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FAVORITE PLACES:

Mississippi River Island



MJ Moravec (far right) enjoys a game of bocce ball with sons Jesse and Ethan, daughter Naomi and friends atop a big sand hill on the island directly across from Wabasha, Minnesota.

I find the profound power, tranquility, and beauty of the Mississippi River on the island across from Wabasha's south marina. It's about the energizing climb up the steep sand hill. It's about the ever-changing landscape on top of the hill with magnificent views of eagles, the bluffs, the backwaters, the main channel, Teepeota Point, the Wabasha bridge, the town of Wabasha. It's about the peaceful walks on the long stretch of sandy beach. It's about swimming back down the sometimes calm, sometimes turbulent river. It's a place I want to share with others, and also a place I want to have to myself. You will find me here often, experiencing the serenity and the vitality that the Mississippi River offers.

– MJ Moravec
Wilcox Point, Wabasha, Minnesota



Above top: Sparkling Mississippi River
Below: Wabasha, seen from the island

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.

LEARN SOMETHING!

Organic Farming Conference
Midwest Organic & Sustainable Education Service
February 27-March 1, 2014
La Crosse Center, La Crosse, Wisc.
The largest U.S. organic and sustainable farming event is held every February in La Crosse, Wis., Learn more at MOSESOrganic.org.

"Nitrogen Management & Precision Agriculture"
Whitewater Farmer-Led Council Workshop
9:30 a.m., March 4th, 2014
St. Charles City Hall, St. Charles
This event led by Jeff Vetch (UMN SROC) & José Hernandez (UMN Extension) addresses production specific to SE Minnesota. Free event includes lunch. Register: 507-457-6440.

"Forage For U"
UM Extension Forage Production Workshop
9:30 a.m. - 3 p.m., March 27, 2014
St. Charles City Hall, St. Charles
Learn about timely research to improve forage production and increase profitability in this region of the state. To register call Jake at: 507-457-6440.

Agronomy Field Tour
June 24, 2014
UMN Southern Research & Outreach Center, Waseca
UMN agronomists present current growing season issues, research related to our area, and are available to answer questions. Call for info: 507-835-3620.

GET OUTDOORS!

Project Go!

Weekly *Project Go!* activities connect children with nature in their own neighborhoods. Activities exist throughout our watershed. **Check it out at MNprojectGO.com.**

IN THE WATERSHED

Local Trout Unlimited Groups Restore Streams

Trout thrive in cold water streams with shaded pools for protection and gravel stream beds for laying eggs. Eroded soil ruins their habitat.

For decades volunteers, conservation agency staffers, educators and local excavators have worked to reduce impacts people make on streams and fish here. **Good news:** It's working. **Reality:** There's a lot more work to do.



Join local Trout Unlimited outdoor and social activities in 2014. Learn more at these websites:

Win-Cres | Winona wincrestu.org
Hiawatha | Rochester hiawathatu.org

ABOVE TOP: Native brook trout; BELOW: Win-Cres members, MN TU Executive Director John Lenczewski, MN DNR staff & WSU staff take on a cold morning project

MISSISSIPPI RIVER - WINONA WATERSHED PROJECT

City of WINONA

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Lewiston, MN 55952
507-523-2171, Ext. 110
whitewaterwatershed.org

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

WATERSHED NEIGHBORS

FOR A BUSINESS:

3 Rain Garden Benefits

- Water drains from high-traffic paved areas to the landscape.
- If a storm water utility exists, fees are primarily eliminated.
- Plantings attract positive attention, create goodwill, and add beauty to the community.



Simple, Timely Action

When Hoff Funeral Services Moved In 2009, Rain Gardens Became an Easy Addition To Parking Lot Design



ABOVE: Tim Hoff, co-owner of Hoff Funeral Services in St. Charles, Minnesota, found rain gardens were easy to add to his building project. BELOW LEFT: Well-placed plantings have a calming effect on visitors, neighbors and staff.

