

# From Shore to Shore

A publication of the University of Minnesota  
Shoreland Education Team



Itasca County  
Shoreland  
Property Owners  
Surveyed ②



Creating a  
Framework for  
Sustainable Water  
Resources ③



Rain Gardens  
Work Through  
Winter ④

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## Kids Win at Mills Fleet Farm

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Kids were the winners during Kids' Fishing Day on July 11 at Mills Fleet Farm stores. For the first time, festivities featured Stop Aquatic Hitchhikers!™ in addition to other activities that excited kids about fishing. As kids passed through stations, they had fun learning basic fishing skills, casting tips, about fishing line and knot tying, fish identification, proper life vest fitting, and last but not least, about aquatic invasive species (AIS).

Youth and family members were taught about the threats that aquatic hitchhikers pose to our waters and how to take actions at water accesses to prevent the spread. Participants really liked the jars of "pickled" specimens used for show-and-tell. Representatives from dozens of organizations including Minnesota Sea Grant and state DNRs co-hosted booths at stores across Minnesota, Wisconsin and Iowa. In Minnesota, Wildlife Forever, Pelican

Lake Association of St. Anna, Pequot Lakes Property Owners Association, Douglas County Lake Association, Sauk River Watershed District, and others were on-hand to answer questions about AIS. Watercraft inspectors showed anglers what to do: inspect, remove, drain, dispose (of leftover bait in the trash), wash/rinse or dry.

"Thanks for the effort that you and your crews put in for Kids' Fishing Day at Mills," said Bob Page of Mills Fleet Farm. "Several stores received great comments about the work you and your crew did!" By partnering with Fleet Farm, the Stop Aquatic Hitchhikers!™ campaign was extended to an estimated 7,500 young and older anglers – people that probably wouldn't have been reached without the partnership.

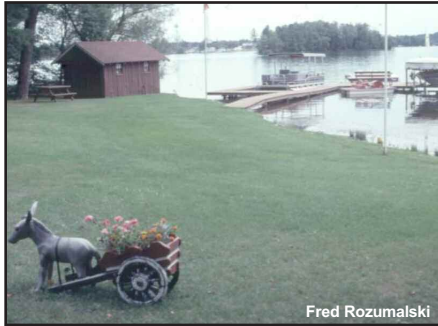
Look for Stop Aquatic Hitchhikers!™ next year at Mills Fleet Farm Kids' Fishing Day! ■



# Itasca County Shoreland Property Owners Surveyed

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## Which of these three shorelines do you prefer?



a) Lawn



b) Replanted shore



c) Natural shore

This is one of several survey questions asked of Itasca County shoreland property owners on five “target” lakes. This survey is the first step in developing new, creative, and effective ways to promote natural shoreland buffers around lakes – a challenge taken on by Itasca County, its research partners, and collaborators\*.

### Why conduct a survey?

Surveying is one of many tools used to better understand a target audience. In this case, project partners wanted to understand the knowledge, attitudes, and practices of property owners regarding their shoreland. Surveying an audience is key to developing a successful program, but it is often neglected in favor of making assumptions – often with negative consequences. For example, a sales pitch often used to promote shoreland buffers in Minnesota and other states is: Buffers will reduce your lawn maintenance. However, a New Hampshire survey revealed that many shoreland owners liked being outside doing lawn and garden maintenance so this sales pitch turned out to be a disincentive to installing a buffer (Jeff Schloss, UNHCE; personal communication).

