MS4 partnerships:

Teamwork for efficient and effective outreach

March 12, 2020

Nick Voss, VLAWMO
Connie Taillon, City of White Bear Lake

EST 1983
VLAWMO
Vadnais Lake Area
Water Management Organization

City of White Bear Lake Minnesota
Established 1881

OUTLINE

Adopt-a-Drain

Goose Lake example

Projects as Teaching Moments

Project Examples

Messaging

Resources

Customized Outreach

Brochures

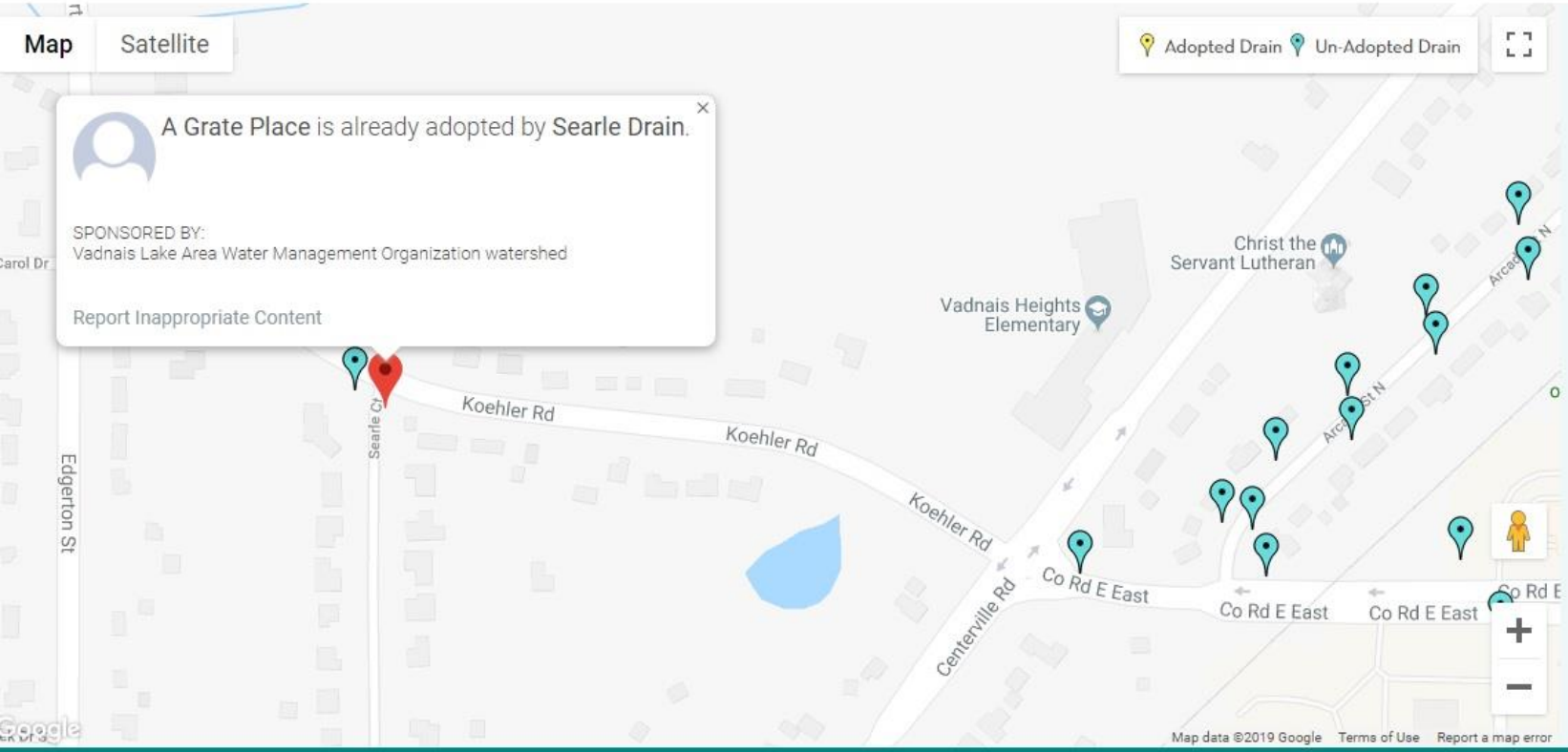
Flyers

ADOPT a STORM DRAIN

104,050 lbs
debris collected

4,472
hours spent

4,026
adopters




We protect
Goose Lake
Sweep up! Rake up! Pick up!
adopt-a-drain.org


ADOPT
a STORM
DRAIN
Adopt-a-drain.org
Door hangers: 400 for $400
Info packets: 100 for $620
Yard signs: 100 for $1,400


ADOPT
a STORM
DRAIN
Adopt-a-drain.org
www.cleanwatermn.org/for-partners/become-a-partner/