When a business or commercial developer takes on a construction project, a storm water plan and permit are required in most communities. It's one more thing for the to-do list, but most businesses find the plan becomes a benefit—particularly if they approach it as a business opportunity.

Local codes in St. Charles require on-site water infiltration. For Hoff Funeral Services that meant no runoff from parking lot to streets or neighbors' yards.

To make that happen, co-owner Tim Hoff, building contractor Greg Feuerhelm and parking lot contractor Steve Pearson took a look at the contours of the property. They noted water movement on the land, desired size for the hard surface area, best locations for infiltration basins, and slope needed to move water to basins. After a plan was in place, lot paved, and soil graded, Winona Nursery turned simple trenches into business assets with stone and native plants.

"It wasn't hard," says Hoff, laughing. "I just had to pay for it!"

Jokes aside, Hoff encourages business owners to look beyond immediate expense to real benefits down the road. "It might cost a little more in the beginning, but we need to think about where water goes and how to keep it clean," he says.

Some Hoff Funeral Service neighbors wondered about the rain gardens at first, but say they look fantastic now, and they work! And the tough native plants chosen for the project require little care—just a once-a-year trim and a quick trip to the City's compost site.

Rain gardens are shallow basins where water stays just long enough to soak in, rather than run across hard surfaces to a storm drain, ditch or stream. Native plants add beauty and soak up even more water.

Accruing Benefits

Laverne and Arlene Nelson's Integrated Farming System Supports Two Families and Inspires Best Practices Around Them



ABOVE: Laverne and Arlene pause on a morning tour of their ridge top acres. TOP RIGHT: Cattle move to them through a mixed cover crop that keeps soil out of the Whitewater River. BELOW RIGHT: Contour strips built by the Nelsons on rented land keep soil out of Garvin Brook.

On 365 rolling acres near Altura, Laverne and Arlene Nelson, son Ross, daughter-in-law Tiffany and three grandchildren milk 80-85 cows; keep a small beef herd, a flock of laying hens and some broilers; and grow what is needed to feed their animals year-round. Their goals are stable income and long-term health for the family, their animals and their land.

Soil health, water quality and their own well-being have been priorities for years, but in 2001 the Nelsons took an additional step to become certified organic. Profitability increased as a result. "We sell to Organic Valley," says Arlene. "It's worked out well for us."

The Nelsons habitually observe the land and the impact of their actions. They study and connect with others to learn, and invest in practices that mimic nature. They've added three ponds to two built by Arlene's parents in the 1960s. Grass waterways, contour strips, managed grazing and diverse, rotationally planted crops cover the land they work. Soil testing routinely informs planning for three- to four-year crop rotations.

Because their own acreage is not enough to support their stock, Laverne and Arlene also rent 160 adjoining tillable acres. In cooperation with their neighbors they've improved this land, too, adding contour and buffer strips and practices that improve the fertility of the soil. And last year, in a gesture of community service, they purchased the Utica elevator where they hope to provide livestock feed options to local organic farmers.

The Nelsons' lifetime of commitment to developing a farm system that fits their values is now spreading naturally to benefit people around them. They're also protecting the streams and drinking water we share.



FOR THE NELSONS:

3 Satisfying Achievements

- Providing a chance for their children and grandchildren to live on a farm and gather the values that come with it
- Experiencing the "freedom" of watching nature perform well without chemical application, and seeing other farmers do likewise
- Seeing perennial coverage keep the soil and all five ponds intact during a 500-year flood and subsequent heavy rains

ONE THING YOU CAN DO

Keep Soil On Construction Sites

Erosion happens fast when soil is exposed and plants are removed, so construction of any kind is risky—and a good time to plan, understand good practices, and pay attention.

Projects disturbing one acre or more need an erosion prevention plan and a permit from your city or county. It's actually illegal to discharge sediment-laden water to streams, ditches or city storm sewers.

Plans for large projects require some engineering know-how, but plans for home sites and other, smaller, projects can be simple.

Start by looking at how water flows on your site. Move soil only when necessary and cover bare ground.

