

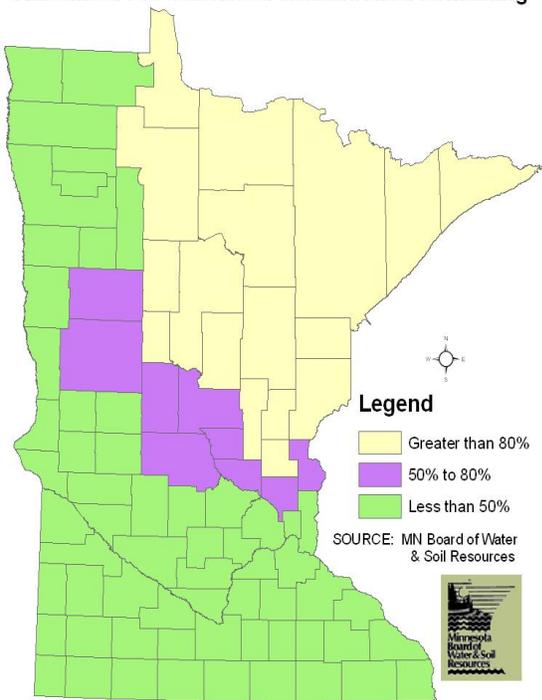
# WETLANDS

## I. What is the Issue? Why are we concerned?

As part of Minnesota’s rich water heritage, our wetlands – bogs, swamps, marshes, potholes and wet meadows, are key components of our entire ecological system. Wetlands provide an essential habitat for migratory birds and other wildlife and, due to wetlands nutritional makeup, the necessary developmental environment, including breeding, nesting and feeding. The prairie pothole regions of Minnesota, North Dakota and South Dakota, which serve a particularly important function for migratory waterfowl, are rapidly diminishing. A recent Government Accountability Office (GAO) study indicated that, at the present rate, it would take 150 years and billions of dollars for wetland restoration to achieve the “high priority” habitat protection goal of the US Fish and Wildlife Service (USFWS).

Wetlands also serve a protective role in the control and quality of our surface and groundwater

Minnesota Wetland Conservation Act  
Amount of Pre-statehood Wetland Area Remaining



by providing natural filtration for pollutants and erosion. They fulfill the dual function of providing flood control by slowing spring and heavy rain run-off, and retaining needed moisture in drought or dry conditions to recharge our groundwater resources. As a pollution control mechanism, wetlands filter out sediment, pesticides and other contaminants, providing an increase in water quality for our streams, rivers and lakes. Wetlands also provide important outdoor recreational areas, such as for bird watching, wildlife observation, and hunting and fishing as well as an enhancement of our important aesthetic values.

## II. What are the trends?

These important attributes of wetlands, however, were not fully recognized until the 1980’s. Since the time of Minnesota settlement in the 1850’s, over 50% of the approximately 20 million acres of wetland in Minnesota have been filled or drained

in order to make the land more economically productive for agriculture and other development. Over 90% of the original wetlands in the southern and western regions, where agricultural drainage produced great economic benefit, have been destroyed. Some areas within those regions are reported to have less than 1% of wetlands remaining. Today, Minnesota has approximately 10 million acres of wetland, or 1/5 the land surface of Minnesota.

In addition to the reduction in overall quantity of wetlands in Minnesota, the current quality of wetlands has also been of increasing concern. The remaining wetlands are subject to impairment by reduction of upland areas that provide a pre-filter for chemical runoff and erosion, as well as their use as storm water basins. These impairments and changes in hydrology can impact sediment levels and overload pollutant levels, reducing wetlands' beneficial functions and allowing introduction of non-native plants and fish.

### **III. Why is this issue important to address?**

In the early 1990's, through federal law enactment and passage of the Minnesota Wetland Conservation Act (WCA), measures were taken to correct the course of wetland destruction. The concept of "no net loss" was introduced and embraced by Minnesota and many other states. Minnesota officially adopted the no net loss goal (Minnesota Laws, 1991, Chapter 354), recognizing the value of wetlands preservation. The goals of the WCA are:

- Achieve no net loss in quantity and quality of wetlands
- Increase the quantity, quality and biological diversity of wetlands
- Avoid activities that would destroy or diminish wetlands
- Replace wetlands when damage is unavoidable

There is no question that enactment of the Minnesota WCA slowed the trend toward wetland loss and provided important protection for quantity, quality and biological diversity of the remaining wetlands. However, the law also included 10 categories of significant exemptions, including agricultural and drainage exemptions that did not require reporting or authorization. Enforcement authority was neither sufficient nor supported well by resource allocation. Regulatory conflicts between existing drainage laws, federal programs and regulatory oversight added to the confusion. The foundation of the WCA is a sequencing program requiring avoidance, mitigation and, if all else fails, replacement, which sometimes leads to confusion regarding options and direction in permitting and replacement plans.

