



Education Resources

The Nine Mile Creek Watershed District offers a wide variety of educational resources, as well as tools and materials that are available for loan. Items can be checked out on request, pending availability.

CONTENTS

DISPLAYS AND EXHIBITS

Watershed Sandbox	2
Banner-ups	3
Program Flags	4
Little Seed Library & Craft Equipment	5
Nature Backpacks	6
Games (Incredibe Journey, Watershed Game, Fishing)	7-8

TOOLS AND EQUIPMENT

Safety Vests, Work Gloves	9
Loppers/Clippers	10
Buckthorn Herbicide Daubers	10
Trash Grabbers	11
Storm Drain Marking Kits	11

PRINT MATERIALS

Brochures, Flyers, Cost Share Grants, Trail Maps	12-16
Books and Guides	17

PROMOTIONAL ITEMS

Salt Cup	18
Water Bottle	18
Tote Bag, Lunch Bag, Pens	19

To request an item, or for more information, contact:
Gael Zembal, Education and Outreach Coordinator
(952) 204-9691 | gzembal@ninemilecreek.org

DISPLAYS AND EXHIBITS

WATERSHED SANDBOX

A virtual reality tool that projects topography lines and colors onto the sand below. Users can see how water moves across a landscape that changes as they build it. Requires Nine Mile Creek staff or trained volunteer to run. Fits in most vans and trucks.

Use at indoor programs or events.



DISPLAYS AND EXHIBITS

NMCWD BANNER UP

General information about the District, with trail map. Stands about 6 feet tall. Carried in black bag.



SALT BANNER UP

Information about salt, and tips for reducing salt use. Stands about 6 feet tall. Carried in black bag.



DISPLAYS AND EXHIBITS

INDOOR PROGRAM FLAG

Draws attention to table or indoor program. Comes with empty water bag for weight. Stands about 8 feet tall--requires taller than average ceilings. Carried in 4 foot bag.



OUTDOOR PROGRAM FLAG

Staked into the ground to advertise outdoor program. Use cords to tie flag in place. Stands about 7-8 feet tall. Carried in 4 foot bag. Includes rubber mallet.



DISPLAYS AND EXHIBITS

LITTLE SEED LIBRARY

Modeled after the Little Free Libraries, participants can pick up or drop off seeds. Use as an attention grabber for tabling events, or as prizes. Only 3 jars maximum out at a time; accompanied by seed info sheet, bookmarks for each packet, stampers (if available), stickers, spoon, tape, and “Take one” pot.



CRAFT EQUIPMENT

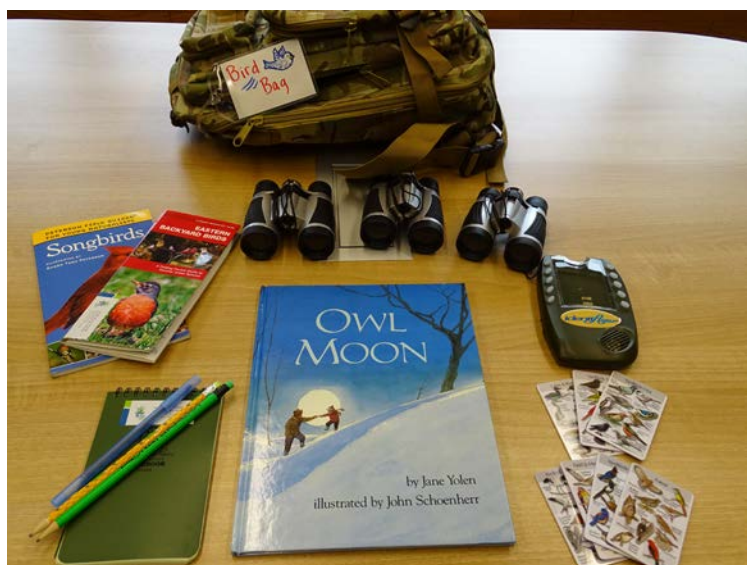
Ink pads and stampers, crayons, markers, hot glue guns with glitter glue, pipe cleaners, fake flower petals, raffia, paper lunch bags. Use as kid activities and crafts, or hand stamps. Materials and instructions included for Butterfly craft.



