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GGON REGULTED News for mississippi river-window watershed citizens

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Watershed Neighbors

Master Gardener Intern Chris Meyer and farmers Brad and Shelley Schrandt weave water stewardship into planning and everyday choices



After a long winter and a string of overcast days, I fiercely crave color. To fill myself up I go to museums, savor favorite illustrated books, pull out swatches of fabric, wear the brightest clothes I can find, and return to photos that hang in my memory like jewels. This year one of those jewels is the image on this page, taken at the Minnesota Marine Art Museum in October. The day was a hollow moment in time, saturated with warm sunlight falling on rich color variations that only nature can produce. I was captive, hanging in space like the leaves I knew would drop instantly with a breath of passing wind. Beyond the foliage moved the water, brilliant in the sun, and then a tug, cutting a swath through sparkling wetness. I stood entranced in a favorite place, aware that I am small, but part of everything. - Nancy North



Where do you go to rejuvenate and enjoy the beauty of our watershed? Send your photo of a favorite place and description of not more than 150 words to whitewaterwatershed@gmail.com.

TAKE ON A PROJECT!

Citizen Stream Monitors Needed

During the past decade, much of the data gathered to inform Whitewater Watershed action plans was collected by 16 citizen volunteers. With the help of Watershed Project staff, they regularly tested water temperature, stream transparency, precipitation and stream stage.

We need more targeted data, and we need volunteers! To learn more, go to pca.state.mn.us and search "citizen stream monitoring." If you'd like to talk with someone local about volunteering, call watershed conservationist Jake Overgaard at 507-457-6445.

Farm Nitrogen and Bacteria Reduction Incentives Available

The Farmer-Led Council of the Whitewater Watershed is offering incentives for practices that reduce nitrogen and bacteria in farm operations.

For example, farmers who switch to doing calibrations during manure applications may be eligible for an incentive payment. Financial incentives are also available to producers who develop manure management plans, participate in managed grazing, or do agronomic tests such as phosphorous index, soil conditioning index and corn stalk nitrate tests for nitrogen.

To learn more about the program, or to apply contact Jake Overgaard at 507-457-6445. Application is local and uncomplicated.



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If you prefer to receive this publication electronically, send your request to whitewaterwatershed@gmail.com.

IN THE WATERSHED

Visit Farms In the Watershed April 13

Regional grazing specialists and the Farmer-Led Council of the Whitewater River Watershed will host a farm tour on Saturday, April 13, 2013. Come see first-hand how agricultural conservation practices are used to protect natural resources. A bus leaves St. Charles City Hall at 9:00 a.m. and the tour concludes with lunch and speakers in the St. Charles Community Room. Tour cost is \$5; free for FFA students. Pre-register at 507-457-6521 or by email: whitewaterwatershed@gmail.com.

Watershed Strategy Underway

By autumn 2014 a new, 10-year Mississippi River-Winona Watershed strategy will be written and adopted. Strategy development started with collecting, assembling and analyzing all available water quality and flow data, surveying residents, and learning from rural and urban residents at two citizen summits. To share your priorities or experiences, e-mail whitewaterwatershed@gmail.com.

ONE THING YOU CAN DO

Join Or Start a Farmer-Led Council

In 2011 the Logan Creek/North & Middle Branch Whitewater Watershed Farmer-Led Council was established to reduce soil and nutrient runoff and promote soil quality. Another neighborhood group, the Rush/Pine Farmer-Led Council, was established in 2012 for the same purpose.

These Councils meet quarterly. Their conversations, work and projects are based on an understanding that landscapes, operations, and family needs are different on every farm, and that every place has particular needs. They encourage farmers to experiment with new practices to reduce soil erosion and nutrient runoff, and to enrich the soil.

Incentives for these voluntary practices have included manure spreader calibrations, manure management plans, whole farm self-assessments, and cover crops. Members share ideas with each other.

To join or learn more about Whitewater Watershed farmer-led councils call Jake Overgaard at 507-457-6445.



Area farmers learn from each other through farmer-led conservation tours.

