



WaterFront Bulletin



Minnesota Pollution Control Agency

August 2009

Working with Minnesotans to protect, conserve and improve our environment and enhance our quality of life.

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WaterFront is a web-based bulletin featuring updates on impaired waters, watershed project funding and water restoration and protection activities underway throughout the state. *WaterFront* is published to share information with internal MPCA staff and external watershed partners.

Reminder: Clean Water Partnership grants due Sept. 18

The Minnesota Pollution Control Agency (MPCA) is accepting proposals for Clean Water Partnership (CWP) grant and loan funding until 4:30 p.m. Friday, Sept. 18. The complete RFP and proposal form is available at www.pca.state.mn.us/water/cwp-319.html. For more information, send an email to CWP-319.grant.program@pca.state.mn.us or call Pete Fastner at 651-757-2349.

State approves \$6.15 million in funding for Section 319 and TMDL projects

The MPCA and Project Coordination Team recently approved \$6.15 million in funding for Section 319 Developmental, Education and Research (DER) and TMDL Implementation projects. The Project Coordination Team is an interagency group established by statute that assists the MPCA in recommending projects for funding to the Commissioner.

DER Recipients for Fiscal Year 2010		
Sponsor Agency	Project	Grant Amount
University of Minnesota	Alternative Designs for Agricultural Drainage Ditches	\$286,128
Ramsey-Washington Metropolitan Watershed District	Permeable Reactive Barriers for Phosphorus Removal	\$89,200
Minnesota Department of Agriculture	Cottonwood River Native Vegetation Water Quality	183,766
University of Minnesota	A Decision Support Tool to Restore Impaired Waters	\$719,468
Heron Lake Watershed District	Heron Lake Sediment Reduction Demonstration Project	\$16,500
University of Minnesota - Water Resources Center	Quantifying Phosphorus Load Reductions from Street Sweeping	\$285,970
University of Minnesota - Water Resources Center	New Tools to Support TMDL Phosphorus Reduction Plans	\$298,175
University of Minnesota	Enhanced Filter Media for Removal of Dissolved Heavy Metals and Phosphorus from Stormwater Runoff	\$404,000
Friends of the Minnesota Valley	Minnesota River Community Clean-Ups for Water Quality	\$110,000
Minnesota Board of Water and Soil Resources	Side Inlet Controls to Improve Water Quality	\$341,605

Grants, continued on next page

Events

Aug. 27-Sept. 7: Eco Experience at State Fair

The Eco Experience is an educational exhibit at the Minnesota State Fair, showcasing cutting-edge, environmentally-friendly services and products. The event inspires Minnesotans to take direct actions that will help them live more sustainable lives, improve the environment, and enhance our quality of life.

Returning visitors will not be disappointed in this year's Eco Experience. Some of the exciting new plans include:

- A carbon-neutral eco home, with a solar façade, green roof, and large, south-facing windows. The design emphasizes the relationship between a home and the surrounding lot, gardens, weather, and seasons. The eco house will be constructed inside the Progress Center this August and we'll post pictures and videos along the way!
- The Countryside Market, selling fresh, local food from Minnesota including caprese salad on a stick, watermelon, apples, and maple syrup soda.

For more information, go to: www.pca.state.mn.us/ecoexperience/index.html.

TMDL Implementation recipients for Fiscal Year 2010		
Sponsor Agency	Project	Grant Amount
Rice Creek Watershed District	Hardwood Creek TMDL Implementation Project	\$344,200
Rush River Watershed	Rush River TMDL Implementation Project for Fecal Coliform	\$340,000
Scott Watershed Management Organization	Minnesota River Tributary Phosphorus and Flow BMPs	\$475,000
Kanabec County Soil and Water Conservation District (SWCD)	Groundhouse Fecal Coliform and Biota (Sediment) Implementation Project	\$109,750
Dakota County SWCD	North Cannon River Bacteria Reduction Project	\$66,000
Shingle Creek Watershed Management Commission	Twin Lake Wetland 639 Nutrient Export Reduction	\$300,000
Renville County	Lower Minnesota River Dissolved Oxygen Elevation Project	\$205,186
Redwood-Cottonwood Rivers Control Area	Redwood River Watershed Nonpoint Pollution Reduction Project	\$175,575
Southeast Minnesota Water Resources Board	Southeast Regional Grant for Water Quality	\$900,000
Chisago County	North Branch Sunrise River TMDL Implementation Plan	\$190,000
Shingle Creek Watershed Management Commission	Crystal Lake Nutrient TMDL Alum Treatment	\$82,500
Carver County Land and Water	Burandt Lake Excess Nutrient Implementation Plan	\$230,000