DISPLAYS AND EXHIBITS

NATURE BACKPACKS—BIRD BAG AND BUG BAG

Most commonly used at Discovery Point for small groups of kids and adults (~5 people per bag). Could be used on guided nature hikes, or other nature exploration. Bird bag contains 3 binoculars, identification guides, journals, and a storybook. Bug bag contains magnifiers, collection boxes of various sizes, identification guides, journals, storybook.



DISPLAYS AND EXHIBITS

THE INCREDIBLE JOURNEY--PROJECT WET GAME

Helps children understand the water cycle. Led by Nine Mile Creek staff. Takes 30-60 minutes, depending on time available. Good for groups of 10-30 children, grades 4 and up. Spanish version under development.



WATERSHED GAME--CLASSROOM VERSION

Helps students understand relationship between land uses within a watershed and water quality. Led by Nine Mile Creek staff. Takes one-two full class periods to play (40-60 minutes). Good for classrooms of 25-30, grades 9 and up. Includes some teacher and student preparation before playing.



DISPLAYS AND EXHIBITS

MAGNETIC FISHING GAME

Use for tabling events with a child focus, or events with young children attending. Game includes 4 rods and 18 fish--transported in clear bin. Accompanied by Clean Water Tips chart, so children can match color of fish with an action to protect clean water.



Clean Water Tips		
Color	Symbol	How can you help keep our water clean?
Orange		After you've jumped into your leaf piles, pick up the leaves that fell into the street too, so they don't get into the lakes.
Purple		If you have a boat, help clean off all the plants and animals after you leave the lake.
Yellow		Pick up after your dog when you go for walks.
Green		Plant a tree, or a native wildflower.
Pink		Pick up litter on the street or shoreline, and put in the recycling or garbage can.
Blue		Clear leaves and other debris out of stormdrains on your street.

TOOLS AND EQUIPMENT

SAFETY VESTS

About 50 vests. Transported in large bin.



WORK GLOVES

About 60 pairs. Mostly adult sizes. Transported in large bin.



TOOLS AND EQUIPMENT

LOPPERS/CLIPPERS

About 5 of each. Long handle loppers and hand clippers for cutting brush.



BUCKTHORN HERBICIDE DAUBERS

About 15 daubers. Bottles filled with 18% Glyphosate and blue dye. Comes with tip replacements and gloves.



TOOLS AND EQUIPMENT

STORMDRAIN MARKING KIT

Materials needed for marking stormdrains including: stickers, glue, brush, maps, doorhangers, and instructions. Accompanied by gloves and safety vests. Carried in clear caddy.



TRASH GRABBERS

6 grabbers available. About 3 feet long. Accompanied by heavy duty black garbage bags.



PRINT MATERIALS

10 THINGS TO HELP WATER QUALITY BROCHURE

Use for events throughout the year.

Minnesota is known for its abundance of water resources.

However, the quality of Minnesota's lakes, streams and wetlands is threatened by increasing development and pollution.

When it rains, the stormwater that runs off driveways, lawns, houses and parking lots can carry pollutants like oil, paint and chemicals down storm sewers and into nearby lakes, streams and rivers.

In new developments, filtering or treating stormwater runoff with projects like stormwater ponds is required.

We cannot simply build our way out of poor water quality, though. We must also take steps to reduce water pollution.

By taking the following **easy, no-cost or low-cost steps**, you can have a big impact on reducing runoff and protecting our water resources and wildlife habitat.

For more information, visit:

Hennepin County Environmental Services
www.hennepin.us/water

Basnett Creek Watershed Management Commission
www.basnettcrkwmc.org

Elm Creek Watershed Management Commission
www.elmcrkwmc.org

Shingle Creek Watershed Management Commission
www.shinglecrkwmc.org

West Mississippi Watershed Management Commission
www.westmisscrkwmc.org

Power/Sarah Creek Watershed Management Commission
www.powercrkwmc.org

Mississippi Creek Watershed District
www.misscrkwmc.org

New Mile Creek Watershed District
www.newmilecrkwmc.org

Mississippi Watershed Management Organization
www.missouri.org

Richmond Brown/Agnes Watershed Management Organization
www.rbmwmc.org

Riley/Parkway/Bell Creek Watershed Management Organization
www.rpbwmc.org

Lower Minnesota River Watershed District
www.lmrwmc.org

TEN THINGS YOU CAN DO TO IMPROVE MINNESOTA'S LAKES, RIVERS AND STREAMS

Hennepin County Environmental Services
612-348-3777
www.hennepin.us/water

PRINTED ON 100% RECYCLED PAPER WITH SOY INK

Make a difference.