Reporting Data

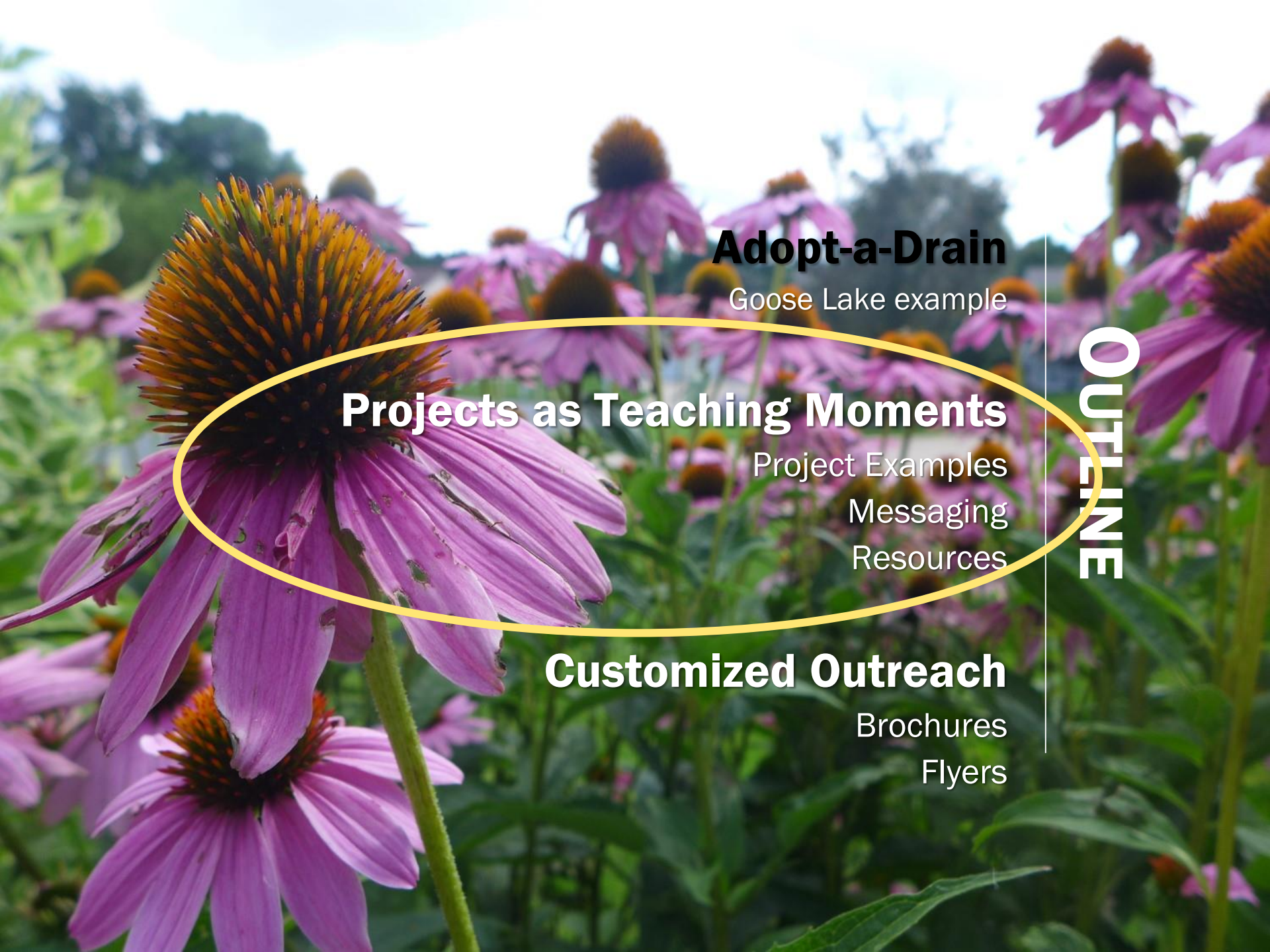
24 White Bear Lake participants reported cleanings, which represents 52.2% of all White Bear Lake participants.

White Bear Lake participants collected 1,118.2 lbs of debris from their adopted storm drains in 2019.

Debris Type	Amount (lbs)
Brown leaves	490.3
Grass and green leaves	141.6
Sediment and dirt	466.4
Trash	19.6
Salt	0.2

LAKE CARE Weekend

Clean stormdrains = cleaner lakes


Adopt-a-Drain
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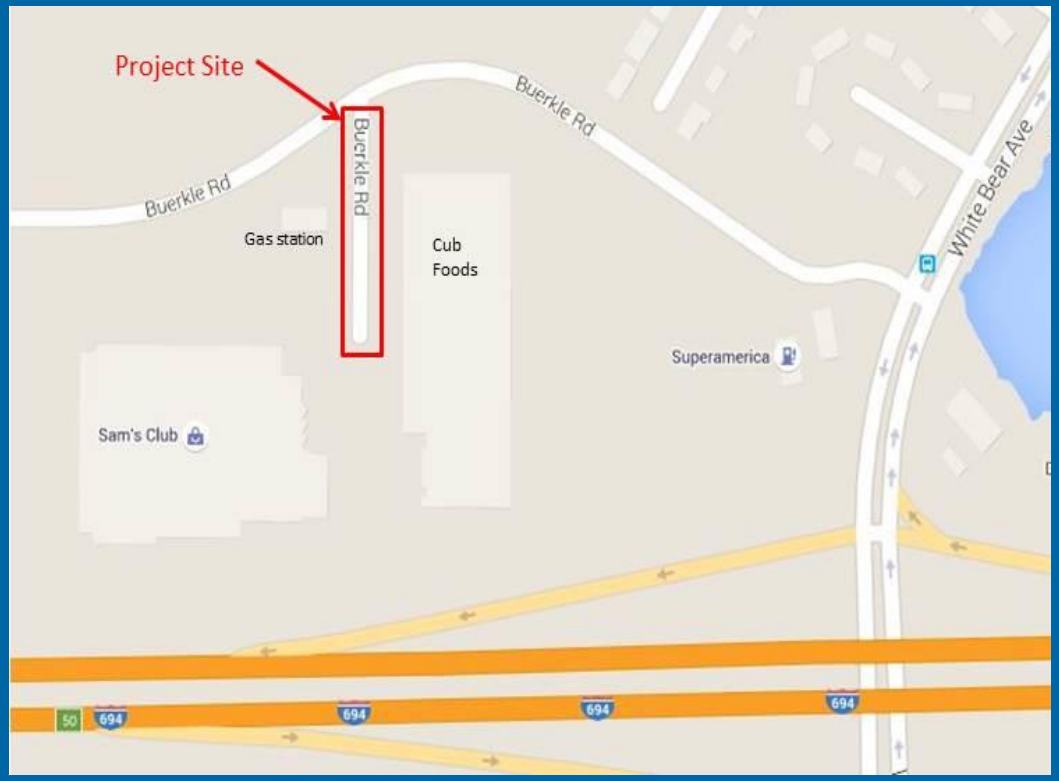
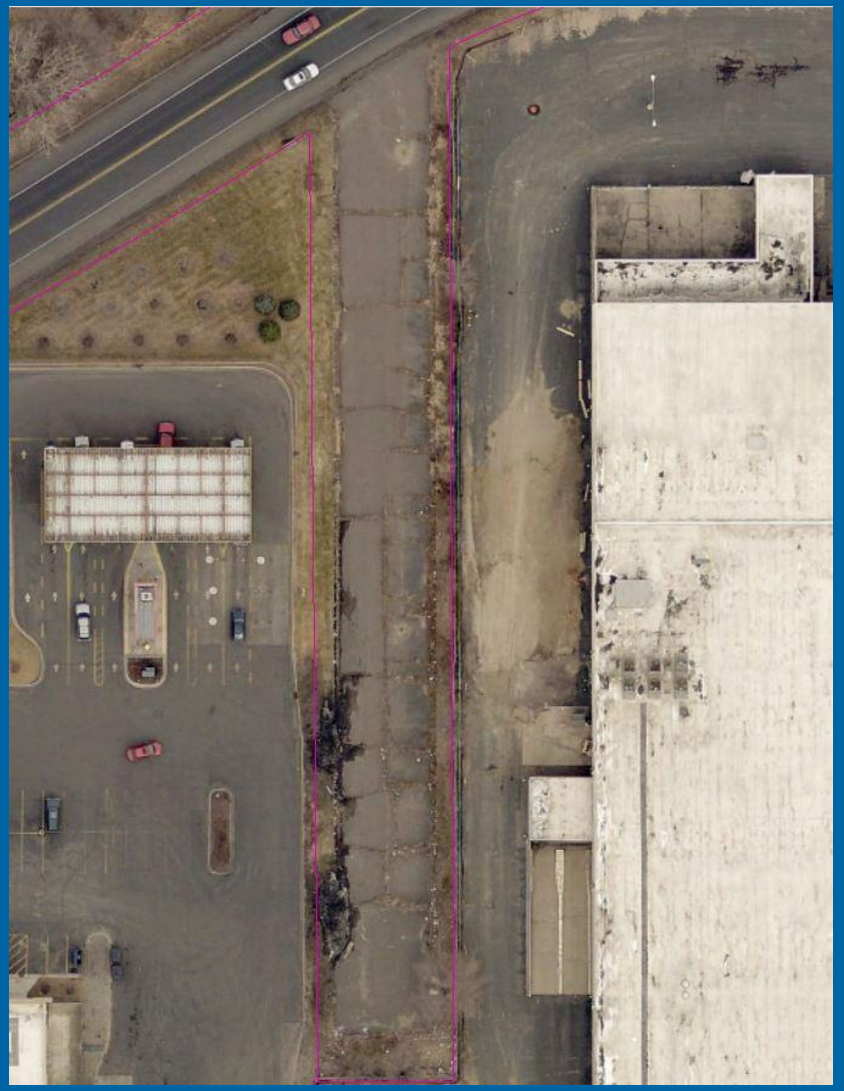
OUTLINE