### What did Itasca County learn from the responses to this survey?

Plenty! Below are a few of the highlights:

- Property owners preferred natural shoreline (70%), followed by replanted (20%), lawn (5%), and 5% other shorelines.
- 82% of property owners maintain their own lawn, and 48% of these owners enjoy lawn maintenance.
- Greater than 80% of property owners liked the general appearance, view, privacy, lake access and maintenance of the natural shoreline.
- Lake associations are effective in recruiting and communicating with shoreland property owners. Most shoreland property owners (88%) are members of their lake association and 90% read their lake association newsletter.
- Shoreland property owners are most likely to seek lake information from their lake association (73%), followed by MN DNR (64%), county sources (64% combined county and SWCD), and their neighbor (63%).
- Approximately 2/3 of the shoreland property owners are seasonal. These seasonal residents are more likely than year-round residents to prefer a natural shoreline and participate in a natural buffer program.

*Note: The above results are based upon 109 door-to-door and 103 mail-in responses of 331 total shoreland prop-*

*erty owners surveyed on five lakes in Itasca County, Minnesota.*

### Next steps

The results of this survey are being used to design marketing and incentive strategies, educational tools and experiences, training for technical and labor support of buffer installations, and citizen research protocols to measure the effectiveness of shoreland buffers. These will be “rolled out” in 2010. Stay Tuned...

Look for updates on the Itasca County buffer program and a similar program in Otter Tail County in this newsletter. These are pilot programs that may be useful to other lakes counties and states in our region.

*\*University of MN, MN Department of Natural Resources, Itasca Soil and Water Conservation District, Itasca County Environmental Services, Itasca Water Legacy Partnership, Action Media, Itasca Community College, Itasca Coalition of Lake Associations, and Itasca Water Plan Implementation Committee. Funding for this project was provided by the Minnesota Environmental and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources (LCCMR). ■*

# Creating a Framework for Sustainable Water Resources

Barb Liukkonen, U of MN Water Resources Center, 612-625-9256, liukk001@umn.edu

Last November, 1.6 million Minnesotans voted to approve the Clean Water, Land, and Legacy Amendment, which is expected to generate nearly \$400 million over the next two years. The funds will be raised through an increased sales tax of 3/8 of 1%. That correlates to paying less than a half cent more on every taxable dollar. Think of the monies that will become available to help protect and improve water, enhance habitat, increase access, and support our heritage and culture!

In the next two years, forecasters estimate that about \$150 million will be available to protect and improve Minnesota's waters - both ground and surface waters. In addition, about \$88 million will be invested to enhance outdoor habitat and another \$150 million to support parks, trails, and the arts. The sales tax began in July 2009, so funds are now accumulating to be spent on Minnesota's precious resources.

The U of MN Water Resources Center received an allocation of \$750,000 from the state legislature to develop a 25-year framework for the state, protecting, conserving, and enhancing the quality and quantity of surface and ground waters. That framework will contain an implementation schedule and associated benchmarks for policy, research, monitoring, and evaluation to achieve sustainable ground and surface water use.

Here's where YOU come in. We want to hear your insights, comments, and priorities as the framework is developed. There will be technical panels of experts and researchers on agricultural and industrial, recreational, and domestic uses, as well as economic and policy teams, and folks concerned about ecosystem services. Leadership will be provided by a Headwaters Council, and



there will be a Citizen Stakeholder Advisory Committee.

There will be many opportunities for input during the next 6-8 months. One of the best ways to share your opinions is through our online survey. You can find it at [www.wrc.umn.edu](http://www.wrc.umn.edu). There will be clear links from that front page to the survey. If you do not have online access, you can contact Barb Liukkonen at 612-625-9256 to get a paper copy. The survey is short, about 10 questions, and you will be able to add your two cents, even if there is not a question about your favorite issue.

Hearing from Minnesotans - about your priorities, your values, and your concerns - will be critical to ensuring

that the framework reflects the perspectives of people from across the state and not just technical, agency, or legislative interests in St. Paul. Please help us build a framework that represents what is important to you in protecting and improving Minnesota's waters. Pass the Web address to friends! Print it in your lake association newsletters. Encourage others to take the survey so we get a broad response. Thanks!

