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**Fall of 2006**

# *River Watcher*

High Island Creek & Rush River  
Watersheds Implementation Project

**NEWSLETTER**

Vol. 3 Issue 3

## **CONSERVATION** – *“the protection and preservation of our waters, landscape and natural resources.”*



*Riparian buffers help protect stream-banks and filter excessive sediment & nutrients*

Conservation and water quality go hand in hand when it comes to restoring, improving and protecting our environment. Everyone needs to be concerned about sediment, pesticides, bacteria, nutrients, and other pollutants depositing into our surface and ground water. Remember, this is the same water we use for drinking, recreation activities and even bathing.

Pollutants affect water quality in a variety of negative ways. Excessive sediment will choke streams and fill in lakes. Too much pesticides and chemicals can be lethal to aquatic organisms. High levels of nutrients including phosphorus create excessive plant growth, algae blooms and depletes oxygen for fish. Finally, contact with fecal coliform bacteria in our public waters can cause diarrhea, nausea and possibly jaundice.

Water quality in both the High Island Creek and Rush River suffer from a combination of these problems. Currently the two waterways are impaired for Fecal Coliform Bacteria and in the future will be listed for Turbidity, or low water clarity. Fortunately there are numerous conservation programs and practices available to help producers reduce the amount of pollutants leaving the landscape.

Here are some conservation practices to look at for your operation to help reduce the level of pollutants getting into our waterways:

- Develop a nutrient and integrated pest management plans to minimize losses caused by runoff.
- Utilize conservation tillage practices to leave plant residue on the fields to reduce erosion, improve soil conditions and also save time and fuel.
- Plant a filter strip or riparian buffer along your waterway to control erosion, and remove sediment and other pollutants from runoff, along with providing wildlife habitat.
- Replace open tile intakes with alternatives like a rock tile inlet, slotted riser, dense pattern tiling or complete removal of intake.
- Control the flow and volume of runoff water by incorporating a structural practice. These practices include terraces, diversion, grade stabilization structure and water & sediment control basin.
- Upgrade your out-of-compliance septic system through a low-interest loan to reduce fecal coliform bacteria and other nutrients from reaching our waterways.
- Develop a manure and nutrient management plan for your livestock and crop operation.
- Restore a wetland to provide both hydrological and biological benefits. Wetlands reduce flooding, trap sediment and attached substances, provide ground water recharge, recycle nutrients, and provide wildlife habitat.

Check out the USDA's brochure "Conservation Practices to Protect Water Quality" for more information.

## UPCOMING EVENTS

### 2006 LAKES & RIVERS CONFERENCE – The Changing Landscapes of Minnesota's Waters

Join lake and river advocates from around the state in Duluth to network, hear speakers on a variety of topics, learn about new program opportunities and enjoy the world's largest inland seaport, surrounded by dramatic hills and a breathtaking historic waterfront.

- Session tracks on Citizen Monitoring, Building Healthy Organizations, Watershed Stewardship, Shoreland Development, River Ecology, etc.
- 48 concurrent sessions from Thursday through Saturday.
- Field trips to view innovative projects in the Duluth area.
- Eight workshops on advanced topics.

**Dates:** September 7 – 9, 2006

**Location:** Duluth Entertainment & Convention Center

**Sponsored by:** Minnesota Waters

**Contact Information:** 1-800-515-5253 or [info@minnesotawaters.org](mailto:info@minnesotawaters.org)

### MINNESOTA WATER 2006 and ANNUAL WATER RESOURCES JOINT CONFERENCE

This joint event presents innovative and practical water resource management techniques and highlights research about Minnesota's water resources. The conference provides opportunity to address emerging issues and present on lessons learned and best practices discovered. The conference will facilitate interactions among resource managers, researchers, state and local agency staff, and other water resource professionals, including consultants and practicing engineers.

**Dates:** October 24 – 25, 2006

**Location:** Earle Brown Heritage Center, Brooklyn Center, Minnesota

**Sponsored by:** Water Resources Center, University of Minnesota

Contact Information: Water Resource Center  
173 McNeal Hall  
1985 Buford Avenue  
St. Paul, MN 55108  
612-624-9282  
[umwrc@umn.edu](mailto:umwrc@umn.edu)

### "COORDINATOR UPDATE"

I want to thank everyone in the two watersheds who participated in the Fecal Coliform Bacteria TMDL open houses in June and filled out the survey post card. We appreciate your effort in helping improve water quality in the High Island Creek and Rush River Watersheds. This information will help develop an implementation plan to reduce excessive bacteria and nutrients from reaching surface and ground water.