Edgewater ROW Prairie Planting, WBL

Project Summary

- 0.60 acre road right-of-way
- Bituminous roadway and most of the road base was removed in 2015





2016

Goals

- Low maintenance
- Blend the site with adjacent landscaping
- Provide color throughout the growing season

- Pollinator habitat (Pollinator Friendly Resolution adopted April 12, 2016)
- Plantings that won't require fertilizer, supplemental watering
- Education

Partners

- RWMWD: cost share grant
  - Priority subwatershed area
  - MS4 benefits: TMDL and education reporting
- Minnesota Native Landscapes: contractor for initial installation and three years of maintenance

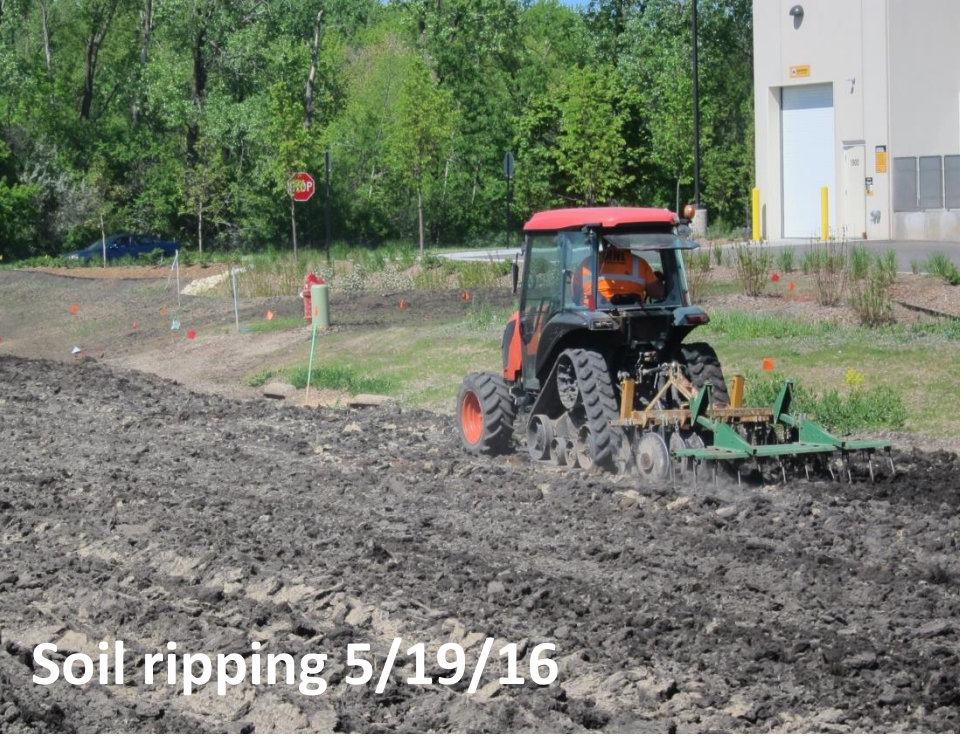
RWMWD
Ramsey-Washington Metro Watershed District

Minnesota Native Landscapes

City of White Bear Lake Minnesota Established 1881

Project takeaways

- Partnerships are key
- Maintenance is critical


Soil ripping 5/19/16


Herbicide application 6/21/16


Seeding 9/19/16


Hydromulch 9/19/16

2017

2018


NATIVE PRAIRIE PLANTING
PLEASE DO NOT SPRAY OR MOW
This area has been planted with native wildflowers and grasses, providing food and habitat for pollinators, birds and other wildlife.
RWMWD

2019

Signage

10 signs installed along the perimeter of the project

- Defines the project area
- Protects the plantings from damage due to unintentional mowing or spraying
- Educates the public

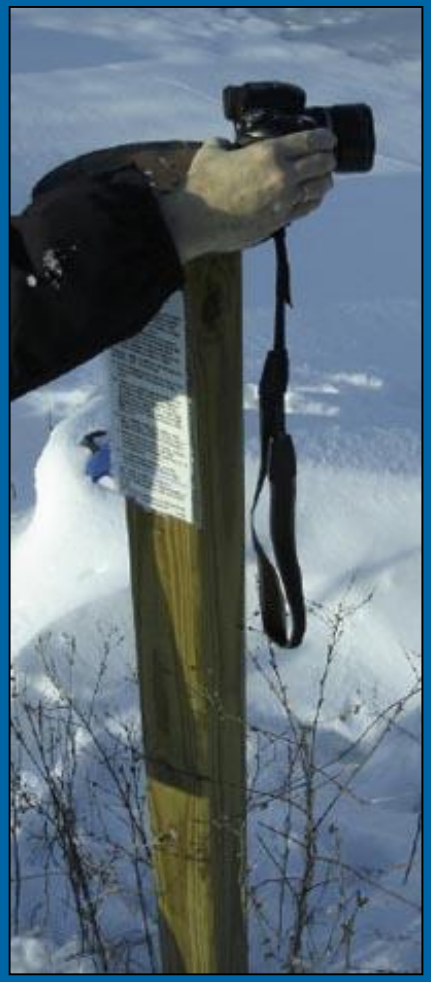
RWMWD covered the cost to print the signs