Project Updates

TMDL approved for Crystal Lake in Robbinsdale

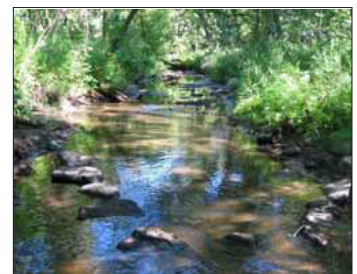
On March 25, 2009, the U.S. Environmental Protection Agency (EPA) approved the Total Maximum Daily Load (TMDL) for Excessive Nutrients (phosphorus) for Crystal Lake in Robbinsdale, Shingle Creek Watershed, Hennepin County. The MPCA approved the implementation plan for the TMDL on July 7, 2009. For more information, go to www.pca.state.mn.us/water/tmdl/project-crystallake-nutrients.html.



Crystal Lake

TMDL approved for Hardwood Creek

On June 18, 2009, the U.S. EPA approved the TMDLs for Total Suspended Solids and Biological Oxygen Demand to address biota impairment from sediment and low dissolved oxygen in the Hardwood Creek, located in the Rice Creek watershed in Washington and Anoka counties. The MPCA approved the implementation plan for the TMDLs on July 10, 2009. For more information, go to www.pca.state.mn.us/water/tmdl/project-hardwoodcreek-biotaooxygen.html.



Hardwood Creek

Events

Aug. 13, Sept. 9 and: Erosion control events

The Minnesota Erosion Control Association has scheduled a series of workshops. To register for any of the events below, go to www.mnerosion.org/workshops.html.

New Lakeshore Alternatives to Hard Armor, Thursday, Aug. 13, at Rockville and Cold Spring near St. Cloud. This combination classroom and field demonstration workshop will provide information on alternative products for stabilizing shorelines.

Winter Maintenance Training with Sediment Study Results, Sept. 9, 9 a.m. to 1:30 p.m., at the Department of Transportation in Duluth. Note that class size is limited to 50 people. Learn how to keep winter roads safe while saving money and protecting lakes and rivers. This training includes the results of the MECA Lake Superior Basin Sediment Study.

This workshop is free. Venue and lunch will be provided courtesy of the Regional Stormwater Protection Team (Lake Superior area).

If you need additional information, please contact the MECA office at 763-478-3267.

Save the date now: *MECA Annual Conference March 11-12, 2010, St. Cloud, MN*

Topic of Interest

States striving to reduce phosphorus in wastewater discharge

Like other states, Minnesota strives to reduce the total phosphorus in wastewater discharged from treatment plants to surface waters. Minnesota limits the concentration of total phosphorus from facilities of a certain size to 1.0 milligram per liter (1 mg/L) with a few wastewater treatment plants at 0.3 mg/L limits.

Given the several Total Maximum Daily Load studies underway in the state and the potential impact on communities and wastewater treatment facilities, the MPCA thought WaterFront subscribers may be interested in a recent national listserv inquiry that focused on states with low level treatment requirements for nutrient removal for wastewater treatment plants. The inquiry prompted several responses, including:

- Wisconsin's limit is 1.0 mg/L for medium to large Waste Water Treatment Plants (WWTPs), and Wisconsin is developing TMDLs that will require treatment below 1.0 mg/L.
- Some areas of the United States are aiming for lower targets, including Las Vegas, which has achieved 0.17 mg/L, Oregon at 0.07 mg/L, and Duluth, Ga. at 0.05 mg/L. For more information, go to www.hdrinc.com/Assets/documents/Publications/Waterscapes/september2005/LowEffluentPhosphorus.pdf.
- Maryland has a statewide program, Enhanced Nutrient Removal (ENR), funded by a \$30/year household fee for the Bay Restoration Fund, that goes toward upgrading municipal treatment plants to ENR program standards. For total phosphorus, the goal is 0.3 mg/L based on technology, not on stream assimilative capacity. For more information, go to <http://www.mde.state.md.us/ResearchCenter/Publications/General/eMDE/vol1no7/enr.asp>.
- The Wayne Hill WWTP in Gwinnett County is the "gold standard" in Georgia, discharging directly to Lake Lanier. A legal battle over this plant forced the plant to treat phosphorus to 0.08 mg/L. Georgia's rules and regulations reference "best technology available." For more information, go to www.water-technology.net/projects/f_waynehill/.
- The state of Massachusetts has 21 facilities with total phosphorus limits at or below 0.3 mg/L. Many of these streams are dominated by wastewater and the low limits are needed to protect water-quality. For more information, go to http://n-steps.tetrattech-ffx.com/PDF&otherFiles/Dallas_2_2006%20Presentations/Halterman%20MA%20NPDES%20phosphorus%20limits%20%5BRead-Only%5D.pdf.

