

From Shore to Shore

A publication of the University of Minnesota
Shoreland Education Team

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Learning About: The Extension Master Gardener Program

The Extension Master Gardener program is an internationally recognized volunteer program. It exists in all 50 states, in Canada and in the United Kingdom. Nationally, there are nearly 100,000 Master Gardener volunteers from all walks of life. They reach about 5 million people each year – the equivalent of more than \$100 million in value to communities. In Minnesota, the Master Gardener program is coordinated by University of Minnesota Extension and has strong ties to the research and outreach of the Department of Horticultural Science.

The mission of the University of Minnesota Extension Master Gardener Program is to support Extension by providing volunteers trained in horticulture to educate the public with research based information on the best practices in consumer horticulture and environmental stewardship. The activities of the University of Minnesota Extension Master Gardener volunteers focus on food access, the environment, youth education and diagnosing horticulture-related problems. Volunteers' activities benefit schools, community gardens, youth programs, environmental education programs, farmers' markets, and much more.

Master Gardeners complete 48 hours of education in core subjects taught by University Extension faculty. They are required to volunteer 50 hours the first year as interns and 25 hours annually thereafter as certified active Master Gardeners. Active volunteers are also asked to participate in continuing education of 5-12 hours per year, depending on the county in which they volunteer.

Some activities of Master Gardeners include:

- teaching classes and workshops on topics



- related to horticulture and the environment
- answering the public's inquiries related to home horticulture
 - hosting public education events such as horticulture days
 - teaching and demonstrating horticulture techniques in community and school gardens
 - teaching and demonstrating environmental techniques for rain gardens and shoreline restoration for homeowners

If you'd like to give back to your community through projects like these, contact your local Extension office (www1.extension.umn.edu/master-gardener/contact/county/) or visit the Master Gardener state website (www1.extension.umn.edu/master-gardener/contact/) for an application and class information. ■



For the most current listing of Shoreland Education workshops, visit www.extension.umn.edu/shoreland.

Winter Salt Management for Parking Lots and Sidewalks

Date: Sept. 14 (Brainerd);
Sept. 21 (Fergus Falls and Rochester);
Oct. 13 (Savage)

Locations: Brainerd (Sept. 14th), Fergus Falls (Sept. 21st), or Savage (Oct. 13th)

More Info: Theresa Sowards, 651-480-7715, sowar006@umn.edu

Turfgrass Maintenance

Date: September 28 (Rochester);
September 29 (Fergus Falls)

More Info: Theresa Sowards,
651-480-7715, sowar006@umn.edu

Water Resources Conference

Date: October 18-19

Location: St. Paul

More Info: <http://wrc.umn.edu/waterconf/>; 612-624-3708,
cceconf5@umn.edu

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Water and Land Use Impact Education to Local Elected and Appointed Leaders – One Community at a Time

John Bilotta, Extension Educator, Water Resource Management, 651-480-7708, bilot002@umn.edu

- Observing, studying, and discussing the application of vegetation management ordinances to support clean water in their local cities
- Better understanding the status of water quality of lakes, rivers, and streams in their community
- Increasing knowledge about what stormwater practices could be implemented to prevent or minimize water pollution
- Identifying funding and collaborative partnerships that are available and possible ...

These are real outcomes local leaders have reported after participating in NEMO education programs. The Minnesota Northland NEMO (*Nonpoint Education for Municipal Officials*) Program provides education and training to local elected and appointed officials that support informed decision making on water resource protection and restoration in communities. NEMO focuses its efforts to the unique niche of local leaders who make decisions and recommendations in their community on land use and land management that ultimately impact lakes, streams, rivers, wetlands, and groundwater.

On the water

NEMO workshops on water have proven to be an effective method to enhance the educational experience for local leaders. In waterborne workshops, participants get first-hand observation, study, and knowledge of the science of water quality measurement and the status of water in their community. Participants typically discuss how shoreline and adjacent land use practices can support a healthy water resource or harm it. In a recent evaluation of NEMO participants, 89% indicated that being on the water greatly enhanced their learning experience and



89% also said that was a very important factor in participating.

Across the land

In explorations of the landscape using buses, local leaders walk and talk about specific practices and projects that have been implemented throughout the community to expand their understanding of the positive impacts they can have toward clean water goals. Workshops also provide an opportunity to visit problematic sites and build an increased knowledge base before exercising their role in decisions or recommendations towards mitigation. *"I thought I knew a lot before today, this workshop really improved my knowledge. I will keep plugging away and look at my own impact. I will put more thought as various requests come before my commission,"* said a recent leader in a NEMO land-based workshop.

Supporting the 3-legged stool

NEMO programs support a community's vision to protect clean water resources and restore impaired lakes and rivers. In our striving for that goal, education is combined with assistance (technical and financial) and with regulation (ordinances and standards) to complete the approach. NEMO programs play an important role in education.

Partnerships make the difference

NEMO efforts are primarily led by the

U of MN Extension and the Minnesota Sea Grant Program with invaluable partnerships with state agencies including the Department of Natural Resources and the Minnesota Pollution Control Agency. Local Soil and Water Conservation Districts, watershed districts, and water management organizations are also critical program team members providing resources, content, example sites, and financial resources. See more about the partnership under the "Who We Are" tab of the website.

NEMO and MIDS

The new Minnesota Stormwater Minimal Impact Design Standards (MIDS) Project is now underway. NEMO will provide a role in educating leaders about new stormwater management performance goals, the use and credits for best management practices in their community, and model ordinances to support clean water goals.

