

# From Shore to Shore

A publication of the University of Minnesota Extension  
Water Resources Team

Winter 2014

Issue #115

[www.shorelandmanagement.org](http://www.shorelandmanagement.org)

## The State of Water Conference – Designed to Fit Your Needs

When it comes to protecting and improving our lakes, rivers and wetlands, citizens play a big role. Hundreds of volunteers make a difference for Minnesota's natural resources. They are the citizen scientists surveying the state's loon population; they are water monitors; they are active in lake associations and serve on citizen advisory committees. They could be you. An upcoming conference – The State of Water: Minnesotans Protecting our Lakes and Rivers – will provide opportunities for citizens to sharpen their skills, learn about work being done around the state, and network with others.

The conference, which will be held May 1-2 at Cragun's Resort near Brainerd, will offer four workshops and at least three plenary speakers: Darby Nelson (aquatic ecologist and author of *For Love of Lakes*), John Linc Stine (Commissioner of the MN Pollution Control Agency), and John Jaschke (Executive Director of the MN Board of Water and Soil Resources). Attendees will also be able to choose from over 30 presentations in five concurrent tracks, covering topics about aquatic invasive species, aquatic habitat restoration, watersheds, capacity building for citizen groups, and runoff and groundwater. There will also be exhibits and vendors to visit to learn about water-related products and services, and an exhibitor reception will be held Thursday night complete with heavy hors d'oeuvres.

Conference registration is \$130/person for early registration (until March 21) and \$155/person after that. This includes meals, breaks, and all conference events. For more information about the conference program



and registration, visit The State of Water website at [www.conservationminnesota.org/state-of-water-conference/](http://www.conservationminnesota.org/state-of-water-conference/) or call Alex Gehrig at 651-357-7486. Cragun's Resort is offering a special rate of \$79/night for conference participants; more information and lodging registration are also on the conference website. To keep up-to-date regarding the conference, "like" the conference on Facebook: [www.conservationminnesota.org/state-of-water-conference/](http://www.conservationminnesota.org/state-of-water-conference/).

The State of Water conference is being organized collaboratively by the University of Minnesota Extension, The Freshwater Society, Conservation Minnesota, The Midwest Glacial Lakes Partnership, Minnesota Department of Natural Resources and Minnesota Pollution Control Agency. ■



## Calendar of Events

For the most current calendar items and more details, visit [www.extension.umn.edu/environment/water/calendar/](http://www.extension.umn.edu/environment/water/calendar/).

### Upper Midwest Stream Restoration Symposium

Date: February 23-26

Location: La Crosse, WI

Website: [www.prrsum.org/content/home](http://www.prrsum.org/content/home)

### The State of Water Conference: Minnesotans Protecting Our Lakes and Rivers

Date: May 1-2

Location: Cragun's Resort, Brainerd, MN  
Website: [www.conservationminnesota.org/state-of-water-conference/](http://www.conservationminnesota.org/state-of-water-conference/)

### Keeping our Lakes and Rivers Clean

Specifically for realtors

Date: May 15; 9am - noon

Location: St. Cloud, MN

Contact: Kelly Travis, St. Cloud Area Association of Realtors,  
email: [kelly@stcloudrealtors.com](mailto:kelly@stcloudrealtors.com)  
phone: 320-253-7149

### Shoreland Buffers and Rain Gardens

Specifically for realtors

Date: St. Cloud, MN; 1pm-4pm

Location: St. Paul, MN

Contact: Kelly Travis, St. Cloud Area Association of Realtors,  
email: [kelly@stcloudrealtors.com](mailto:kelly@stcloudrealtors.com)  
phone: 320-253-7149

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## Schell's Starts with the Water

The following article is reprinted with generous permission from the Minnesota Department of Health's *Waterline*, a quarterly newsletter for water operators, city officials, and others interested in news related to public water systems in Minnesota ([www.health.state.mn.us/divs/eh/water/com/waterline/](http://www.health.state.mn.us/divs/eh/water/com/waterline/)). Author: Stew Thornley, Health Educator with the Minnesota Department of Health.

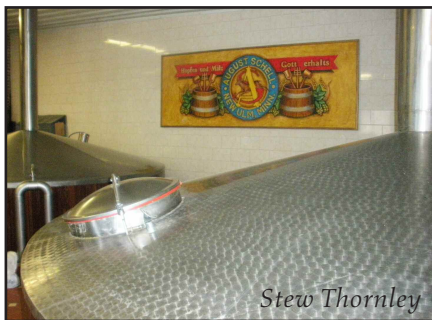
"The first thing you start out talking about is water quality," says Jace Marti. "It's the main ingredient in beer."

Marti is a brewmaster at Schell's Brewery in New Ulm, Minnesota, and a sixth-generation descendent of August Schell, who co-founded the brewery in 1860. A native of Durbach, Germany, Schell came to the United States in 1848 and found his way to New Ulm. Not finding any of the German beer he was fond of in the area, Schell started a brewery, using an artesian spring as a water source and the nearby Cottonwood River for transportation of the finished product.

At the time, most of the brewing was done in the winter, and the beer was kept in caves — staying cool with blocks of ice from the river — for aging and fermentation and to store the product for the peak summer months.

Schell's survived the Dakota War in southern and western Minnesota in 1862 and expanded. The brewery and grounds now cover 40 acres with scenic gardens, a deer park (in addition to a year-round residency of peacocks) and a mansion, making it a popular tourist destination in the summer as well as the site of the annual Bockfest event in the winter.

Eventually the springs were replaced by wells. In 1995 Schell's switched to water provided by the city, which opened its water treatment plant. City water comes



Vats in the brewing room are used to separate the grain from the liquid.



Jace and Ted Marti in the old brewhouse, built in the 1880s.

from the quaternary buried artesian and undifferentiated cretaceous aquifers, tapped by 13 wells, ranging in depth from 62 to 247 feet.

Joel Johnson, the chief operator for the New Ulm utility, said they feed potassium permanganate and chlorine for manganese and iron removal and have five sand filters at the city's water treatment plant. New Ulm averages 2.5 million gallons per day (MGD) throughout the year with the production reaching about 3.5 MGD during the summer. Of that amount, Schell's uses approximately 1.2 million gallons per month in brewing 130,000 barrels of beer a year.

Marti says the brewery is still getting water from the same aquifers as it had during the time it had its own wells. The groundwater, with its iron and hardness, is more suited to brewing English-style ales, Marti explained, adding that the New Ulm water profile is similar to England's Burton upon Trent, a major brewing city.

The German lagers and Pilsners require softer water, and the brewery performs its own water treatment, which includes reverse-osmosis and an iron filter at the head of the brewing. The water treated at the municipal plant is then blended with more city water with the goal of reducing the hardness to 50 parts per million.

"There are certain elements [of the water] good for brewing and some that aren't," said Ted Marti, Jace's dad and the company president. Ted attended Siebel's Institute of Brewing in Chicago and has been a brewmaster since 1975. Jace went to school in Berlin and became a brewmaster in 2011. Besides Ted and Jace Marti, Schell's has two other brewmasters, Jeremy Kral and Dave Berg, among its 57 full-time employees.

In addition to eight year-round specialty brands and eight seasonal brands, Schell's now brews Grain Belt Beer with three different labels. Grain Belt used to have a large brewery in northeast Minneapolis, but the facilities have been converted to a library and space for other uses. The Twin Cities also had Hamm's and Schmidt breweries, but Jace Marti notes that consumer preferences have been changing with the craft-beer revolution.

Schell's remains one of the few large breweries in the state, along with Cold Spring in central Minnesota. Summit Brewing in St. Paul has also risen in prominence.

From the micro-breweries to full-scale facilities for beer production, it all starts with the water. ■

# Minnesota's Master Water Stewards Program

By Peggy Knapp, Freshwater Society

Clean water starts here. That's the message from the new Master Water Stewards program, a partnership between the Freshwater Society and the Minnehaha Creek Watershed District. Funded by a Clean Water Assistance Grant from the Minnesota Board of Water and Soil Resources, the Master Water Stewards program recruits and trains volunteers to work with neighbors to protect and clean up local lakes, streams and wetlands.

Polluted urban runoff is one of the greatest threats to the health of our surface waters. Because urban runoff comes from everywhere, reducing urban runoff will require a whole-community effort. Master Water Stewards work with neighbors to install runoff prevention projects such as rain gardens and water-permeable driveways, educate neighbors about the challenges of keeping water clean, and coordinate community activities such as leaf and grass clean-ups to reduce runoff.

The Master Water Stewards program is modeled after the successful Master Gardener and Master Naturalist programs, which are resources of

knowledge and expertise for local communities. Stewards participate in 50 hours of classes, learning about hydrology, water policy, rainscaping techniques and other related topics. Stewards also complete a capstone project as part of their certification. A capstone project involves designing and installing a stormwater project, and designing and implementing an education and outreach effort with neighbors. The goal is to give Stewards the knowledge, experience and confidence they need to be active, engaged participants in protecting their favorite lake or river.

"This innovative program is based on a model of community support and engagement that has been very successful in Minnesota," said Peggy Knapp, Director of Programs at the Freshwater Society. "Not only will communities benefit from the Master Water Stewards' expertise, the program creates a pool of volunteers that communities can use to meet water quality, education and outreach goals."

In all, projects installed by the first group of certified Master Water Stewards will divert 4,761 gallons of stormwater per one-inch rainfall. With



Stewards Sue Roedl and Bruce Jones.

an average annual rainfall of 30 inches, projects installed by Stewards in Minneapolis could capture over 142,000 gallons of water per year. And this is only the beginning.

In the second year, the program is expanding to additional neighborhoods in Minneapolis and first-ring suburbs, including Edina, St. Louis Park, Hopkins and Richfield. In the third year, the program will expand to the rest of the Minnehaha Creek Watershed District. Following the three-year pilot in the MCWD, the Master Water Stewards program will expand metro-wide, eventually growing into a statewide citizen-led effort to improve and protect Minnesota's lakes and rivers.

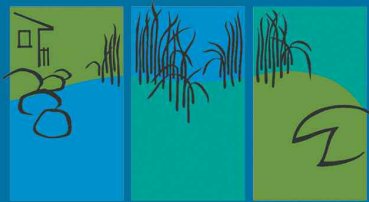
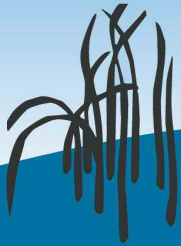
For more information about the Master Water Stewards program, including how to apply, visit the Master Water Stewards website at <http://masterwaterstewards.org/> or contact Peggy Knapp at 763-219-1252 or email at [pknapp@freshwater.org](mailto:pknapp@freshwater.org). ■



Stewards Mike McCabe, Sue Roedl, Bruce Jones and neighbors install a rain garden.

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## From Shore to Shore

[www.shorelandmanagement.org](http://www.shorelandmanagement.org)

*A publication of the Water Resources Team, dedicated to educating Minnesota citizens about water resources issues to improve water quality, habitat, and aesthetics of our lakes and rivers.*

From Shore to Shore is a free quarterly electronic newsletter. Archived issues are available online at [www.shorelandmanagement.org](http://www.shorelandmanagement.org)

To subscribe or unsubscribe, please contact Heidi Olson-Manska at [olsonh@umn.edu](mailto:olsonh@umn.edu) or 320-589-1711.