Local Water Quality Data, Landowner Survey Presented At Summit

More than 100 citizens gathered to hear the latest Mississippi River-Winona water quality data at a summit held in Winona on February 19. The summit is one in a series hosted by the Whitewater Watershed Project.

In 2012, all existing water quality data collected in the watershed between 1932 and 2010 was systematically compiled and reviewed. Olmsted County staff collected data from six agencies, 136 unique monitoring sites and 225 different programs. In an overview by Olmsted County Environmental Analyst Caitlin Meyer, water clarity, stream flow, and nitrate, chloride, sodium, sulfate and pesticide levels were highlighted.

Key findings from the data include:

- Chloride and sodium has increased at three long-term test sites over time, but appears to be leveling off in the stream with the longest record.
- Stream flow is increasing at two of the five sites where continuous, reliable testing took place.
- Nitrates have increased over time in streams where data is available. In these places, nitrate concentration correlates directly to percentage of cropland in the drainage, with a slight dip in levels during the growing season.
- Large amounts of compiled data could not be used to detect trends because water quality data was not collected consistently over long periods of time.

To produce reliable data for trend analysis, water must be tested regularly at a single place for more than a year. In this area most sites that meet that requirement are in the Garvin Brook and Whitewater watersheds.

In November, local and state agency staff met to coordinate future water sampling plans, so more valid data is collected. Citizen water monitoring will continue to play an important role in gathering enough data to make strong decisions for the watershed. I'm concerned the percentage of nitrates detected in the Whitewater over recent years is rising, and that the increase seems to be correlated with the concentration of row cropland. The report says that nitrate pollution is the worst of the pollutants, thus, it is a very real problem. The January 24 issue of AgriNews has, on the first page, an article about Iowa taking the lead to reduce its contribution to the "dead zone" in the southern reaches of the Mississippi. What can we do here in Minnesota?

Arland Otte, St. Charles area farmer and member of the Logan and Middle Branch Farmer-Led Council



Phil Wheeler, Olmsted County Planning Director, shared findings from a watershed landowner survey conducted by the Whitewater Watershed Project in 2012. Nearly one third of 3000 households and absentee landowners throughout the Mississippi River-Winona Watershed responded to a six-page survey related to water quality issues.

The landowner survey shows:

- Strong commitment to water quality
- Lack of confidence in personal knowledge of local water facts
- A desire to learn more
- Interest in education, grassroots action, neighborly connection and strong government to improve water quality

Survey participants included farmers and non-farming residents. Views highlighted here are held by a strong majority in both groups. Attendees participated in two round table discussions and a summary forum. Mississippi River-Winona Watershed Project coordinator Sheila Harmes says the summits are a place for residents and neighbors to learn, share water experiences, connect with each other, and respond to current initiatives.

Winona resident Bruno Borsari said about the evening. "I almost did not come to the summit because I was afraid that it would be another discussion about water issues leading to nowhere. Instead, I was impressed by the work that has been accomplished since the first summit of June 2012 and the information provided to the audience by the presenters. Work to improve water quality in our region continues, and I am excited to be part of it." *

Full summaries of Mississippi River-Winona Watershed data and landowner surveys are available at WhitewaterWatershed.org. NEIGHBORS NEIGHBORS





Chris Meyer is an avid gardener who's thought a lot about water in recent years. At her Winona home (above, left) terraced gardens now produce vegetables, watered with rain water collected in barrels.

Raingardens For Winona

After renovating a 1965 house at the foot of a Winona bluff, Chris Meyer and husband Paul got curious about runoff



Chris Meyer and Paul Schollmeier took on the challenge of building a net-zero energy home. Then, as they watched water race down their steeply sloped driveway to the street, and mused about how to avoid using City water on terraced vegetable gardens, their curiosity shifted to water: Where does it go? What does it pick up on the way? How do we keep it where it falls, so we can use it?

