

FORESTRY FACTS



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Wisconsin's Forestry Best Management Practices for Water Quality Why Do We Need BMPS?

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Wisconsin's Forestry Best Management Practices (BMPs) for water quality are guidelines to help landowners, loggers and land managers protect water quality, fish and other aquatic life. A detailed BMP field manual (Pub. FR-093 2010) explaining the BMPs is available from the Wisconsin DNR.

Wisconsin's BMPs were developed in response to the federal Clean Water Act of 1972 and the Water Quality Act of 1987. BMPs are the most practical and cost-effective way to assure that forestry operations do not adversely affect water quality.

In Wisconsin, these BMPs are voluntary. That means they are not legally mandated. However, the Wisconsin DNR strongly encourages their use by all woodland owners.

BMPs are already used by many of Wisconsin's forest landowners. For example, the DNR requires the use of BMPs on forested lands owned by the DNR and encourages counties to incorporate them into their forest management plans. Cooperating consulting foresters are required to manage private lands

in a manner that matches the standards for DNR lands.

Forest Stewardship management plans should incorporate all BMPs. BMPs to control soil erosion may be used in Managed Forest Law (MFL) management plans since MFL plans must use practices to control soil erosion. Also, several forest industry companies have adopted these BMPs for their land management plans.

You can get professional advice on BMPs from natural resource professionals such as:

- Consulting foresters
- Industrial foresters
- DNR foresters, fish managers & water quality staff
- USDA Natural Resources & Conservation Service staff
- County Land Conservation Dept. staff

Can BMPs be modified?

BMPs are guidelines. Application of BMPs may be modified for specific site conditions with guidance from a forester or other natural resource professional if modifications provide equal or greater water quality protection, or if the modification has no impact on water quality.

Nonpoint Source Pollution

Best management practices help to prevent or reduce "nonpoint source" water pollution. Nonpoint source pollution originates from a large area of land. For instance, soil can become a pollutant when water runoff from rainfall or snow melt moves across exposed soil, eroding the soil and carrying it into streams, lakes and wetlands.

Nonpoint Pollution and Forestry

- **Nonpoint source pollution accounts for about 1/2 of all water pollution in the U.S.**
- **Nationwide, 3 to 9 percent of the nonpoint pollution is from forestry practices.**
- **Wisconsin is pretty flat, so only about 3% of the nonpoint source pollution is from forestry. Although 3% seems small, impacts from localized nonpoint source pollution can be significant.**

Forest management activities can generate several forms of nonpoint source pollution:

- **Sediment:** the main forestry pollutant, especially where roads and skid trails cross streams. Without using appropriate BMPs on exposed and sloping land, the soil will likely erode and may wash into a body of water. Too much sediment buries fish habitat and spawning grounds and may hamper fish from locating food and may damage the gills of fish.
- **Leaves and debris:** too much in streams can harm water quality. This can occur when tree tops and limbs fall into streams during logging.
- **Nutrients:** such as nitrogen and phosphorus, attached naturally to soil and from fertilizers, can wash into water bodies. Excessive nutrients may cause algae blooms in lakes and streams reducing oxygen levels for fish and other aquatic species.
- **Chemicals:** when applied improperly, herbicides and pesticides can be toxic to aquatic organisms. Fuel, oil etc. used in machinery can also be toxic if not handled properly.
- **Temperature:** removing stream-bank trees can increase solar radiation to streams, raising summertime water temperatures that can harm aquatic

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 2010.