

# FORESTRY FACTS



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AGRICULTURAL  
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UNIVERSITY OF WISCONSIN-MADISON

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No. 9

December, 1995

## Wisconsin's Forestry Best Management Practices For Water Quality

### **Prescribed Burning and Wildfire**

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Prescribed burning can be a valuable forest management tool. In forests, prescribed burning reduces unwanted vegetation and logging debris. Prescribed burning prepares sites for tree planting or direct seeding. And prescribed burning reduces the potential for destructive wildfires by reducing fuel accumulations.

Low-intensity fires have little effect on water quality. However, fires that burn intensely are likely to consume forest floor litter and expose soil, which can lead to erosion and harm water quality.

#### **Prescribed Burning**

Carefully plan all prescribed burns. Clearly identify your objectives. Plan to control erosion after the burn to prevent sediment runoff into streams, lakes and wetlands. Follow the BMPs that are listed.

#### **Wildfires**

Your top priority, when fighting wildfires, should be to prevent harm to people and property. After containing the fire, you need to address land rehabilitation to prevent or minimize nonpoint source pollution of lakes, streams and wetlands.

#### **Before You Burn**

**Always rely on trained and experienced personnel to plan and implement prescribed burns. Contact the Wisconsin DNR for more information.**

**Get Professional Help First!**

## BMPs for Prescribed Burning

- Before conducting a prescribed burn, apply for a burning permit from the Wisconsin DNR or your local municipal or township authorities.
- Carefully select fireline locations and consider weather, fuel, soil and topographic conditions in the burn area to minimize impacts on water quality.
- Avoid intense burns that remove forest floor litter which may expose soil in riparian management zones and on slopes where eroded soil may drain to surface water.
- Avoid burning piles of slash in riparian management zones.
- Use natural or existing barriers (e.g., roads, streams, lakes) where possible, or wet lines for firelines where bladed or plowed firelines will erode soil and degrade water quality.
- Avoid plowed and bladed firelines in riparian management zones except where necessary to control wildfire.
- Where possible, locate bladed firelines on the contour. Construct water bars as needed to direct surface water off firelines and into undisturbed forest cover. Recommendations for building drainage structures can be found in Forestry Fact No. 6, Forest Roads.
- Avoid applying chemical fire retardants over surface water. Prevent chemical fire retardants from flowing into surface water. This also applies to wildfires whenever possible.

## BMPs for After-Fire Maintenance

- Do not clean chemical-application equipment in surface water, or in locations that drain directly into surface water.
- Use erosion control measures for firelines if the firelines could erode soil into lakes, streams and wetlands. Erosion control measures include re-vegetation and installing water bars (see Forestry Fact No. 6, Forest Roads for more information). Placing sod back into plowed furrows at appropriate intervals can act as water bars.
- Maintain soil stabilization practices until the site is fully re-vegetated and stabilized.
- Use mowing or other practices that do not expose soil as alternatives to blading or disking for maintaining firebreaks where erosion may degrade water quality.

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. For a copy, ask your DNR forester or call (608) 267-7494.