

## Replacement of Wetlands

### Replacement Credits

Credits for wetland replacement can be achieved through the restoration of degraded wetlands, creation of new wetlands, establishment of buffers around replacement wetlands, or the protection of wetlands of high ecological significance. Restoration involves the reversal of wetland drainage, filling or vegetative degradation to an area that was originally wetland but no longer qualifies as such. Creation is the establishment of wetland in an area that has been historically upland.



### Replacement Plan Development

WCA Rules emphasize replacement as geographically close to the wetland impact as possible. Replacement Plans include, but are not limited to, resource maps, topographic survey, design drawn to scale, design specifications, the size, type, and location of impacted wetlands and replacement wetlands, a site resource analysis, a description of the methods used, Best Management Practices (BMPs) to be incorporated, and a monitoring plan for the replacement wetland. A replacement plan may include project specific mitigation either on-site or off-site, or the use of wetland banking credits.

### Wetland Banking

Wetland banking is the process of tracking wetland and upland buffer credits that are designated as replacement for future wetland losses. Wetland banking allows wetland acreage to be purchased from an account holder who has functioning wetland credits available. These credits may result from a prior replacement project with excess credits earmarked for banking or from a wetland creation or restoration project done solely for the purpose of establishing wetland credits in the State Wetland Bank. A perpetual conservation easement over the banked wetland is required prior to deposit.

Wetlands restored or created without prior LGU approval or those drained or filled under an exemption are not eligible for deposit in the bank. To ensure that only functioning wetlands are deposited, created wetlands must be monitored for five years, unless the LGU determines otherwise.

## Exemptions

Some wetland impacts are exempt from replacement requirements. The applicability of exemptions can be confusing so it is advisable to contact the ACD or your LGU for more information prior to conducting any work in a wetland. Proper erosion control practices must be implemented regardless of the applicability of an exemption. There are exemptions that apply to the following general categories:

**De minimis** - very small impacts to certain types of wetlands may be allowable without replacement.

**Ditch maintenance** - cleaning and repair of legal ditch systems without increasing the width, depth, or slope of the original ditch design and construction.

**Agricultural** - draining or filling certain types of wetlands for agricultural activities provided they remain in agricultural production for a designated duration.

**Wildlife Habitat** - impacts may be exempt if their sole purpose is the enhancement of wildlife habitat, as certified by the local Soil and Water Conservation District.

**Forestry** - certain impacts associated with forestry and silviculture are exempt.

**Temporary** - impacts that are limited in scope and duration may be exempt.

## Enforcement and Liability

### Enforcement

All draining and filling and some excavation activities conducted in wetlands under the jurisdiction of the WCA are subject to administration by the LGU. Enforcement of the WCA is overseen by DNR Conservation Officers.

Unauthorized impacts will be halted immediately and the conservation district will determine appropriate corrective action including full restoration of impacted wetlands that can be restored and replacement of wetlands that are beyond restoration. Violations are replaced at a ratio of 4 to 1 or greater.

Ignorance of the law does not reduce restoration requirements. Failure to comply with restoration or replacement orders is a criminal offense.

Contractors are responsible if the work they perform drains, excavates, or fills a wetland unless they have received a signed statement from the landowner stating a replacement plan has been approved or is not required.

## Management of Wetlands



Set buildings back from the wetland edge. Wetland boundaries change over time and areas that are dry now could be much wetter a decade later.

Maintaining unmown buffers around wetlands provides additional wildlife habitat and reduces stormwater runoff by increasing infiltration and evapotranspiration.

Treating stormwater with rain gardens reduces the volume of water flowing into wetlands from storm sewers.

Removing and controlling invasive species promotes the native plant community and the wildlife that depend on it.

Restoring degraded wetlands adds wildlife habitat and capacity to store excess runoff, thereby mitigating flood impacts.



### Waterfowl Ponds

Pond excavation is often perceived as beneficial to wildlife. It is more accurate to regard it as an exchange of wildlife types. Open water ponds are a benefit to ducks, geese, and herons, while sedge meadows are better for a variety of amphibians, reptiles, mammals, and birds of prey. Forested wetlands harbor song birds, amphibians, mammals, and birds of prey. Wetlands that are often saturated, but seldom have standing water, support a wide variety of flowering plants, grasses, and shrubs that attract butterflies and moths and the wildlife that feed on them.