1 FERTILIZE SMART
Make sure your fertilizer is phosphorus-free. Sweep up fertilizer that spills onto hard surfaces. Soak in our area already contains enough phosphorus to maintain most lawns. Excess phosphorus washes away into nearby lakes or streams where it feeds algae. Algae blooms stress fish and wildlife, and they make swimming and fishing unpleasant or impossible.

2 GRASS - DON'T BLOW IT OFF
Blow or rake grass clippings and leaves out of the street. Leave them on your lawn, use them for compost, or bag them up. Grass clippings and leaves in the street end up in the storm sewer, where they are carried to nearby lakes and streams. Clippings and leaves contain phosphorus and other nutrients that - like fertilizer - feed algae and other aquatic plants.

3 USE YOUR RUNOFF
Direct your downspouts onto your lawn or garden or into a rain barrel. Use rainwater to water your lawn and garden. It is free, naturally soft and perfect for keeping green things growing. Using rainwater reduces runoff, which carries pollutants to lakes and streams.

4 SCOOP THE POOP
Grab a bag when you grab the leash, and pick up after your pet. When pet waste is left behind, rainwater washes it into lakes and streams. Pet waste contains bacteria that can cause illness. It also contains nutrients that can cause excessive algae blooms in lakes and streams.

5 USE CHEMICALS WISELY
Use chemical products according to label directions. Consider alternative or natural remedies to control weeds and pests. Read the label before using herbicides and pesticides, and apply according to directions. Use the minimum amount needed to control the problem. If you can, consider using alternative or natural remedies, or remove the problem by hand.

Make a bigger difference.

6 KEEP A HEALTHY LAWN
Aerate your lawn, seed bare patches and mow at a higher setting. Healthy lawns are good for the environment. A healthy, vigorous lawn needs less watering, fewer chemicals and less maintenance. Aerate your lawn periodically to loosen the soil. Seed bare patches to prevent erosion and soil loss. Mow at a higher setting. Grass mowed to a height of 2 1/2 to 3 inches develops deeper, healthier roots and has a competitive advantage over weeds.

7 PLANT A RAIN GARDEN
Capture, clean and infiltrate rainwater that would otherwise run off your property. Rain gardens are planted depressions designed to slow rainwater and allow it to soak into the soil. Find out more about rain gardens at www.bluethumb.org.

8 REPLACE TURF WITH NATIVE PLANTS
Swap some of your high-maintenance lawn for low-maintenance native ground cover, plants or grasses. Many native plants develop deeper root structures than turf grass, which reduces runoff by allowing for better water infiltration. Check with your city for any landscaping restrictions. More information on designing a native garden is available at www.bluethumb.org.

9 REDUCE YOUR FOOTPRINT
Replace some pavement - such as a walk, patio or driveway - with pavers or permeable pavement. The porous surface will allow water to seep through, reducing the amount of water that runs off into the storm sewer.

10 ADOPT A STORM DRAIN
Keep neighborhood storm drains free of leaves, seeds and grass clippings. Storm drains are directly connected to the nearest body of water. Water running into storm drains can carry with it anything dumped nearby including leaves, grass clippings, soil, oil, paint and chemicals. Keeping storm drains clear will protect the water quality of nearby lakes, streams and rivers.

GREEN UP YOUR LAWN BROCHURE

Use for spring and summer events.

You are fertilizing more than your grass.

The storm drain in your street is a direct link to our lakes and rivers. The choices you make when caring for your lawn directly affect water quality.

A common cause of lake and river pollution is phosphorus runoff. In response to this, many Twin Cities communities have laws restricting phosphorus fertilizer use. Though phosphorus is important for grass growth, levels in most Twin Cities' lawns are naturally high and do not require supplementation.

Phosphorus turns lakes and rivers green. Phosphorus stimulates the growth of algae in lakes and rivers. This crowds out other water plants and reduces oxygen available to fish. The result is unattractive, foul-smelling water that is bad for fish, wildlife, and humans.

Nitrogen, not phosphorus, greens up grass. Phosphorus-free lawn fertilizer still contains nitrogen, the plant nutrient that greens up grass.

