

Wisconsin's 2018 Forestry BMPs for Water Quality Monitoring Report

Executive Summary – State Lands

In the fall of 2018, state lands and county forests were monitored for the application and effectiveness of Wisconsin's Forestry Best Management Practices (BMPs) for Water Quality. State lands had 38 sites selected for monitoring, and county forests had 34 sites. These sites were chosen because of the water resources in or adjacent to the sale. Information on how the BMPs were implemented and how effective they were, was recorded along with site information such as: sale size, season of harvest, water resources, forest roads and tree species of the harvest area.

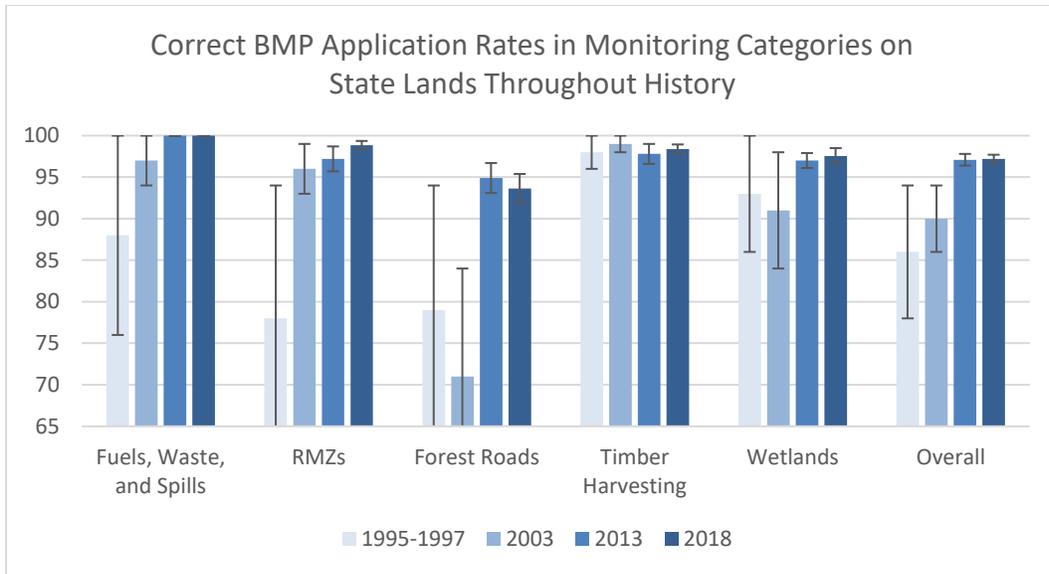
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There was a total of 3,577 acres monitored over the 38 sales, which leads to the average acreage of 94.1 for state lands during 2018 BMP monitoring. Ten of those sales were harvested solely during winter months and 14 more sales were cut partially during winter, which was the most common combined harvesting season, but only marginally ahead of the fall season. The most common dominant timber type listed for sites was aspen, at 22 sites and the least common was swamp conifers, at only one site. Five of the sales were partially restricted due to water quality concerns and a little over one-third (14 out of 38) of the sites had seasonal restriction on the entire sale. Exactly half of the sites had no seasonal restrictions from water quality concerns.

The most common water resource was wetlands, with all but two sites having them listed as a water resource. Streams were the second most common water resource, with 23 sites containing or bordering streams. RMZs widths on streams and lakes were increased on 13 sites and met the minimum distance on 18 sites. Only five of the sites contained stream crossings on their forest road system, but eight sites crossed streams on skid trails. Frozen/ice crossings were listed as the most common stream crossing structures for these skid trail crossings.

Thirty-four of the 38 sites had forest roads present, with over 2/3 of the sites (24/34), contained active forest roads. Forest road design on state land was most commonly flat, which was the primary design for 28 sites out of the 34 sites. Road construction follows a similar story to road design because almost all the sites fall into one category, in this case, 25 sites are listed as "at grade." Severe weather was also on the uptick for state sales, where 18 of the sales were listed as having severe weather present from the time between timber sale set up and BMP monitoring.

Overall, teams discovered that 34.5% of BMPs were applicable to state lands and when they are applicable, 97.2% of the time, they are *applied correctly*. Only 2.3% of the time was a BMP applicable to the site and was *not applied*. Like in past years, along with other landowners, different monitoring categories have different rates of *correct application*. The monitoring category of "fuels, waste, and spills" had the highest at 100% and "forest roads" received the lowest *correct application* rating at 93.6%. Overall, *correct application* rates in 2018 are over 10% better from the baseline data in 1995-1997.



BMP effectiveness for the state when correctly applying BMPs was high at 99.6% overall. Only two monitoring categories did not receive 100% effectiveness rates when BMPs were *applied correctly* – “wetlands” and “timber harvesting.” Water quality was impacted nearly 70% of the time when BMPs were *not applied* where they were needed. There was only one *major long-term* impact found on state land during BMP monitoring.