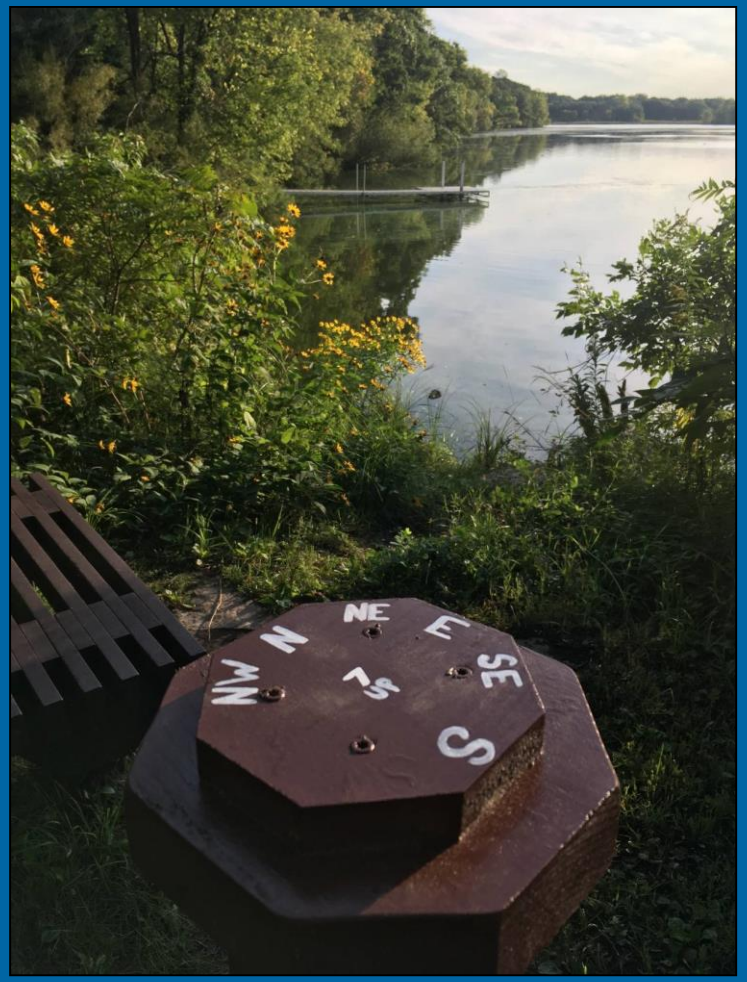
City created the signs, purchased the posts & post bases, and installed the signs

Signage

From a single sign to ongoing participation

picture post





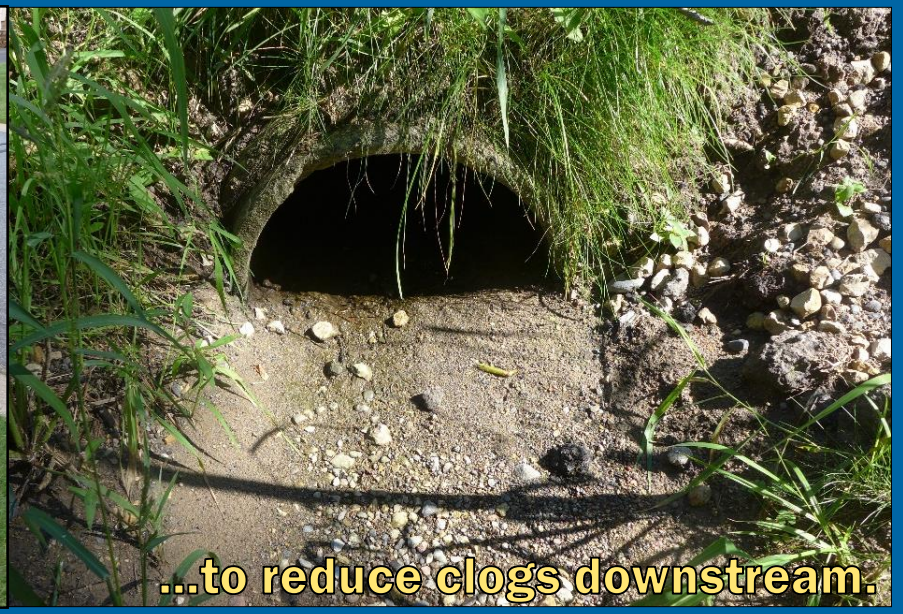

Slow down
upstream runoff ...
...to reduce stor
surges downstrean

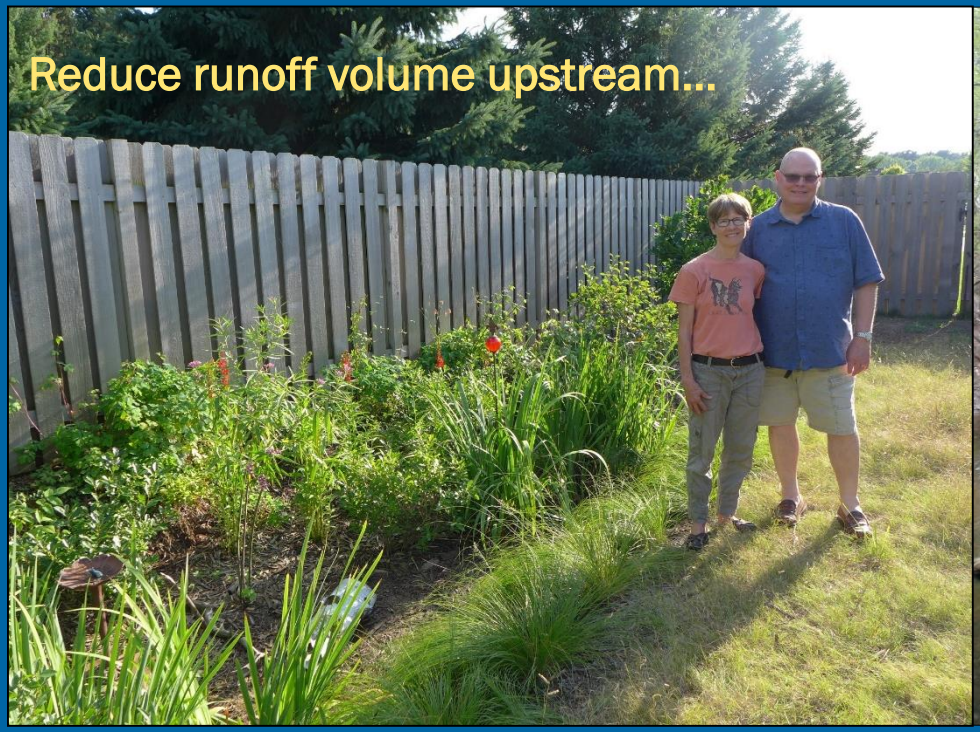
Slow down upstream runoff...

