Results of Georgia's
2025 Silvicultural Best Management Practices Implementation and Compliance Survey

Prepared by the

Georgia Forestry Commission

in cooperation with the
Environmental Protection Division
of the
Department of Natural Resources,
State of Georgia

December 17, 2025

WATER QUALITY
PROGRAM

GEORGIA FORESTRY
COMMISSION

The preparation of this report was financed in part through a grant from the United States Environmental Protection Agency under the provisions of Section 319(h) of the Federal Water Pollution Control Act, as amended.

EXECUTIVE SUMMARY

The Georgia Forestry Commission (GFC) is the lead agency, as designated by the Georgia Environmental Protection Division (EPD) of the Georgia Department of Natural Resources (DNR), for statewide development, education, implementation, and monitoring for "Georgia's Best Management Practices for Forestry" (BMPs). Beginning in April of 2024, the GFC began the fifteenth Statewide Forestry BMP Implementation and Compliance Survey. Such surveys have been done periodically since 1991.

The objectives of the 2025 Statewide Forestry BMP Survey were to determine the following: rates of BMP implementation, miles of streams in compliance, miles of roads in compliance, total number of *water quality risks* identified, effectiveness of BMPs for any needed modifications, and ownership classes and regions to target for future training.

The protocol and scoring methodology for this fifteenth survey was consistent with the revised recommendations developed and adopted by the Southern Group of State Foresters' (SGSF) BMP Monitoring Task Force in June 2002, titled *Silvicultural Best Management Practices Implementation Monitoring, a Framework for State Forestry Agencies* at:
http://southernforests.org/wp-content/uploads/2023/11/SGSF_BMP_Implementation_Monitoring_Framework_2007_UpdatedLogo.pdf

The SGSF Task Force is composed of hydrologists and water specialists from state forestry agencies, the US Forest Service, forest industry, and the National Council for Air and Stream Improvement (NCASI), in consultation with EPA Region IV nonpoint source specialists.

The 2025 Statewide Forestry BMP Survey evaluated 271 sites that were selected in a stratified random sample. These sites had to have been silviculturally treated within the past two years, preferably within the previous six months. By ownership, 152 sites occurred on non-industrial private forest land (NIPF), 81 sites on forest industry / corporate land, and 38 sites on public land. By physiographic region, 13 sites were in the Mountains, 21 sites were in the Ridge & Valley, 78 sites were in the Piedmont, 49 sites were in the Upper Coastal Plain and 110 sites were in the Lower Coastal Plain. ***There are two important things to note that occurred and affected forestry operations overall during this period in various parts of the state. There was a significant southern pine beetle outbreak across much of the Piedmont, and Hurricane Helene affected much of the Lower and Upper Coastal Plain. Both events increased the need for certain salvage harvest operations and forestry debris clean-up in firebreaks and forest roads.***

BMP implementation was determined by dividing the total number of individual BMPs that were applicable and fully implemented on the sites by the total number of applicable BMPs. Results were summarized for each practice or category, overall site, region, and statewide. **Of the 8833 individual BMPs evaluated, the statewide percentage of correct implementation was 96.76 percent. This is a very slight decline of 0.05 percentage points in BMP implementation from the 2023 survey**. By ownership, the percentage of BMP implementation statewide was 97.28 percent on corporate lands, 97.36 percent on public lands, and 96.32 percent on NIPF lands. Corporate lands remained at a high level, changing by 1.05 percentage points from 2023, while NIPF lands and public lands both changed by 0.38 and 1.03 percentage points respectively from the good levels of 2023.

However, of note is that the number of Water Quality Risks (WQRs) observed increased from 29 to 68. The average ratio of Water Quality Risks per site for the 2025 survey is calculated at 0.25. A more detailed discussion of Water Quality Risks can be found later in this report.

Best Management Practices compliance for stream and road length on all sites was evaluated on a mileage basis for this survey. It should be noted that this per unit BMP compliance scoring methodology goes beyond the SGSF

recommendations for BMP monitoring and is specific to Georgia. BMP compliance was determined by dividing miles of streams or roads that were in compliance with BMPs, by the total number of miles of streams or roads. On the 271 sites, 39924.12 acres of separate forestry operations were evaluated. Of the 115.78 miles of streams evaluated, 112.38 (or 97.06 percent) were observed to have no impacts or impairments from forestry practices. This continues to be a very good score and represents a small decline of 1.92 percentage points from 2023. Of the 260.95 miles of roads evaluated, 253.99 miles, or 97.33 percent, were observed to have no impacts or impairments from forestry practices. This score is slightly better than the 2023 survey, representing a 0.45 percentage point improvement. By practice or category, statewide percentages of BMP implementation and compliance were as follows:

Practice or Category	**2023**		**2025**
	Implementation (% BMPs Implemented)	% Point Change from 2023 Survey	Implementation (% BMPs Implemented)
Stream Crossings	94.38	- 3.05	91.33
Forest Roads	95.57	+ 0.56	96.13
Timber Harvesting	98.89	+ 0.37	99.26
Mechanical Site Preparation	96.05	+ 3.95	100
Chemical Site Preparation	100.00	0	100
Firebreaks/Burning	89.83	+ 6.27	96.10
Artificial Regeneration (Tree Planting)	98.59	- 0.15	98.44
Equipment Servicing	99.35	+ 0.28	99.63
Special Management Areas	97.01	+ 0.43	97.44
Forest Fertilization	NA	NA	100
Streamside Management Zones (SMZs)	97.98	- 1.95	96.03
Weighted Overall Average	**96.81**	- 0.05	**96.76**

Practice or Category	**2023**		**2025**
	Compliance (% Miles meeting BMPs)	% Point Change from 2023 Survey	Compliance (% Miles meeting BMPs)
Stream Mileage	98.98	- 1.92	97.06
Forest Roads Mileage	96.88	+ 0.45	97.33

Forest operators continue to do a good job of protecting sensitive areas overall. The score for SMZs remains good at 96.03 percent, but this does represent a small 1.95 percentage point decline in BMP Implementation in the category of streamside management zones (SMZs). The overall score for stream crossings remained good at 91.33 percent but did decline by 3.05 percentage points. Special management areas maintained a good score of 97.44 percent. Generally, forest operators continue to do a good job of implementing forestry BMPs with an overall implementation rating of 96.76 percent. This 96.76 percent score represents a very slight decline of just 0.05 percentage points from 2023.

BMP implementation for forest roads improved by just 0.56 percentage points to a score of 96.13 percent. There continues to be some room for improvement in the areas of stream crossings, and to a lesser extent, streamside management zones and roads. Three sites in the Piedmont (1 Public and 2 NIPF) did score relatively poorly.

Those three sites were the only scores below 80 percent for BMP Implementation. While most of the scores for stream crossings were good, stream crossings in the Piedmont scored relatively lower. Scores for forest roads were generally good, but there were some issues in the Piedmont. Streamside management zones (SMZs) scored well at 96.03 percent implementation overall. However, some extra attention to SMZs is warranted in the Piedmont and the Lower Coastal Plain regions. Firebreak/burning scores improved to 96.10 percent implementation, representing an improvement of 6.27 percentage points. Continued education about firebreak/burning BMPs is needed for landowners and private contractors. We will continue to address this issue during Prescribed Burning Certification Classes held regularly throughout the state, and with any interactions with landowners and contractors.

There were 171 stream crossings evaluated on 82 sites with an overall implementation rate of 91.33 percent, which represents a relatively small decrease of 3.05 percentage points from the 2023 survey. The most noted stream crossing problems were associated with approach design, culvert sizing, culvert installation, and the use of improper debris crossings and fill, as well as not minimizing the number of crossings. Stream crossings accounted for 40 of the total 68 water quality risks on all the survey sites. That represents 58.82 percent of the water quality risks found during the entire 2025 Survey. A more detailed discussion of the BMP implementation changes in each category is located in the *Educational Opportunities* and *Conclusion* section of this report on pp.17-20.

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INTRODUCTION

Georgia has an abundant amount of forest and water resources that provide a variety of benefits for the people of the state and region. The 24 million acres (2022 forest inventory and analysis) of commercial forestland (two-thirds of the state) provide for forest products, clean water, clean air, soil conservation, wildlife habitat, recreation, aesthetics, education, and research. Many of the state's 44,056 miles of perennial streams, 23,906 miles of intermittent streams, and 603 miles of ditches and canals begin or flow through forestlands. Therefore, it is important for forest landowners to practice responsible forestry in order to protect these water resources.

The 1972 Federal Clean Water Act resulted in the Georgia Environmental Protection Division (EPD) being responsible for managing and protecting the state's waters from point and nonpoint sources of pollution. Since 1977, the EPD has designated the Georgia Forestry Commission (GFC) as the lead agency to develop, educate, implement and monitor the use of Best Management Practices (BMPs) for forestry operations to minimize or prevent the practice's nonpoint source pollution contributions (primarily erosion and sedimentation). Upon passage of the Clean Water Act (CWA) Amendments of 1987, the EPA issued guidance on the relationship of *Nonpoint Source Controls and Water Quality Standards* as part of the *Water Quality Standards Handbook*. To paraphrase the guidance: ***It is recognized that Best Management Practices, designed in accordance with a state approved process, are the primary mechanisms to enable the achievement of water quality standards.*** It goes on to explain that ***it is intended that proper installation of state approved BMPs will achieve water quality standards and will normally constitute compliance with the CWA.***

BMPs for forestry were first developed and published in Georgia in 1981. A wetlands BMP manual was developed in 1990 and revised in 1993. In January 1999, these manuals were combined into one document, with input from environmental groups, soil and water experts, fish and wildlife biologists, attorneys, private forest landowners, independent timber buyers and loggers, academia, and state and federal water quality personnel. Since then, guidance for the treatment of canals and ditches was adopted in March 2000 and for floodplain features in riverine systems in July 2003. Guidance for headwater areas, i.e. ephemeral areas and gullies, was adopted in October 2005. These guidelines were merged into an updated BMP manual released in summer 2009. In 2019, the manual was updated slightly to include some additional clarification on firebreak BMPs. We also incorporated the new intermittent trout stream SMZs and some additional reference materials in the appendix. Since 1981, more than 97,421 BMP manuals and brochures have been distributed.

The main role of the GFC is to educate and inform the forestry community about these common-sense recommendations, known as BMPs, through workshops and field visits and demonstrations. Since publication of the first BMP manual, the GFC has given 3,709 BMP talks to more than 123,978 people and participated in 666 field demonstrations of BMPs (through December 2025). The education process is ongoing, with workshops routinely provided for foresters, timber buyers, and loggers through the Sustainable Forestry Initiative® (SFI®) Program in Georgia. Georgia Forestry Commission foresters have also provided BMP advice in more than 80,008 cases covering over 5.59 million acres.

Implementation of BMPs is determined through monitoring surveys. The GFC also tracks BMP implementation through BMP Assurance Exams in the regular course of carrying out complaint resolution. Of statistical importance are the monitoring surveys. The GFC has previously conducted BMP Implementation Surveys in 1991, 1992, 1998, 2002, 2004, 2007, 2009, 2011, 2013, 2015, 2017, 2019, 2021, and 2023. This current 2025 statewide survey continues over 34 years of Forestry BMP monitoring in Georgia. The statewide average BMP implementation over this period has ranged from 65 percent in 1991, to a high of 96.81 percent in 2023. The purpose of this report is to present the results of the 2025 BMP Implementation and Compliance Survey.

SURVEY PROCEDURE

Methodology for Sampling Intensity and Site Selection

The number of evaluation sites in each of Georgia's 159 counties was based on the amount of timber harvested in each county, as determined by the Georgia Forestry Commission's Forest Inventory Analysis report of wood removals by county. GFC's forest inventory analysis data collection is overseen by the US Forest Service. This methodology resulted in 271 sites being surveyed. The next step was to target the sample where the practices occurred, to reflect ownership. Ownership classes are categorized into non-industrial private forest (NIPF) land, corporate lands including forest industry and Timber Investment Management Organizations (TIMOs), and public lands, which include federal, state, county, or city ownership. The timber harvest drain for each county was used to target the number of sites to inspect per ownership class in each county. For the 2025 BMP Survey, 152 sites (56.09 percent) were inspected on NIPF lands, 81 sites (29.89 percent) on corporate, and 38 sites (14.02 percent) on public lands were inspected.

Georgia Forestry Commission personnel used satellite data from Sentinel 2 to pull land disturbance locations within a specified timeframe for the potential survey sites. The timeframe includes sites disturbed within the last two years. The sites were checked initially to confirm which sites were actually forestry sites. The forestry sites were separated by ownership categories, and the appropriate number of sites was drawn randomly. Table 1 (pages 21-23) shows the distribution of survey sites by county.

Site Evaluation

For this fifteenth survey, and as noted in the Executive Summary, the protocol and scoring methodology was consistent with the Southern Group of State Foresters' Protocol titled *Silvicultural Best Management Practices Implementation Monitoring, a Framework for State Forestry Agencies at:* http://southernforests.org/wp-content/uploads/2023/11/SGSF_BMP_Implementation_Monitoring_Framework_2007_UpdatedLogo.pdf

After sites had been selected and verified in the field by county foresters or forest water quality specialists, all landowners were contacted to obtain permission to conduct site evaluations. All evaluations were conducted by trained forest water quality specialists to provide accuracy, consistency, and quality control using the BMP Compliance Survey Form. For a blank copy of the 14-section 136 question form, please contact Scott Thackston (*sthackston@gfc.state.ga.us*).

Once a site was selected, the forest water quality specialist inspected the site and completed the survey form. Each site was identified by county, GFC region, physiographic region, ownership, river basin and sub-basin, silvicultural treatment type, terrain class, soil erodibility class, hydric soil limitation class, types of water bodies within the practice area, and miles of streams and roads evaluated within the practice area. Soil and stream data were determined using NRCS county soil survey maps, Web Soil Survey, or USGS topographical maps. Data could be extracted through each of these fields of information.

BMP Implementation

Each site was evaluated for BMP implementation by observing as much of the treated area as possible and answering the 136 specific, YES/NO questions directly related to BMP implementation. Scoring was determined at three levels on each site: (1) individual BMP; (2) category of practice; and (3) overall site implementation.

Level 1 - individual BMP implementation was recorded as either a *NOT APPLICABLE, YES,* or *NO*. For all applicable BMP's, each question was worded so that a *YES* represents a BMP that was implemented properly

while a *NO* represents a BMP implemented improperly or not at all. If an individual BMP that was applicable and needed was not fully implemented over the entire area, it received a *NO*. There is no partial credit, as recommended by the SGSF framework.

Level 2 - categories of practice and Level 3 - overall site implementation, scores were expressed as a percent of all applicable BMPs implemented against all applicable BMPs in the category of practice and overall site. Therefore, each category of practice and overall site could score between 0 and 100 percent. The categories of practices evaluated were as follows:

Streamside Management Zones (SMZs)
Stream Crossings
Forest Roads
Timber Harvesting
Mechanical Site Preparation
Chemical Site Preparation
Firebreaks/Burning
Artificial Regeneration (Tree Planting)
Equipment Servicing
Special Management Areas
Forest Fertilization

Significant Water Quality Risk

Each BMP was further evaluated in terms of significant *water quality risk* (WQR). A risk is defined by the SGSF framework for monitoring as an *existing on-the-ground condition resulting from failure to correctly implement BMPs, that if left unmitigated will likely result in an adverse change in the chemical, physical, or biological condition of a waterbody. Such change may or may not violate water quality standards*. Documenting the occurrence of risks serves a number of useful and practical purposes. First, risk assessment lends much credibility and integrity to the BMP monitoring process by evaluating the effectiveness of an individual or group of BMPs and allows opportunities to analyze ineffective BMPs for possible revisions. Second, it recognizes that high-risk conditions can occur and that prevention and/or restoration is a high priority for state forestry agencies. Third, routine documentation of risks will determine whether such instances are the exception rather than the rule. Finally, providing forest landowners with an objective risk assessment is a valuable public service that not only protects the environment, but can also protect the landowner and/or operator from what might otherwise result in enforcement proceedings or other personal liability.

BMP Compliance

BMP Compliance was also determined for the categories of forest roads and stream length. This scoring methodology goes beyond the SGSF BMP monitoring protocol and is specific to Georgia. However, this scoring methodology allowed for comparison with previous surveys in determining trends. Forest road and stream length were measured in *miles*. Scores were expressed as a percentage of units of measure in full BMP compliance against the total units of measure evaluated. Documenting compliance with the units of measure is important in that it allows forest managers, landowners, and regulators to see the holistic picture of forestry operations and our effect on these critical categories. As with the implementation evaluation, the lack of BMP implementation may not necessarily equate to large-scale areas being out of compliance. For those two categories, it provides a better picture of locations to be prioritized for improvements.

RESULTS AND DISCUSSION

The 2025 Statewide Forestry BMP Survey evaluated 271 sites comprising 39,924.12 acres. There were 171 stream crossings, 260.95 miles of forestry roads, and 115.78 stream miles evaluated. Table 1 (pages 21-23) shows the distribution of survey sites by county. Figure 1 (page 48) shows the spatial location of 271 survey sites. Figure 2 (page 49) is a map of the state showing the different physiographic regions for reference. The tables, charts, and maps included with this report provide summaries of the distribution of the sites evaluated by region and ownership, as well as BMP implementation and compliance results.

Statistical Analysis

The 271 sites evaluated during this survey represent only a sample of all operations that met the criteria for selection. Data compiled from county tax assessors' offices indicates that the number of timber harvesting operations conducted annually ranges from 7,000 to 10,000. Therefore, one could assume the sample reflects a range of 3.9 percent to 2.7 percent sample at best. In order to achieve a statistically valid monitoring report, Georgia has adopted the *Statistical Guide for BMP Implementation Monitoring.* This guidance was developed by the Water Resources Committee of the Southern Group of State Foresters, to be used as a model for achieving statistically valid BMP monitoring.