Be sure to identify the habitat needs of desired wildlife before changing the landscape, or your actions may displace the animals you hoped to attract.

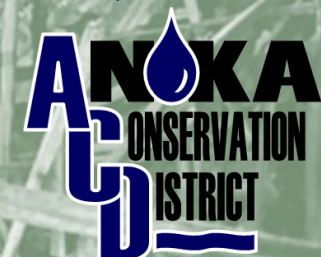
# WETLANDS

## Benefiting Wildlife and People



## Conservation Starts at Home

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## Introduction

Once considered wastelands, wetlands are now valued for the functions they provide in our landscape, benefiting both wildlife and people. We have filled or drained more than 50% of Minnesota's wetlands for the sake of development, transportation, and agriculture, with some areas losing more than 90%.

In 1991, the Wetland Conservation Act (WCA) was passed to stem the tide of wetland loss. In simplest terms, the WCA mandates that wetland impacts first be avoided, then minimized, and as a last resort, replaced.

## Benefits of Wetlands



**Flood Reduction-** Wetlands act like sponges, absorbing stormwater runoff and then releasing it at a slower rate. Extending the duration of runoff decreases the risk of flash flooding and the high velocity flows that damage streams by eroding the banks and down-cutting the channel.



**Wildlife Habitat-** Wetlands provide critical habitat for many species during all or part of their life cycle. Wetlands are important nesting areas for birds, spawning and nursery areas for fish, and provide refuge for animals to avoid predation.

**Groundwater Recharge-** Wetlands are often a hydrologic connection between surface water and groundwater. Some wetlands recharge groundwater supplies while other wetlands are fed by groundwater. Wetlands fed by groundwater can help maintain base flow in adjacent streams during periods of drought.



**Water Quality-** Wetlands slow water flow into lakes and rivers allowing for nutrients to be utilized by plants and sediment to settle. Trapping sediment reduces phosphorus loading, since phosphorus is often attached to soil particles.



**Education/Recreation-** Wetlands provide an opportunity to demonstrate the value of habitat conservation for wildlife and the importance of the hydrologic cycle. Recreation opportunities related to wetlands are plentiful: bird-watching, photography, hiking, canoeing, kayaking, hunting, and fishing.

**Erosion Control-** Wetlands along lakeshores dissipate wave energy and reduce shoreline erosion. Along streambanks, the roots of wetland vegetation hold soil in place against the shear stress of the current.

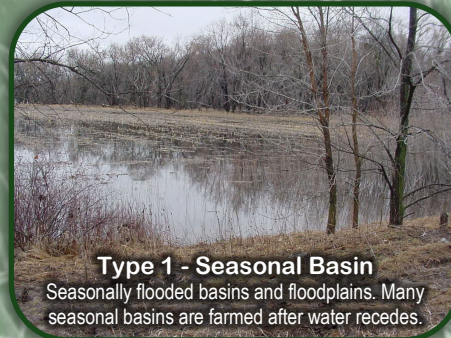
## Identifying Wetlands

'Wetland' means different things to different people. To qualify as wetland, an area only needs to have standing water or saturated soil for two consecutive weeks during the growing season. This means that many wetlands are dry for much of the year.

For regulatory purposes, wetland inventory maps and personal opinion are irrelevant. Wetland extent is defined according to the 1987 *Corps of Engineers Wetlands Delineation Manual*, which requires rigorous documentation of soils, vegetation, and hydrology. Each parameter has criteria that must be met for an area to be classified as wetland. Contact the Anoka Conservation District (ACD) or a certified wetland delineator prior to starting a project to verify wetland extent and avoid a wetland violation.

## Types of Wetlands

All eight wetland types found in Minnesota are present in Anoka County.



**Type 1 - Seasonal Basin**  
Seasonally flooded basins and floodplains. Many seasonal basins are farmed after water recedes.



**Type 2 - Sedge Meadow**  
Usually waterlogged with occasional standing water. Supports grasses, sedges, rushes, and forbs.



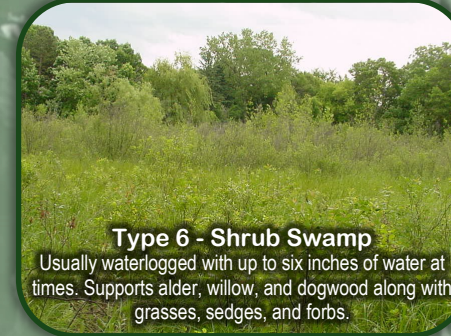
**Type 3 - Shallow Marsh**  
Usually waterlogged, often covered by more than six inches of water. Supports sedges and other marsh plants.