...to reduce b

surges downstrea


Catch sediment upstream...


...to reduce clogs downstream.


Reduce runoff volume upstream...


...To reduce costly damage downstream.


Reduce runoff volume upstream...


...To reduce costly damage downstream.

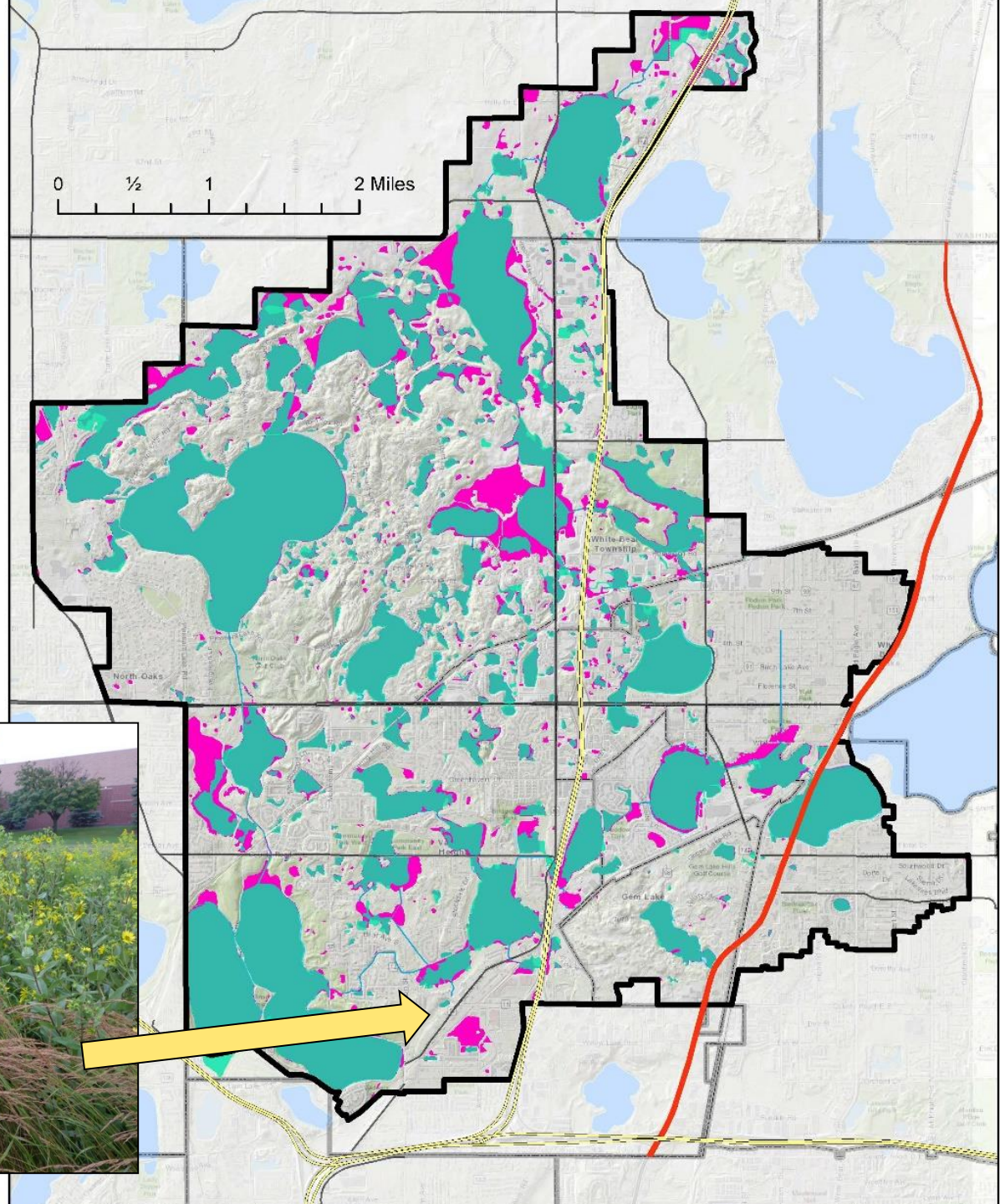
Photo: Clean Water MN, Metro Conservation Distric

Store more water upstream...

...to clean up the downstream.