NEMO programs and workshops are constantly added to the calendar. For more information about upcoming or past workshop themes and locations, visit www.northlandnemo.org. ■



Shoreland Demonstration Protects A Well-used Public Property on Fish Hook River in Park Rapids

Kirky Otto, Hubbard County Master Gardener, kirky.otto@gmail.com

The Idea

The “old power house” at the Fish Hook River dam in Park Rapids is a sturdy block building that has stood there more-or-less forever. It’s used as a minnow hatchery each spring. The area is a favorite local fishing spot. The Minnesota Department of Natural Resources (DNR) leases the surrounding land from the city, and has built a fishing pier there. The pier and shoreline are shoulder-to-shoulder with fishing fans at midnight on fishing opener; on ordinary summer days, one can usually see anglers of all ages on the pier, and shore. The south side of the building has for years been a mat of weeds and exotic invasive plants. It begged to be landscaped.

Preparation

A Hubbard County Master Gardener who occasionally enjoyed lunch beside the water approached DNR Area Fisheries Supervisor Doug Kingsley about clearing the site and planting native forbs and grasses. Kingsley readily agreed, and a plan was drawn. The next step was getting approval from the city’s Park Board, then the City Council. Several Master Gardeners offered to work on the project, so “all” that was left to find was a grant to pay for plants and materials. Then it happened; ConAgra Foods offered the city a



Fish Hook River project after installation.

grant for environmental improvements. City administrator Bill Smith sent the Master Gardener plan and several competing project plans to the food processing corporation. Happily, the shoreline project was selected for the grant.

That put the plan into action. Master Gardeners cut weeds, applied nitrogen, layers of wet newspaper and mulch. Local greenhouses supplied the plants needed. DNR Shoreland Habitat Specialist Lindy Ekola identified reed canary grass and other invasives, and advised on grass-to-forb ratios. Park Rapids provided a certified applicator to treat the area with Rodeo, an herbicide that can be used near water.

Installation

Hubbard County Master Gardeners offered an education and planting day at the site, outlining the project, teaching attendees how to identify exotic plants, demonstrating removal methods for buckthorn, and teaching how to properly

install plants. It was a challenge to plant into the rocky soil, and not to step on new plants or another gardener in the small area. Another class was offered when permeable pavers were installed to provide access to prime fishing spots.

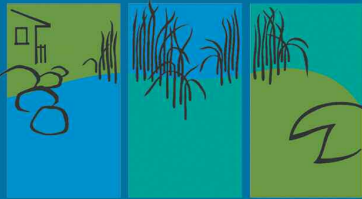
Problems

Difficulties with the project have been foreseeable, if frustrating. There has been some vandalism. Rocks wound up in the river. Drainage issues required repair to the paver path. A few plants did not survive the winter. However, for the most part, the project, which also included an American Linden to shade a picnic bench and native plants around the DNR sign, has been satisfying and patrons appreciate it. Master Gardeners will keep the plantings weeded until they are well-established, and find it a joy to work by the rushing water on a warm summer day. ■



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A publication of the Shoreland Education Team, dedicated to educating Minnesota citizens about shoreland management to improve water quality, habitat, and aesthetics of our lakes and rivers.

From Shore to Shore is available in hard copy and electronic formats. Archived issues are available online at www.shorelandmanagement.org

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Fergus Falls Rain Garden Filters Filth Out of Storm Water

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Many Minnesota towns and cities are blessed to have had thoughtful planners along the way who preserved areas as "open space" within the urban boundaries – chunks of land that have not been built on, paved over, divided into small lots, farmed, or otherwise developed. These open spaces are often publicly owned, such as parks. In addition to these, there are large areas that are mowed as road right-of-ways, ditches, and unused lawn areas adjacent to businesses. Is there a better way to manage these lands? One option is to convert suitable areas to rain gardens.

When it rains in urban areas, water runs off of hard surfaces like roads and rooftops, and as it does, it picks up litter and pollutants. Rain gardens act as filters, removing litter such as cigarette butts, plastic bottles, and fast food trash as well as pollutants such as motor oil, phosphorus, and road salt. To be effective, rain gardens should be carefully planned and designed so that they intercept stormwater runoff and allow it to soak into the ground in less than a day or two.

In 2009, the Fergus Falls Chapter of Wild Ones, the City of Fergus Falls, and University of Minnesota Extension collaborated on a large rain garden project with funding from East Otter Tail Soil and Water Conservation District. Situated in Grotto Park, the 2500 ft² basin was designed to capture storm water from a culvert that drains the rooftop of a large commercial building and its parking lot plus a few residential lots and adjacent roadways. Before the rain gar-

den was built, the storm water ran directly to the Otter Tail River, carrying the litter and pollutants with it. Currently, only a portion of the culvert's water is running through the rain garden – the rest still goes to the river – but once the plants in the garden get well established, it is likely that the garden will allow all of the water to infiltrate the soil.

Native plants - about 2500 individuals in all - were planted on the bottom and sloped sides of the rain garden, including flowers, grasses, and sedges. Most were about 4-inches tall when planted. While some plant species did not survive due to excessive rain in the first two years, many thrived. This year, about 250 additional plants were added to replace those that died. The result of this project is a beautiful garden that cleans up the water. As a bonus, it's an area that the park's staff no longer needs to mow!

Consider looking around your own community to see if there are areas that might be right for a rain garden. Check with your local Master Gardeners, watershed district, and Soil and Water Conservation District staff to see if there is technical, physical, or financial help available.

For more information on creating rain gardens, see the publication *Rain Gardens: A How to Manual for Homeowners* at www.dnr.state.wi.us/org/water/wm/dsfm/shore/documents/rgmanual.pdf or read *The Blue Thumb Guide to Raingardens*. ■