



Monitoring restored wetland sites for long-term quality

Featured Project

The Minnesota Board of Water and Soil Resources (BWSR) routinely inspects sites where wetlands have been restored through the wetland banking program. From 2007-2010, a total of 215 sites have been visited by BWSR staff, and about two-thirds of the sites have required some corrective action to be taken by landowners to comply with the terms of a conservation easement that protects the restored wetland and adjacent native vegetation buffers. The majority of the non-compliance issues involve the presence of noxious weeds and a lack of boundary markers. Other issues that have been identified include the presence of unapproved structures and debris, engineering concerns related to the viability of the restoration, and alterations to the wetland vegetation (usually mowing or planting crops).

An example of recent easement compliance work involved unauthorized mowing within an easement established in 2001. Part of the easement area lacked signage to identify the boundary, and the property had changed ownership, which led to uncertainty about the landowner's responsibilities in the terms of the conservation easement. The grass buffer, surrounding a restored wetland, was routinely being mowed and hayed by vendors hired by the landowner and the homeowner's association. The mowing degraded the wetland vegetation and negatively affected the intended improvements to water quality and wildlife habitat.

Initially the site was inspected by a BWSR field technician in 2009, who then contacted the property owner and developer to inform them of their responsibilities regarding vegetation management within the easement. In an attempt to resolve the issue, the landowner contacted their neighbors to explain that the area should not be mowed. While that communication was partly successful, the driest part of the easement area was still being mowed by a second vendor hired by the homeowner's association.



Pictured: The restored wetland includes a buffer that consists of a diverse mix of native grasses and flowers (above), whereas the mowed buffer (below) prevents the wetland from achieving the intended benefits.



In 2010 BWSR's monitoring staff again contacted the landowner and homeowner's association to reestablish the easement boundary corners and to explain why the mowing within the development was harmful to the restored wetland and in violation of the easement. In 2011 monitoring staff will meet with other landowners in the development with identified mowing violations to reestablish their easement boundaries and to allow native vegetation to regenerate.

Location: City of Grant, Washington County

BWSR Featured Project

Partners: BWSR and The U.S. Army Corps of Engineers, St. Paul District

Project Timeline: In July 2007 BWSR hired employees (1.75 full-time equivalents) with the necessary plant identification skills and the ability to delineate wetland boundaries to perform these wetland monitoring duties. Student interns are hired during the growing season to assist BWSR staff in monitoring restoration sites statewide. BWSR staff follow up with landowners to resolve non-compliance issues as needed, prepare reports, develop schedules for monitoring existing and new sites, make recommendations to improve the quality of restoration sites, and develop and improve methods for training student interns.

Project Costs / Funding Sources: Project costs are internalized within the BWSR budget with financial support from the U.S. Army Corps of Engineers.

Keys to Success: The wetland bank site monitoring project is required by Minnesota Rules Chapter 8420 to ensure the wetland replacement sites are managed consistent with the bank plan and protected from degradation.

BWSR role(s): BWSR's primary role is to plan, coordinate and implement the monitoring project in order to meet the obligations as set forth by the Legislature in Minn. Rules Chapter 8420.0735. Project development and implementation also involves providing assistance to landowners while resolving the identified concerns so easement compliance can be understood and achieved.

Measurable Outcomes: Once corrective actions are in place, the state's bank site easement interest will be whole. Currently, several bank sites have issues that diminish wetland replacement quality and in turn negatively impact the state's natural resources.

For more information: Information about the wetland banking program is on the BWSR website:
www.bwsr.state.mn.us/wetlands

For more information, please contact Dan Girolamo, Wetland Bank Administrator, 651-215-1703.



This mowed wetland buffer prevents vegetation from getting established, and in turn providing multiple benefits for water quality and wildlife habitat.