The guide has been used to determine the number of sites needed to conduct a statistically reliable survey, to calculate the margin of error for each BMP category or individual BMP, and analyze statistical trends in implementation.

Formula for Determining the Sample Size, or Number of Sites to Evaluate

$$n = \frac{4p(100 - p)}{m^2}$$

Where n = the number of sites to evaluate
p = the estimated overall percent implementation in the state
m = the margin of error (5%)

- p must be estimated because it is unknown (% implementation from the most recent survey may be used).
- The closer the estimated value of p is to 100, the lower the value of n will be.
- n is highest when p is estimated to be 50 percent.
- m is the margin of error associated with the estimate of p. That is, there is 0.95 probability that the sample taken will produce an estimate that differs from p by a value of m. The SGSF framework recommended a margin of error at five percent.

This formula provides the minimum sample size of 49 sites in order to achieve a five percent margin of error. We have evaluated 5.53 times the number of sites needed, so, using the formula, this level of survey should yield a margin of error of 2.14 percent for this survey. The reason the additional sites were assessed is to account for subsets of data in the survey, i.e., landowner groups, physiographic regions, river basins, etc., would be more statistically valid when used separately from statewide data.

OVERALL BMP IMPLEMENTATION AND COMPLIANCE RESULTS BY CATEGORY OF PRACTICE

Streamside Management Zones (SMZs)

Streamside Management Zones (SMZs) are designated areas of varying widths adjacent to the banks of perennial (continuous flowing) or intermittent (normally flows only during winter/wetter months) streams and other bodies of water. USGS topographical maps and Natural Resource Conservation Service county soil survey maps, along with field observations, were used to identify these types of streams. In these SMZs, forest management practices are modified in order to minimize potential impacts to protect water quality, fish, or other aquatic resources. According to the 2019 BMP manual, SMZs along intermittent streams vary in width from 20 to 50 feet on most streams, depending on slope. A formal amendment was made to the trout stream SMZs in 2015 and incorporated into the actual manual in 2019. SMZs along intermittent trout streams are now 35 to 50 feet. SMZs along perennial streams vary from 40 to 100 feet, depending on slope, and SMZs should be 100 feet on perennial trout streams. Clearcutting is not recommended in the SMZs, except during the control of documented serious health/pest issues such as southern pine beetles or salvage operations from natural disasters. Special care should still be given to avoid adverse soil disturbance. Of note, the 2025 BMP Survey includes a number of salvage harvests due to outbreaks of southern pine beetles in the Piedmont of GA, as well as salvage operations resulting from Hurricane Helene in south and middle GA. Additionally, SMZs are also recommended for ponds, lakes, and sinkholes, per *Georgia's Best Management Practices for Forestry*.

It is worth noting that during the course of this survey, many sites had areas left where no harvesting occurred adjacent to streams. These unharvested areas are significantly wider than what is recommended by definition as an SMZ. Such areas provide all the water protection of an SMZ plus more multiple use benefits such as wildlife corridors, diversity, and aesthetics. However, areas were not judged as SMZs where they were significantly wider than normal SMZs, and therefore the forestry activities that did occur on the parcels do not have any effect on water quality. In addition, these areas were not marked to show that they were intentionally left as an SMZ. If such areas had been included as SMZs, then scores would likely have been even higher than recorded.

Table 2 (page 24) provides summaries of the results by ownership, region, and state totals. Chart 6 (page 42) provides total BMP Implementation over time. Notable findings include:

- Statewide implementation for SMZs is 96.03 percent.
- Statewide BMP compliance for stream length is 97.06 percent.
- 17 WQRs were identified for SMZs, with 7 in the Piedmont, 3 in the Upper Coastal Plain, 6 in the Lower Coastal Plain, and 1 in the Ridge & Valley. Overall, this was an increase of 13 WQRs from 2023.
- Implementation for overall SMZs decreased by 1.95 percentage points.
- Insufficient SMZ widths, insufficient residual basal area, logging debris left in stream channels, and insufficient filter zones for water diversions seem to be the most common BMP deficiencies found in the SMZ category. Also, the proper tie-in of firebreaks within SMZs needs additional attention.

Stream Crossings

Stream crossings are often necessary for access to forestlands. From a water quality standpoint, stream crossings are the most critical aspect of the road system. Failure of a stream crossing due to improper planning or construction can result in erosion and introduction of sediment into a stream, affecting water quality. Types of acceptable crossings include main haul road fords, culvert crossings, and bridges. Dirt/Debris-type crossings and skidder fords are not acceptable crossing types. Permanent crossings are considered those still in place at the time

of inspection. Temporary crossings were noted where crossing approaches were still evident, but the actual crossing facility (i.e. temporary bridge, culvert and fill, etc.) had been removed.

Table 3 (page 25) provides a summary of the results by ownership, region, and state totals. Chart 7 (page 42) provides total BMP Implementation over time. A total of 171 crossings were evaluated on 82 sites statewide. Significant findings include:

- Statewide implementation for stream crossings is 91.33 percent. This is a 3.05 percentage point decrease from 2023.
- Stream crossings scores improved in the Mountains and the Ridge & Valley, with the Mountains improving by 11.21 percentage points.
- However, stream crossing scores decreased in the Piedmont, Upper Coastal Plain, and Lower Coastal Plain, with the Piedmont decreasing by 10.54 percentage points.
- 40 WQRs were associated with stream crossings in 2025, compared to 20 WQRs for 2023. This is a significant increase (double) in WQRs for stream crossings compared to 2023.
- Of note, 10 of the WQRs occurred across 5 public sites in the Piedmont, and 18 occurred across 15 NIPF sites in the Piedmont. Those combined 28 WQRs make up 70% of the WQRs for stream crossings.
- The WQRs associated with stream crossings were distributed as follows: 26 for Non-Industrial Private ownerships, 4 for Corporate ownerships, and 10 for Public ownerships.
- Areas for improvement in stream crossings continue to be stream crossing approach design, culvert installation and culvert sizing with respect to storm flow, culvert placement with respect to migration of aquatic species, the continued use of debris crossings, and proper removal/restoration of temporary crossings.

Forest Roads Outside SMZs

Access roads are an essential part of any forest management operation and provide access for other activities, permanent or temporary. With proper planning, location, construction and maintenance, access roads allow for productive operations and minimally impact soil and water quality. However, poorly located, poorly constructed, and/or poorly maintained roads can result in sediment reaching streams. These factors may lead to changing stream flow patterns, degrading fish and aquatic organism habitat, and adversely affected aesthetics.

Table 4 (page 26) provides a summary of the results by region, ownership, and state totals. Chart 8 (page 43) provides total BMP Implementation over time. Approximately 260.95 miles of road were evaluated on 258 sites. Forest road BMP implementation showed a slight improvement of 0.56 percentage points from the 2023 survey. Significant findings include:

- Forest roads BMP implementation across all ownerships is 96.13 percent.
- Forest roads compliance is 97.33 percent, a very slight improvement of 0.45 percentage points.
- There were 10 WQRs associated with forest roads for 2025, with 9 of those in the Piedmont. Of note, there were no WQRs associated with forest roads during the 2023 BMP Survey.
- Challenges for forest roads BMP implementation continues to be properly installing water diversions and stabilizing and reshaping of forest roads after activities are complete.

Special Management Areas

This category applies to canals and ditches, riverine floodplain features, headwater/ephemeral areas, and wetlands that could possibly transport sediments and other pollutants into other water bodies. These areas need some measure of protection but normally do not need to be treated as streams.

Table 5 (page 27) provides a summary of the results by region, ownership, and state totals. Chart 9 (page 43) provides total BMP Implementation over time. Statewide, there were 201 sites with canals, ditches, ephemeral areas, gullies, floodplain features, and/or wetland features. Other significant findings include:

- Special management area BMP implementation across all ownerships was 97.44 percent. This represents a slight 0.43 percentage point improvement from 2023.
- There were 0 WQRs associated with special management areas; this was 2 less than the number found in 2023.
- One relatively minor note is that there were 9 instances where soil protecting structures in ephemerals were found to interfere to some degree with water flow.

Timber Harvesting Outside SMZs

Timber harvesting outside of SMZs poses little threat to water quality in Georgia. Potential impacts can be avoided or minimized if careful consideration is given to seasonal weather conditions, soil type, soil moisture, topography, and equipment type matched to the particular harvesting site. The location, construction, and maintenance of log decks and skid trails are the primary concerns.

Table 6 (page 28) provides a summary of the results by ownership, region, and state total. Chart 10 (page 44) provides total BMP Implementation over time. Approximately 24,646.27 acres were evaluated on 262 sites. A total of 923 log decks and 1,807 main skid trails were evaluated. Other significant findings include:

- Timber harvesting outside SMZs BMP implementation, across all ownerships, is 99.26 percent.
- All BMPs for Timber Harvesting scored 93 percent or better.
- There was only one WQR associated with Timber Harvesting. It was the result of failing to properly stabilize skid trails on rolling terrain, on a NIPF site, in the Lower Coastal Plain.

Mechanical Site Preparation Outside SMZs

Site preparation methods groom harvested and non-forested areas for the natural and artificial regeneration of desired tree species and stocking. Methods include shearing, raking, chopping, windrowing, piling, bedding, and other physical methods to cut, break apart or move logging debris, or to improve soil conditions prior to planting. The purpose is to reduce logging impacts and debris, control competing vegetation, and enhance seedling survival. The technique or method(s) used depends on soil type, topography, erodibility, condition of the site, and any wetland limitations.

Table 7 (page 29) provides a summary of the results by region, ownership, and state totals. Chart 11 (page 44) provides total BMP Implementation over time. Statewide, approximately 3,157.80 acres were evaluated on 34 sites. Significant findings include:

- Mechanical Site Prep BMP implementation is 3.95 percentage points higher than the 2023 survey. It currently sits at 100 percent for the 2025 Survey.
- There were no WQRs found associated with Mechanical Site Prep.
- Mechanical Site Prep for pine regeneration in wetlands identified in EPA/USACE memo did not occur on any applicable sites surveyed.
- A past challenge observed for Mechanical Site Prep had been avoiding bedding that directs water into roadways and ditches.

Chemical Site Preparation Outside SMZs

Herbicides are valuable tools used in forest management to control competing vegetation and invasive species, and to enhance tree survival and growth. On many highly erodible sites, the use of herbicides is actually more effective than exposing too much surface area by mechanical site preparation methods. By following EPA approved labels that govern storage, transportation, handling, and application, herbicide application should not pose any threat to water quality.

Table 8 (page 30) provides a summary of the results by region, ownership, and state totals. Chart 12 (page 45) provides total BMP Implementation over time. Statewide, approximately 5,060.41 acres were evaluated on 53 sites. Significant findings include:

- BMP implementation and compliance for Chemical Site Prep is 100.00 percent, the same as in 2023.

Firebreaks/Burning Outside SMZs

Controlled burning is often used alone or in conjunction with chemical or mechanical site preparation to prepare sites for regeneration. It may also be used during timber stand management to control or reduce hazardous accumulations of forest fuels, manage competing vegetation, improve wildlife habitat, and perpetuate certain endangered plant and animal ecosystems. Additionally, wildfires burn forestland acres as well.

Approximately 2,580.38 acres were evaluated for burning including 73.19 miles of firebreaks. There was a total of 41 sites evaluated for firebreaks/burning. BMP implementation was 96.10 percent. The score improved by 6.27 percentage points from 2023. The main challenges involved firebreaks including proper construction and spacing of water diversions, avoiding intersections with forest roads, and improperly tying into streamside management zones or special management areas. Firebreaks are created by various methods to contain prescribed burns and wildfires. If properly installed according to BMP guidelines, firebreak impacts on water quality can be minimized.

Of the 41 sites, 25 sites included GFC installed firebreaks. GFC-installed firebreaks scored 98.64 percent BMP implementation. There were sites that included landowner- (private and public) or contractor-installed firebreaks. For the 2025 survey landowner/contractor-installed firebreaks scored 91.67 percent BMP implementation. Historically, relatively little firebreak BMP training has occurred for landowners or contractors. GFC personnel receive regular training on firebreak BMPs. GFC will continue providing some firebreak BMP training to landowners and contractors during regularly held Prescribed Burn Certification classes. This effort to better educate landowners/contractors on firebreak BMPs started several years ago and seems to be having a positive effect, but there is still some room for improvement.

Table 9 (page 31) provides a summary of the results by region, ownership, and state totals. Chart 13 (page 45) provides total BMP Implementation over time.

Artificial Regeneration (Tree Planting) Outside SMZs

Reforestation can be accomplished artificially or naturally. Natural regeneration and hand planting generally pose less of a threat to water quality than mechanical methods. Table 10 (page 32) provides a summary of the results by region, ownership, and state totals. Chart 14 (page 46) provides total BMP Implementation over time. Approximately 3,649.71 acres were evaluated on 39 sites. Overall BMP implementation for artificial regeneration was 98.44 percent. That maintains a high level of BMP Implementation. Significant findings include:

- BMPs were fully implemented on the vast majority of these sites.

- Just one instance was identified on a NIPF site in the Upper Coastal Plain region where the planting did not properly follow the contour but did not cause any water quality risk.

Forest Fertilization

Forest fertilization was known to have occurred on only one single survey site. It was a Public site in the Lower Coastal Plain. A total of 78.22 acres were treated with two BMPs assessed on one site with a 100 percent BMP implementation score. Indicators of this particular practice include evidence of mixing areas and containers on the site. Since the BMPs call for the removal and proper disposal of containers, additional fertilization that was not obvious may have occurred. Table 11 (page 33) provides a summary of the results by region, ownership, and state totals.

Equipment Servicing

Improper equipment washing and servicing can introduce hazardous or toxic materials to the site, which can affect water quality. Oils, lubricants, their containers, other trash, and waste should be disposed of properly.

Table 12 (page 34) provides a summary of the results by region, ownership, and state totals. Chart 15 (page 46) provides total BMP Implementation over time. A total of 945 landings were evaluated on 270 sites. Significant findings include:

- BMP implementation for Equipment Servicing was 99.63 percent, up by 0.28 percentage points from 2023. There were no WQRs found for this category.
- The most common issue was improper disposal of oil/lubricants, containers, and other trash.
- All BMPs assessed for Equipment Servicing were implemented above 98 percent.

Stream Assessments

Perhaps the most important observation in evaluating the effectiveness of BMPs was the visual assessment of the water bodies on each site. A total of 115.78 miles of streams on 167 sites were evaluated for visual signs of impairment. Those signs could include obvious soil erosion entering the stream, logging debris left in the channel, improper stream crossings resulting in blocked flow, excessive removal of canopy trees within the SMZs exposing the stream to elevated temperatures, and impaired stream bank or channel integrity due to forestry practices.
Table 13 (page 35) provides a summary of the results by region, ownership, and state totals by stream type. A total of 63.93 miles of perennial streams were assessed on these sites. Of these, 97.76 percent were in compliance. A total of 51.85 miles of intermittent streams were assessed on these sites. Of these, 96.20 percent were in compliance. Total combined stream compliance was 97.06 percent. Significant findings include:

- 68 water quality risks (WQRs), total, were identified statewide

- There were 40 WQRs (58.82 percent of the total) involving stream crossings
  - ✓ 12 of these were associated with steam crossing approaches
  - ✓ 9 were associated with temporary fills not removed in their entirety
  - ✓ 5 involved the disruption of the migration of aquatic species
  - ✓ 5 involved the stabilization of exposed soils on a wetland fill road
  - ✓ 4 involved crossings not properly designed to prevent the restriction of expected flood flow
  - ✓ 4 involved proper culvert length to accommodate proper slope at culvert ends
  - ✓ 1 involved improper construction/installation of a culvert and run-around
  - ✓ Of note, 31 of the total 40 WQRs for Stream Crossings were located in the Piedmont region.

- Within SMZs, there were 17 WQRs (25.00 percent of the state total of WQRs)
  - ✓ 4 were associated with not having the proper SMZ width
  - ✓ 5 were associated with not leaving the proper residual basal area
  - ✓ 1 was associated with harvesting bank trees
  - ✓ 3 were associated with logging debris in stream channels
  - ✓ 4 involved lack of proper water diversions/stabilization measures or improper diversion location
  - ✓ Note that of the 17 total WQRs for SMZs, 7 were found in the Piedmont, 6 in the Lower Coastal Plain, 3 in the Upper Coastal Plain, and 1 in the Ridge & Valley.

- 10 WQRs (14.71%) were associated with forest roads
  - ✓ 8 involved proper number, spacing, location, installation, and stabilization of water diversions
  - ✓ 2 involved adequate reshaping and stabilization of permanent roads
  - ✓ Note that of 10 total WQRs for roads, 4 were found in the Piedmont on NIPF sites, 5 were found in the Piedmont on Public sites, and 1 was in the Lower Coastal Plain on a NIPF site.

- 1 WQR (1.47%) was associated with Timber Harvesting for skid trails on rolling terrain not being properly stabilized on an NIPF site in the Lower Coastal Plain.

Overall, the 97.06 percent stream compliance figure in Georgia further supports that BMPs are protecting water resources.

Overall Statewide Results

Table 14 (page 36) provides the statewide implementation results of the total number of sites, the acres evaluated, the number of BMPs evaluated, and the number of water quality risks determined by region and ownership. Chart 16 (page 47) provides total BMP Implementation over time. Statewide, the overall BMP implementation for all practices, all landownership classes, and all regions, was found to be 96.76 percent. This is nearly identical to the overall score for the 2023 Survey and continues to demonstrate a very high level of BMP Implementation. Using the SGSF BMP Monitoring Framework Guidance, a sample size of 271 sites for this survey results in a margin of error of 2.14 percent.

