



University of Minnesota Regents, Fens Wetland Bank Site

Featured Project

Approximately 457 acres of land in St. Louis County that had been used for agricultural research is being converted into a forested bog. The completed project will be a wetland with native alder, black spruce, tamarack trees, and a small amount of upland buffer. Sphagnum moss will be an important part of the understory.

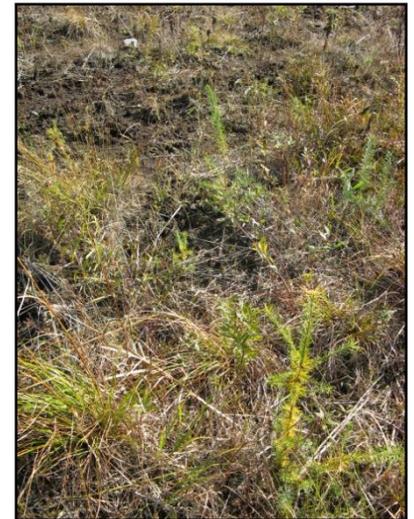
The purpose of the wetland restoration is to generate credits that can be used as mitigation to offset impacts to wetlands as a result of local road projects. Credits are the number of restored acres, or a percentage of the restored acres, depending on the quality of restored vegetation and many other factors.

Under the state's Wetland Conservation Act, local road projects - like other development projects - are required to avoid draining or filling wetlands if possible. But if an impact is unavoidable, a road authority may use wetland credits as mitigation through the state wetland banking program (See M.S. 103G.222), administered by the Board of Water and Soil Resources (BWSR).

Local, State and Federal agencies all have roles in determining the amount of wetland credit that is generated at a wetland banking site. A Technical Evaluation Panel (TEP) monitors the site periodically and recommends a specific number of credits to be approved, based on the quality of the vegetation, control of invasive plant species, previous land use / crop history, and many other factors. The TEP members for this project are staff from BWSR, DNR, St. Louis County and the North St. Louis Soil and Water Conservation District (SWCD). The TEP recommendation is made to the local government unit that administers the state Wetland Conservation Act in the project area. That local government unit may accept the TEP recommendation or approve a different amount of wetland credits, and a TEP representative may appeal the local government unit's decision.



A forested bog near the project site (above) and tamarack seedlings at the project site (below).



Location: Section 3,10, 23 and 26, Township 55N, Range 18W, St. Louis County

Partners: University of Minnesota, MN Board of Water and Soil Resources, MN Department of Transportation, North St. Louis SWCD, MN DNR, U.S. Army Corps of Engineers.

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Project Timeline: The project began in 2002 and three of the project's four phases were nearly complete as of June 2009. The fourth phase was funded in 2007 and development began in 2009. The site will contain mainly grasses and seedlings until the trees mature, which will take many years.

Project Costs / Funding Sources: Bonding funded phases 1 and 4, and MnDOT funded phases 2 and 3. The funds purchase wetlands credits that are approved by the Local Government Unit. These credits supply the Local Government Roads Wetland Replacement Program with wetland replacement credit.

All costs associated with planning, construction, monitoring and long term maintenance are entirely paid by the wetland bank applicant - the University of Minnesota. University staff estimates the project will cost about \$3,000 per acre.

Keys to Success: The U of M staff started with a good project site and developed an innovative plan, thanks to their tremendous expertise in restoring wetlands, especially in restoring bogs of this type. Sphagnum moss is being harvested from a nearby bog and spread on the restoration site. The moss contains native plant seed and creates the ideal growing conditions for wetland vegetation. Various restoration techniques are being utilized on different parts of the site to evaluate their effectiveness.

BWSR role(s): Developed a Request for Proposals and evaluated applications for projects that would develop wetland credits for the local road program, and administered the Purchase Agreement to provide compensation for the credits provided to the State of Minnesota. BWSR staff also monitors all wetland bank sites to determine whether weed control or other management is needed to maintain the ecological integrity of the site.

Measurable Outcomes: Wetland impacts due to road projects range from a fraction of an acre to more than 100 acres. Using wetland credits for such impacts is a good option for local road authorities, and it supports the "no-net loss" goals of state and federal wetland protection regulations. Administrative efficiency is achieved by transferring responsibility for replacing inevitable loss of wetlands to BWSR, instead of requiring road authorities to undertake wetland restoration projects for mitigation purposes. This consolidates the necessary technical, financial and other implementation work to provide higher quality, more cost-effective wetland replacement. State and local taxpayers also benefit by saving land acquisition costs due to economies of scale; and by avoiding delays in public safety road enhancements. High-quality wetland replacement sites are created in areas where they provide water quality and wildlife habitat benefits.

Link / contact for more information: Tom Malterer, tmaltere@nrri.umn.edu, 218-720-4324 or Kurt Johnson, kjohnson@nrri.umn.edu, 218-720-4268