### **IV. What is the regulatory oversight?**

The Minnesota Wetlands Conservation Act is the primary wetlands regulation in Minnesota. It is administered by the Board of Water and Soil Resources (BWSR), implemented by over 350 local government agencies, and enforced by the Department of Natural Resources. The Minnesota Pollution Control Agency regulates discharge into wetland areas through the Clean Water Act. Additionally, there is federal oversight under the SwampBuster laws, which penalize property owners who inappropriately drain wetlands. This law is enforced through the US Department of Agriculture, National Resources Conservation Service. The Army Corps of Engineers also has responsibility for wetland protection under Section 303 of the Clean Water Act.

## **V. What factors contribute to this issue?**

The WCA, related federal regulatory programs, and conservation incentive programs have all had a positive impact on wetland quantity and quality. A 2003 BWSR report showed a continued loss of approximately 500 acres annually; the 2005 report showed a slight gain. These numbers are provided with caveats due to a lack of information on the following:

- Exemption impacts are not recorded/reported
- Questionable accuracy of baseline data
- Illegal activity that degrades or damages wetlands
- Inconsistent monitoring of replacement plans
- Sparse data on wetlands quality
- Confusion and implementation inconsistencies of local government units (LGU's)

To sum up the inventory and reporting concerns, the Comprehensive Wetland Assessment Monitoring and Mapping Strategy (CWAMMS), which is an effort by multiple state agencies, primarily MPCA, the DNR, BWSR and the USFWS, states, "Unfortunately, nearly 15 years after the enactment of the WCA, we still do not confidently know whether we have reached the statutory goal of no net loss of wetland quantity and have very little data concerning wetland quality."

### Exemptions

BWSR reports that the primary reason for loss under the WCA has been associated with the exemptions, which by their nature are uncontrolled and unnoticed. Exemptions primarily involve the following:

- Agricultural use of the land (previously used as crop land)
- Drainage laws (repair and replacement of existing drainage systems)
- De minimus impacts (small amounts of wetlands exempt from controls)
- Development exemptions (previously started)

### Enforcement

There has been a general lack of enforcement overall from the USDA SwampBusters laws, and the US Army Corps of Engineers. In Minnesota, enforcement has been light due to lack of resources allocated for enforcement, e.g., there are only five wetland enforcement officers in the DNR. Additionally, violators have not typically been required to provide the extent of restoration required by the law.

## **VI. Who are the primary stakeholders?**

In addition to Minnesota citizens, who depend on wetlands for aesthetic, recreational and educational value, water quality, flood control and wildlife habitat, stakeholder organizations also include agriculture, business/development interests, environmental and conservation organizations, and local, federal and state governments. BWSR has led an ongoing effort to include these stakeholders in an advisory capacity, which culminated with the December 2006 Wetland Report.

## **VII. What is working?**

### 2007 Regulatory Changes

A number of wetland reports submitted through BWSR and other non-profit environmental groups, such as the Minnesota Center for Environmental Advocacy (MCEA) and the Northstar Sierra Club, as well as a Wetlands Summit Report of 2006 by a group of concerned conservation associations, prompted significant changes to the WCA in the 2007 legislative session, specifically regarding exemptions, reporting issues and enforcement issues. The number of agriculture and drainage exemptions was reduced, and de minimus exemptions were reduced by size, type and location. Additionally, the law provides for an upgraded reporting system, which requires exemptions and their impacts to be reported and recorded. Coupled with Minnesota CWAMMS, a more accurate assessment of quantity and quality of wetland impacts should result.

The enforcement provisions of the law were also somewhat strengthened. BWSR is now allowed to levy monetary penalties of up to \$10,000 per violation, and allows local government units to place deed restrictions on wetlands relative to drainage if the wetland is at risk of conversion for non-agriculture use. Approximately \$600,000 was allocated for DNR enforcement of wetland violations. The legislative changes also strengthened in-area replacement requirements and restricted storm water ponds created specifically for wetland replacement, as well as upgrading the requirements for maintaining types and biodiversity of specific wetland impacts.