Water Quality Risk Assessment

Water Quality Risk assessments were made at each site as a component of the Southern Group of State Foresters' BMP monitoring protocol. Water Quality Risks (WQRs) were observed at 68 specific locations, on just 20 sites out of the 271 total survey sites. This indicates that only a small portion of sites contain any WQRs. The total of 68 WQRs is about 2.34 times the number found on the previous BMP survey in 2023. ***Looking into these numbers a little deeper, it can be seen that 92.62 percent or 251 of the 271 sites surveyed for 2025 had no WQRs.*** Overall, it is clear that a small percentage of the sites surveyed account for all the observable Water Quality Risks seen. ***Additionally, of note is the fact that for the 2025 Survey, 45 of the WQRs found (66.18%) were located on just 7 poorly executed sites (just 2.58% of all the sites). These included the following:***

- ***16 WQRs on just 2 public sites in the Piedmont***
- ***25 WQRs on just 4 NIPF sites in the Piedmont***
- ***4 WQRs on just 1 NIPF site in the Lower Coastal Plain***

Below is a table showing the distribution of Water Quality Risks occurrence over the past 11 survey cycles.

Survey Year	Surveys Done	0 WQRs		1-3 WQRs		4-6 WQRs		7-9 WQRs		10 or more WQRs	
2004	412	352	85.44%	36	8.74%	13	3.16%	5	1.21%	6	1.46%
2007	370	328	88.65%	21	5.68%	15	4.05%	4	1.08%	2	0.54%
2009	221	212	95.93%	8	3.62%	1	0.45%	0	0.00%	0	0.00%
2011	187	178	95.19%	7	3.74%	1	0.53%	1	0.53%	0	0.00%
2013	209	185	88.52%	13	6.22%	6	2.87%	3	1.44%	2	0.96%
2015	213	199	93.43%	7	3.29%	3	1.41%	3	1.41%	1	0.47%
2017	232	214	92.24%	13	5.60%	4	1.72%	1	0.43%	0	0.00%
2019	254	230	90.55%	23	9.06%	1	0.39%	0	0.00%	0	0.00%
2021	260	231	88.85%	25	9.62%	3	1.15%	0	0.00%	1	0.38%
2023	266	251	94.36%	14	5.26%	1	0.38%	0	0.00%	0	0.00%
2025	271	251	92.62%	13	4.80%	4	1.48%	2	0.74%	1	0.37%

BMP Implementation data available by River Basin and Ecoregion

Regional Water Councils can extract similar statistics for each of the 14 major river basins (Figure 4, page 51), 52 sub-basins, and 12-digit HUCs for use in accordance with the Georgia Comprehensive Statewide Water Management Plan. Each of Georgia's 28 Ecoregions (Figure 5, page 52) could also be used to extract the survey statistics.

EDUCATIONAL OPPORTUNITIES

For the 2025 Forestry Survey, BMP implementation improved for some categories, stayed the same for some, and declined for some as follows:

Practice or Category	% Point Change from 2023 Survey
Stream Crossings	- 3.05
Forest Roads	+ 0.56
Timber Harvesting	+ 0.37
Mechanical Site Preparation	+ 3.95
Chemical Site Preparation	0
Firebreaks/Burning	+ 6.27
Artificial Regeneration (Tree Planting)	- 0.15
Equipment Servicing	+ 0.28
Special Management Areas	+ 0.43
Forest Fertilization	NA
Streamside Management Zones (SMZs)	- 1.95
Weighted Overall Average	- 0.05

Our educational opportunities will continue to address these categories to maintain good scores. There is always some room for improvement, especially in critical areas where we have seen issues in the past. We will concentrate our educational efforts wherever needed. Educational opportunities include:

- Stream Crossings
  - ✓ Minimizing the number of crossings
  - ✓ Stream crossing approach design and stabilization
  - ✓ Proper removal and rehab of temporary crossings
  - ✓ Culvert crossing design, installation, and planning
  - ✓ Basic stream crossing design needs, including storm flow and aquatic migration requirements
  - ✓ Temporary portable bridge use
  - ✓ Proper design of all crossings, including not using debris crossings
- Streamside Management Zones (SMZs)
  - ✓ Maintaining recommended minimum SMZ widths
  - ✓ Maintaining recommended minimum residual basal area within SMZs
  - ✓ Maintaining streambank trees
  - ✓ Keeping logging debris out of stream channels
  - ✓ Proper water diversions and stabilization
  - ✓ Minimizing soil disturbance in SMZs
- Firebreaks/Burning Outside of SMZs
  - ✓ Proper firebreak planning and water diversion installation
  - ✓ Proper tie-in with roads and other sensitive areas such as streams and special management areas
- Forest Roads Outside of SMZs
  - ✓ Proper water diversion installation including number/spacing, design, and placement
  - ✓ Proper closeout needs following harvest activities
- Timber Harvesting Outside of SMZs
  - ✓ Skid trail stabilization requirements
- Mechanical Site Preparation Outside of SMZs
  - ✓ Avoidance of bedding directing surface runoff to roads and road-ditches
- Special Management Areas
  - ✓ Keeping debris out of canals/ditches
  - ✓ Minimizing disturbance and avoiding interference with natural flow in ephemeral areas
  - ✓ Avoidance of direct tie-in from road and firebreak diversions into ephemerals and gullies
  - ✓ Using low impact methods for firebreaks
  - ✓ Identifying and preserving the Special Management Area features
- Artificial Regeneration Outside of SMZs
  - ✓ Machine planting on the contour
- Equipment Servicing
  - ✓ Proper disposal of oils, lubricants, containers, and/or trash

Charts 1 through 4 (pages 37-40) are perhaps the most important tools in this document for determining BMP implementation trends. These charts provide an overall summary and comparison of BMP implementation by practice and ownership over recent survey cycles. They also provide impetus for continued training and improvement. The table below illustrates BMP Implementation according to three tract size groupings.

Tract Size	No. Sites	Acres	BMPs Assessed	% BMPs Implemented	WQ Risks
Under 100 Acres	180	14596.14	5582	96.94%	41
101-200 Acres	67	15274.6	2402	96.59%	20
201 Acres or more	24	10053.38	849	96.11%	7
All	271	39924.12	8833	96.76%	68

As shown in the above table, differences in the BMP Implementation Scores for different tract sizes appear to be small, and all the tract size categories showed good scores above 96 percent. However, the data from the 2025 Survey seems to show a trend of more problems with water quality risks (WQRs) on smaller tracts versus larger tracts. Additionally, the 2025 Survey data seems to show that as tract acreage goes down, the number of WQRs per acre tends to go up. For reference the data shows the following:

- ✓ For small tracts, 0.00281 WQRs per acre
- ✓ For medium tracts, 0.00131 WQRs per acre
- ✓ For large tracts, 0.00070 WQRs per acre

These trends seem to show we still need to be aware of certain potential problems associated with smaller tract parcelization. As has been noted in previous surveys, problems could result from the following:

- potential poor road location due to tract boundary constraints
- potentially more stream crossings due to the access issues and boundary locations of smaller tracts
- having more roads and stream crossings simply because there are more landowners needing access across their parcels

Therefore, we know from experience that parcelization of land into more and smaller parcels has the real potential to lead to other problems. Also, since smaller landowners often have fewer resources and/or knowledge of forestry, problems are often left unnoticed or given little attention, potentially resulting in more water quality risks on such ownerships. When land is allocated into larger tracts, there are fewer owners, and therefore, less need for stream crossings and access points from public roads. Larger landowners also tend to have more resources and/or knowledge of forestry to recognize and address potential issues.

All of these results suggest a need for continued outreach to landowners of all sizes of tracts. The GFC has already undertaken efforts to make BMP educational information available in-person and online. GFC has worked with partners to provide BMP educational content for in-person and online Master Timber Harvester (MTH) training, as well as Continuing Logger Education (CLE). Currently, GFC has three BMP learning modules available for anyone to access at any time to learn about forestry BMPs. Those module titles include *Forest Roads* and *Pre-Harvest Planning*, along with a slideshow depicting detailed installation steps for geotextile rocked ford stream crossing installation. These modules are located on GFC's public website at: https://gatrees.org/forest-management-conservation/water-quality-protection/. Additional modules might be created in the future to continue to address needs. In addition, an ongoing effort further promotes the use of temporary portable bridges for timber harvesting. Although we continue to see efforts made to avoid the need for stream crossings during timber harvesting activities, issues persist with skidders using inadequate crossings. An increased use of proper temporary and/or portable logging bridge stream crossings would help avoid many of these problems. Finally, we plan to continue to emphasize the BMPs for firebreak installation through our Prescribed Burn Certification training for landowners and contractors.

Chart 5 (page 41) shows the current number of Water Quality Risks (WQRs) observed in BMP implementation surveys between the 1998 survey and the present. There had been a dramatic decline in these observed WQRs until the 2013 survey, which exposed some issues with basic BMP implementation and planning, leading to an uptick in WQRs for that 2013 survey. However, in 2015, 2017, and 2019, the WQRs went back down. The 2021 survey showed another uptick in WQRs. However, this uptick was less significant, and as has been the case in past surveys, the vast majority of those WQRs were concentrated on just a small number of poorly executed sites. For the 2023 survey, we saw a good decrease in the number of WQRs, down 50% from 2021.

In the 2025 Survey, we found another uptick in WQRs, concentrated almost entirely in the categories of stream crossings, SMZs, and roads, with one WQR for the harvesting category. However, as has been the case for past surveys, the vast majority of sites (251 out of 271 total sites or 92.62%) had zero WQRs. All the WQRs were located on just 20 out of 271 total sites (7.38%). The vast majority of WQRs (45 out of 68 total or 66.18%) occurred on just 7 poorly executed sites.

CONCLUSION

Since the survey first started in 1991, the BMP Implementation score has improved greatly from 65 percent in 1991, to a high of 96.81 percent for the 2023 survey. The BMP Implementation score has been high and remained high (about 90% or above) since 2004 (about 21 years). The current 2025 survey shows that the BMP Implementation score remains very strong with a score of 96.76 percent overall. The percentage of stream miles in compliance remains very high at 97.06 percent. Since the 1998 survey, the number of water quality risks has decreased significantly, but did experience a significant upswing in the 2013 survey. However, the number of WQRs decreased back down to good levels between 2013 and 2019. The 2021 survey showed another uptick on WQRs. However, this uptick was less significant, and as has been the case in past surveys, the vast majority of those WQRs were concentrated on just a small number of poorly executed sites. 2023 showed a good decrease in the number of WQRs. As was noted in the section above, for the 2025 Survey we found another uptick in WQRs, but again they were concentrated on just a small number of poorly executed sites, with 92.62% of all the sites having zero WQRs. Chart 5 (page 41) tracks the level of Water Quality Risks observed since the 1998 survey.

The 2025 BMP implementation survey shows the need for continued BMP education efforts to help stabilize BMP implementation at satisfactory levels. Although the survey shows relatively high overall rates of BMP implementation, it also reveals areas for improvement within certain BMP categories and across certain landowner groups in the state. The information from this survey will be used to target BMP training at Master Timber Harvester workshops, SWPA workshops, and forester and landowner workshops and trainings. In addition, properly planned/installed/maintained portable logging bridges, culverts, and/or fords would help maintain/increase stream crossing BMP implementation.

GFC will continue to use available means to resolve forestry BMP complaints. The Georgia Forestry Commission, the Georgia Forestry Association, the University of Georgia Warnell School of Forestry and Natural Resources, participating companies who subscribe to the Sustainable Forestry Initiative, and the Southeastern Wood Producers Association support this concept. The Georgia SFI committee will continue to monitor and address "violators," as reported to their Inconsistent Practices sub-committee. Non-compliance cases will be referred to state or federal regulatory agencies as needed.

APPENDIX

Table 1: Site Distribution by County and Ownership

County	Public	Corporate	NIPF	Totals
Appling		2		**2**
Atkinson		1	1	**2**
Bacon		1	2	**3**
Baldwin			1	**1**
Banks			2	**2**
Bartow		4	1	**5**
Ben Hill			1	**1**
Berrien			2	**2**
Bleckley			1	**1**
Brantley		3		**3**
Brooks		1	1	**2**
Bryan	1	1		**2**
Bulloch			4	**4**
Burke	1	2	2	**5**
Butts			1	**1**
Calhoun			1	**1**
Camden		2	2	**4**
Candler			2	**2**
Carroll		1	2	**3**
Catoosa		1		**1**
Charlton		3		**3**
Chattahoochee	1			**1**
Chattooga	1			**1**
Cherokee	2	1		**3**
Clay			1	**1**
Clinch		6		**6**
Coffee		1	1	**2**
Colquitt			1	**1**
Columbia			1	**1**
Cook			1	**1**
Coweta			1	**1**
Crawford			1	**1**
Dade		1		**1**
Dawson	1			**1**
Decatur			2	**2**
Dodge			4	**4**
Dooly			2	**2**
Douglas			1	**1**
Early		1	1	**2**
Echols		3		**3**
Effingham			3	**3**
Elbert		1	1	**2**

Emanuel			3	**3**
Evans			1	**1**
Fannin	1	1		**2**
Fayette		1		**1**
Floyd		2		**2**
Franklin			3	**3**
Gilmer	1		2	**3**
Glascock			1	**1**
Glynn		1		**1**
Gordon		2		**2**
Grady			2	**2**
Greene	1	1	1	**3**
Habersham	4			**4**
Hall	1		1	**2**
Hancock	1		3	**4**
Haralson		1	1	**2**
Harris			2	**2**
Hart			1	**1**
Heard			1	**1**
Henry			1	**1**
Houston			1	**1**
Irwin			2	**2**
Jackson		1	1	**2**
Jasper	1			**1**
Jeff Davis	1		1	**2**
Jefferson			3	**3**
Jenkins			1	**1**
Johnson			2	**2**
Lamar			1	**1**
Lanier		1		**1**
Laurens			4	**4**
Lee		1		**1**
Liberty	1	2		**3**
Lincoln	1			**1**
Long	1		1	**2**
Lumpkin		1		**1**
Macon			1	**1**
Madison		2		**2**
Marion			2	**2**
McDuffie	1			**1**
McIntosh		1		**1**
Meriwether			1	**1**
Miller			1	**1**
Mitchell			1	**1**
Monroe			2	**2**
Montgomery			1	**1**
Morgan			1	**1**

Murray			3	**3**
Newton			1	**1**
Oconee			1	**1**
Oglethorpe	1		2	**3**
Paulding	4			**4**
Pickens		2		**2**
Pierce		2		**2**
Pike			1	**1**
Polk	1	1		**2**
Pulaski	1			**1**
Quitman		2		**2**
Randolph		2		**2**
Schley			2	**2**
Screven			4	**4**
Seminole			1	**1**
Spalding			2	**2**
Stephens	2			**2**
Stewart		1	1	**2**
Sumter			2	**2**
Talbot	1		2	**3**
Taliaferro			1	**1**
Tattnall			2	**2**
Telfair			3	**3**
Terrell			2	**2**
Thomas			1	**1**
Tift			2	**2**
Toombs			2	**2**
Treutlen			1	**1**
Troup		1	1	**2**
Turner		1		**1**
Twiggs		2		**2**
Union			1	**1**
Upson			1	**1**
Walker	3			**3**
Walton		1		**1**
Ware	1	2	2	**5**
Warren		1		**1**
Washington		2	1	**3**
Wayne		4		**4**
Wheeler			2	**2**
White	1			**1**
Whitfield		1	1	**2**
Wilcox			2	**2**
Wilkes	1	1	3	**5**
Wilkinson		2	2	**4**
Worth			2	**2**
Total	**38**	**81**	**152**	**271**

Tables 2 a – d: Distribution of Sites with Streamside Management Zones Evaluated By Region, Ownership, # Sites Assessed, Acres Evaluated, # BMP Assessed, % BMPs Implemented, and # Water Quality Risks.

2a. Streamside Management Zones - NIPF					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	3	10.29	31	100.00%	0
Piedmont	35	110.28	328	96.04%	6
Upper Coastal Plain	15	31.31	139	93.53%	3
Lower Coastal Plain	33	87.65	311	94.21%	6
Ridge and Valley	5	22.04	43	100.00%	0
Total	91	261.57	852	95.31%	15
2b. Streamside Management Zones - Public					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	8	136.17	69	100.00%	0
Piedmont	16	137.83	141	96.45%	1
Upper Coastal Plain	0	0	0	NA	0
Lower Coastal Plain	0	0	0	NA	0
Ridge and Valley	4	32.11	35	100.00%	0
Total	28	306.11	245	97.96%	1
2c. Streamside Management Zones - Corporate					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	2	3.18	17	100.00%	0
Piedmont	13	82.39	122	96.72%	0
Upper Coastal Plain	12	20.55	103	99.03%	0
Lower Coastal Plain	10	21.55	97	100.00%	0
Ridge and Valley	11	55.98	101	89.11%	1
Total	48	183.65	440	96.36%	1
2d. Streamside Management Zones - All Ownership					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	13	149.64	117	100.00%	0
Piedmont	64	330.5	591	96.28%	7
Upper Coastal Plain	27	51.86	242	95.87%	3
Lower Coastal Plain	43	109.2	408	95.59%	6
Ridge and Valley	20	110.13	179	93.85%	1
Total	167	751.33	1537	96.03%	17

Tables 3 a – d: Distribution of Sites with Stream Crossings Evaluated by Region, Ownership, # Sites Assessed, # Crossings Assessed, # BMPs Assessed, % BMPs Implemented, and # Water Quality Risks.