Photo: Clean Water MN, Metro Conservation Distric

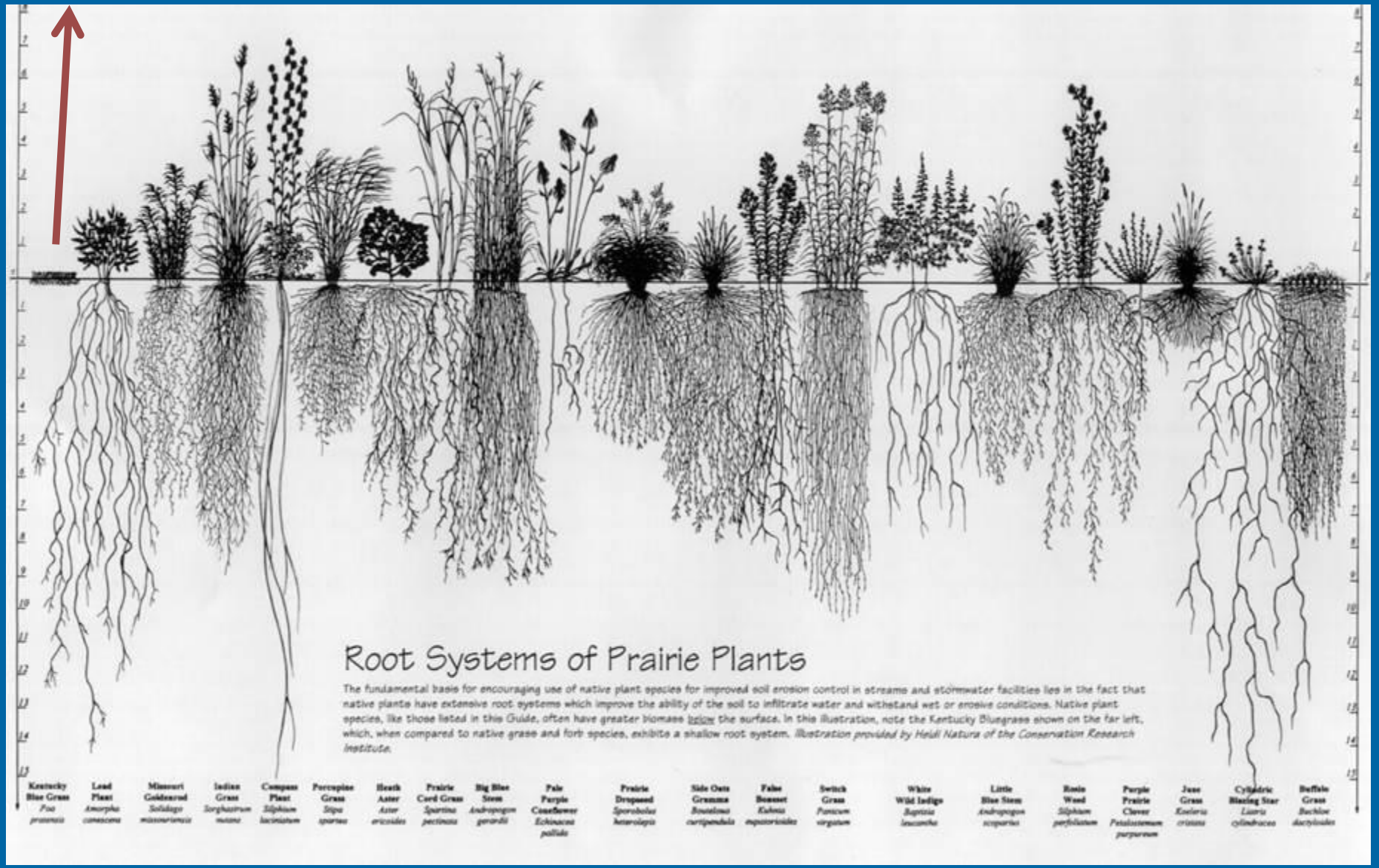
Water Storage



Water Storage: “Optimize”

Photo:
Gregg
MASW

Native plants vs. bluegrass



Signage

Segue into residential setting

MIDS Reductions:

- 1,661 gallons/yr
- .11 lbs TP/yr
- 19 lbs TSS/yr

"Water connections:
From the City to the Yard"

http://www.vlawmo.org/news/blog

Photo: City of Maplewood, MN

Curb-cut

Curb-cut

Driveway Diversion

Blaine, MN

Photo: Earth Wizards, Inc.


Conservation
Project


1 pound of phosphorus
=
500 pounds of algae
Old Town
PACK
09


Government Tab
www.VLAWMO.org/agencies
YouTube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FIND THE RIGHT RESOURCES FOR YOU

I am a...

Resident

I am a...

School

I am a...

Local Government

I am a...

Developer

Water Resources Center

The Minnesota Stormwater Seminar Series brings exemplars of advanced stormwater innovation and knowledge to Minnesota to share what they've learned and how they've pushed the boundaries in the stormwater arena.

Cost Share Information

VLAWMO's Landscape Cost Share Programs can help beautify your yard and protect water quality.

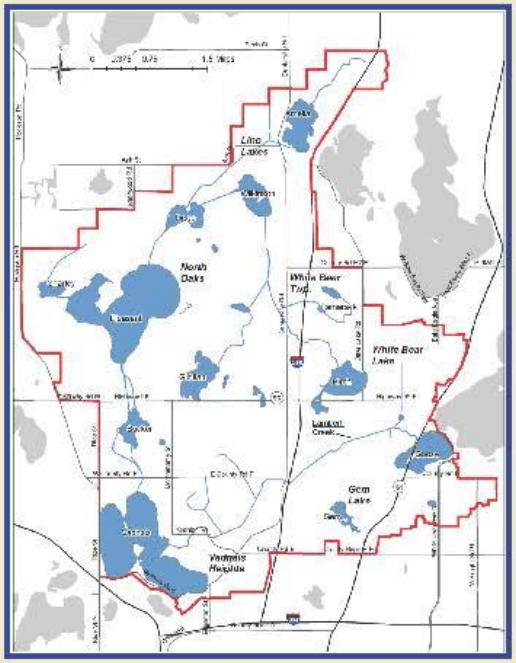
What will the cost share provide?

Most residential projects fall under Level 1 of the cost share program.

- **Level 1**: VLAWMO will reimburse 75% of the cost of materials and approved labor, up to $2,000. VLAWMO provides guidance and monitors the raingarden for 5 years following the installation.
- **Level 2:** For larger scale projects with public exposure, contact VLAWMO to assess funding options.

Additional programs include **rainbarrels, shoreline restorations, and permiable pavement** - contact VLAWMO for information.

Cost share funding is renewed each January. Applications are accepted year-round until funding is depleted.



For more information, questions, or to apply to our raingarden cost share program:

Kristine Jenson, Program Manager
(651) 204-6070
kristine.jenson@vlawmo.org

www.VLAWMO.org

EST 1983

VLAWMO

Vadnais Lake Area Water Management Organization

RAINGARDENS & STREET RENOVATIONS

A partnership between local communities, residents, & the Vadnais Lake Area Water Management Organization

READ MORE...

YOU'RE RECEIVING THIS BROCHURE because your street is scheduled for a renovation in the next 2 years. When a road is being renovated, it's also a convenient and cost-effective time to install a curb-cut raingarden - and your home is a good fit!

VLAWMO is your local watershed organization with the expertise and resources to turn this opportunity into a reality. Participation is voluntary - no previous experience necissary!

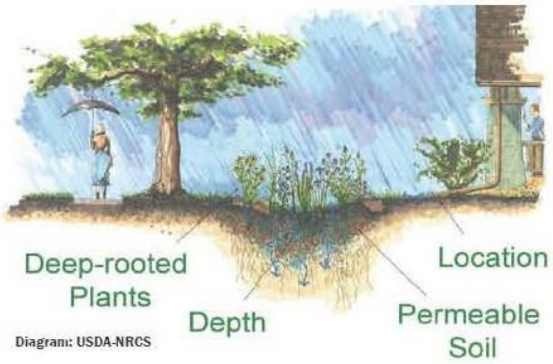


Diagram: USDA-NRCS

WHAT IS A RAINGARDEN?

A raingarden is a garden with a depression that is designed to catch rainwater runoff - also known as "green infrastructure." It's planted with native species that don't mind getting flooded on occasion. Many of the plants are also excellent for attracting birds and pollinators.

Depending on the design and site, a pre-treatment catch basin can help capture debris before it gets to the garden.

Because curb-cut raingardens pull water from the street, they're more effective than non-curb-cuts at reducing runoff and promoting water quality. Sites are selected based on soil type and street drainage. Homeowners play a vital role in water quality by maintaining the raingarden and catch-basin as a part of their yard.