Thanks also go out to Jim Lundy of the MN Department of Health, Scott Matteson and Rachael Scheurer of the Water Resources Center at MSUM, Kevin Pioske of Sibley SWCD, Ryan Freitag of McLeod SWCD and Mark Hiles of McLeod County Environmental Services for their assistance in the Public Open Houses.

There has been an increasing number of people from both watersheds interested in low-interest loans for upgrading their out-of-compliance septic system. Currently 65 to 75% of individual sewage treatment systems do not meet state regulations. Our goal is to upgrade all septic systems in 10 to 15 years.

As the dry conditions persist we are seeing extremely low levels of water in our rivers and ditches. This has resulted in lower than usual numbers for sediment, nutrients and bacteria in the surface water.



*Scott Matteson of the Water Resources Center talks to two citizens about the Fecal Coliform Bacteria TMDL Study*

We are also excited about the recently passed Clean Water Legacy Act. This act will provide funding for implementation activities. The HIC & RR Watersheds Project will apply for additional cost-share and incentive monies to increase Best Management Practices on the land. This could include establishing rain gardens in New Auburn for their stormwater system.

## **WETLANDS – “a natural, shallow area that holds water.”**

Once, wetlands dominated the prairie landscape of South-Central Minnesota. These so-called sloughs, swamps, potholes, marshes, bogs, fens, etc. provided wildlife habitat, reduced flooding and recharged the groundwater.

As the homesteaders pushed into this area they viewed wetlands as wastelands and began an amazing effort of draining this diverse landscape for agricultural production. Today less than 10% of the original wetlands exist and as a result we have seen increasing water quality degradation.

Wetland restorations are a key to protecting our natural environment. As “nature’s kidneys” they cleanse water by trapping sediment and allowing aquatic plants utilize the excessive nutrients. Wetlands also hold water to diminish downstream flooding and then release it slowly to help maintain flows of streams during dry conditions.

Today landowners can get paid for restoring a wetland on their cropped land. One way is to enroll the land into the Continuous Conservation Reserve Program. Landowners will receive annual rental payments and cost-share assistance through this voluntary program. The annual rental payments are based on the agriculture rental value of the land. Plus the program provides cost-share assistance up to 90% of the participant’s costs in establishing approved conservation programs.

To be eligible participants enroll into a CRP contract for 10 to 15 years. In addition the landowner might qualify for an incentive payment through the High Island Creek and Rush River Watersheds Implementation Program. The Farm Service Agency (FSA) administers this program with support from the Natural Resource Conservation Service (NRCS) and local Soil and Water Conservation Districts (SWCD).

### **FSA Contact Information:**

- Sibley County: 507-237-5435 ext. 2
- Nicollet County: 507-931-2550 ext. 2
- McLeod County: 320-864-5178 ext. 2
- Renville County: 320-523-1550 ext. 2

*Wetlands provide a home for some 5,000 species of plants, 190 types of amphibians, and one-third of all bird species in the United States*



## **THE NUTS & BOLTS ABOUT WETLAND RESTORATION**

By Joe M. Stangel, Renville SWCD

With the increasing number of wetland restorations, how do we accomplish this conservation practice? As you will find, it’s not just a matter of breaking some tile and walking away.

The process starts by completing a total station land survey of the proposed restoration site. What this means is obtaining elevation information about every 50 feet on the project area and adjacent areas that could be affected. Things like flow direction of tile, culverts and possible dike locations are all taken into consideration when working on a survey and preliminary design. After these tasks have been completed, the final design is completed by a design engineer.

Here are some design components and considerations used in wetland restorations:

- **Water Control Structures:** most restorations have control structures. It maintains a fixed pool elevation so flooding does not occur outside the restoration area. The structure itself consists of a tile riser of various sizes usually with a metal culvert sleeve encased in concrete, that outlet into adjacent drainage ditch or tile.
- **Emergency Spillway:** a flat area either excavated or natural that is used in cases when a huge rainfall event occurs so any excavated dikes do not wash out.
- **Dike:** an embankment constructed of clay and top soil, used to hold water in the restoration area.
- **Tile Break:** simply breaking tile at both ends and plugging with concrete within the wetland basin.
- **Tile Re-Route:** in some restorations, tile in a restorable basin may provide service to other landowners. In this case a non-perforated tile may be routed around the restorable basin to keep service intact.
- **Tile “Day-lighting:”** if a deep wetland basin exists, surrounding tile may be “day lighted” into the restored wetland basin to gain more water and to treat incoming tile water for water quality purposes.

You can be sure wetland restorations are often complex and very different from one another. The following facts about restorations remain the same. Existing and restored wetlands have many public benefits including improving water quality, flood retention and wildlife habitat.

