Exhibit A, the LMRWD, on receipt of adequate documentation, will reimburse the APPLICANT up to 50% of the APPLICANT's cost to install the Project, including materials, equipment rental, delivery of materials and labor, in an amount not to exceed \$2,500.00. APPLICANT will document with receipts all direct expenditures. At the time reimbursement is requested, APPLICANT will provide the LMRWD a final report and copies of all documents concerning the work.
- 3. Public Access. LMRWD may enter APPLICANT's property at reasonable times to inspect the work to ensure compliance with this Agreement and monitor or take samples for the purpose of assessing the performance of the Project. APPLICANT will permit the LMRWD, at its cost and discretion, to place reasonable signage on APPLICANTs property informing the general public about the Project and the LMRWD's Cost Share Incentive and Water Quality Restoration Program. The LMRWD may request APPLICANT's permission to allow members of the public periodically to enter APPLICANT's property to view the Project in the company of a LMRWD representative. This paragraph does not create any right of public entry onto APPLICANT's property except as coordinated with APPLICANT and accompanied by a LMRWD representative.
- 4. <u>Maintenance.</u> APPLICANT will maintain the Project for at least ten (5) years from the date installation is complete. If APPLICANT does not do so, the LMRWD will have a right to reimbursement of all amounts paid to APPLICANT, unless:
 - a. The LMRWD determines that the failure to maintain the Project was caused by reasons beyond the APPLICANT's control; or
 - b. APPLICANT has conveyed the underlying property, provided APPLICANT notifies the LMRWD at least 30 days before the property is conveyed and facilitates communication between the LMRWD and the prospective owner regarding continued maintenance of the project.
- 5. <u>Agreement Void.</u> This Agreement is void if the project installation in not complete by July 31, 2023. This Agreement may not be modified in any way except in writing and signed by both parties.

- 6. <u>Indemnification</u>. The LMRWD will be held harmless against any and all liability and loss in connection with the installation of the Project.
- 7. <u>Compliance with Laws.</u> APPLICANT is responsible to comply with any permits or other legal requirements applicable to the work.
- 8. <u>Notices.</u> Any notice or demand, authorized or required under this Agreement shall be in writing and shall be addressed to the other party as follows:

To LMRWD:

Administrator Lower Minnesota River Watershed District 112 East Fifth Street, Suite 102 Chaska, MN 55318

To APPLICANT:

Margaret Thomsen 11533 Palmer Circle Bloomington, MN 55437

The parties being in agreement to be signed as follows:

APPLICANT:	LOWER MINNESOTA RIVER WATERSHED DISTRICT:
Ву:	Ву:
	Its: <u>President</u>
Date:	Date: