

FALL REFLECTIONS IN ST. ANTHONY | PHOTO: WALT HUSS

September 2017

September monthly normals
from the Minnesota Weatherguide
Environment™ Calendar:

Temperature: Max 71.7°F Min 52.4°F

Precipitation: 3.08 in.

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**FRESHWATER
SOCIETY**

My best advice for city councils



**by Steve Woods,
executive director**

Dread 3 a.m. calls
from citizens
complaining
about flooded
homes? Then
take a minute to
ask your public

works director how much of your
storm sewer, creek, and flood routing
systems were designed to handle the
storms Minnesota now receives.

“Not much at all” is what you’ll
hear. And THAT is a fantastic start
to discussing what, if anything, the
council wants to do about it.

Storms are dropping more rain
more quickly and low areas are
flooding more often as our historical
understanding of “normal rain”
is shattered. The flood levels I

calculated as a young engineer are
significantly lower than an engineer
would calculate today. That means
homes built more than 10 years ago
above a 100-year flood may now
find themselves at risk. Stormwater
systems are not providing the level of
protection residents believe they are.

Houston’s flooding occurred because
rainfall greatly exceeded the system’s
design capacity by mind-boggling
amounts. Minnesota’s rainfall changes
are of a smaller scale; it’s a matter of
localized problems becoming more
prevalent. The good news is that it
would not take much effort to decrease
the risk.

A service we offer is to work with
city officials and staff to discuss
where problems are cropping up
and how to adapt to them. There is
no “one best way” to tackle these
challenges. Solutions can range from
doing nothing all the way up to major

Best advice, continued on page 3

Freshwater Society is a nonprofit organization dedicated to educating and inspiring people to value, conserve, and protect water resources.

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Need to lose 10-34 pounds?

**by Carrie Jennings,
research and policy director**

Nitrogen is a critical input for agricultural productivity and a potent pollutant in the water environment. Significant private investment is made in the former, but significant state investment is required to address the environmental degradation from excess nitrogen in drinking water.

Fields in the Root River watershed that have been intensively monitored by the Minnesota Department of Agriculture (MDA) for four years have been found to lose from 10 lbs. to more than of 34 lbs. of nitrogen per acre.

Who loses when fertilizer is lost? All of us: the farm family losing costly fertilizer; neighbors hoping to swim or fish in local lakes that have turned green from excess algae that also smothers the aquatic life; small-town residents that have to shoulder the tax burden to drill a new well or build a new water treatment plant so they can drink their groundwater; and taxpayers who fund the monitoring and cleanup of the state's increasingly polluted waters.

As the lead state agency for fertilizer management, the MDA must provide guidance so that fertilizers do not degrade our water. Their current

draft rule is far from ideal and is only working on the edges, on small-scale changes that will not reverse the trend of increasing nitrogen contamination in groundwater.

Since farmers are already doing most of what is being proposed in this rule, overall trends in nitrogen in the groundwater won't be reversed.

What should a proactive rule intended to protect groundwater and reverse trends contain?

Ideally, a rule 28 years in the making would require increased efficiency of nitrogen use *before* a water supply is contaminated. This would save the producer and the state money while reducing loss of nitrogen to the environment.

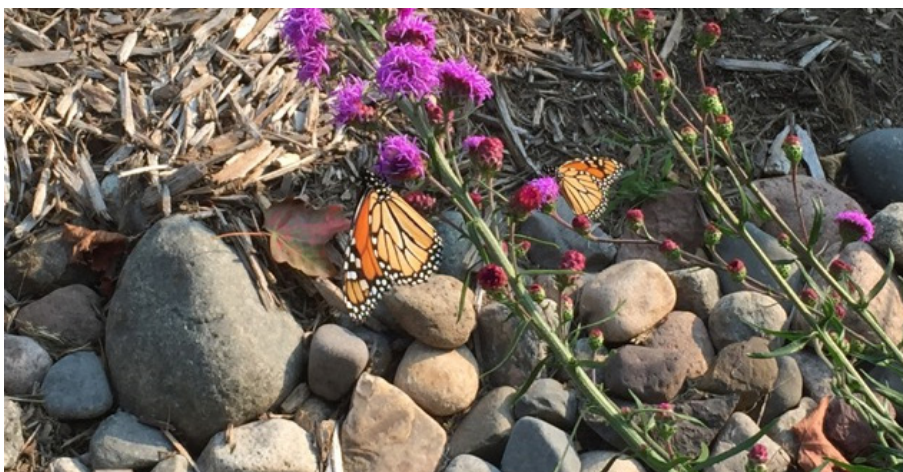
The rule should establish measurable goals and limits for nitrogen loss, provide for ongoing testing of affected groundwater until trends reverse, and notify affected well owners who did not participate in the program.

Comments on the proposed rule were due to MDA on 8/25/17. Now we wait to see what happens.

Read more of Carrie's blog posts at bit.ly/2ovUfxC.



A future BMP? Corn planted in kura, a clover-like perennial. Rosemount Research and Outreach Center, University of Minnesota, 2016



Sue and Randy planned and installed three projects at Union Congregational Church in St. Louis Park, including a rain garden.

Act now to protect water in your community

Apply by September 30 at masterwaterstewards.org

by Connie Lanphear, communications manager

Picture yourself standing in an excavated trench, installing an underground cistern to capture stormwater runoff for reuse. Or creating and working with a community group to install a pollinator garden at a local church.

All across the greater Twin Cities metropolitan area, individuals are joining with neighbors to make a significant difference in the health of water in their communities and beyond. By becoming trained and certified as Master Water Stewards, they have dreamed up, created, and installed projects beyond what they thought possible. **Join the next cohort of Master Water Stewards who want to protect water in their communities. Applications are due September 30.**

Sue and Randy, members of Union Congregational Church, created and installed three projects at the church in St. Louis Park: 900 total sq. ft. of connected rain gardens, a permeable paver patio adjacent to the gardens, and a 275-gallon cistern. The gardens drain and filter water from parking lot, host pollinators, and provide education to community. The patio has created a community gathering space, and daycare children use water from cistern for their vegetable garden.

This is just one example of what 195 current Stewards have accomplished. Become a Master Water Steward to make a real difference in your community!

Thanks to Hennepin County for supporting Freshwater Society with a \$20,000 grant through its [Green Partners Environmental Education Program](#), to train Stewards in four additional watersheds.

Best advice, continued from cover

capital works projects. In between are options for systematic upgrades tied to road work, or merely letting landowners know their options.

The conversations do not get tied up in debates over global issues.

Our focus is on helping cities adapt in ways that best fit each city. If this sounds like something you could use, give us a call. We're a pretty realistic and pragmatic group that can help you find your way forward.

Upcoming info sessions:

September 14
Special session at Urban Boat Builders, St. Paul

September 19
Nine Mile Creek Watershed District, Eden Prairie

September 26
Faribault Public Works

Learn more and sign up at masterwaterstewards.org



Big Island and Back is big summer fun!



Perfect summer weather helped make the 4th annual Big Island and Back paddle event the best ever! From Excelsior Beach, participants navigated out and around Big Island by canoe, kayak, or stand-up paddleboard. After the paddle, attendees made their way to Excelsior Brewing Company for a party featuring awards, door-prize drawings, food, and lots of great music. Other activities included yoga on the beach and log-rolling.

Big Island & Back calls this event first and foremost a fundraiser for two very deserving organizations — Freshwater Society and ICA Food Shelf — and secondly a fun, friendly, family event and party. We had a great time helping put on the event and are grateful for their support of our work to protect and conserve fresh water.

Check out more event photos: tonkapaparazzi.com/p990905616



The Lake Effect: Protecting water through innovative collaboration



FREE LECTURE AND RECEPTION

Featuring Kathy Lake, MBA

Pollution Prevention Manager for the Madison Metropolitan Sewerage District

Tuesday, November 14, 2017 | University of Minnesota, St. Paul Student Center Theater
5:30 p.m. public reception | 7:00 p.m. lecture

She's got the name and the impressive track record! Hear Kathy Lake of the Madison Metropolitan Sewerage District discuss her innovative approach to address seemingly intractable, watershed-wide pollution issues. Ms. Lake is president of the Yahara Watershed Improvement Network (Yahara WINS), which has cities, villages, towns, agricultural producers, and environmental groups all pulling together to reduce phosphorus and chloride to the iconic lakes Monona and Mendota.

Event is free, but RSVP: bit.ly/2lhU2xP

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To place your order by phone or learn more about fundraising opportunities, contact Connie at 651-313-5808 or clanphear@freshwater.org.

Upcoming events

Minnesota Water Resources Conference

October 17-18, 2017
RiverCentre, Saint Paul

Engineers, water resources managers, researchers, and agency staff will learn about innovative, practical, and applied water resource engineering solutions, management techniques, and current research about Minnesota's water resources.

Learn more: bit.ly/2dq53ah



The Lake Effect: Protecting water through innovative collaboration Featuring Kathy Lake

November 14, 2017
University of Minnesota, St. Paul Student Center Theater

See details at left.

Give to the Max Day

November 16, 2017

The biggest day of giving in Minnesota is just around the corner! Watch for details about how you can help keep our lakes and river healthy and our drinking water safe.



17th Annual Road Salt Symposium

February 8, 2018
Plymouth Creek Center

Save the date for the annual Road Salt Symposium, to hear the latest innovations, trends, and best practices for reducing salt use while maintaining safe roads. Details coming soon!

The State of Water Conference

April 13-14, 2018
Planning is underway for this bi-annual conference. Mark your calendars and we'll let you know when registration is open.