To keep our lakes and rivers healthy, we need to manage phosphorus carefully. Read on to learn how you can reduce phosphorus runoff from lawn fertilizers and other sources!

Lawn Fertilizer Ordinance Summary

The use of lawn fertilizers containing phosphorus is not permitted, except as noted below:

- The use of lawn fertilizers containing phosphorus is permitted on newly established (seed or sod) lawn areas during the first growing season.
- The use of lawn fertilizers containing phosphorus is permitted if a soil test confirms that your lawn area is below recommended levels for phosphorus established by the University of Minnesota Extension Service.

More information on lawn care and soil testing from the University of Minnesota can be found by calling the Yard & Garden line at 612-396-2130 or at www.extension.umn.edu.

This information is brought to you by:

9 MILE CREEK WATERSHED DISTRICT

MINNESOTA WATER LET'S KEEP IT CLEAN

THINK CLEAN WATER

GREEN UP YOUR LAWN NOT YOUR LAKES AND RIVERS

REMOVE LEAVES FROM THE STREET

- Rake leaves, seeds and grass clippings out of the street and gutters.
- Compost on site, bag for collection, or take to community compost program.

PREVENT EROSION

- Phosphorus attaches to soil. Keep soil from washing into the street.

FERTILIZE THE LAWN, NOT THE LAKES AND RIVERS

- Choose a zero-phosphorus fertilizer. The majority of Twin Cities' lawns are naturally high in phosphorus and will remain healthy without adding more.
- If you think your lawn needs phosphorus, test your soil first. For information visit: <http://soiltest.clemson.edu/>.
- Sweep spilled fertilizer off paved surfaces.
- Remember, compost and manure contain phosphorus too.

CLEAN UP AFTER PETS

- Scoop the poop. Pet waste contains phosphorus as well as harmful bacteria.
- Don't feed the geese.

Anything that enters a storm drain goes directly to a local lake or river.

It does not go to a waste water treatment facility.

Do you know you live on waterfront property? You do if there is a storm drain nearby! Storm drains carry runoff water directly to lakes and rivers. Whatever washes off your yard and street runs directly into these waters. That includes lawn fertilizer, grass clippings, pet waste, and tree leaves and seeds - all sources of phosphorus, the plant nutrient that turns lakes and rivers green with algae.

Keep your runoff clean! Keep our lakes and rivers clean!

KEEP THE PAVEMENT CLEAN

Sweep up grass clippings and fertilizer from driveways, sidewalks, and streets.

WINTER MAINTENANCE BROCHURES

Often accompanied by the Salt Cup. Use for fall and winter events.

How to Hire a Winter Maintenance Contractor

Salt Pollutes Our Waters



Help keep Nine Mile Creek on a low salt diet.

Protect our lakes and creeks by hiring a snow removal contractor certified by the MN Pollution Control Agency.

Doing it yourself? Always shovel, snow blow or plow first, and only apply a deicer if needed.

Hiring a Snow Removal Service



How to Hire a Contractor that Uses Less Salt

Learn more at:
www.ninemilecreek.org



Hiring a Snow Removal Service


All around the Twin Cities lakes and creeks are becoming too salty from deicers used on roads and sidewalks in the winter. In the land of 10,000 freshwater lakes, this is a problem.

You can help! Hire a contractor that has agreed to protect our waters by using less salt.

Certified contractors have:

1. Attended a Winter Parking Lot & Sidewalk workshop.
2. Passed a test.
3. Agreed to apply best practices to reduce chloride impacts.

Visit www.pca.state.mn.us/water/educational-resources for a list of certified individuals.




Questions to Ask

Not sure what questions to ask when hiring a contractor?

Try these:

- Are you certified by the MN Pollution Control Agency (MPCA) in Snow & Ice Control Best Practices?
- If you aren't certified, would you be willing to attend a Winter Parking Lot & Sidewalk Maintenance training?
- What best practices do you use to reduce the amount of salt applied?

Let them know where to go for more information! Tell them to search "MPCA Salt Education" on the internet.



How much salt do you use in a winter?

Want to do it yourself?


Follow these steps to help protect our lakes and creeks:

Shovel that snow. The more snow that you can shovel or snow blow, the less salt you need. Get out early and keep up with the storm.