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UNIVERSITY OF MINNESOTA  
EXTENSION

## SNAPSHOTS: Water Resources Team Programming and Research – Recent Past and Upcoming Opportunities

### Past Events

The 31st annual **Red River Basin Land and Water International Summit Conference**, sponsored by the Red River Basin Commission, was held January 14-16 in Brainerd. Karen Terry attended on behalf of the Water Resources Team and was excited about the range of topics being discussed. Red River Basin Commission Chair Joe Belford says of this conference, "Our goal is to foster a basin-wide educational perspective that transcends political boundaries and aims to facilitate improved management for our natural resources for current and future generations." More information is available here: [www.redriverbasincommission.org/Conference/conference.html](http://www.redriverbasincommission.org/Conference/conference.html).

The **BWSR (Board of Water and Soil Resources) Academy** was held October 28-30 in Brainerd. More than 350 natural resources professionals attended, including Doug Malchow and Karen Terry from Extension's Water Resources Team. The official purpose of the Academy is: *To provide high quality training for local government staff that maintains and improves the delivery of conservation work and meets the shared expectations of BWSR and local resource management boards.*

### Upcoming Events

The **5th Annual Upper Midwest Stream Restoration Symposium** will be held in La Crosse, WI February 23-26, 2014. This technical conference looks to provide a collaborative environment that allows an interdisciplinary approach to stream restoration and other related watershed sciences. More information is available here: [www.prrsum.org/content/2014-umsrs](http://www.prrsum.org/content/2014-umsrs).

The **NEMO Program** will host two **workshops** in May for local elected and appointed leaders in communities in the western watersheds of the Twin Cities including Minnehaha Creek, Nine Mile Creek, Riley-Purgatory-Bluff Creeks, and streams and lakes in Carver County. These workshops will provide basic foundation knowledge to local leaders about stormwater plans, practices, policies and their roles as decision makers. Details will be posted under What's Happening on the NEMO website at [www.northlandnemo.org](http://www.northlandnemo.org).

The **State of Water Conference: Minnesotans Protecting Our Lakes and Rivers** will be held May 1-2, 2014 in

Brainerd. This citizen-centered conference serves to educate and facilitate networking opportunities related to water resource issues. See Page 1 story for more information.

### Partnerships

The Spring 2014 **Watershed Specialist Training** (see article in Fall 2013 issue; [http://shorelandmanagement.org/downloads/2013\\_fall.pdf](http://shorelandmanagement.org/downloads/2013_fall.pdf)) session is well underway. With about 20 participants, this online, interactive training provides natural resources professionals and local leaders with deeper understanding about working within watersheds.

### Also of Interest ...

Extension and Sea Grant Water Educators have embarked on a revision of the ever popular and effective **Watershed Game** to create a K12 version and incorporate technology enhancements that can be used to deliver and teach the curriculum. The project is funded by a NOAA DNR Coastal Grant and will be completed in December 2014.

Trees of the Midwest – There's an App for That. "Fifty Trees of the Midwest" is a handy tool for students, science teachers and Master Gardeners. This mobile-device is backed by the expertise of Purdue Extension forestry specialists. More than 400 high-quality color photos show the leaf, bud, twig, flower, fruit, bark and form of more than 50 trees and include pop-up definitions. Users can enlarge the photos for a closer look. Among the app's features is the ability for users to identify a tree by taking their own photos of it and then comparing them side-by-side to photos in the app. They then can answer a series of questions to narrow the possibilities of the type of tree until they identify it. The app, for iPhone and iPad, costs \$3.99 and is available at the App Store.

Eagerly awaiting ice out? See *From Shore to Shore* article "**Ice Out Dates**" from the March/April 2010 issue here: [http://shorelandmanagement.org/downloads/mar\\_apr\\_2010.pdf](http://shorelandmanagement.org/downloads/mar_apr_2010.pdf).

Curious about the process of ice melting off the lakes? See *From Shore to Shore* article "**Ice Melt!**" from the March/April 2009 issue here: [http://shorelandmanagement.org/downloads/mar\\_apr\\_2009.pdf](http://shorelandmanagement.org/downloads/mar_apr_2009.pdf). ■