Designate entries for trucks, and use rock to keep soil and sand from tracking onto roads. Mulch along curbs and above gullies. Create basins and use silt fence and other tools to keep soil from flowing off-site to streams and storm sewers. Maintain them. Monitor street drains and road ditches; they're direct routes to local streams. Designate a washout area for concrete.

When the project is finished, reseed and mulch as soon as possible.



A gravel tracking pad is the designated unloading zone for trucks at this construction site. The gravel keeps dirt out of the street as trucks exit and enter.

Pond Above Whitewater Will Protect Soil, River

Heim Family Uses Basins, Waterways, Buffers & Cover Crops To Benefit Their Livelihood and Home

Shortly after Allyn Heim's parents married and moved to this farm near St. Charles in the early 1950s, his father Tom and grandfather Norman built a pond. Tom could see water carry soil from fields into deep draws draining to the Whitewater River and he didn't want it to continue.

"They built this pond in 1959," says Heim. "Dad farmed so it wouldn't fill up with soil, and we cleaned it out for the first time in 2004, after 51 years."

Allyn Heim estimates 3-4000 tons of soil were excavated and replaced on fields that year, soil that would have accumulated in the river valley long ago if not captured.

Best management practices in fields above a pond increase its impact and longevity.

Heim now operates the farm, which has five ponds, three sediment-control basins and a network of contour strips, buffer strips and grass waterways. In every direction, mixed cover crops hold soil on 453 tillable acres, now planted and harvested primarily by a neighbor who rents and collaborates with Heim, who also builds log homes.

Asked why he builds and maintains ponds, basins and grass waterways, Al Heim says simply,

“ I care about the environment. ”



THREE VIEWS OF POND CONSTRUCTION IN PROGRESS – *At left:* In the fold of two hills where field meets woods and slope, a core trench is dug. On a nearby rise—the “barrow hill”—topsoil is scraped aside and clay moved to fill the core trench and a mound that becomes the dam. Behind the dam, topsoil is scraped away and spread over the berm to support future vegetation. *At center:* Perpendicular to the dam, a trench is dug as a drainage culvert. It is partially lined to prevent erosion. *At right:* An overflow drainage pipe is installed and covered with rock. In this photo a bulldozer shapes the back slope of the dam to complete the project.

On a chilly fall afternoon we ride the woods' edge to a distant corner of the farm, where construction of a new pond is nearly complete. Heim pulls up above a wide buffer strip and steeply sloped forest, near a freshly-graded sediment control basin.

"This year we moved 300 tons of soil back to the fields from this basin," says Heim. "It was an unusually wet year and the waterway above it was new. After one big rain, it was full."

We pass apple trees gone wild, wildlife feeding plots, a tiny A-frame cabin built by Al and his dad when he was in high school, more ponds, and a well-loved cabin built by Al and his wife Valerie after looking at lake property up north and wondering, 'Why?'

At the site of the new pond a bulldozer smooths a long berm of soil that will soon capture water from fields above. The berm is designed to consistently hold eight feet of water. The sediment control basin we saw earlier is more like a rain garden; it holds water only a short time, to slow drainage and capture sediment.

Al says the pond-building project is not complex, but takes engineering expertise, big machines, and the will to make it happen. For this project he worked with Natural Resources Conservation Service

staff in Winona and Olmsted Counties to develop plans and procure partial funding.

On this final day of construction Heim is satisfied. By summer 2014 the pond will fill, vegetation will grow on exposed soil, and replaced topsoil on the hill above will produce crops. And when it rains, less soil, nitrate and phosphorus will flow to the river and state park swimming beach below. ❖

MISSISSIPPI RIVER- WINONA WATERSHED

It's home to all of us.

EVERYTHING WE DO IN THIS
WATERSHED IMPACTS OUR
IMMEDIATE NEIGHBORS
AND ALL LIVING THINGS
DOWNSTREAM.

➤ Reduce Nitrogen

➤ Reduce Bacteria

➤ Keep Soil In Place