3a. Stream and Wetland Crossings - NIPF					
Region	**No. Sites**	**Crossings**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	1	1	16	100.00%	0
Piedmont	15	21	177	81.36%	18
Upper Coastal Plain	5	6	58	91.38%	2
Lower Coastal Plain	23	43	326	94.17%	6
Ridge and Valley	2	2	21	100.00%	0
Total	46	73	598	90.47%	26
3b. Stream and Wetland Crossings - Public					
Region	**No. Sites**	**Crossings**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	3	9	30	93.33%	0
Piedmont	5	7	54	81.48%	10
Upper Coastal Plain	0	0	0	NA	0
Lower Coastal Plain	2	7	34	100.00%	0
Ridge and Valley	2	7	25	100.00%	0
Total	12	30	143	91.61%	10
3c. Stream and Wetland Crossings - Corporate					
Region	**No. Sites**	**Crossings**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	5	7	62	85.48%	3
Upper Coastal Plain	2	2	17	100.00%	0
Lower Coastal Plain	9	37	132	97.73%	0
Ridge and Valley	8	22	98	89.80%	1
Total	24	68	309	92.88%	4
3d. Stream and Wetland Crossings - All Ownership					
Region	**No. Sites**	**Crossings**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	4	10	46	95.65%	0
Piedmont	25	35	293	82.25%	31
Upper Coastal Plain	7	8	75	93.33%	2
Lower Coastal Plain	34	87	492	95.53%	6
Ridge and Valley	12	31	144	93.06%	1
Total	82	171	1050	91.33%	40

Tables 4 a – d: Distribution of Forest Road Sites Evaluated By Region, Ownership, # Sites Assessed, Miles Assessed, % Compliance, # BMP Assessed, % BMPs Implemented, and # Water Quality Risks.

4a. Forest Road Sites - NIPF						
Region	**No. Sites**	**Miles**	**% Miles Compliance**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	3	0.73	100.00%	38	100.00%	0
Piedmont	43	20.51	96.54%	391	96.68%	4
Upper Coastal Plain	31	23.6	98.73%	192	98.44%	0
Lower Coastal Plain	63	47.87	93.48%	467	93.36%	1
Ridge and Valley	5	1.78	100.00%	59	100.00%	0
Total	145	94.49	95.63%	1147	95.90%	5
4b. Forest Road Sites - Public						
Region	8	16.56	99.28%	93	94.62%	0
Mountains	18	26.46	97.32%	195	96.92%	5
Piedmont	1	0.18	100.00%	6	100.00%	0
Upper Coastal Plain	5	6.9	87.39%	40	90.00%	0
Lower Coastal Plain	4	6.51	100.00%	47	100.00%	0
Ridge and Valley	36	56.61	97.00%	381	96.06%	5
Total	8	16.56	99.28%	93	94.62%	0
4c. Forest Road Sites - Corporate						
Region	**No. Sites**	**Miles**	**% Miles Compliance**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	1	0.02	100.00%	8	100.00%	0
Piedmont	15	9.14	99.45%	162	98.15%	0
Upper Coastal Plain	16	21.77	99.13%	123	95.12%	0
Lower Coastal Plain	33	68.25	98.83%	268	97.76%	0
Ridge and Valley	12	10.67	99.16%	131	93.13%	0
Total	77	109.85	98.97%	692	96.53%	0
4d. Forest Road Sites - All Ownership						
Region	**No. Sites**	**Miles**	**% Miles Compliance**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	12	17.31	99.31%	139	96.40%	0
Piedmont	76	56.11	97.38%	748	97.06%	9
Upper Coastal Plain	48	45.55	98.92%	321	97.20%	0
Lower Coastal Plain	101	123.02	96.11%	775	94.71%	1
Ridge and Valley	21	18.96	99.53%	237	96.20%	0
Total	258	260.95	97.33%	2220	96.13%	10

Table 5 a – d: Overall Distribution of Special Management Areas Evaluated By Region, Ownership, # Sites Assessed, # BMPs Assessed, % BMPs Implemented, and # Water Quality Risks.

5a. Special Management Areas - NIPF				
Region	**No. Sites**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	3	6	100.00%	0
Piedmont	41	217	99.54%	0
Upper Coastal Plain	20	95	93.68%	0
Lower Coastal Plain	31	92	93.48%	0
Ridge and Valley	5	10	100.00%	0
Total	100	420	96.90%	0
5b. Special Management Areas - Public				
Region	**No. Sites**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	8	16	100.00%	0
Piedmont	15	73	98.63%	0
Upper Coastal Plain	0	0	NA	0
Lower Coastal Plain	4	16	100.00%	0
Ridge and Valley	4	8	100.00%	0
Total	31	113	99.12%	0
5c. Special Management Areas - Corporate				
Region	**No. Sites**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	2	5	100.00%	0
Piedmont	13	80	96.25%	0
Upper Coastal Plain	14	64	95.31%	0
Lower Coastal Plain	29	107	99.07%	0
Ridge and Valley	12	31	100.00%	0
Total	70	287	97.56%	0
5d. Special Management Areas - All Ownership				
Region	**No. Sites**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	13	27	100.00%	0
Piedmont	69	370	98.65%	0
Upper Coastal Plain	34	159	94.34%	0
Lower Coastal Plain	64	215	96.74%	0
Ridge and Valley	21	49	100.00%	0
Total	201	820	97.44%	0

Table 6 a – d: Distribution of Harvesting Operations Evaluated By Region, Ownership, # Sites Assessed, Acres Assessed, # BMP Assessed, % Implemented, and # Water Quality Risks.

6a. Timber Harvesting Outside SMZs - NIPF					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	3	85.38	24	100.00%	0
Piedmont	45	3161.26	326	98.16%	0
Upper Coastal Plain	32	2689.72	210	99.05%	0
Lower Coastal Plain	67	5199.58	491	99.19%	1
Ridge and Valley	5	367.7	39	100.00%	0
Total	152	11503.64	1090	98.90%	1
6b. Timber Harvesting Outside SMZs - Public					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	8	725.09	65	100.00%	0
Piedmont	18	2409.84	137	99.27%	0
Upper Coastal Plain	1	57.28	7	100.00%	0
Lower Coastal Plain	5	944.88	35	100.00%	0
Ridge and Valley	4	390.19	32	100.00%	0
Total	36	4527.28	276	99.64%	0
6c. Timber Harvesting Outside SMZs - Corporate					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	1	16.57	8	100.00%	0
Piedmont	14	1162.5	106	99.06%	0
Upper Coastal Plain	16	2398.21	112	100.00%	0
Lower Coastal Plain	31	3790.24	217	100.00%	0
Ridge and Valley	12	1247.83	93	100.00%	0
Total	74	8615.35	536	99.81%	0
6d. Timber Harvesting Outside SMZs - All Ownership					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	12	827.04	97	100.00%	0
Piedmont	77	6733.6	569	98.59%	0
Upper Coastal Plain	49	5145.21	329	99.39%	0
Lower Coastal Plain	103	9934.7	743	99.46%	1
Ridge and Valley	21	2005.72	164	100.00%	0
Total	262	24646.27	1902	99.26%	1

Table 7 a – d: Distribution of Mechanical Site Preparation Operations Evaluated By Region, Ownership, # Sites Assessed, Acres Assessed, # BMPs Assessed, % BMP Implementation, and # Water Quality Risks.

7a. Mechanical Site Preparation Outside SMZs - NIPF					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	2	26.7	3	100.00%	0
Upper Coastal Plain	1	72.64	3	100.00%	0
Lower Coastal Plain	6	352.08	14	100.00%	0
Ridge and Valley	0	0	0	NA	0
Total	9	451.42	20	100.00%	0
7b. Mechanical Site Preparation Outside SMZs - Public					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	1	234.4	2	100.00%	0
Upper Coastal Plain	0	0	0	NA	0
Lower Coastal Plain	1	146.63	3	100.00%	0
Ridge and Valley	0	0	0	NA	0
Total	2	381.03	5	100.00%	0
7c. Mechanical Site Preparation Outside SMZs - Corporate					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	1	57	3	100.00%	0
Upper Coastal Plain	1	82.92	3	100.00%	0
Lower Coastal Plain	21	2185.43	63	100.00%	0
Ridge and Valley	0	0	0	NA	0
Total	23	2325.35	69	100.00%	0
7d. Mechanical Site Preparation Outside SMZs - All Ownership					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	4	318.1	8	100.00%	0
Upper Coastal Plain	2	155.56	6	100.00%	0
Lower Coastal Plain	28	2684.14	80	100.00%	0
Ridge and Valley	0	0	0	NA	0
Total	34	3157.8	94	100.00%	0

Table 8 a – d: Distribution of Chemical Site Preparation Operations Evaluated By Region, Ownership, # Sites Assessed, Acres Assessed, # BMPs Assessed, % BMP Implementation, and # Water Quality Risks.

8a. Chemical Site Preparation Outside SMZs - NIPF					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	8	738.73	16	100.00%	0
Upper Coastal Plain	11	1110.58	22	100.00%	0
Lower Coastal Plain	15	1502.02	30	100.00%	0
Ridge and Valley	0	0	0	NA	0
Total	34	3351.33	68	100.00%	0
8b. Chemical Site Preparation Outside SMZs - Public					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	1	73.8	2	100.00%	0
Upper Coastal Plain	0	0	0	NA	0
Lower Coastal Plain	1	146.63	2	100.00%	0
Ridge and Valley	0	0	0	NA	0
Total	2	220.43	4	100.00%	0
8c. Chemical Site Preparation Outside SMZs - Corporate					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	2	188	4	100.00%	0
Upper Coastal Plain	5	440.67	10	100.00%	0
Lower Coastal Plain	9	835.68	18	100.00%	0
Ridge and Valley	1	24.3	2	100.00%	0
Total	17	1488.65	34	100.00%	0
8d. Chemical Site Preparation Outside SMZs - All Ownership					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	11	1000.53	22	100.00%	0
Upper Coastal Plain	16	1551.25	32	100.00%	0
Lower Coastal Plain	25	2484.33	50	100.00%	0
Ridge and Valley	1	24.3	2	100.00%	0
Total	53	5060.41	106	100.00%	0

Table 9 a – d: Distribution of Firebreak installation and Burning Operations Evaluated by Region, Ownership, # Sites Assessed, Miles of Firebreaks Assessed, # BMPs Assessed, % BMP Implementation, and # Water Quality Risks.

9a. Fire Breaks & Prescribed Burning- NIPF					
Region	**No. Sites**	**Miles**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	1	0.57	7	100.00%	0
Piedmont	8	9.22	54	98.15%	0
Upper Coastal Plain	9	16.67	43	95.35%	0
Lower Coastal Plain	13	29.04	68	95.59%	0
Ridge and Valley	0	0	0	NA	0
Total	31	55.5	172	96.51%	0
9b. Fire Breaks & Prescribed Burning- Public					
Region	**No. Sites**	**Miles**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	0	0	0	NA	0
Upper Coastal Plain	0	0	0	NA	0
Lower Coastal Plain	2	7.28	10	100.00%	0
Ridge and Valley	0	0	0	NA	0
Total	2	7.28	10	100.00%	0
9c. Fire Breaks & Prescribed Burning- Corporate					
Region	**No. Sites**	**Miles**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	1	1.27	7	100.00%	0
Piedmont	3	4.23	21	85.71%	0
Upper Coastal Plain	0	0	0	NA	0
Lower Coastal Plain	2	3.05	7	100.00%	0
Ridge and Valley	2	1.86	14	100.00%	0
Total	8	10.41	49	93.88%	0
9d. Fire Breaks & Prescribed Burning- All Ownership					
Region	**No. Sites**	**Miles**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	2	1.84	14	100.00%	0
Piedmont	11	13.45	75	94.67%	0
Upper Coastal Plain	9	16.67	43	95.35%	0
Lower Coastal Plain	17	39.37	85	96.47%	0
Ridge and Valley	2	1.86	14	100.00%	0
Total	41	73.19	231	96.10%	0

Table 10 a – d: Distribution of Artificial Regeneration Operations Evaluated By Region, Ownership, # Sites Assessed, Acres Assessed, # BMPs Assessed, % BMP Implementation, and # Water Quality Risks.

10a. Artificial Regeneration Outside SMZs - NIPF					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	4	309.81	4	100.00%	0
Upper Coastal Plain	10	937.16	14	92.86%	0
Lower Coastal Plain	10	1066.86	21	100.00%	0
Ridge and Valley	0	0	0	NA	0
Total	24	2313.83	39	97.44%	0
10b. Artificial Regeneration Outside SMZs - Public					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	0	0	0	NA	0
Upper Coastal Plain	0	0	0	NA	0
Lower Coastal Plain	0	0	0	NA	0
Ridge and Valley	0	0	0	NA	0
Total	0	0	0	NA	0
10c. Artificial Regeneration Outside SMZs - Corporate					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	2	181.2	5	100.00%	0
Upper Coastal Plain	3	294.7	4	100.00%	0
Lower Coastal Plain	9	835.68	14	100.00%	0
Ridge and Valley	1	24.3	2	100.00%	0
Total	15	1335.88	25	100.00%	0
10d. Artificial Regeneration Outside SMZs - All Ownership					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	6	491.01	9	100.00%	0
Upper Coastal Plain	13	1231.86	18	94.44%	0
Lower Coastal Plain	19	1902.54	35	100.00%	0
Ridge and Valley	1	24.3	2	100.00%	0
Total	39	3649.71	64	98.44%	0

Table 11 a – d: Distribution of Forest Fertilization Sites Evaluated By Region, Ownership, # Sites Assessed, Acres Assessed, # BMPs Assessed, % BMP Implementation, and # Water Quality Risks.

11a. Forest Fertilization Outside SMZs - NIPF					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	0	0	0	NA	0
Upper Coastal Plain	0	0	0	NA	0
Lower Coastal Plain	0	0	0	NA	0
Ridge and Valley	0	0	0	NA	0
Total	0	0	0	NA	0
11b. Forest Fertilization Outside SMZs - Public					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	0	0	0	NA	0
Upper Coastal Plain	0	0	0	NA	0
Lower Coastal Plain	1	78.22	2	100.00%	0
Ridge and Valley	0	0	0	NA	0
Total	1	78.22	2	100.00%	0
11c. Forest Fertilization Outside SMZs - Corporate					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	0	0	0	NA	0
Upper Coastal Plain	0	0	0	NA	0
Lower Coastal Plain	0	0	0	NA	0
Ridge and Valley	0	0	0	NA	0
Total	0	0	0	NA	0
11d. Forest Fertilization Outside SMZs - All Ownership					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	0	0	0	NA	0
Piedmont	0	0	0	NA	0
Upper Coastal Plain	0	0	0	NA	0
Lower Coastal Plain	1	78.22	2	100.00%	0
Ridge and Valley	0	0	0	NA	0
Total	1	78.22	2	100.00%	0

Table 12 a – d: Distribution of Equipment Servicing Operations Evaluated By Region, Ownership, # Sites Assessed, # Landings Assessed, # BMPs Assessed, % BMP Implementation, and # Water Quality Risks.

12a. Equipment Servicing and Trash Clean-up - NIPF					
Region	**No. Sites**	**Landings**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	3	9	9	100.00%	0
Piedmont	45	109	134	100.00%	0
Upper Coastal Plain	32	76	96	98.96%	0
Lower Coastal Plain	67	219	201	99.00%	0
Ridge and Valley	5	12	15	100.00%	0
Total	152	425	455	99.34%	0
12b. Equipment Servicing and Trash Clean-up - Public					
Region	**No. Sites**	**Landings**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	8	46	24	100.00%	0
Piedmont	18	101	54	100.00%	0
Upper Coastal Plain	1	3	3	100.00%	0
Lower Coastal Plain	6	31	18	100.00%	0
Ridge and Valley	4	14	12	100.00%	0
Total	37	195	111	100.00%	0
12c. Equipment Servicing and Trash Clean-up - Corporate					
Region	**No. Sites**	**Landings**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	2	2	6	100.00%	0
Piedmont	15	44	45	100.00%	0
Upper Coastal Plain	16	73	47	100.00%	0
Lower Coastal Plain	36	169	108	100.00%	0
Ridge and Valley	12	37	35	100.00%	0
Total	81	325	241	100.00%	0
12d. Equipment Servicing and Trash Clean-up - All Ownership					
Region	**No. Sites**	**Landings**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	13	57	39	100.00%	0
Piedmont	78	254	233	100.00%	0
Upper Coastal Plain	49	152	146	99.32%	0
Lower Coastal Plain	109	419	327	99.39%	0
Ridge and Valley	21	63	62	100.00%	0
Total	270	945	807	99.63%	0

Table 13 a – d: Distribution of Stream Types, Miles Assessed, and % Compliance by Region, and Ownership.

