

# FORESTRY FACTS



Department of Forest and Wildlife Ecology

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## Wisconsin's Forestry Best Management Practices for Water Quality Wetlands

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**A wetland** is "an area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic (water-loving) vegetation, and which has soils indicative of wet conditions." Wisconsin wetlands include marshes, bogs, floodplain forests, wet meadows and low prairies.

### **Wetlands Provide Many Values**

- Shoreland Protection - vegetation along lake shores and streambanks reduces erosion.**
- Flood Protection - by storing runoff from heavy rain and snowmelt.**
- Water Quality Protection - by storing and filtering sediment and other water pollutants.**
- Groundwater Recharge and Discharge - by moving surface water into the groundwater system and then back into lakes, streams and wetlands.**
- Animal and Plant Habitat - food and shelter for many species is provided.**

Forestry BMPs in wetlands protect water quality from erosion and minimize changes to the surface and below-surface water movement that can occur from rutting and road building. Changing the

surface and below-surface water movement can affect the health of the wetland ecosystem and its flood protection function.

Activities in wetlands are often subject to various regulations. Some of these are listed in Appendix B in the Wisconsin DNR Publication FR-093 95, *Wisconsin's Forestry Best Management Practices for Water Quality*. If you suspect your project involves a wetland and you want to know what regulations apply, contact:

- First:** Your county zoning office,
- Next:** A DNR water management specialist,
- Last:** The U.S. Army Corps of Engineers.

Maps from the Wisconsin Wetland Inventory can help you decide if your project will affect wetlands. Maps can be reviewed at DNR area or district offices, and can be purchased from the Wisconsin Geological and Natural History Survey.

There are 15 federally required BMPs that must be implemented in order to qualify for a silvicultural exemption from a federal section 404 permit when building a temporary or permanent road or skid trail in a wetland. Chapter 11, *Wetlands* in the BMP field manual lists these 15 BMPs. The silvicultural exemption is only applicable when the primary purpose of the road is for normal silvicultural purposes.

## General BMPs

Follow all planning BMPs in Forestry Fact No. 3, *Planning for Forest Management*.

- ▲ Whenever practical, avoid locating roads and landings in wetlands.
- ▲ Whenever possible, forestry activities in wetlands should occur on frozen ground during the winter to minimize rutting.
- ▲ Consider allowing more flexibility for completion dates in timber sale contracts to allow the logger to finish harvesting activities when the ground is firm or frozen.
- ▲ Identify riparian management zones along all streams and lakes as described in Forestry Fact No. 5, *Riparian Management Zones ... RMZs*.
- ▲ Do not move slash from upland sites into a wetland.
- ▲ Keep slash out of open water.
- ▲ Only use pesticides labeled for use in wetlands.
- ▲ Whenever practical, avoid equipment maintenance and fueling in wetlands. Otherwise, use extreme caution when doing so. Clean all spills promptly. See Forestry Fact No. 4, *Fuels, Lubricants, Wastes and Spills*.

Temporary roads, skid trails and landings in wetlands require firm or frozen ground. Permanent roads in wetlands that require road-fill material must follow existing regulations and be built carefully to avoid restricting the natural waterflow of the wetland under the road.

**Forestry Facts on BMPs are for information only. For details on specific BMPs and their implementation, see the BMP field manual, *Wisconsin's Forestry Best Management Practices for Water Quality*, DNR Pub. FR-093 95.**

## BMPs for Roads, Skid Trails and Landings

- ▲ Construct upland road approaches to wetlands so that surface runoff is diverted away from the road and not into the wetland.
  - ▲ If landings are necessary in a wetland, build them to the minimum size required.
  - ▲ Avoid operating equipment in areas of open water, springs or seeps.
  - ▲ Provide for adequate cross-road drainage to minimize changes to natural surface and subsurface flow in the wetland.
    - Permanent roads: use permeable fill material and install culverts or bridges a minimum of 300 ft. apart and at all natural drainageways. Install at least one drainage structure at each wetland crossing.
    - Temporary roads: provide adequate cross-road drainage at all natural drainageways. Temporary drainage structures include culverts, bridges, corduroy or chunkwood. Remove bridges and metal culverts promptly when work is complete.
  - ▲ Equipment operations should cease when rutting becomes excessive.
  - ▲ Use low-ground pressure equipment, such as wide-tire or tracked equipment, if necessary to minimize rutting.
  - ▲ Minimize rutting in wetlands by conducting forestry activities on firm or frozen ground that can support the equipment used.
    - Operate equipment on a day-to-day basis depending on weather conditions.
    - Consider using corduroy, chunkwood or rubber mats to improve soil's ability to support traffic.
- In the winter:**
- To promote frost penetration, compact snow, grass and brush.
  - When soil frost begins to disappear in the spring, you may not be able to operate heavy equipment beyond late morning without creating ruts.
- In the Summer:**
- Operate equipment only when soils are dry enough to support equipment. Storms and wet spells may make soils too wet to operate.