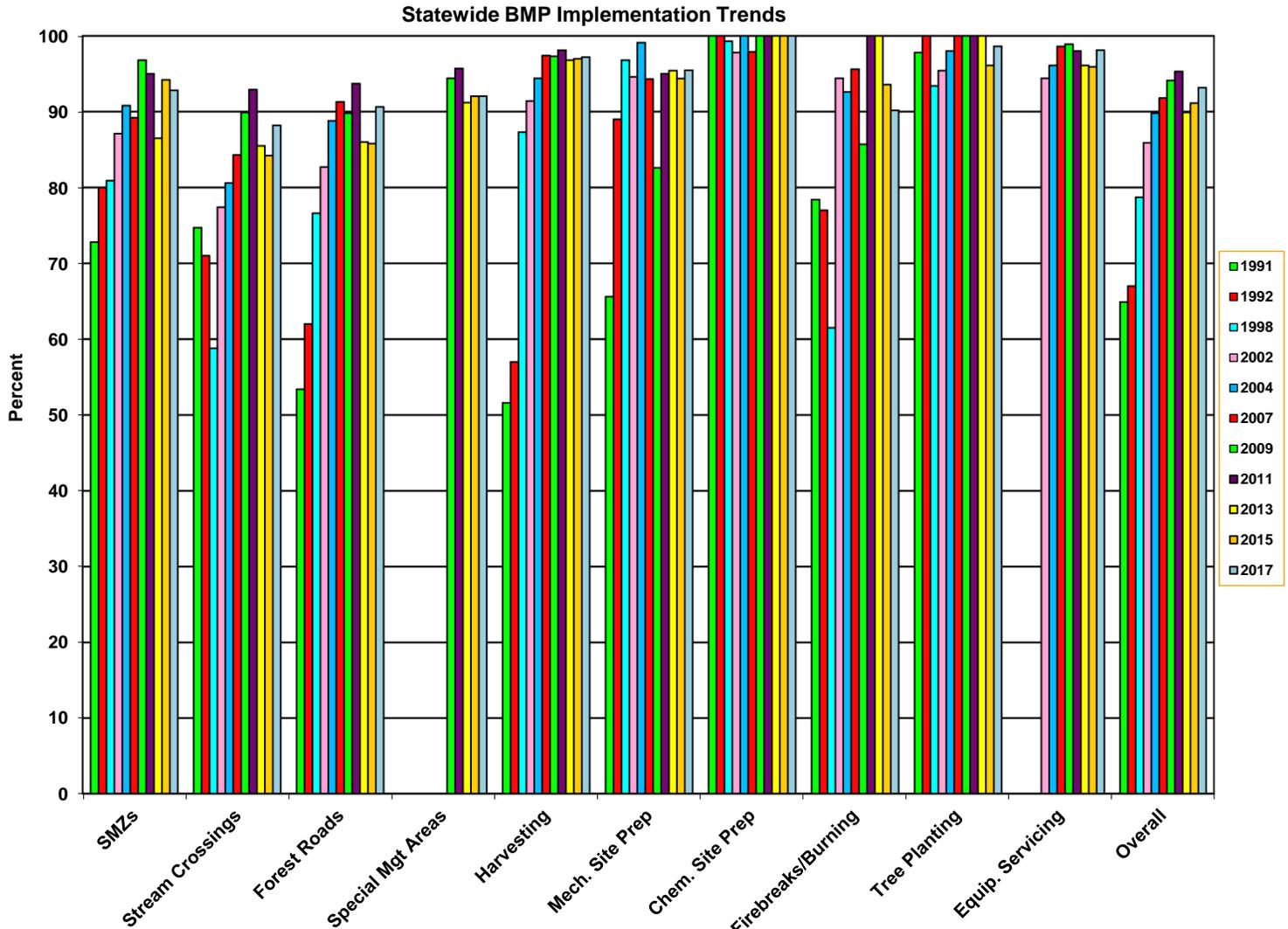




2017 Forestry Best Management Practices Implementation Survey Highlights

General Best Management Practices (BMP) Survey Results

The Georgia Forestry Commission (GFC) has completed its 2017 Forestry BMP Implementation Survey covering 232 randomly selected sites statewide. These 232 sites consist of 33,578 acres, which include 179.87 miles of forest roads, 63.73 streams miles, and 110 stream crossings. By ownership, 155 of the sites were on non-industrial private forest land (NIPF), 53 sites were corporate land, and 24 sites were public land. The survey also included an additional 35 state firebreak inspections. Overall, statewide BMP implementation for GFC’s 2017 BMP Survey is 93.17%. The BMP implementation rate is the percentage of fully implemented BMPs compared to the total number of necessary/applicable BMPs at the tract level, the practice level, and the overall level. This represents an approximate 2.04 percentage point improvement from GFC’s 2015 BMP Survey result of 91.13%. BMP implementation results were also calculated for each applicable category of practice for each tract. Categories of practice include Streamside Management Zones (SMZs), Stream Crossings, Forest Roads, Special Management Areas, Harvesting (outside SMZs), Mechanical Site Prep, Chemical Site Prep, Firebreaks/Burning, Tree Planting, and Equipment Servicing, as well as an Overall category. BMP implementation results for each category are shown in this chart along with the results from the last 10 BMP surveys for comparison where available.