To start, Paul and Chris installed three 100-gallon rain

barrels to collect water for their garden. Then recently, Chris was introduced to rain gardens as a University of Minnesota Extension Master Gardener Intern. "They're simple," she says, "so why don't we have more of them?" Online, she discovered Maplewood, Minn. where there are more than 620 home rain gardens plus 60 on City land, thanks to classes and basic help from the City, which pays to excavate the shallow depressions for homeowners and buys plant plugs. "It's less expensive to put in residential rain gardens than to install new curbs and gutters," said Assistant City Engineer Chris Cavitt, "Homeowners do the planting."

Now that Chris knows the benefits of rain gardens, she plans to make sure there are more in Winona, where runoff moves quickly to the Mississippi River. **If you'd like to build a home rain garden, help create a demonstration rain garden, or attend rain garden classes,** *e-mail Chris Meyer at c_m_meyer@msn.com or Winona Master Gardeners at winonamastergardeners@gmail.com.*

Rain gardens are shallow basins that filter water from roofs, sidewalks and driveways into the ground. They don't hold water, but absorb it, so trash, soil, pollutants, and unnaturally large amounts of water don't drain directly to Lake Winona or the Mississippi River.

FROM CHRIS'S RESEARCH

3 Nuggets Of Information

- A rain garden isn't a pond.
 Water usually soaks into the ground in a few hours, so it's dry most of the time.
- Native plants keep 30% more water in the garden than just grass or rocks.
- The best resource Chris has seen is University of Wisconsin Extension's brochure "Rain Gardens: A How-To Manual For Homeowners." Search the name online and download it free as a pdf.



Brad and Shelley Schrandt pause outside the barn where much of their daily work takes place. Above right – The barn is a warm haven on a cold day. Below right – Open land slopes to the Whitewater River



Above Whitewater State Park near St. Charles, one couple takes a "whole systems" approach to both life and farm

Tired of the stress of off-farm jobs, Brad and Shelley Schrandt took bold steps in 2008 to redesign their farm's business, field and dairy practices. The result is a profitable operation and a lifestyle that suits them both, one they want for daughters Grace and Callie.

Brad and Shelley aim for a "closed system" operation in which good milk yields and earnings result from a cycle focused on growing what's needed to feed the herd on the farm, incorporating manure and rotational crop residue into 230 tillable acres to keep it rich (without the expense of purchased fertilizer input), and giving the wealth of soil nutrients they've cultivated back to the cows for milk production. The goal: only milk leaves the farm.

Shelley and Brad designed this system to support their family, but their practices also bode well for water and people downstream. When they seed into long-established contour structures on their rolling land, manage fields in a one year corn/three years new seeding and hay/grazing cycle, sustain plant diversity in grazed fields, and enrich their soil with attention to nitrogen leaching, less soil and nitrogen run off the land and into streams and ground water.

The Schrandts accomplish goals on a foundation of relationships. Lee and Carol Persons, Shelley's parents, made it possible for them to take over the farm, and work with them. Carmene and Dale Pangrac and Andy and Kim Olson of Lewiston taught them to build and manage 80 to 90 acres of rotationally grazed pasture. Land Stewardship Project's Farm Beginnings program helped them implement business and operational strategies. And an annual contract and price guarantee from Westby Creamery makes planning possible. "I don't see (some of these folks) as often as I'd like," says Brad, "but they're there, and I can pick up the phone any time."

Unnerving transitions were part of converting row cropped fields to pasture; growing a Holstein, Jersey and Holstein-Ayrshire herd; and waiting for a first organic milk contract. But as Brad and Shelley step up for a quick photo, they look at home with their work and each other. With a quick wave, they're off to take on the day's tasks. A new raised milking platform goes in tomorrow.

- Test and build soil health to reduce the need for purchased fertilizer and the likelihood of nitrogen runoff.
- 4-year corn/new seeding/ hay/grazing cycle improves fertility, keeps soil in place.
- Winter cover crop provides added forage for cattle, which are an essential part of the farming system.

Brad and Shelley welcome you to their farm during the Whitewater Watershed Farmer-Led Council tour on April 13. Register at 507-457-6521 or e-mail whitewaterwatershed@gmail.com.



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