13a. Stream Assessment - NIPF						
Region	**No. Sites**	**Intermittent Miles Assessed**	**% Miles Compliance**	**Perennial Miles Assessed**	**% Miles Compliance**	**Total % Miles Compliance**
Mountains	3	0.39	100.00%	0.64	100.00%	100.00%
Piedmont	35	6.32	96.36%	13.18	100.00%	98.82%
Upper Coastal Plain	15	4.29	93.01%	2.09	100.00%	95.30%
Lower Coastal Plain	33	12.9	93.33%	6.69	86.10%	90.86%
Ridge and Valley	5	0.37	100.00%	1.55	100.00%	100.00%
Total	91	24.27	94.27%	24.15	96.15%	95.21%
13b. Stream Assessment - Public						
Region	**No. Sites**	**Intermittent Miles Assessed**	**% Miles Compliance**	**Perennial Miles Assessed**	**% Miles Compliance**	**Total % Miles Compliance**
Mountains	8	4.79	100.00%	7.59	100.00%	100.00%
Piedmont	16	5.18	96.72%	15.59	97.05%	96.97%
Upper Coastal Plain	0	0	NA	0	NA	NA
Lower Coastal Plain	0	0	NA	0	NA	NA
Ridge and Valley	4	2.06	100.00%	2.11	100.00%	100.00%
Total	28	12.03	98.59%	25.29	98.18%	98.31%
13c. Stream Assessment - Corporate						
Region	**No. Sites**	**Intermittent Miles Assessed**	**% Miles Compliance**	**Perennial Miles Assessed**	**% Miles Compliance**	**Total % Miles Compliance**
Mountains	2	0	NA	0.27	100.00%	100.00%
Piedmont	13	4.77	99.79%	6.5	100.00%	99.91%
Upper Coastal Plain	12	2.45	100.00%	2.03	98.52%	99.33%
Lower Coastal Plain	10	3.73	100.00%	1.85	100.00%	100.00%
Ridge and Valley	11	4.6	91.30%	3.84	99.74%	95.14%
Total	48	15.55	97.36%	14.49	99.72%	98.50%
13d. Stream Assessment - All Ownership						
Region	**No. Sites**	**Intermittent Miles Assessed**	**% Miles Compliance**	**Perennial Miles Assessed**	**% Miles Compliance**	**Total % Miles Compliance**
Mountains	13	5.18	100.00%	8.5	100.00%	100.00%
Piedmont	64	16.27	97.48%	35.27	98.70%	98.31%
Upper Coastal Plain	27	6.74	95.55%	4.12	99.27%	96.96%
Lower Coastal Plain	43	16.63	94.83%	8.54	89.11%	92.89%
Ridge and Valley	20	7.03	94.31%	7.5	99.87%	97.18%
Total	167	51.85	96.20%	63.93	97.76%	97.06%

Table 14 a – d: Overall Distribution of Sites Evaluated by Region, Ownership, # Sites Assessed, Acres Evaluated, # BMPs Assessed, % BMPs Implemented, and # Water Quality Risks.

Overall Distribution - NIPF					
14a. Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	3	112.17	131	100.00%	0
Piedmont	45	4628.96	1650	95.94%	28
Upper Coastal Plain	32	5494.55	872	96.67%	5
Lower Coastal Plain	67	9227.47	2021	95.89%	14
Ridge and Valley	5	389.74	187	100.00%	0
Total	152	19852.89	4861	96.32%	47
14b. Overall Distribution - Public					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	8	861.26	297	97.64%	0
Piedmont	18	2855.87	658	96.50%	16
Upper Coastal Plain	1	57.28	16	100.00%	0
Lower Coastal Plain	7	1616.74	160	97.50%	0
Ridge and Valley	4	422.3	159	100.00%	0
Total	38	5813.45	1290	97.36%	16
14c. Overall Distribution - Corporate					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	2	45.05	51	100.00%	0
Piedmont	15	1872.89	610	96.23%	3
Upper Coastal Plain	16	3237.05	483	97.93%	0
Lower Coastal Plain	36	7668.58	1031	99.03%	0
Ridge and Valley	12	1434.21	507	94.08%	2
Total	81	14257.78	2682	97.28%	5
14d. Overall Distribution - All Ownership					
Region	**No. Sites**	**Acres**	**BMPs Assessed**	**% BMPs Implemented**	**WQ Risks**
Mountains	13	1018.48	479	98.54%	0
Piedmont	78	9357.72	2918	96.13%	47
Upper Coastal Plain	49	8788.88	1371	97.16%	5
Lower Coastal Plain	110	18512.79	3212	96.98%	14
Ridge and Valley	21	2246.25	853	96.48%	2
Total	271	39924.12	8833	96.76%	68

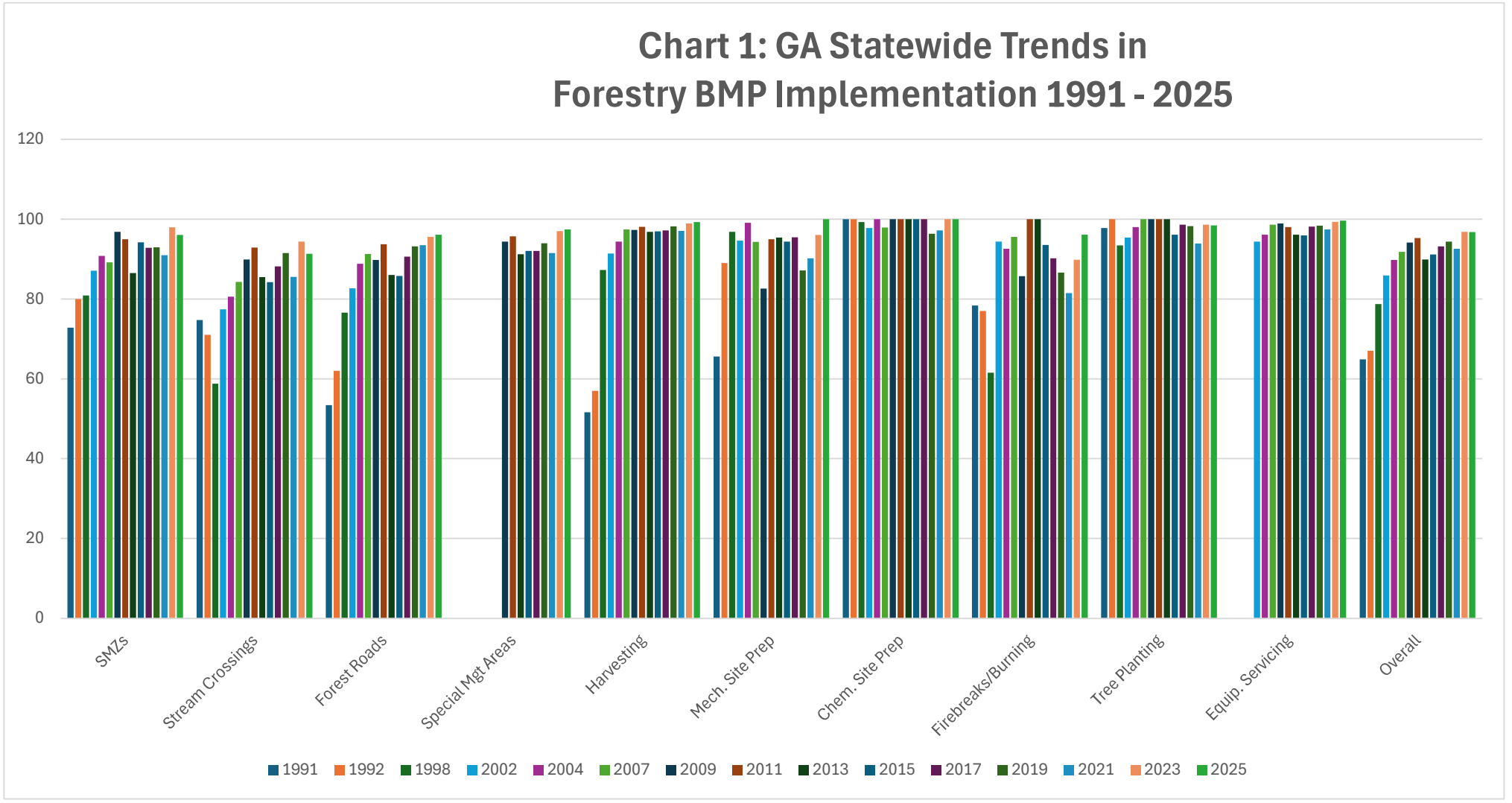


Chart 1: GA Statewide Trends in Forestry BMP Implementation 1991 - 2025
120
100
80
60
40
20
0
SMZs
Stream Crossings
Forest Roads
Special Mgt Areas
Harvesting
Mech. Site Prep
Chem. Site Prep
Firebreaks/Burning
Tree Planting
Equip. Servicing
Overall
1991 1992 1998 2002 2004 2007 2009 2011 2013 2015 2017 2019 2021 2023 2025