Through the EPA and the Minnesota Legislature, approximately \$600,000 has been allocated each year, beginning in July 2005, to upgrade the quantity and quality assessments of Minnesota wetlands. The CWAMMS provides for strategies to establish accurate baseline data on quantity and quality, which will allow for an accurate assessment of future trends and changes, along with causal mechanisms, and will provide a statewide report on status of trends to contribute to the long-term understanding of Minnesota wetland health. Although we hope to see annual and interim reports from both of these efforts, the initial statewide wetland status report is not due until 2009.

### **VIII. What are the information gaps?**

Information regarding baseline data of Minnesota's wetlands, their general health and quantity is somewhat elusive due to the inaccuracy of the initial inventory and program reporting requirements. Steps taken by the Minnesota Legislature and financial support from the EPA have begun to address data issues. At this point, however, we have not seen results of those activities. The quality assessment of our wetlands has lagged behind due to inaccurate models. With the implementation of sampling through CWAMMS, we should have a better picture of the health, causal factors, and recommendations.

Minnesota initiated a statewide random survey in the spring of 2006 to track trends in wetland quantity. The DNR Resource Assessment Program and the US EPA Environmental Monitoring and Assessment Program assisted with the statistical design of the survey. Color aerial photographic imagery of 1,830 randomly selected 1 – 2 mile plots was initially acquired and wetlands within these sample plots were mapped. Similar imagery will be acquired and interpreted each year in 250 "Common": plots and every three years in 1,580 "Panel" plots. Following completion of the first three-year cycle, wetland quantity results will be reported and will establish "baseline" conditions. Repeating Panels 1 – 3 in future cycles will allow comparisons with this baseline to determine changes in wetland quantity in the state and provide an ongoing, accurate inventory. Estimates of wetland quantity, however, will not be reported until 2012.

A geo-referenced online permitting and accounting system will enable viewing of wetland permitting information in real time, allow querying of permitting and related regulatory results by various geographic areas, and will improve overall accounting of wetland protection programs. Initial work for phase 1 (wetland permitting actions) is being led by BWSR in collaboration with the DNR and the MPCA. This planning phase was scheduled to be completed in September 2007.

Legislative changes have addressed many wetland concerns but are just beginning to be implemented, and their impact is yet to be determined. In addition, several exemptions are still in place, although reporting requirements will provide a better picture of their ongoing impact and continued assessment on the accuracy of reporting entities.

The Conservation Recovery Program (CRP) has allowed agricultural land, including wetland and uplands, to be put into conservation protection for periods of 10 to 15 years. Many of these lands are coming up for renewal and, with the increased production of crops for energy, corn for ethanol, in particular, the economic pressure to remove CRP land will be a factor nationwide. CRP renewals in September 2007 were down 15% and Minnesota is the 7<sup>th</sup> largest in CRP land at 1.8 million acres.

## **IX. What is the current climate to publicly impact this issue?**

Wetlands have enjoyed the benefits from diverse conservation organizations, environmental organizations and duck hunters. The ongoing monitoring will be an important component in order to provide the necessary public resources to implement the 2007 legislative changes.

Agricultural producers will come under increasing pressure to utilize marginal lands for economic value. Public outreach, education and creative options will be needed to stem the tide of CRP reversals.

## **X. For more information**

“Comprehensive Wetland Assessment, Monitoring and Mapping Strategy”  
Comparative Project of the DNR, MPCA, USFWS, BWSR, 2006

“Minnesota Wetlands Protection Report”  
Minnesota Center for Environmental Advocacy, 2006

“Wetland Conservation Act Assessment”  
BWSR, December 2006

“Prairie Pothold Region”  
USGAO, September 2007

“Minnesota Wetlands: Is Minnesota Doing Enough to Protect Its Remaining Wetlands”  
Sierra Conversation Club, Minnesota Northstar Chapter, March 2006

### Websites:

[www.Northstar.Sierraclub.org](http://www.Northstar.Sierraclub.org)

[www.bwsr.state.mn.us](http://www.bwsr.state.mn.us)

[www.pca.state.mn.us](http://www.pca.state.mn.us)

[www.DNR.state.mn.us](http://www.DNR.state.mn.us)

[www.MCEA.org](http://www.MCEA.org)

[www.USFWS.com](http://www.USFWS.com)

[www.epa.gov/OWOW/wetlands](http://www.epa.gov/OWOW/wetlands)

[www.fws.gov/nwi/](http://www.fws.gov/nwi/)

[www.nwrc.usgs.gov/wetlands.htm](http://www.nwrc.usgs.gov/wetlands.htm)