Don't over apply. More salt does not mean more melting. Use less than four pounds of salt per 1,000 feet². One pound of salt is about a heaping 12-ounce coffee cup.

Temperature matters. Most salts stop working below 15° Fahrenheit (pavement temperature), so should not be applied. Instead, use a small amount of sand for traction.

Sweep up extra. Salt and sand on dry pavement is not doing any work and will be washed into the creek. Sweep up the extra and reuse it.



Choosing a Deicer

Salt Pollutes Our Waters

Help keep Nine Mile Creek on a low salt diet.

All around the Twin Cities our lakes and creeks are becoming too salty from the deicers we use on our driveways and sidewalks in the winter. In the land of 10,000 freshwater lakes, this is a problem.



Protect our water. Use deicers with care.

Always remember to shovel, snow blow or plow first, and only apply a deicer if needed.

Winter Maintenance



Choosing a Deicer

Learn more at:
www.ninemilecreek.org



Frequently Asked Questions

What is a deicer? A deicer is a product that melts snow and ice and is used to break the bond between snow/ice and the pavement.

What is rock salt? Rock salt is another name for NaCl or sodium chloride. It is a common deicer that is inexpensive, but it does not melt effectively at low temperatures.

Are any deicers environmentally-friendly? No. All deicers impact the environment.

What does practical melting temperature refer to? This is the lowest temperature that a deicer will melt snow and ice effectively.

What is the practical melting temperature of a deicer blend? It's hard to tell. Refer to the practical melting temperature chart to get an idea of the lowest temperature at which the ingredients work.

When is the best time to apply a deicer? Right after the storm and after shoveling. Let the deicer work to break the bond between the snow and pavement and then shovel again.

Should I mix salt and sand together? No. Sand only provides traction when it is on top of snow and ice. Salt will melt the sand into the snow and ice making it ineffective.

There are no labeling laws when it comes to deicers, so take everything on the bag with a grain of salt.

Choosing a Deicer

Not sure how to pick a deicer?

Read the label. Check the ingredients. Magnesium and calcium chloride work better in colder temperatures. Blends typically consist mostly of sodium chloride because it is cheap. Urea may be listed as pet or plant friendly, but is a poor melter.

Example Label:

NaCl	
MgCl ₂	
Corrosion Inhibitors	

All labels look different. Ingredients may be listed by chemical symbol (e.g. NaCl) or spelled out (e.g. Sodium Chloride).

Understand the melting temperature. The temperature listed on the bag may not be the practical melting temperature (the lowest temperature at which the product will melt snow/ice effectively). Refer to the following chart for the practical melting temperature of different deicers. For blends, you will have to make a guess based on the ingredients.

Chemical	Lowest Practical Melting Temp
Sodium Chloride (NaCl)	15° F
Magnesium Chloride (MgCl ₂)	5° F
Calcium Chloride (CaCl ₂)	-20° F
Urea (carbonyl diamide)	20° F
Blends	??

Protect our Water

Follow these simple steps to help protect the health of our waters:


Shovel that snow. The more snow that you can shovel or snow blow, the less salt you will need. Get out early and keep up with the storm.

Don't over apply. More salt does not mean more melting. Use less than four pounds of salt per 1,000 feet². One pound of salt is about a heaping twelve-ounce coffee cup.

Temperature matters. Common deicers don't melt snow and ice well when it gets very cold, so should not be applied. Instead, use a small amount of sand for traction.

Sweep up extra. Salt and sand on dry pavement is not doing any work and will be washed into the creek. Sweep up the extra and reuse it.

Direct downspouts away from sidewalks and driveways to prevent icy spots.



PRINT MATERIALS

COST SHARE GRANT FLYERS

Use for summer, fall and winter events.



Nine Mile Creek Watershed District

Cost Share Grants

Grants available for projects that:

- Improve water quality or increase capacity of watershed to store water
- Preserve, protect and restore native plant & wildlife habitat
- Protect and preserve groundwater quality & quantity

Project Ideas
Raingardens • Cisterns • Rain Barrels • Green Roofs • Pervious Pavement • Native Habitat Restoration • Shoreline Stabilization • Streambank Restoration

Eligibility
Projects must take place within District boundaries.