Chart 2: Statewide Trends in BMP Implementation on NIPF

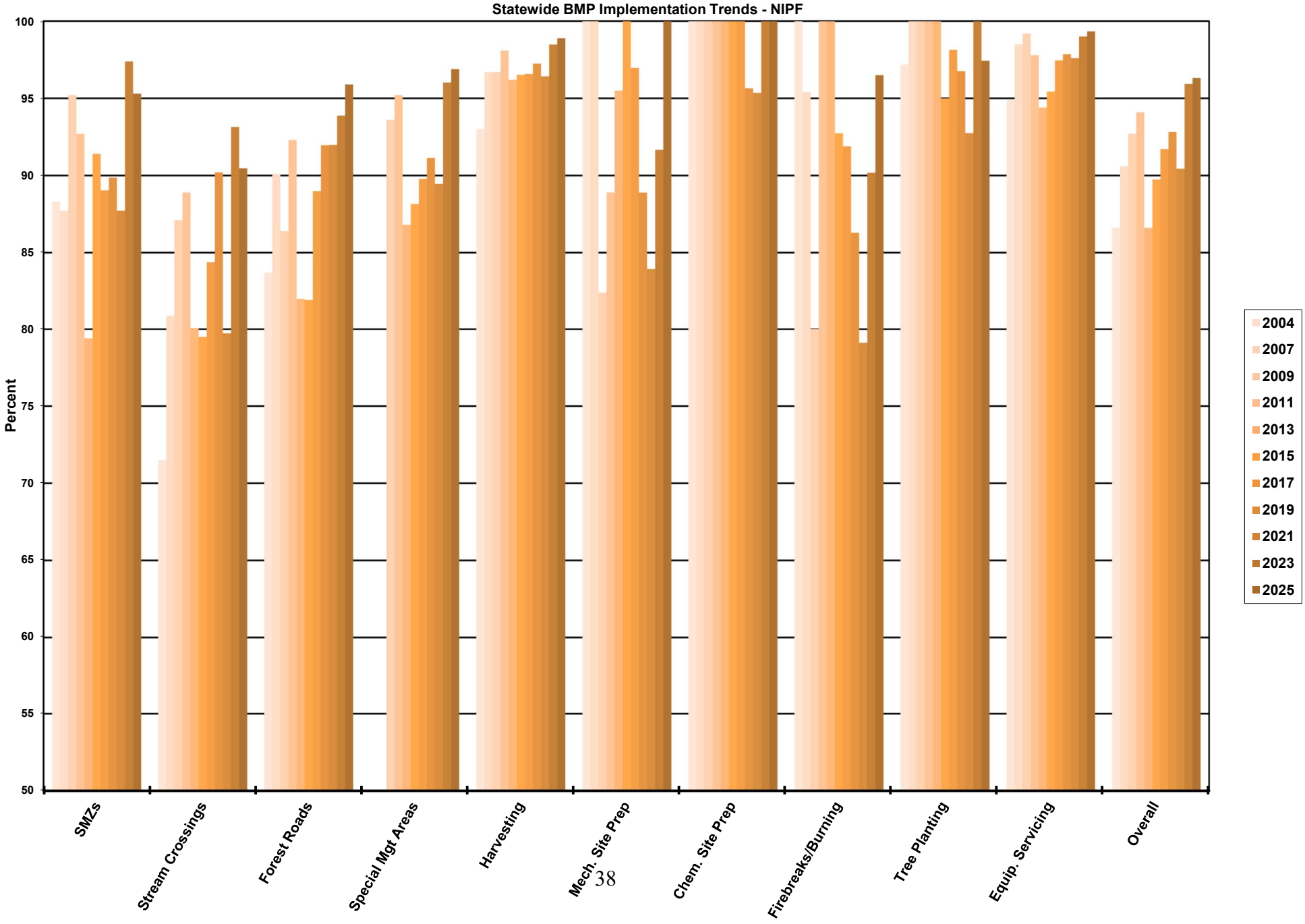


Chart 3: Statewide Trends in BMP Implementation on Corporate Sites

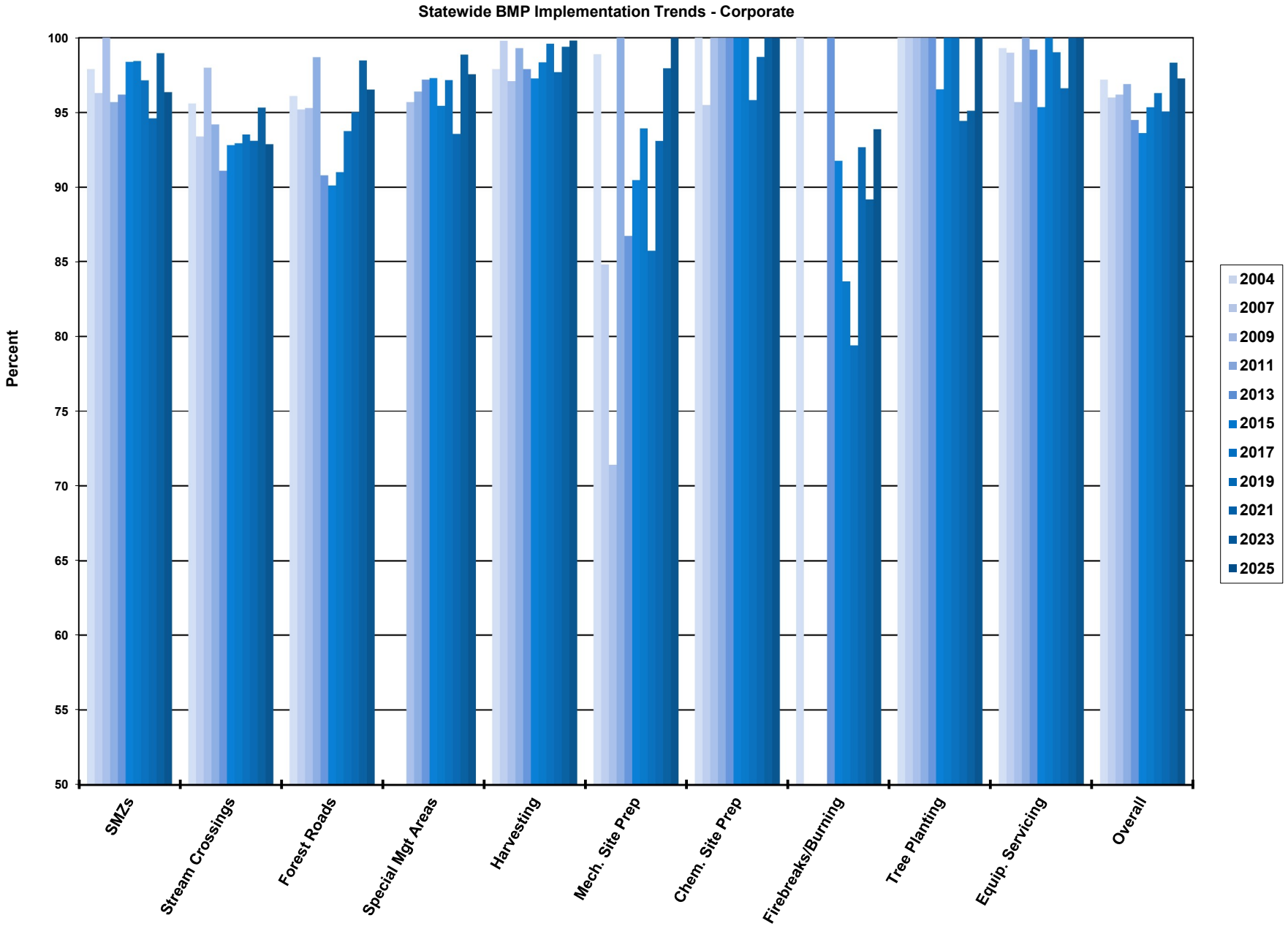


Chart 4: Statewide Trends in BMP Implementation on Public Sites

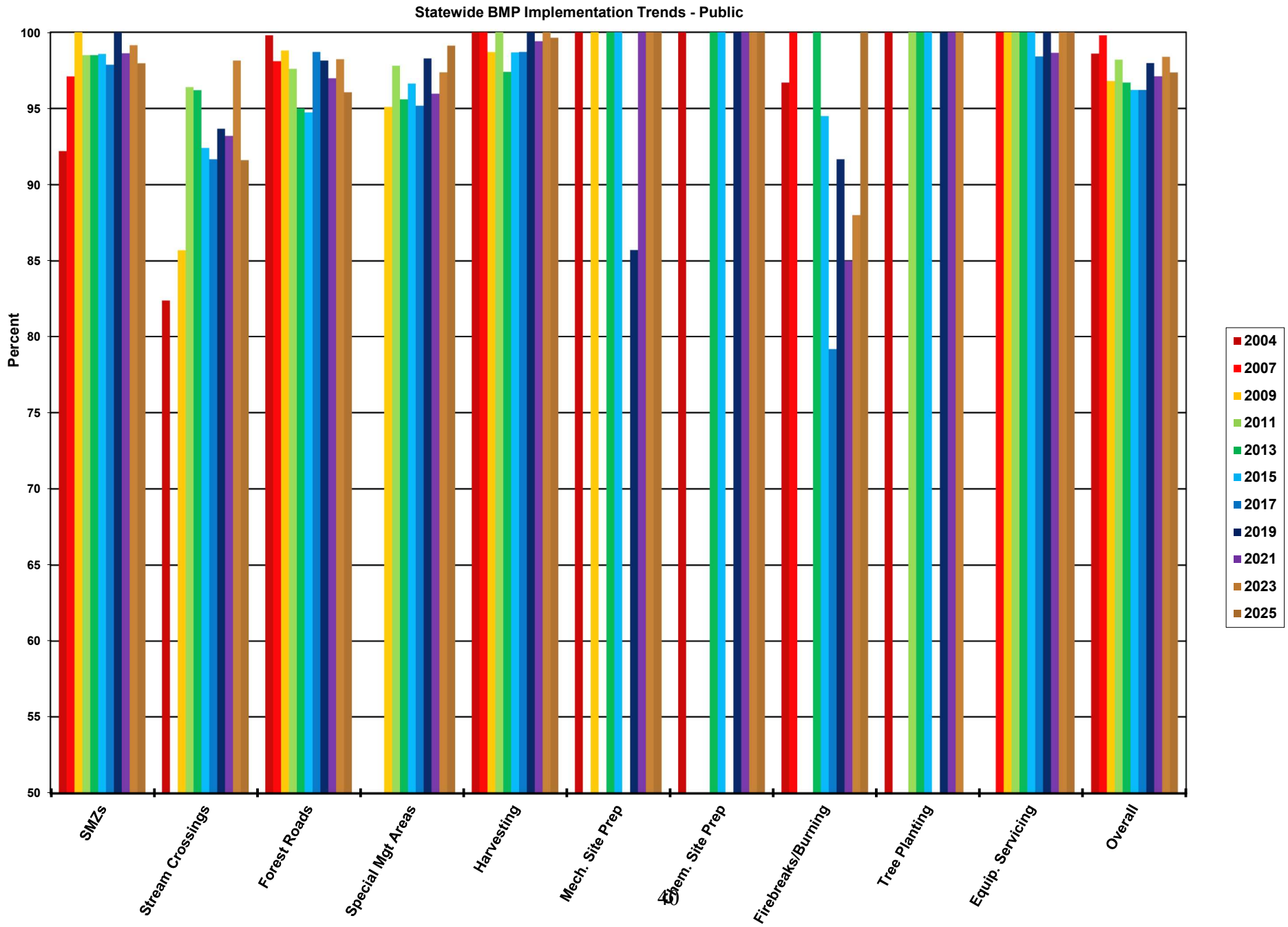
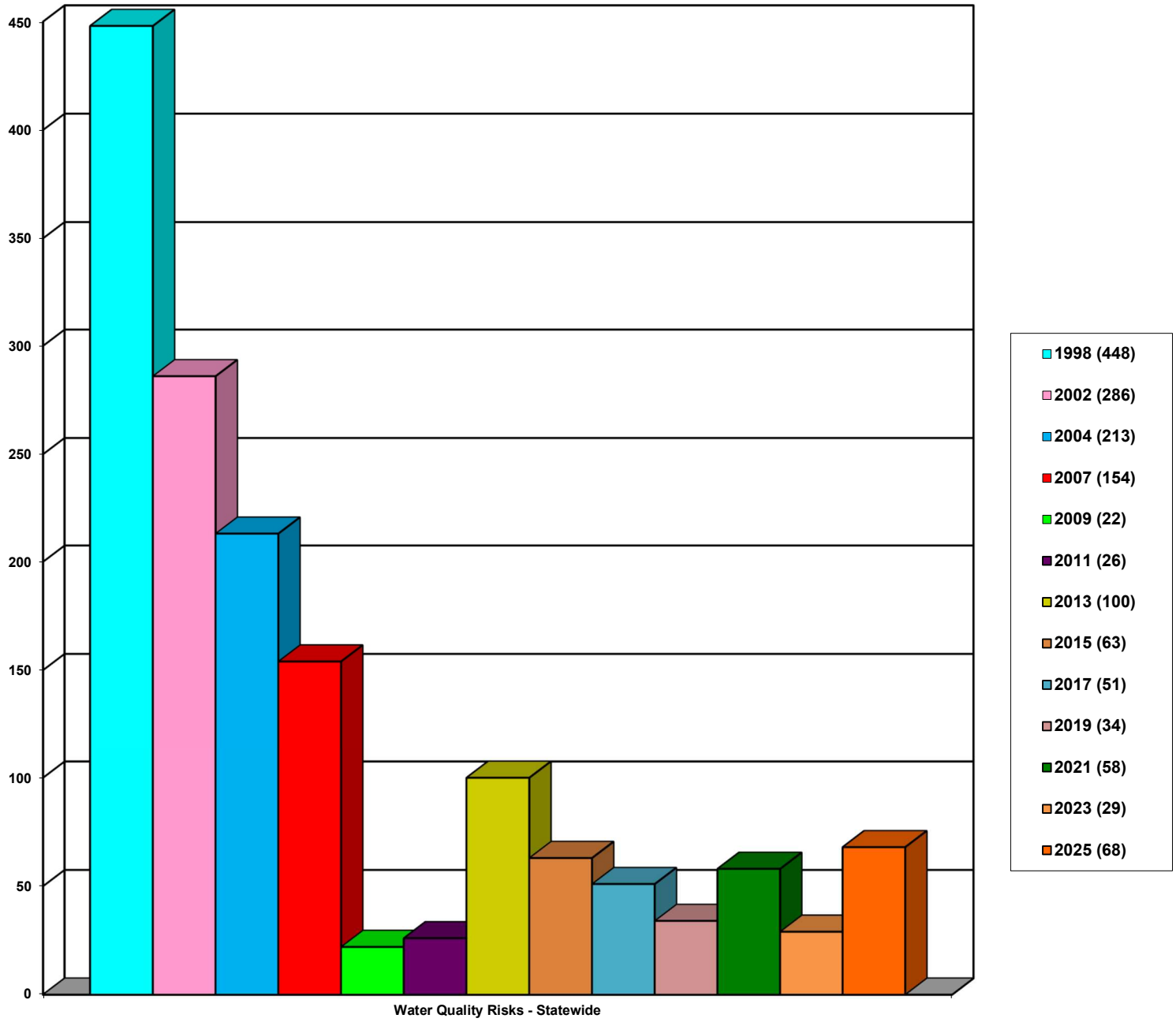


Chart 5: Statewide Trends in Reduction of WQRs from 1998 through 2025 Surveys



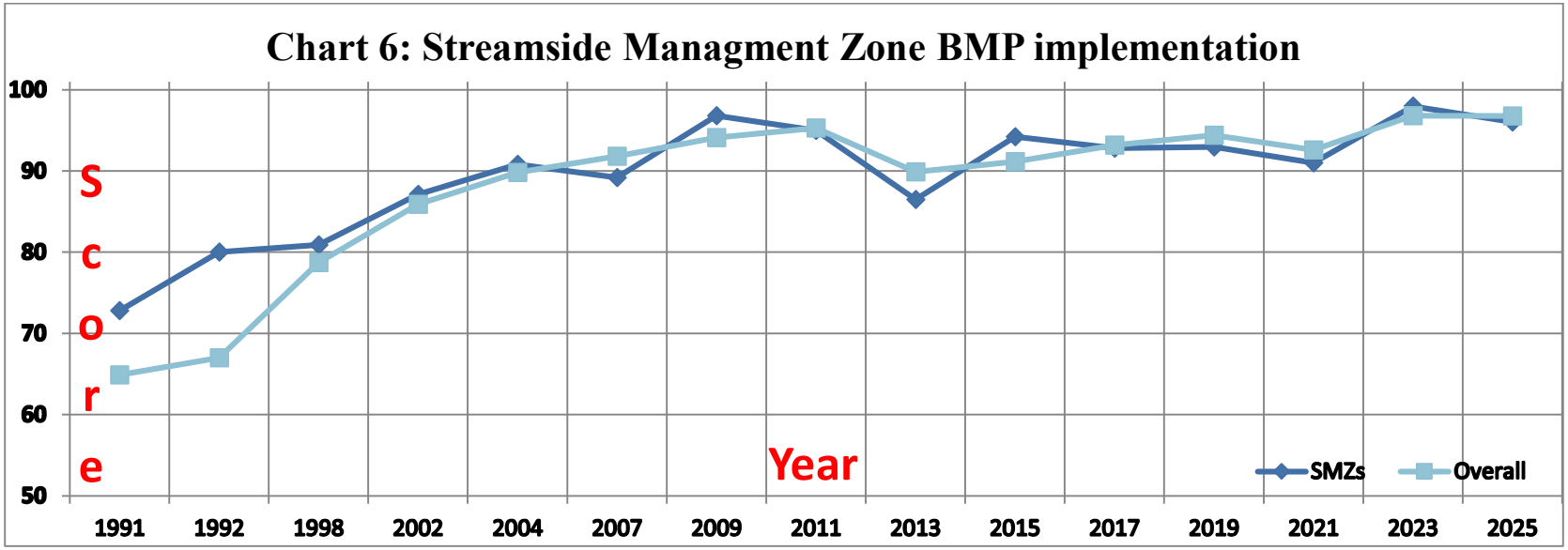


Chart 6: Streamside Managment Zone BMP implementation
100
90
80
70
60
50
Score
Year
1991
1992
1998
2002
2004
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
SMZs
Overall

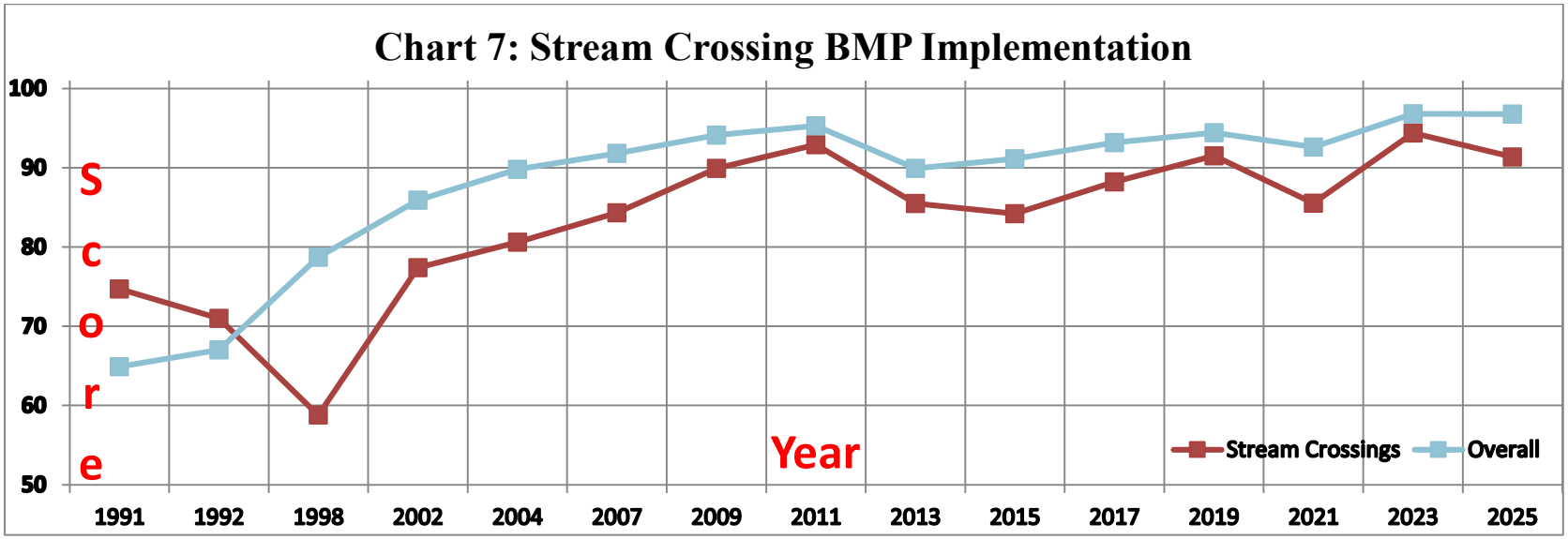


Chart 7: Stream Crossing BMP Implementation
100
90
80
70
60
50
Score
Year
1991
1992
1998
2002
2004
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Stream Crossings
Overall

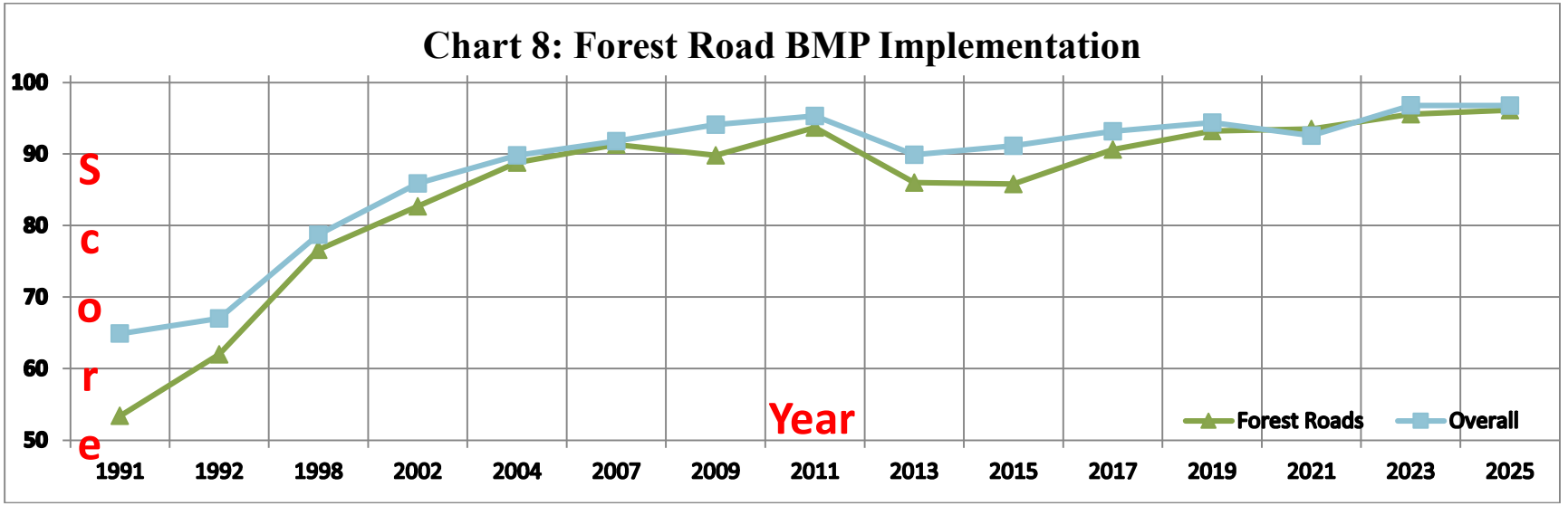


Chart 8: Forest Road BMP Implementation
100
90
80
70
60
50
Score
Year
1991
1992
1998
2002
2004
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Forest Roads
Overall

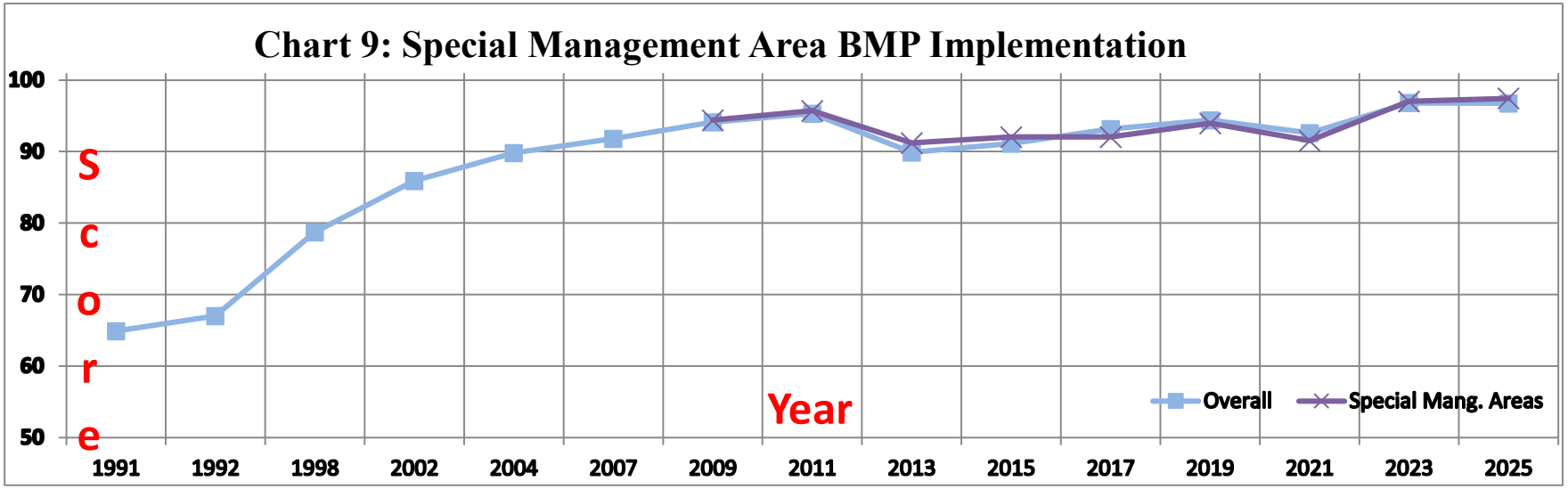


Chart 9: Special Management Area BMP Implementation
100
90
80
70
60
50
Score
Year
1991
1992
1998
2002
2004
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Overall
Special Mang. Areas

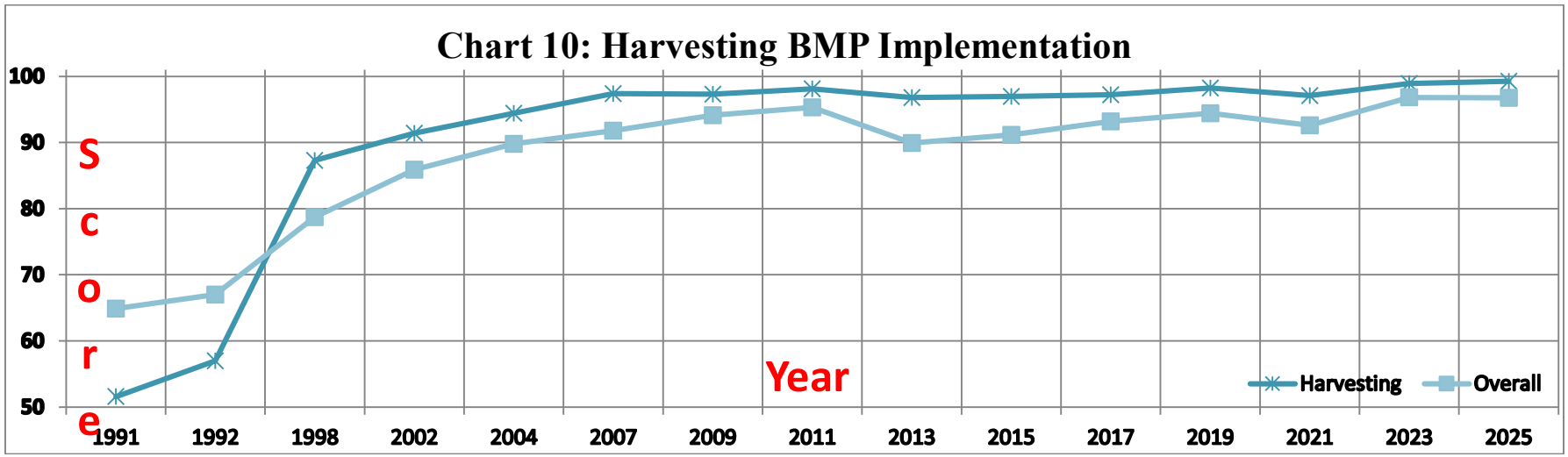


Chart 10: Harvesting BMP Implementation
100
90
80
70
60
50
Score
Year
1991
1992
1998
2002
2004
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Harvesting
Overall