## ENVIRONMENTAL QUALITY INCENTIVES PROGRAM (EQIP)

This voluntary program provides assistance to farmers and ranchers who face threats to soil, water, air, and related natural resources on their land. Through EQIP, the Natural Resources Conservation Service (NRCS) provides assistance to agricultural producers in a manner that will promote agricultural production and environmental quality as compatible goals and optimize environmental benefits.

EQIP is a competitive program with the most cost-effective and environmentally beneficial projects selected for funding. Under this program, producers are eligible for technical assistance, cost-share monies and incentive funds to assist crop, livestock and other agricultural producers and environmental and conservation improvements to their operations.

Under EQIP, producers are eligible for up to 50% cost-share. An additional 25% cost-share is available for specific practices – structures – in High Island Creek and Rush River watersheds.

The signup period for EQIP is done once a year, normally in December or January. Applications will be scored and ranked on a locally prioritized statewide environmental ranking workshop.

### ELIGIBLE PRACTICES:

- Nutrient Management,
- Residue Management,
- Water & Sediment Control Basins,
- Terraces,
- Diversions
- Streambank & Shoreline Protection,
- Animal Mortality Facility,
- Conservation Crop Rotation,
- Closure of Waste Impoundments,
- Upland Wildlife Habitat Management,
- Prescribed Grazing,
- Waste Storage Facility,
- Windbreak/Shelterbelt Renovation

### NRCS Contact Information:

- **McLeod County:** Lisa Buckner  
Phone: 320-864-5178 ext. 3
- **Renville County:** Jeff Kiorness  
Phone: 320-532-1550 ext. 3
- **Sibley County:** John Dotolo  
Phone: 507-237-5435 ext. 3
- **Nicollet County:** Stephanie Nelson  
Phone: 320-864-5178 ext. 3

## COMPOSTING FALL LEAVES

By Eleanor Burkett, MN Extension Service

Fall leaves are valuable to gardeners. Composted leaves keep soil in prime condition for most gardening projects. Follow these tips to optimize leaf composting:

- Use large compost bins, 5 to 6 feet across. This size allows for rapid internal heating of the compost pile, which drives the decomposing process. Smaller bins will be slow to heat and will not be able to maintain processing temperatures through the cold Minnesota winter. Bins, larger than 6 feet across may restrict oxygen flow into the leaf pile, slowing decomposition.
- Mix some nitrogen into the leaves as you pile them. Leaves are rich in carbon (which makes for great compost) but are comparatively low in nitrogen (needed to feed decomposing bacteria). Nitrogen could be added as a nitrogen fertilizer or fresh green organic matter. For example, for every four bushels of leaves, add 1-2 cups of lawn fertilizer without any weed killers (such as 34-0-0 or 21-0-0). Or add 1 part leaves with 2 parts fresh grass clippings or similar green garden debris.
- Moisten the leaves as they are piled. Rains will be slow to wet through a leaf pile, and moisture is essential for decomposition.



- Do not turn compost piles in the fall. This allows heat to escape and heat drives decomposition through the winter. Turn compost piles in the spring.
- Leaves can be easily picked up with lawn mowers. However, shredded leaves may over-pack in the compost bin, restricting the oxygen flow needed for decomposition.

With attention to these guidelines, a gardener can produce fall leaf compost ready to use by the following late spring. On its own, a pile of leaves may take 2 to 3 years to decompose. For more information contact your local Extension office to request the publication, *Options for Disposing of Leaves*.

## Low Interest Loans available for upgrading of Noncompliant Septic Systems"

Owners of an Individual Sewage Treatment System (ISTS) are eligible for low-interest loans to upgrade their non-conforming septic systems. This low-interest loan program is available at 3% interest rate for a ten year period.

### To Be Eligible:

- It must serve a residential, non-commercial property located in either watershed.
- Applicant must be a property owner of a non-conforming septic system:
  - ✓ Discharge to the surface,
  - ✓ Tiled to drainage or road ditch,
  - ✓ Discharge to cesspool, seep-age pits or dry wells,
  - ✓ Less than a 2-foot separation to seasonally saturated soil,
  - ✓ Lack of a system,
  - ✓ Does not meet setbacks to existing well.

### Not Eligible:

- ✓ Refinancing a previously installed system,
- ✓ Septic for new homes,
- ✓ Non-residential property,
- ✓ Project started before design and loan approval,
- ✓ Under court order to repair system.