- Residents of the District
- Businesses and corporations
- Townhome, condo, and lake associations
- Schools, nonprofits and governmental agencies

Funds
Maximum grant award (up to 75% of a project's cost):

- Residential: \$3,000
- Townhome, Condo or Lake Association: \$10,000
- Nonprofit, Commercial or Government: \$25,000

Financial assistance is available for efforts that protect and improve water and natural resources within the Nine Mile Creek Watershed District.

Grant guidelines and downloadable applications can be found at:
www.ninemilecreek.org

Application Deadline
March 24, 2017



Nine Mile Creek Watershed District
12800 Gerard Drive
Eden Prairie, MN 55346
952-358-2276
952-835-2079 fax
www.ninemilecreek.org

Nine Mile Creek Photo by: Ryan Gottsleben

TRAIL MAPS

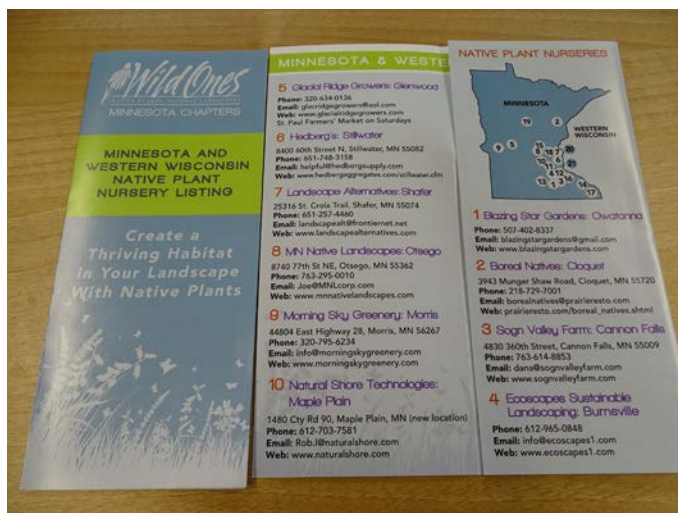
Use for outreach events.



Other brochures not pictured:
Estimated Cost of Best Management Practices List
Accepted Plant Cultivar List
Restoration Service Providers list

WILD ONES PLANT FLYERS

Use in events throughout the year. Good supplement for Cost Share Flyers.

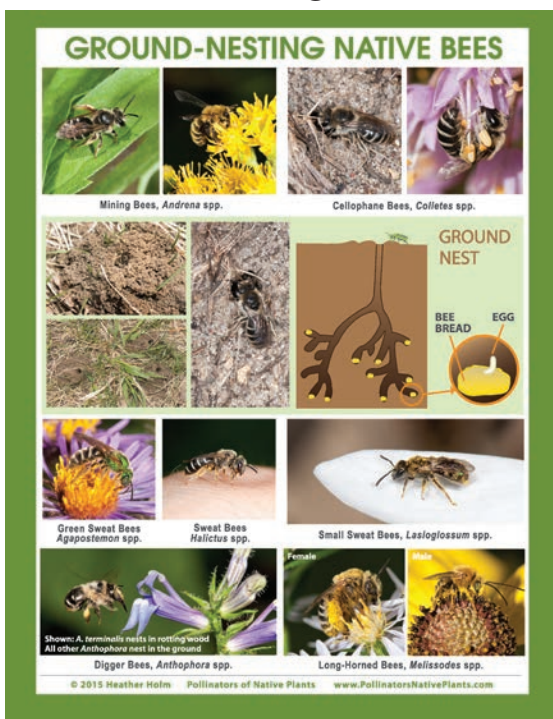


Native Plant Nursery Listing

HEATHER HOLM POLLINATOR FLYERS

Use for winter, spring, and summer events. Good supplement for Cost Share flyers. Other flyers available at www.pollinatorsnativeplants.com.

Ground-nesting native bees



Native Perennials for Pollinators chart

[illegible]

PRINT MATERIALS (other flyers & brochures available upon request)

CLEAN UP YOUR STORMDRAIN BOOKMARK

Use for spring, summer, and fall events.



SEASONAL PROGRAM FLYERS



Edible Hike

Sat, May 20 | 4-5 PM

Eden Prairie @ Discovery Point

Discovering Dragonflies

Wed, June 21 | 1-3 PM

Minnetonka @ Lone Lake Park



Let's Go Fishing!