HOW DOES IT WORK?

Raingardens work by soaking water into the ground that would otherwise go directly into storm drains. Different planting designs can increase or decrease garden maintenance.

Raingardens help our community by:

- Filtering debris and oil that would otherwise mix into runoff and go straight to a lake or wetland
- Easing pressure on storm systems during large rainfalls
- Replenishing groundwater
- Promoting a healthy, outdoor lifestyle

Wetlands & Yard Waste:

How responsible yard care benefits Vadnais Heights

What's the problem?

Yard waste such as leaves, grass clippings, and other brush seems natural, but causes issues when dumped into ponds and wetlands. This includes:

- **Clogged waterways** including ditches and culverts. When debris fills waterways and slowly travels downstream, it increases the risk of flooding. Not only is dumping into wetlands and waterways irresponsible to neighbors, it is illegal under state law.
- **Pollution** in the form of excessive nutrients. Phosphorus in leaves and grass clippings produces excessive algae, which harms water quality and aquatic life.
- **Sedimentation** covers wetlands in a thick layer of mud. This chokes out native vegetation and wildlife. Dense stands of cattails, reed canary grass, and phragmites take advantage of the mud and reduce the wetland's ability to take in and store water.

Wetlands and ditches in Vadnais Heights drain to East Vadnais Lake, the reservoir for the Saint Paul Regional Water Services. Responsible actions upstream help protect this drinking water resource.

What is responsible disposal?

- **Mulch** leaves into the yard or keep grass clippings on the lawn for natural fertilizer.
- **Bag** leaves and/or grass clippings and either a) bring them to a Ramsey County yard waste facility or b) contract a yard waste hauler for curbside pick-up.
- **Compost** yard waste at home. Keep compost piles in designated bins at least 40' away from ponds, shorelines, and wetlands. To help absorb nutrients, surround compost with native vegetation.

Distance requirements can vary depending on wetland size. Contact the City or VLAWMO for details on specific wetlands, storing fill, or construction material. City: (651) 204-6050 VLAWMO: (651) 204-6070

Thank you for your support!

Your leadership promotes clean water, cost savings for the City, neighborhood beautification, and groundwater recharge.

Vadnais Heights

EST 1985

VLAWMO

Vadnais Lake Area Water Management Organization

www.vlawmo.org/wca-rules

POND & WETLAND BUFFERS

A buffer is an area surrounding a wetland, pond, stream, or lake where plants are allowed to grow. When turf grass or rock surround a water body, water from storms, snowmelt, and sprinklers carry pollution and sediment into them. Buffers help replenish groundwater, and trap sediments and nutrients before they can get to the waterbody. This benefit circles back around to people in the form of clean, secure water resources and clean, efficient streets. If you live next to a water body, you're the best protector of that resource.

So what can you do? Let a buffer grow naturally, or contact VLAWMO for help designing an aesthetically pleasing buffer. Ponds and wetlands have official classifications and buffer requirements. Descriptions and buffer charts are available from VLAWMO staff, vlawmo.org/agencies, or from your local city or township.

Why keep a buffer around your pond or wetland?

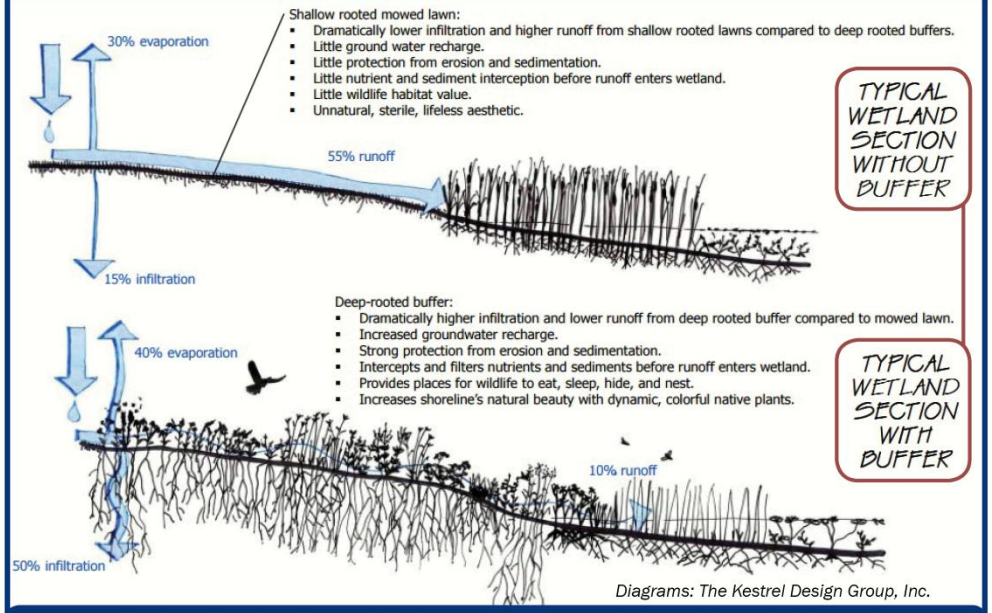
- Provide clean water by filtering and storing pollutants such as phosphorus.
- Keep streets clean and save money. Buffers keep drainage systems functioning, reducing sediment build-up and the need for dredging.
- Prevent flood damage by storing water during large rain events.
- Promote groundwater recharge instead of increasing surface runoff.
- Enhance aesthetics and property value.
- Provide places for wildlife to eat, sleep, hide, and nest.

EXAMPLE:
Wetlands have different classifications depending on vegetative diversity and health. A "manage 3" is generally a low-quality wetland with high human impact.

MANAGE 3:
average 20' width
minimum 16'

Buffers and shoreline restorations are great ways to protect water quality.

With a clear view and easy access to water, Geese can become a nuisance when no buffer exists.



Diagrams: The Kestrel Design Group, Inc.

Vadnais Lake Area Water Management Organization |(651) 204-6070 | office@VLAWMO.org
www.VLAWMO.org

Pet Waste & Water Quality

Why woof-woof waste is harmful to our lakes, streams, and wetlands.

What's the problem?