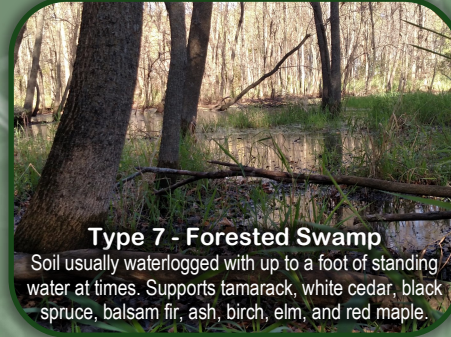
**Type 4 - Deep Marsh**  
Six to 36 inches of standing water. Supports emergent and submergent plants.



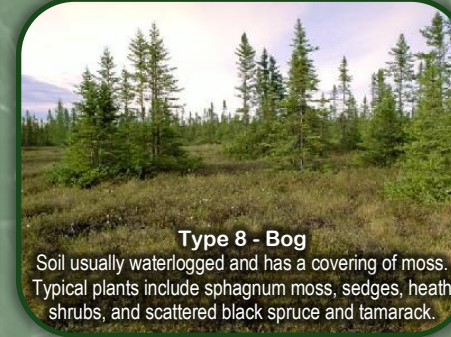
**Type 5 - Open Water Wetland**  
Water can be several feet deep. Supports emergent, submergent, and floating-leaf vegetation.



**Type 6 - Shrub Swamp**  
Usually waterlogged with up to six inches of water at times. Supports alder, willow, and dogwood along with grasses, sedges, and forbs.



**Type 7 - Forested Swamp**  
Soil usually waterlogged with up to a foot of standing water at times. Supports tamarack, white cedar, black spruce, balsam fir, ash, birch, elm, and red maple.



**Type 8 - Bog**  
Soil usually waterlogged and has a covering of moss. Typical plants include sphagnum moss, sedges, heath shrubs, and scattered black spruce and tamarack.

## Regulation of Wetland

There are four general categories of wetland regulation in Minnesota.

**Swampbuster** (federal) - 1985 Food Security Act provision administered by the United States Department of Agriculture that allows for denial of federal farm program benefits to producers that convert wetland to cropland.

**Section 404 of the Clean Water Act** (federal) - administered by the U.S. Army Corps of Engineers regulates the discharge of dredge or fill material into 'waters of the United States.' Waters of the United States generally include navigable waters and all waters connected to them.

**Public Waters Wetlands** (state) - administered by the MN Department of Natural Resources (DNR) under MN Statute 103G regulates impacts to large Type 3, 4, and 5 Wetlands with the boundary being set at the Ordinary High Water Level.

**Wetland Conservation Act (WCA) of 1991** (state) - administered by local government units (LGUs) and enforced by the DNR, the WCA regulates impacts to all wetlands not covered by the Public Waters Wetlands law. Impacts can include draining, filling, and excavating.

## Avoid, Minimize, and Replace

LGUs are responsible for determining if a wetland impact (draining, filling, or excavating) is exempt based on information supplied by the applicant. Non-exempt impacts must go through a process known as sequencing before the impacts can be approved.

**Sequencing**  
Simply stated, sequencing dictates that impacts are completely avoided where practical. The severity, duration, and area of impacts must then be minimized to the smallest reasonable extent. Finally, the remaining impacts must be replaced with created or restored wetland of equal or greater public value in accordance with an approved replacement plan. Wetland impact replacement is required at two to four times the area of impact depending on the circumstances.

Wetland impacts must be avoided if any of the following apply:

- Endangered or threatened species
- Rare natural community
- Special fish and wildlife resource
- Archaeological or historical site
- Groundwater or surface water sensitivity
- Waste disposal sites
- Educational or research location

## Alternatives

In addition to the proposed project, applicants must provide LGUs with at least two alternatives that would avoid wetland impacts. The LGU will then determine if the alternatives are feasible and prudent; economic considerations alone do not make an alternative not feasible. The LGU shall deny a Replacement Plan if a feasible and prudent alternative exists.

