



# Wetland Management in Clearwater County

## What is a Wetland?

Wetlands are landscape features that are saturated with water all or part of the year. This may include standing water or water just below the surface which may never be visible without excavation. In addition, these systems support plants that can live in water or saturated soils, such plants are called “hydrophytes”. Some common examples of hydrophytes in Clearwater County include Canary Grass, Sedge, Cattail, Willow, Dogwood, Ash, Tamarack, and Trembling Aspen. Finally, a wetland must have hydric soils or soils that have formed under conditions of saturation and have developed anaerobic (lack of oxygen) conditions in the upper portion. This is often seen in Clearwater County’s soils as a grey layer or “mottled” appearance within the top 12 inches. This mottled appearance may be gray or red in color.

## The Benefits of a Wetland

Wetlands benefit humans and the environment in many ways. These benefits will vary depending upon the type of wetland, the location of the wetland, the health of the wetland, the influences on the wetland, the season, and the year. Collectively they may provide:

- |                                 |                           |
|---------------------------------|---------------------------|
| Floodwater Detention            | Wildlife Habitat          |
| Nutrient Assimilation           | Shoreland Erosion Control |
| Sediment Entrapment             | Education                 |
| Low Flow Augmentation           | Fisheries Habitat         |
| Ground Water Recharge/Discharge | Commercial Benefits       |
| Aesthetics and Recreation       |                           |

## Wetland Protection

Wetlands are afforded protection in Clearwater County from four main agencies: the Army Corps of Engineers, the Department of Natural Resources, Environmental Services and the Natural Resources Conservation Service. Jurisdiction may overlap depending upon the type of the wetland, location, and/or activity proposed. All four should be contacted prior to any work within a wetland.

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|---|-----------------------|
| <b>Army Corp of Engineers</b>                   | <b>(218) 444-9328</b> |
| <b>DNR Hydrologist</b>                          | <b>(218) 755-3973</b> |
| <b>Clearwater County Environmental Services</b> | <b>(218) 694-6183</b> |
| <b>Natural Resources Conservation Service</b>   | <b>(218) 694-6584</b> |

## The Minnesota Wetland Conservation Act

Clearwater County Environmental Services administers the Minnesota Wetland Conservation Act. This act serves to protect wetlands from fill, drainage, and excavation (collectively known as “impact”). However regulation is variable dependant upon wetland type(s), ownership, previous impacts, and proximity to lakes/streams. Anyone proposing to conduct an activity in a wetland should contact Environmental Services at the number above prior to working in a wetland as certain activities may be exempt from the rule. These exemptions may allow for minimal impact depending upon the project.



Type 4 Deep Marsh



Type 3 Shallow Marsh



Type 8 Bog

# Selected Wetlands in Clearwater County

There are 8 wetland types defined by the MN Wetland Conservation Act. These types are very different in form and location and provide a variety of benefits. Vegetation ranges from cattails to dense brush, drowned crops to shaded forest. Water may be visible or just under the surface (saturated). The wetlands discussed below are 4 types that are very common to Clearwater County and may not be recognized by the public as beneficial. Some may support crops, be used as hay ground, or have large trees. It is important to note that there may be more than one wetland type within the same wetland complex.



**Type 1 wetlands** are seasonally flooded areas that may be found in the middle of farm fields or adjacent to streams within the floodplain area. Standing water may occur during run-off, but is rare during the majority of the year. Vegetation varies greatly from forested hardwoods in the floodplain to stressed crops. The benefits of these wetlands are for seasonal waterfowl movement, protection to water quality, aquifer recharge and related wildlife habitat. These wetlands are often difficult to identify during the growing season and may appear as just lush vegetation in a farm field area.



**Type 2 wetlands** are inland fresh meadows that may be found as shallow basins, sloughs, farmland sags, or bordering larger, water-filled wetland types. Standing water is likely during spring run-off only but usually have saturated soils during most of the year. Vegetation includes grasses, sedges, rushes, broad-leaved plants and limited small shrubs. These wetlands are often noted by the public as great duck spots during spring migration, but “dry-up later in the year”. For this reason, many individuals wish to excavate the site to retain deeper water for a longer period. This activity may or may not be allowed. This wetland type may often be used for hay ground during drier parts of the year. Other benefits of these wetlands include waterfowl and wildlife habitat, groundwater recharge, and low flow augmentation. This wetland type is estimated to make up over 34% of Clearwater County’s wetlands.



**Type 6 wetlands** are shrub swamps found along sluggish streams, occasional floodplains, and as fringe areas to larger, deeper wetland types. Soils are waterlogged during much of the growing season and may be covered with as much as 6 inches of standing water. Vegetation consists of alders, willows, red-osier dogwood, and various sedges and grasses. These are usually recognized by most people for wildlife habitat value, but also provide benefits to floodwater retention, ground water recharge, sediment entrapment, and related water quality protection. Type 6 wetlands make up approximately 29% of Clearwater County’s wetlands.



**Type 7 wetlands** are forested swamps, and may be the most difficult to identify, especially during leaf-off conditions. These wetlands may be located in the middle of large forests with dense soils and little slope, along small, slow streams, and lake fringes. The soil is waterlogged to within a few inches of the surface from May to September during normal years but may also contain standing water. Vegetation is woody in nature and may consist of tamarack, white cedar, black spruce, ash, maple, and trembling aspen. Identification of these wetlands may be difficult as “trees” are not often associated as wetland areas. These wetlands are often utilized for timber harvest but also provide winter habitat and food for wildlife, low flow augmentation, deep roots for erosion control during flood events, and related water quality value.