Sat, July 8 | 10 AM-12 PM

Eden Prairie @ Bryant Lake



Pollinator Field Day

Wed, July 12 | 4-6 PM

Minnetonka @ Lone Lake Park

Buckthorn Removal Workshop

Thu, August 17 | 6:30-8 PM

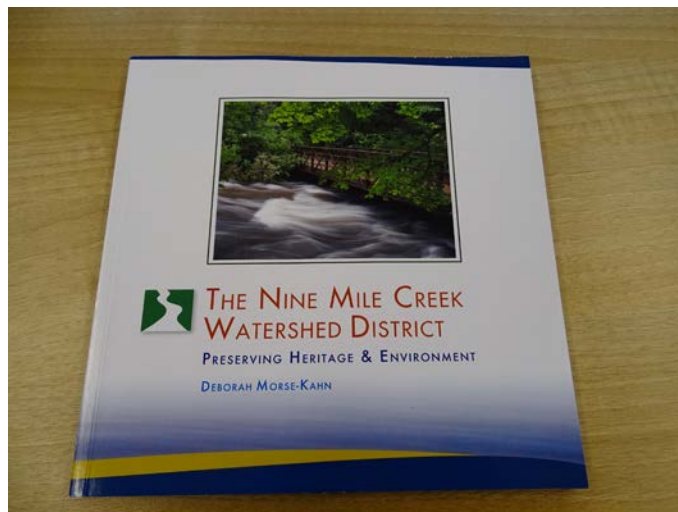
Eden Prairie @ Discovery Point

Register for all events at: www.ninemilecreek.org

PRINT MATERIALS

NINE MILE CREEK WATERSHED DISTRICT HISTORY BOOK

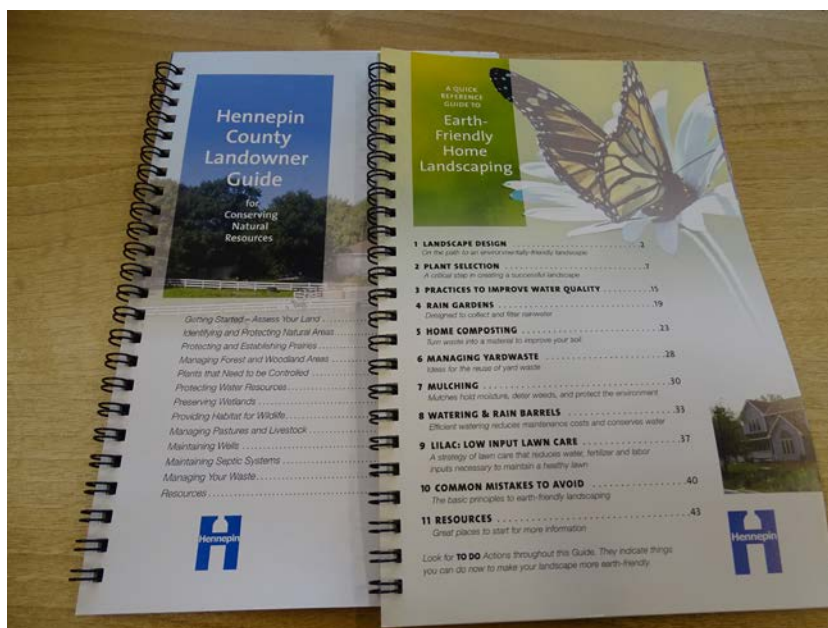
Written for District's 50th anniversary in 2007, the book details the history of the watershed. Historical photos, maps, and descriptions of the various groups who lived in the area. Use as door prize, in tabling events, and as giveaways.



HENNEPIN COUNTY GUIDES

Use as giveaways, or at tabling events.

Landowner Guide and Earth-Friendly Home Landscaping



PROMOTIONAL ITEMS

SALT CUP

Use with Winter Maintenance handouts, or solo. One of these cups full of salt is one pound. 2-4 of these cups is enough for 1,000 sq ft of iced area.



WATER BOTTLES

Use as incentive to sign up for e-newsletter. Discuss strategy for use with staff.



PROMOTIONAL ITEMS

TOTE BAG



PENS



Use for tabling events. Discuss strategy for use with staff.

LUNCH BAG

Use as incentive or door prize. Discuss strategy for use with staff.