BMP implementation for 2017, shown in blue on the right side of each category grouping in the chart, improved significantly for Forest Roads, by 4.83 percentage points since 2015, to a score of 90.63% in 2017. Stream Crossings also improved a fair amount from the 2015 survey, by 3.99 percentage points to a score of 88.19% in 2017. However, Stream Crossings were still the lowest scoring category for 2017. Very slight to modest improvements were also found in the categories of Special Management Areas, Harvesting, Mechanical Site Prep, Equipment Servicing, and Tree Planting. BMP Implementation remained high for Chemical Site Prep with a score of 100 percent. BMP implementation for 2017 declined marginally in the category of Firebreaks/Burning and to a lesser extent in the category of Streamside Management Zones (SMZs), but both categories maintained good scores above 90 percent. The categories of Stream Crossings, Forest Roads, Firebreaks/Burning, and to a lesser extent SMZs represent BMP educational opportunities going forward. Stream Crossings, Firebreaks/Burning, and Forest Roads represent the areas needing the most attention, due to their relatively lower scores.

Educational Opportunities

BMP implementation for Stream Crossings, Firebreaks/Burning, and Forest Roads are categories with the lowest scores, so our education plans will be focused on those categories. We will continue to push for additional improvements in all categories where possible, and for continued good compliance in those categories near or at the top. Primary educational opportunities include:

- Stream Crossings
 - ✓ Culvert crossing design and installation information.
 - ✓ Basic stream crossing design needs, including storm flow and aquatic migration requirements.
 - ✓ Stream crossing approach design and stabilization.
 - ✓ Temporary portable bridge use instead of culverts where suitable.
- Forest Roads
 - ✓ Stormwater control structure design and placement (proper water diversions).
 - ✓ Proper closeout needs following harvest activities.
- Firebreaks/Burning
 - ✓ Making more people aware of the importance of planning for and following BMPs for firebreak installation.
 - ✓ Continued information on proper construction and spacing of water diversions in firebreaks.
 - ✓ Minimizing soil disturbance when installing firebreaks, following contours, and using natural barriers.
 - ✓ Avoiding and/or proper tie-in with sensitive areas such as roads, special management areas, and streams/SMZs.
- Streamside Management Zones (SMZs)
 - ✓ Continued information on stormwater control structure design needs for roads in SMZs.
 - ✓ Continued information on SMZ width and residual forest cover requirements.
 - ✓ Continued information on stream classification for proper recognition of stream types.
 - ✓ Continued information on avoiding logging slash in stream channels and SMZs, and proper removal and rehab.
- Special Management Areas
 - ✓ Continued information on minimizing soil disturbance and avoiding interference with natural drainage.
 - ✓ Continued information on avoiding road/firebreak turn-outs tying directly into ephemeral areas.
 - ✓ Continued information on avoiding high-intensity burning in these areas.
- Harvesting
 - ✓ Continued information on basic timber harvesting BMPs, including log deck and skid trail stabilization.
- Mechanical Site Prep
 - ✓ Continued information on avoiding bedding that directs runoff into roads or road-ditches.
- Chemical Site Prep
 - ✓ Continued information on proper application, storage, and clean-up.
- Tree Planting
 - ✓ Continued information on planting on the contour for machine planting.
- Equipment Servicing
 - ✓ Continued information on proper clean-up of containers.

Where's the room for improvement, and why the somewhat lower numbers for stream crossings, firebreaks/burning, and roads?

Results from this survey point to definite improvements, yet continued issues with stream crossings, and to a lesser extent with roads, remain. Scores for these two categories, although improved, remain relatively lower at 88.19 percent and 90.63 percent, respectively. Also, some decline has been noted in the category of firebreaks/burning. All these issues are likely intensified by smaller tracts, parcelization, changes in ownerships, and access needs.

- The 2017 survey shows some of the same issues associated with continued parcelization of lands that we have seen in past surveys – especially former timber company lands or lands previously managed more closely. Such parcelization potentially results in:
 - ✓ Change of management levels and objectives, due to economics and smaller landowners often not having the resources and/or knowledge for proper land management including BMPs.
 - ✓ Tracts broken into smaller parcels with multiple landowners having a range of knowledge, personal resources, and objectives for ownership.
- Smaller properties result in more roads and stream crossings for access by multiple landowners who have more chances to make mistakes, especially when resources and/or knowledge about proper land management and BMPs may be in short supply

Past BMP survey results have indicated that as tract size decreases, so does the percentage of BMP implementation. While the 2017 survey does not show a definite trend in that regard, it does appear to show that as tract size goes down, the number of actual Water Quality Risks (WQRs) per acre tend to increase. While the number of WQRs and the rate of WQRs per acre for the 2017 survey were found to be low and concentrated on a relatively small number of sites, a trend was seen related to tract size. The 2017 survey shows the number of WQRs per acre for three tract size categories occurred as follows: 0.0025 WQRs/acre for tracts less than 100 acres; 0.0010 WQRs/acre for tracts 101-200 acres; and 0.0006 WQRs/acre for tracts 201 acres or more. Basically, tracts less than 100 acres (small tracts) had more than twice the rate of WQRs/acre of tracts 101-200 acres, and “small tracts” had more than four times the rate of WQRs/acre of tracts 201 acres or more.

What's the good news for the 2017 survey?

The good news includes a 2.04 percentage point improvement in overall BMP Implementation to 93.17%. This includes improvements of 4.83 and 3.99 percentage points in BMP Implementation for Roads and Stream Crossings to 90.63% and 88.19% respectively. The percentage of stream and road mileages in full compliance was found to be 96.12% and 95.96% respectively. Also, there was good improvement in the total number of WQRs going down to 51, a 19.05% reduction from 2015. The relatively few WQRs found were again concentrated on just a small number of sites, as has been the norm for most of the last decade. While there were some relatively small declines in BMP implementation in a couple of individual categories, those categories still continued to score above 90%. Finally, there were fair improvements in other more troublesome categories, and all individual categories except for stream crossings scored above 90% for BMP Implementation, with five of the 10 individual categories scoring above 95%. In conclusion, the overall trend continues to be positive as of 2017.