### Contact Information:

- **Sibley County:** Scott Kudelka  
Sibley SWCD office  
P.O. Box 161; 111 6<sup>th</sup> Street  
Gaylord, MN 55334  
507-237-5435 ext. 103
- **Nicollet County:** Tina Rosenstein  
Environmental Services Office  
501 South Minnesota Avenue  
St. Peter, MN 56082  
507-934-0254
- **McLeod CO:** Roger Berggren  
Environmental Services Office  
830 11<sup>th</sup> Street East, Suite 110  
Glencoe, MN 55336  
320-864-1214
- **Renville County:** Diane Mitchell  
Water Management Office  
County Office Building  
410 East DePue Avenue  
Olivia, MN 56277  
320-523-3760

## "Cost Share & Incentive Monies available for Best Management Practices"

A variety of cost-share and incentive monies are available to producers looking to implement conservation practices in High Island Creek & Rush River watersheds. Practices include Open Tile Intake Alternatives, Structural Practices, Cover Crops for Canning Ground & Sugar Beet fields, and Vegetative Practices.

**Open Tile Intake Alternatives:** cost-share monies are available for the following options:

1. Removal of the intake
2. Removal of intake & replacement with denser pattern tiling
3. Removal of intake & replacement with a rock inlet
4. Installation of a slotted riser

75% cost-share for removal of structure or installation of Rock Tile Intake, with a cap of \$300 per intake. Cost of Slotted Riser Intake is paid.

**Cover Crops for Canning Ground & Sugar Beet Fields:** incentive payment of \$10 - \$12 per acre will be offered for producers planting a cover crop after the harvest of canning crops (fall harvest) and sugar beets.

**Structural Practices:** an additional 25% cost-share will be offered for those projects being funded through the USDA's Environmental Quality Incentives Program (EQIP). Practices will include Water & Sediment Control Basins, Terraces, Diversions and Grade Control Structures.

**Vegetative Practices:** filter strips, riparian buffers and grassed waterways installed under the USDA's Continuous CRP program might be eligible for an incentive payment depending on length of contract.

**Farmable Wetland Program:** producers can restore up to 10 acres of wetlands and 15 acres of buffer land on cropland. For each acre receiving CRP payments; a landowner might be eligible for an up-front incentive payment depending on length of contract.

**CP23A Wetland Restoration:** this new program allows producers to restore large wetland complexes and playa lakes that are located outside the recognized 100-year floodplain. There is no size requirement, just a 4 to 1 buffer to wetland ratio. Landowners are eligible for an up-front incentive payment: \$100 per acre for a 10-year contract and \$150 per acre for 15 years.

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Watersheds Implementation Project  
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**HIGH ISLAND CREEK & RUSH RIVER WATERSHEDS  
IMPLEMENTATION PROJECT**

**Project Sponsor**

Sibley County

**Contributing Sponsors:**

Renville, McLeod & Nicollet Counties  
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Sibley, Renville McLeod & Nicollet County Environmental  
Services  
University of Minnesota Extension Service  
High Island Watershed District  
Natural Resource Conservation Service  
Cities of Arlington, New Auburn, Gaylord, Winthrop, Gibbon  
& Lafayette  
U.S. Geological Survey  
U.S. Fish & Wildlife Service  
Minnesota Board of Water & Soil Resources  
Minnesota Department of Natural Resources  
Coalition for a Clean Minnesota River  
Pheasants Forever – Sibley & McLeod Co. Chapters  
Conservation Partners of America  
Green Isle Sportsmen Club  
Gaylord Protective League

**TOP 10 WAYS TO KEEP STORMWATER CLEAN:**

The storm drain on your street collects the water from your roof, driveway and sidewalk and funnels it directly into your local water body. The water may look clean, but that's not always the case.

Nutrients from grass and leaves, pet waste, and fertilizers "enrich" lakes-feeding algae blooms and harming fish. Toxic chemicals from hose-and-bucket car washes and household chemical spills add up, taking a nasty toll on our favorite swimming areas and fishing spots. Soil runs off into water bodies, reducing water clarity and hurting fish.

1. Use mulch and vegetation to keep soil from washing away,
2. Use nonphosphorus fertilizer on established lawns.
3. Sweep or rake grass and leaves away from street curbs.
4. Mulch and compost grass clippings and leaves.
5. Keep paved surfaces to a minimum.
6. Capture water runoff with a rain garden and rain barrels.
7. Wash your car on the grass.
8. Keep chemicals away from storm drains.
9. Collect your pet's waste.
10. Aim your rain-gutter downspouts onto grass.

*MPCA press release: April Showers Bring Some Problems*

This newsletter is sponsored by the High Island Creek & Rush River Watersheds Implementation Project. This publication is issued quarterly and is funded through the Clean Water Partnership grant program from the Minnesota Pollution Control Agency and various local and state organizations. HICWIP is an equal opportunity organization and employer. Questions and comments can be directed to: Scott Kudelka  
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