## Wisconsin's 2014 BMP Monitoring for Water Quality Executive Summary for Federal Landowners

## **Background and Timber Sale Information**

In 2014, federal landowners were monitored for the application and effectiveness of Wisconsin's Forestry Best Management Practices (BMPs) for Water Quality. Twenty-nine sale units were selected out of 750 to ensure statistically valid results. All sites had water resources in, or adjacent to, the sale in order to be eligible for monitoring in the BMP program. Twenty-four of the sites were harvested between 1-2 years before the monitoring took place, with an average size of 36.6 acres. The total acres monitored were 1062 with a range from 7 acres to 70 acres. The most common season of harvest was winter (12 sites); with spring having the fewest number (1 site). Selection harvests were also the most abundant (17 sites) with aspen being the most harvested dominant tree stand classification type (17 sites). The least harvested timber type was tied between oak/hickory and swamp conifers (1 site each).

## **BMP Application**

The 29 sites were each evaluated for BMP application, which consisted of 119 BMPs on the monitoring worksheet. Each BMP was rated as either:

- Not applicable to the site
- Insufficient information to rate
- Applied correctly where needed
- Applied incorrectly where needed
- Not applied where needed

Most (74.7%) of the BMPs were determined to be not applicable to the sites. Of the applicable BMPs, the vast majority (96.3%) were correctly applied to the timber sales. Breaking down applicable BMPs into five monitoring categories; 'forest roads' received the lowest correct application rate (92.9%) and 'timber harvesting' received the highest correct application rate (98.7%). The 2014 BMP application rates were the highest since the start of Wisconsin's BMP program in 1995.



## **BMP Effectiveness**

For every BMP that was found to be applicable to the site, one of five effectiveness ratings was given:

- No adverse impact to water quality
- Minor short-term impact to water quality
- Minor long-term impact to water quality
- Major short-term impact to water quality
- Major long-term impact to water quality

When BMPs were 'applied correctly where needed' the BMP effectiveness rating was very good (99.8%). However, when BMPs were 'applied incorrectly where needed' or 'not applied where needed', the BMP effectiveness was realty reduced, 14.3% and 32% respectively. This implies that impacts to water quality were found, 85.7% for BMPs 'applied incorrectly where needed' and 68% for BMPs 'not applied where needed'. The BMP effectiveness rating was found to be similar in 2014 compared to past results in 2006, when BMPs were 'applied correctly where needed'.