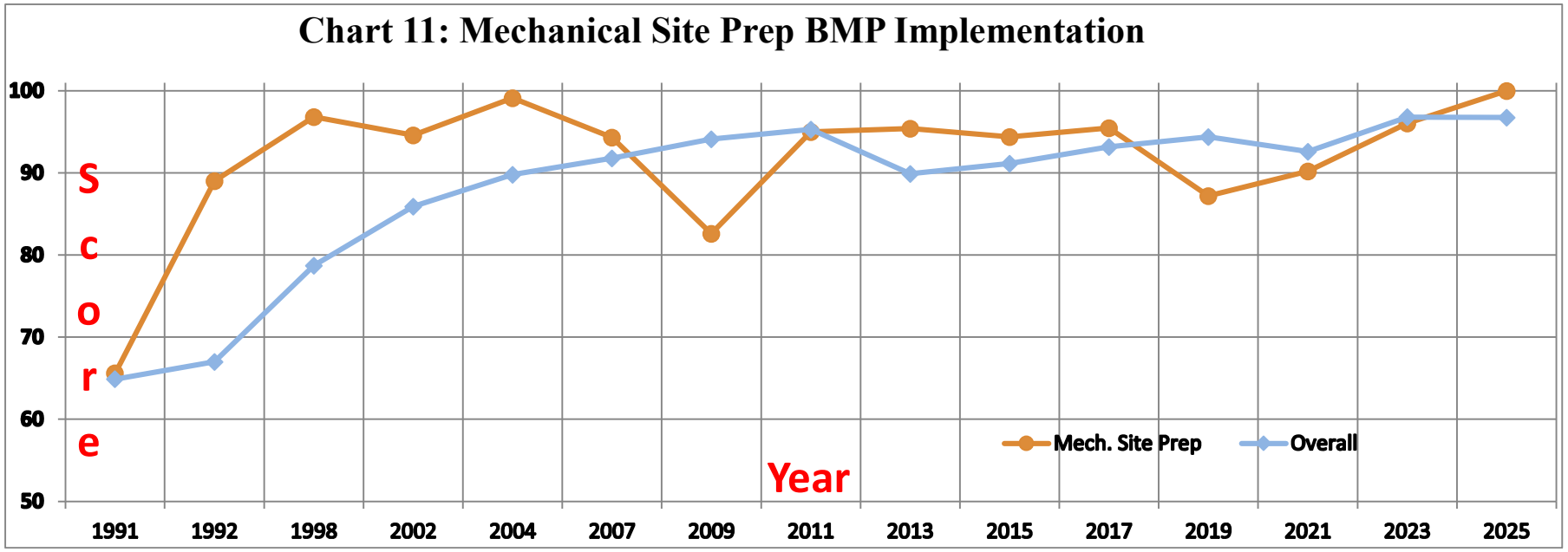


Chart 11: Mechanical Site Prep BMP Implementation
100
90
80
70
60
50
Score
Year
1991
1992
1998
2002
2004
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Mech. Site Prep
Overall

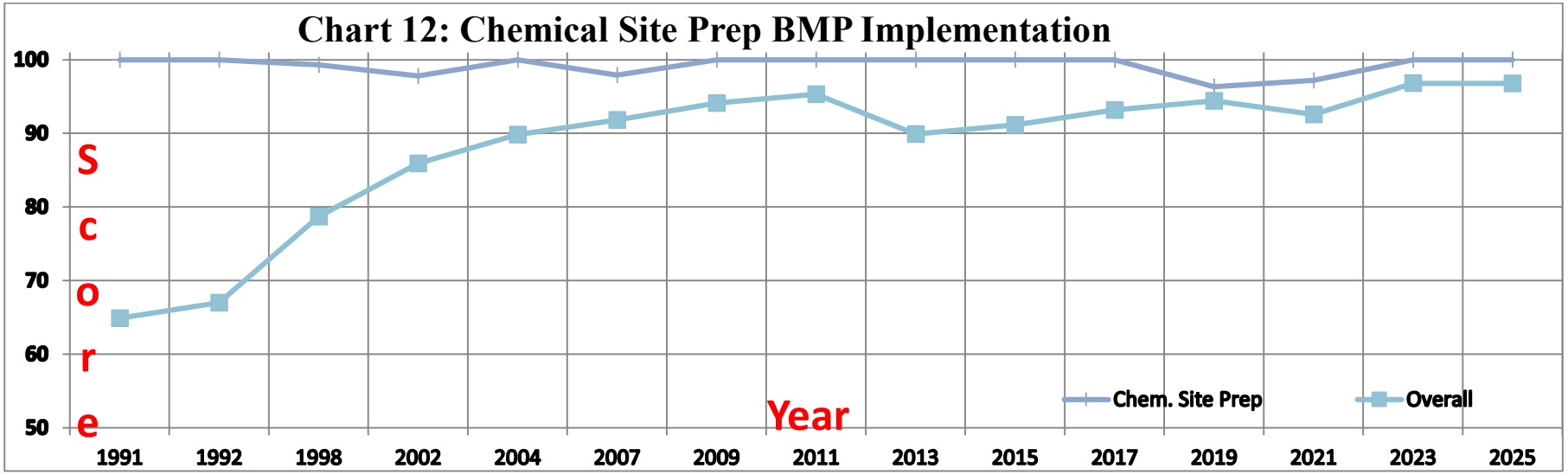


Chart 12: Chemical Site Prep BMP Implementation
100
90
80
70
60
50
Score
Year
1991
1992
1998
2002
2004
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Chem. Site Prep
Overall

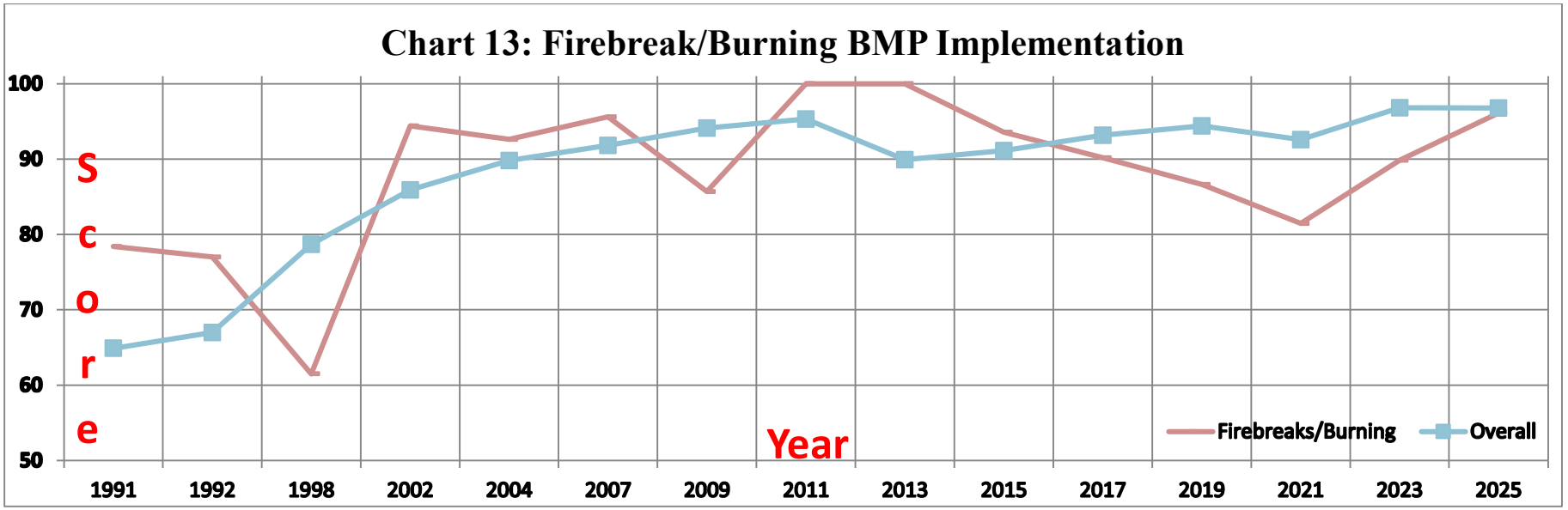


Chart 13: Firebreak/Burning BMP Implementation
100
90
80
70
60
50
Score
Year
1991
1992
1998
2002
2004
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Firebreaks/Burning
Overall

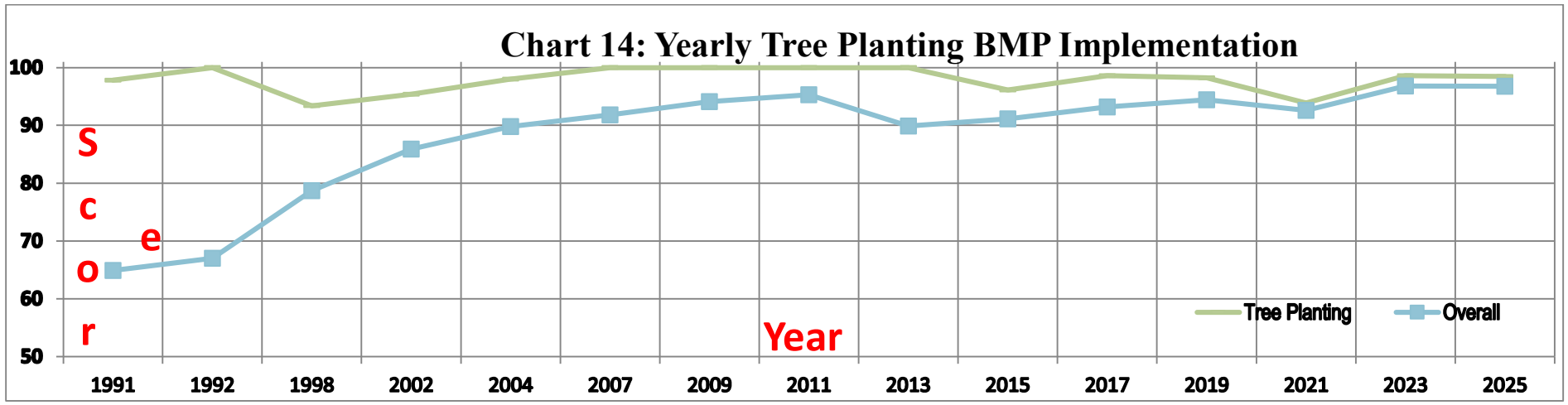


Chart 14: Yearly Tree Planting BMP Implementation
Score
Year
100
90
80
70
60
50
1991
1992
1998
2002
2004
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Tree Planting
Overall

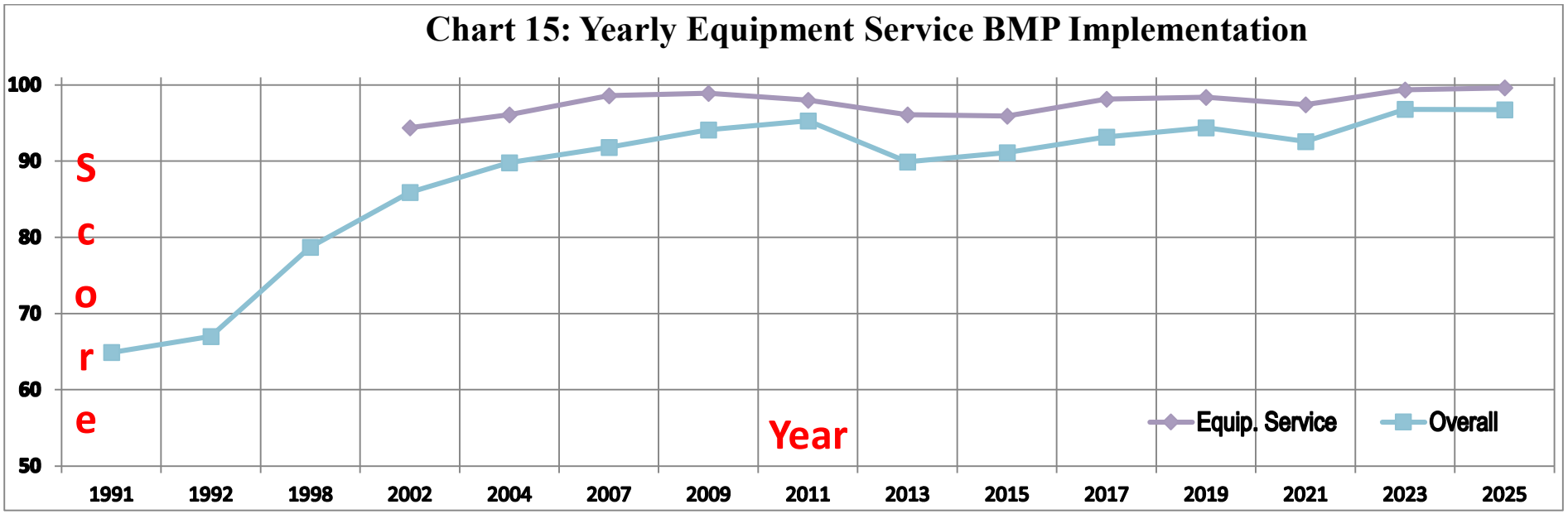


Chart 15: Yearly Equipment Service BMP Implementation
Score
Year
100
90
80
70
60
50
1991
1992
1998
2002
2004
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Equip. Service
Overall

Forest Fertilization: Historically, forest fertilization has only been surveyed on a few sites each year. Due to the continually low sample size, a chart would likely not accurately represent trends.