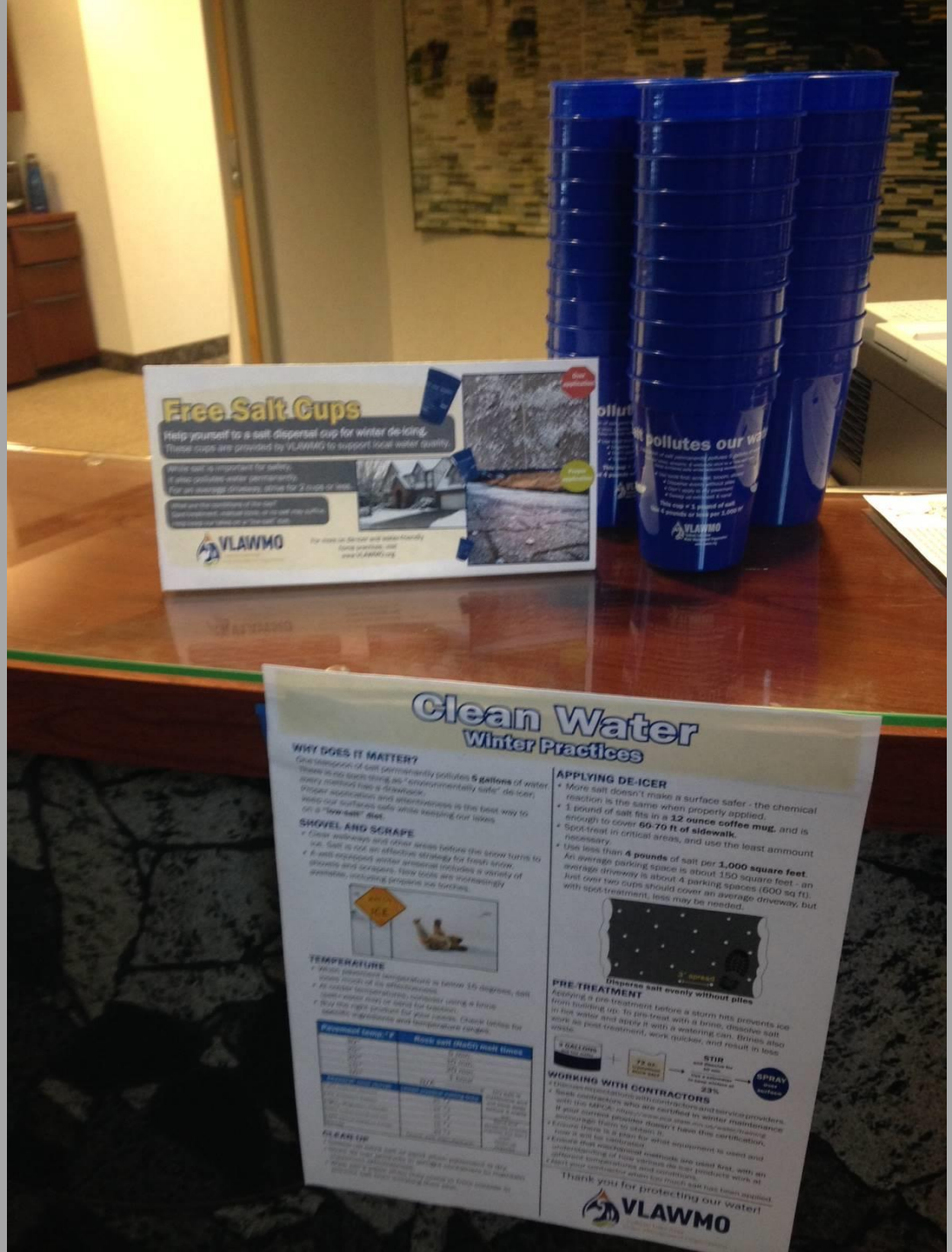
Pet waste is unlike wildlife scat. Due to immunizations, pet waste contains a bundle of hookworms, salmonella, E. coli, and more. It is an official non-point pollutant according to the Environmental Protection Agency.
This means that rain washes it off the land's surface and delivers bacteria and excess nutrients to water bodies. Canine-sourced E.coli has been detected in Lambert Creek, which drains into Vadnais Lake.

100 average-sized dogs can produce up to 27,375 lbs. of waste annually. An estimated 40% of pet waste in the US is not picked-up!*

What can you do?

- Always pick-up pet waste and dispose in trash.
- Be ready for surprise pick-up duty. Create good habits to have baggies on hand.
- Spread the word -- "It'll just break down" or "my dog is small" are not excuses.

*doodycalls.com
*petbutler.com
Photos: CleanWaterMN


Free Salt Cups
Help yourself to a salt dispersal cup for winter de-icing.
These cups are provided by VLAWMO to support local water quality.
VLAWMO
pollutes our wa
Clean Water
Winter Practices
WHY DOES IT MATTER?
SHOVEL AND SCRAPE
TEMPERATURE
CLEAR UP
APPLYING DE-ICER
PRE-TREATMENT
STIR
SPRAY
WORKING WITH CONTRACTORS
Thank you for protecting our water!
VLAWMO

Sweep up!
Rake up!
Pick up!

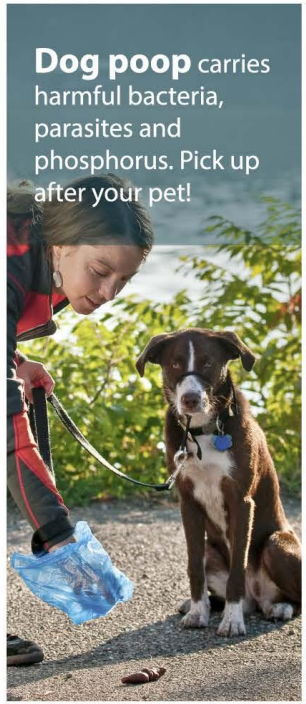
Rain and melting snow wash anything that's on streets and paved surfaces down storm drains and into lakes, rivers and wetlands.

Help keep our water clean!

MINNESOTA WATER
LET'S KEEP IT CLEAN

Salt is almost impossible to remove from waterways. Just one teaspoon pollutes five gallons of water forever. Use it sparingly. Sweep up and reuse extra. Use sand when temperatures fall below 15 degrees.

Leaves, grass and dirt contain phosphorous, which feeds the algae that turns lakes green. Keep them off streets and sidewalks.



Dog poop carries harmful bacteria, parasites and phosphorus. Pick up after your pet!

Trash clogs drains and pipes causing flooding. Put it in the garbage.

Smart Salting training

https://www.pca.state.mn.us/water/smart-salting-training

March 2020

Prev | Next

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6 Parking Lots and Sidewalks Plymouth	7
8	9	10	11	12 Smart Salting for Property Management Chanhassen	13	14
15	16	17	18	19 Smart Salting for Property Management Apple Valley	20	21
22	23	24 Roads Willmar - Full	25	26	27	28
29	30	31	1	2	3	4

Stay informed on smart salting with email updates from the program:

Email: jane.doe@example.com Next

CERTIFIED SMART SALTER


Thank you!
EST 1983
VLAWMO
Vadnais Lake Area
Water Management Organization