A short survey completed by 500 people at the State Fair in August indicated that they felt the most important use of water in Minnesota is for drinking, followed by use for ecosystem services (habitat, water flowage, wildlife). They felt the most serious challenge facing Minnesota's water is from non-native invasive species, followed closely by chemical pollutants (endocrine disruptors, petroleum products, pesticides, etc.). These questions - and more - are on the online survey. Be sure to take the survey and let us know if you concur with those Fairgoers.

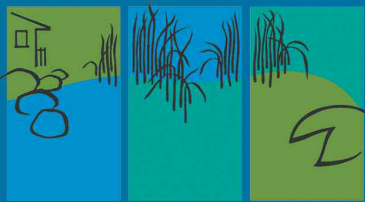
SURVEY AT [www.wrc.umn.edu](http://www.wrc.umn.edu). ■

## Sustainable Water Use

The new bill contains language that defines sustainable water use as ... "water use is sustainable when current use does not harm ecosystems, degrade water quality, or compromise the ability of future generations to meet their own needs." Let us know if YOUR definition of sustainable water resources is similar...or very different.

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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.*

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## Rain Gardens Work Through Winter

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During 2008, the Washington Conservation District, local watershed organizations and the county created more than 50 new rain gardens in Washington County. Big Marine Park alone is home to a dozen new rain gardens, strategically spread throughout the park to capture dirty stormwater from rain and melting snow, and soak it into the ground before it reaches the lake. Other rain gardens, in sizes large and small, can be found at homes, parks, municipal buildings and churches throughout the East Metro area.

In the summer, these gardens bloom vibrantly, attracting birds, bees and other pollinators. Even in the fall, many of the gardens retain their color, as late blooming asters turn purple and prairie grasses burn red and orange. What happens in January, though, when these rain gardens lie two feet under the snow?

Most Washington County rain gardens feature plants native to Minnesota, which are well adapted to seasonal changes. Some people use cultivated varieties of Minnesota natives in their rain gardens, and these plants usually survive the winter as well. During the winter, the plants may appear brown and dead, but the underground root systems are still alive, feeding off stored energy from the growing season. Above ground, the seed heads and stalks provide food and shelter for birds and hibernating insects. Minnesota plants can remain dormant for months during the winter, but when spring arrives, the roots begin to grow and the new year's leaves and flowers are usually more robust than the year before.

New research shows that most rain gardens continue to absorb water even in the winter. A joint project conducted by the Washington Conservation District, Dakota Soil and Water Conservation District, Ramsey Washington Metro Watershed District, and Emmons and Olivier Resources, Inc. tracked four rain gardens over the course of three winters. Field staff used monitoring equipment to measure infiltration rates in the gardens throughout each winter and simulated large snowmelts by periodically flooding the gardens with 200 to 6,000 gallons of water.



*This fairly new rain garden at The Lodge in Detroit Lakes provides habitat and food for wildlife in winter, plus improving lake water quality by capturing and infiltrating snow melt. Photo credit: Karen Terry.*

The study found that three of the four rain gardens allowed water to infiltrate into the ground 85% of the time. The fourth rain garden, which rarely functioned properly during the winter, also performed poorly during the summer due to faulty design and construction. Of the three functional rain gardens, water tended to stop infiltrating through the ground when air temperatures were well below freezing for extended periods of time. All were flooded beyond capacity for brief periods during the spring when large quantities of snow melted.

We don't often think about water quality during the winter, when lakes are frozen under layers of ice, but snow comprises almost 20% of the annual precipitation in Minnesota. During warm or rainy winter days snow melts rapidly. Streets are often at their dirtiest in the winter, and melting snow can quickly carry salt, dirt and litter from our streets to our streams. The more water that soaks into rain gardens and native habitat, the less that runs off into our favorite lakes and rivers.

During the winter months, we can dream about the gardens and trees we'll plant when spring arrives. Meanwhile, rest assured that 50 new rain gardens are hard at work in Washington County this winter helping to promote great water quality in area lakes. ■