Wisconsin's 2019 BMP Monitoring for Water Quality
Executive Summary for Federal Forests

Background and Timber Sale Information

The 35 sales monitored on federal forests included a total of 1,217 acres for an average of 35 acres per sale. Twenty-six of the sites were monitored 1-2 years after the sales were finished being harvested. Selection harvests were the most common silvicultural prescription utilized, with 21 sites listing that as a method. Eighteen sales had maple/basswood listed as a dominant timber type, making this the most common timber type for federal sales.

Water resources were very abundant on federal timber sales. Thirty-two of the 35 sites had wetlands located within or bordering the timber sales. Streams were the next most common water resource, with 15 sites documenting streams present. Only four sites contained lakes while five sites contained springs/seeps. For water resources that recommended a Riparian Management Zone (RMZ), 21 out of the 24 of the RMZs had either been expanded or used the recommended distance. Only one site did not contain a forest road and 31 of the 34 sites contained active forest roads. Many of the sites (22 of them) had either new roads built, or old roads improved. There was a mix of new and existing drainage structures found on the sites, with five sites containing both new and existing drainage structures, rather than one or the other. Stream crossings were rare, with only seven sites utilizing stream crossings and all seven used existing culverts as the crossing design. 2019 proved to be another year where severe weather was commonly noted to have taken place on sites prior to BMP monitoring efforts. Federal sites had over half of their sites noted as having severe weather present.

BMP Application

Federal sites contained a relatively high rate of BMPs being applicable to each of their sites. On average, 32.29% of BMPs were applicable to each site. Of the BMPs which were applicable, 92.9% were *applied correctly*, which is a slight drop from 96.3% correct application recorded in 2014. BMPs were *not applied* where they were needed at 5.8% of the time. Correct application varied over the five different monitoring categories, which is normal for all landowners. Four of the five monitoring categories boasted correct application rates 94% and up with 'Fuels, Waste, and Spills' getting a perfect 100%. 'Forest roads,' which historically has the lowest correct application rate, does not change this pattern on federal sites with an 84.9% correct application rate.

BMP Effectiveness

The effectiveness for protecting water quality remains exceptionally high when BMPs are used correctly at 99.5%. Three 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 35.9% of the time, with 24.4% of the time they are *minor long-term* water quality impacts. Despite all the severe weather and slight dip in correct application of BMPs, no *major-long term* impacts were found on federal forests during 2019 BMP monitoring.