The listserv inquiry was made by John Tynan, co-director of the Clean Air and Water Program in South Carolina (www.upstateforever.org).

In addition to the above listserv responses, EPA Region 10 (Pacific Northwest) reports on the advanced wastewater treatment processes installed at 23 municipalities in the United States at <http://yosemite.epa.gov/r10/water.nsf/Water+Quality+Standards/AWT-Phosphorus>. Excerpts include.

- Chemical addition to wastewater with aluminum- or iron-based coagulants followed by tertiary filtration can reduce total phosphorus concentrations in the final effluent to very low levels. The total phosphorus concentrations achieved by some of these WWTPs are consistently near or below 0.01 mg/l.
- The cost of applying tertiary treatment for phosphorus removal is affordable, when measured by the monthly residential sewer fees charged by the municipalities that operate these exemplary facilities. The monthly residential sewer rates charged to maintain and operate the entire treatment facility ranged from as low as \$18 to the highest fee of \$46.
- There appeared to be no technical or economic reason that precludes other dischargers from using any of the tertiary treatment technologies that are employed at these facilities. Any of these technologies may be scaled as necessary to fulfill treatment capacity needs after consideration of site specific conditions.

Submissions

Email WaterFront submissions to Cat Rofshus at catherine.rofshus@state.mn.us.

Worth noting

Clean Water Resource Fair Sept. 17 at Independence

The Wright Hennepin Clean Water Resource Association was formed to be a central source of information for lake associations and lake shore property owners by gathering information on clean water resources, lake associations, vendors and agencies, and holding Clean Water Resource Fairs for education and seminars.

On Thursday, Sept. 17, from 1 to 8 p.m., the Wright Hennepin Clean Water Resource Association will host a Clean Water Resource Fair at the City of Independence. This fair will offer all available lakeshore resources in one place. At this fair will be vendors, agencies and associations connected with clean water. Although the main theme is "clean water," the association wants to make sure all products connected with water are available.

This will be a family-friendly event with food, hourly educational presentations, and a rain garden demonstration. Attendance is free and open to the public, with an emphasis on western Hennepin and Wright county shoreline owners, including Lake Minnetonka, Long Lake, Independence, Sarah, Medicine and out to Buffalo.

Vendors include companies in the following categories: weed control and removal, lakeshore restoration, lake publications, phosphorous free products, manure management, watershed management commissions, rain gardens, boat ramp surveillance, shoreline plants, and recycled furniture. To reserve a booth, contact Jerry Wise at 763-479-2228 or cleanwater@frontier.com, or Toni Hirsch at 763-479-0513 or thirsch@ci.independence.mn.us.

Winona SWCD offers online library

The Winona County Soil and Water Conservation District recently added an educational "webrary" (online library) to its site at www.winonaswcd.org. Click on the Education link in at top left to access Powerpoint files, studies and other resources on different topics. Be sure to check out the YouTube link under videos that plays Winona SWCD's "70 Years of Conservation."

Minnesota case in Wetland Breaking News

Check out Wetland Breaking News at www.aswm.org/wbn/current.htm#12. Under National News, the online newsletter includes a summary of a case from northern Minnesota. In this case, the defendant constructed a road through property adjacent to Lake of the Woods. Twelve of the 13 acres on the property were wetlands, and the road construction resulted in the fill of wetlands. The Eighth Circuit Court upheld a lower court decision that the defendant violated the Clean Water Act and must comply with the order to restore the wetlands.

Rochester realizing rain gardens

The City of Rochester has launched Realize Raingardens, a cost share grant for residential rain gardens. The City will provide cost-share grants, matching 50 percent of verifiable costs (up to a maximum of \$750) to cover the costs of the design, plants, mulch, soil amendment, materials, and labor. Applications will be reviewed and ranked by Realize Raingardens Rochester task force members. The City expects to award grants to seven projects. Rochester is launching this program to reduce storm water runoff, improve water quality, and serve as educational demonstration sites for others to learn about rain gardens. For more information, contact Allison Plute, Public Works Department, at aplute@rochestermn.gov or 507-328-2440.