

Wisconsin's 2018 Forestry BMPs for Water Quality Monitoring Report

Executive Summary – County Forests

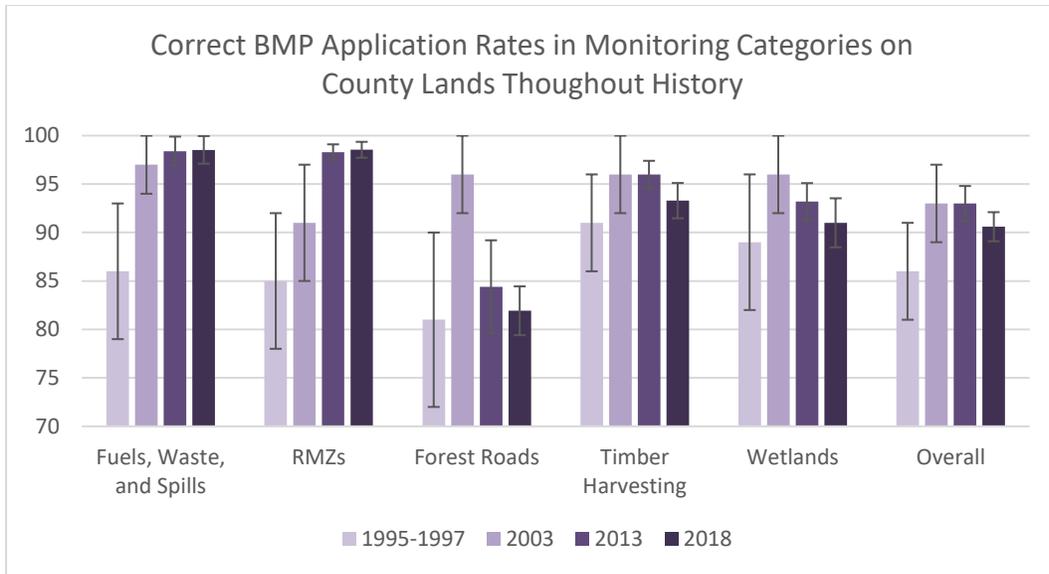
In the fall of 2018, state lands and county forests were monitored for the application and effectiveness of Wisconsin's Forestry Best Management Practices (BMPs) for Water Quality. State lands had 38 sites selected for monitoring, and county forests had 34 sites. These sites were chosen because of the 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.

County

There was a total of 2,604 acres monitored over the 34 sales, which calculates the average acreage to be 76.6 during the 2018 BMP monitoring cycle. Winter was the most common season of harvest utilized on county forest lands, with 10 sales undergoing winter-only harvests and eight sales being cut in both in with winter and another season. Aspen was the most dominant timber type listed, at 19 sites, whereas, bottomland hardwoods was the least common at only two sites.

The most common water resource was wetlands, where every site monitored had wetlands bordering, crossing, or adjacent to their harvest area. Streams were also common with 23 sites listing them as a water resource. Only six lakes were recorded as being adjacent to sale areas. For water resources that recommended an RMZ, Seventy-four percent either met the minimum distance or expanded on the minimum distance. Seven sites contained stream crossings on their forest road system, where all but one was crossed using culverts as the crossing structure. More diversity was observed for crossings structures in the five stream crossings observed on the skid trail system. There were many forest road systems in place, 31 out of 34 sites had forest roads and 25 of those sites had them listed as active forest roads. Flat and at grade were the most common forest road design and construction. Lastly, severe weather was recorded by the monitoring teams for over half of the county sites, which is an increase by over 300% from 2013.

All the water features led to high rates of BMPs being applicable to the county sites. On average, 35.8% of BMPs were applicable to each site. Of those applicable, 90.7% were *applied correctly*, which is a slight drop from 93% *correct application* observed in 2013. BMPs were *not applied* where they were needed at 7.5% of the time. *Correct application* was again variable over the five different monitoring categories, where "Fuels, Waste and Spills" along with "RMZs" received a very high *correct application* rate, both at 98.5%. This is very different from the 81.9% *correct application* rate observed for "forest roads."



The effectiveness for protecting water quality remains exceptionally high when BMPs are used correctly at 99.9%. Four of the five monitoring categories received 100% effectiveness when BMPs are used correctly. When BMPs are *not applied* correctly, however, adverse impacts to water quality are observed 71.6% of the time. Both effectiveness rates are similar to those found in 2013. There were no *major-long term* impacts found on county land during 2018 BMP monitoring.