Wisconsin's 2013 BMP Monitoring for Water Quality
Executive Summary for State Lands

Background and Timber Sale Information

In the fall of 2013, state lands were monitored for the application and effectiveness of Wisconsin's Forestry Best Management Practices (BMPs) for Water Quality. A total of 42 timber sales were chosen to be monitored in order to ensure statistically valid results. These sites were selected because of the water resources in or adjacent to the sale. Information on how the BMPs were applied and how effective they were, was recorded along with site information such as: sale size, season of harvest, water resources, forest road use, and tree species of the harvest area. The average size for the sale area was 59.1 acres with the grand total of 2484 acres monitored. The majority of the sites (19) were harvested during the winter season. The most common water resource present within the monitoring site was wetlands (34 sites), followed by steams (30 sites). Along surface water resources, for which the BMP manual designated the use of a Riparian Management Zone (RMZ), the most commonly used RMZ distance was the one recommended by the BMP manual (20 sites). Pine and aspen were the most common tree species present within the harvested areas (20 sites each). There were a total of 34 sites that used forest roads to access the sale, and 14 contained active forest roads. Only two sites had drainage structures on their forest roads.

BMP Application

The 42 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

The overall BMP application on state lands was very high at 97.8%, and the amount of 'correctly applied' BMPs was only slightly less at 97.1%. BMPs were found to be 'not applied', in situations where they were warranted, 2.2% of the time. When breaking down the application into monitoring categories, 'fuels, waste, lubricants, and spills' were rated the highest (100%) and 'forest roads' were the lowest (94.9 %). Compared to past years, the 'correct application' of BMPs on state lands increased overall and in every monitoring category except 'timber harvesting' (Figure 1). Forest roads saw a very large improvement from both the 2003 and the 1995-1997 baseline monitoring results.

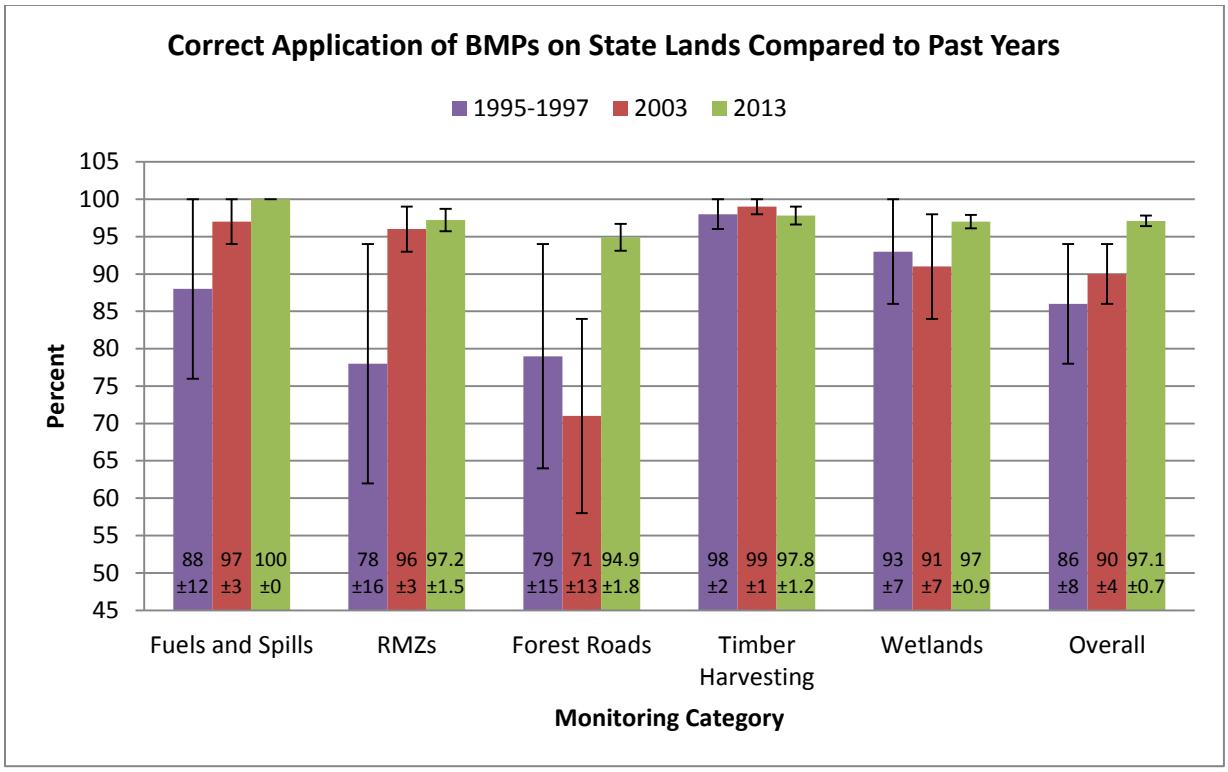

Figure 1. The correct application rates of BMPs on State lands in 2013 compared to the two different monitoring cycles – 1995/1997 and 2003.

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

The effectiveness of BMPs was very high, when their subsequent application rating was 'applied correctly'. The state effectively protected water quality 100% of the time, (saw no negative impact to water quality) when they applied the BMPs correctly. However, when BMPs were 'not applied' where they were needed, water quality was only protected 76% of the time. This shows the importance of using and correctly applying the BMPs in order to protect water quality.