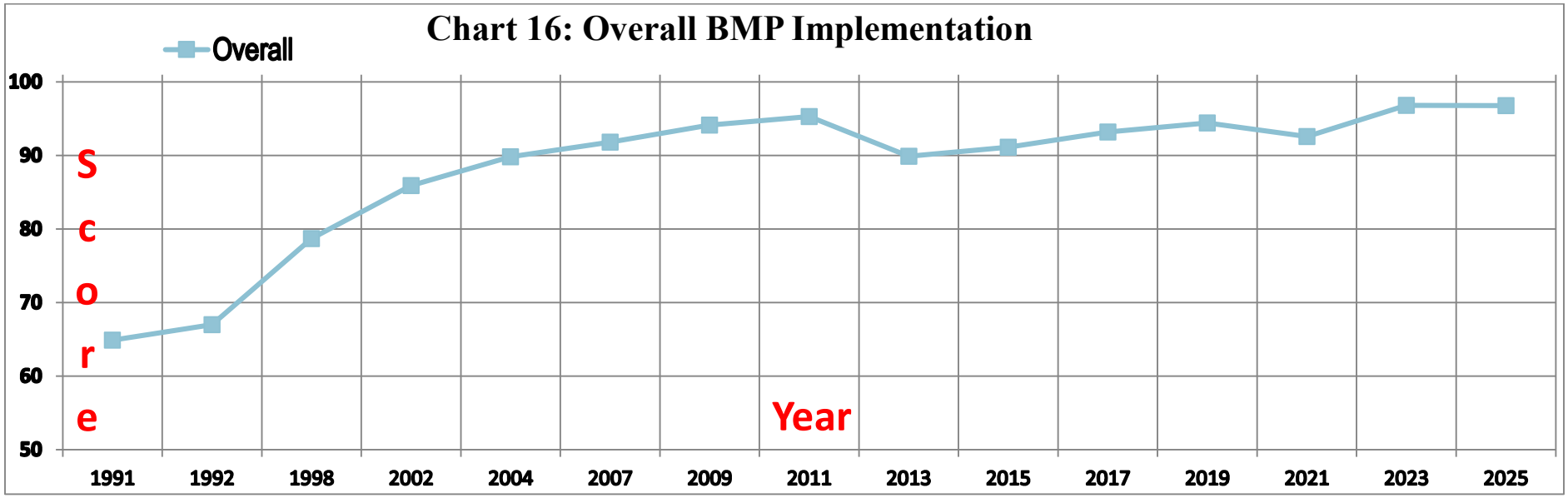
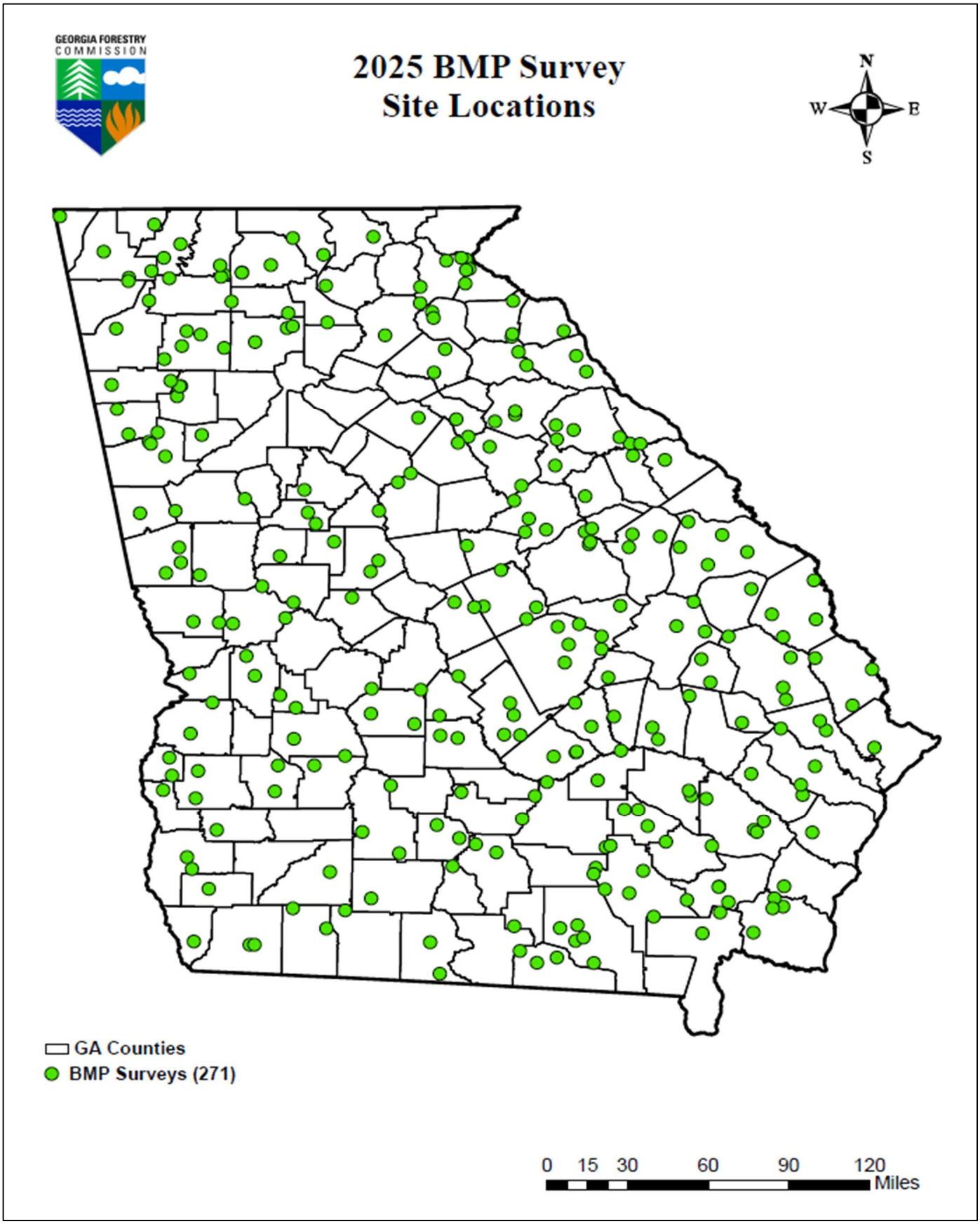
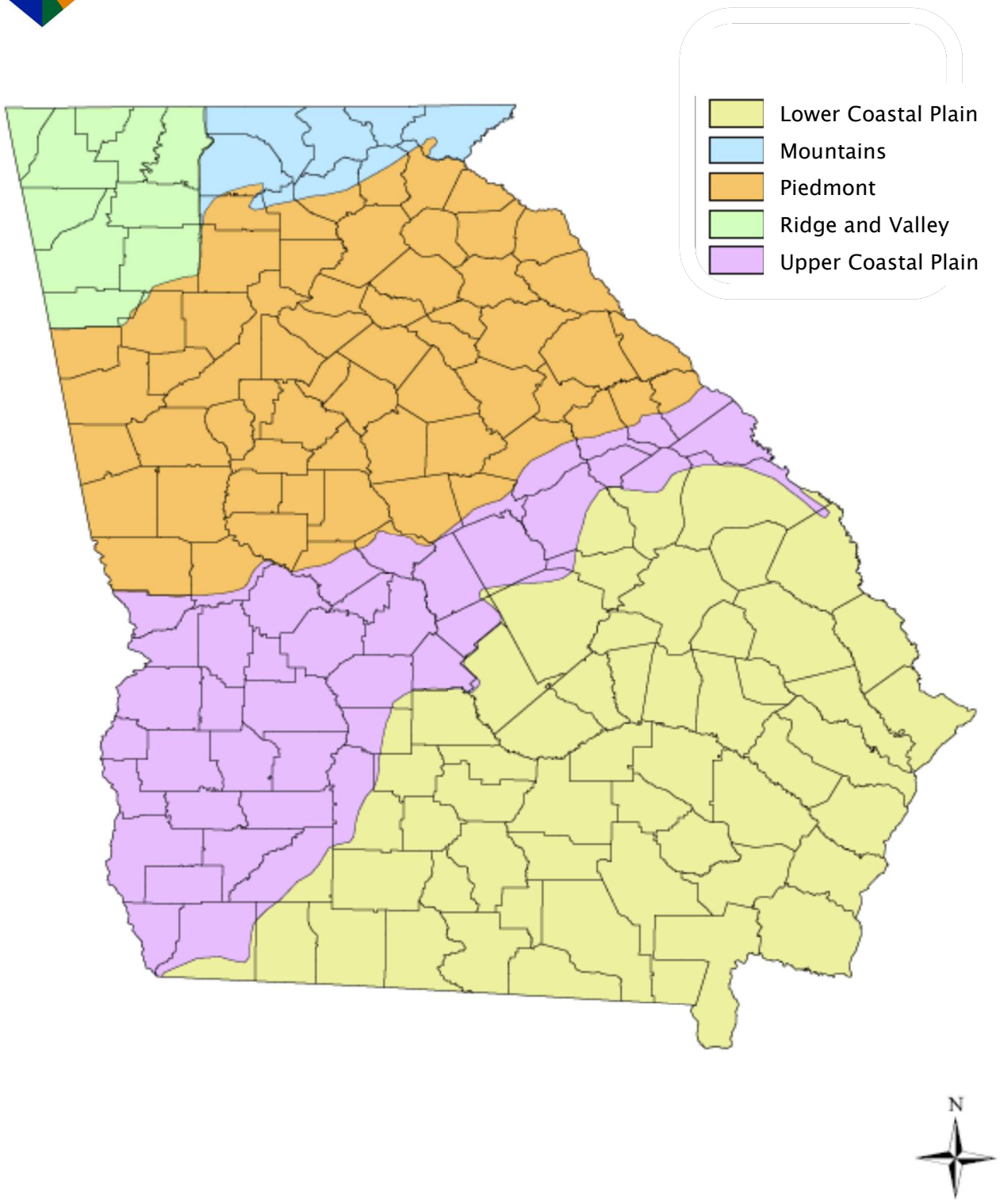


Figure 1: 2025 BMP Survey Site Locations



GEORGIA FORESTRY COMMISSION

Figure 2: Physiographic Regions of Georgia



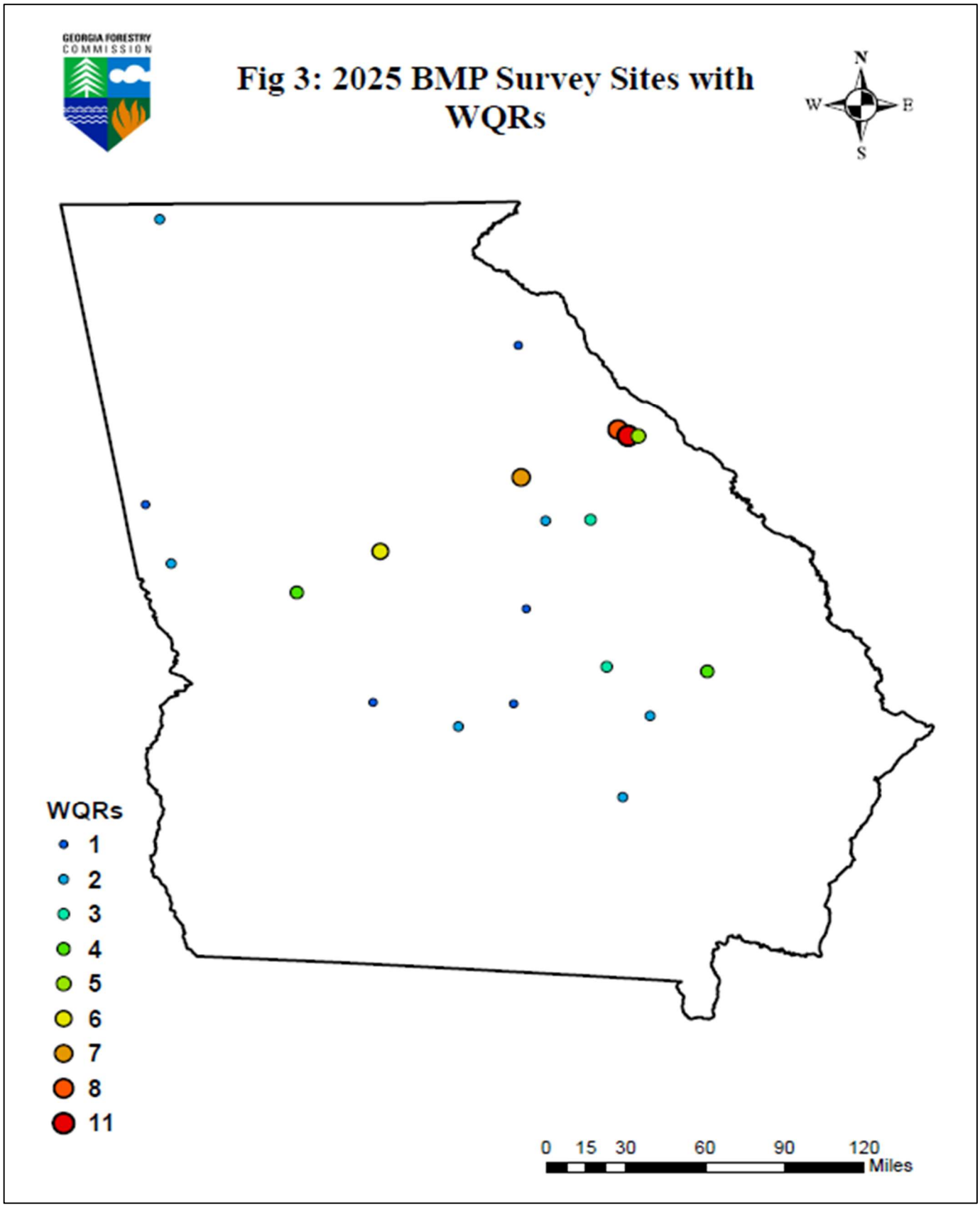
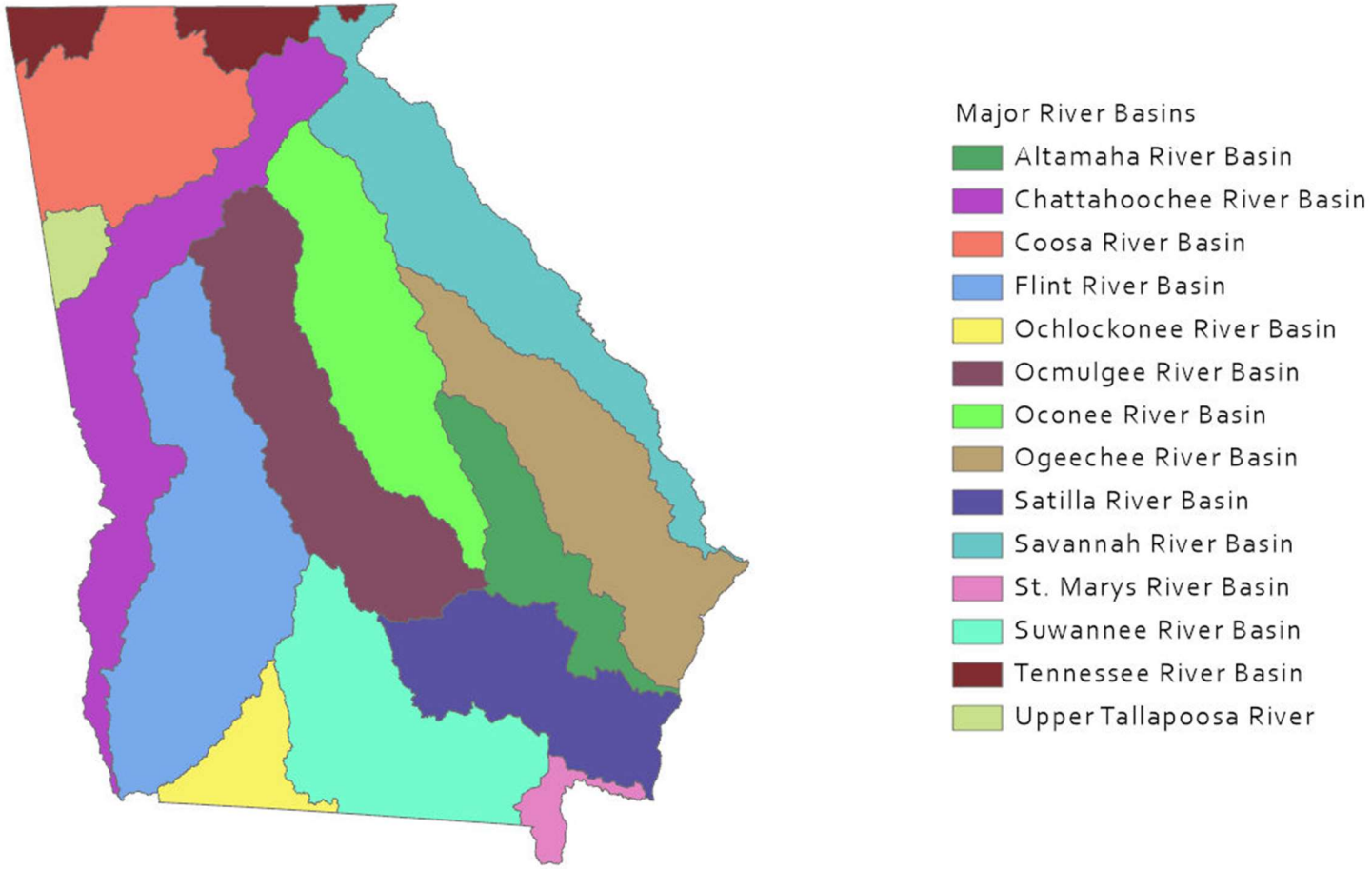
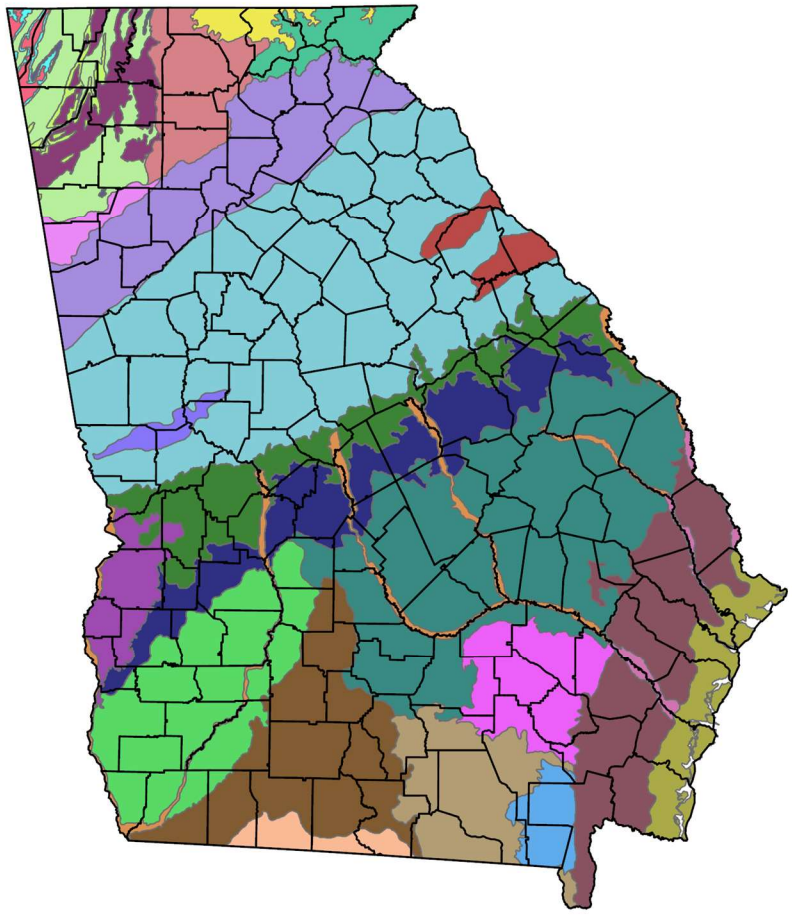

GEORGIA FORESTRY COMMISSION
Fig 3: 2025 BMP Survey Sites with WQRs
N
W
E
S
WQRs
1
2
3
4
5
6
7
8
11
0 15 30 60 90 120
Miles

Figure 4: Georgia's 14 Major River Basins



Source: Atlanta Regional Commission

Figure 5: Georgia's Level IV Ecoregions



Georgia Ecoregions

- Atlantic Southern Loam Plains,65l
- Bacon Terraces,75h
- Broad Basins,66j
- Carolina Slate Belt,45c
- Coastal Plain Red Uplands,65k
- Dougherty Plain,65g
- Floodplains and Low Terraces,75i
- Okefenokee Plains,75e
- Okefenokee Swamp,75g
- Pine Mountain Ridges,45h
- Plateau Escarpment,68c
- Sand Hills,65c
- Sea Island Flatwoods,75f
- Sea Islands/Coastal Marsh,75j
- Southeastern Floodplains and Low Terraces,65p
- Southern Crystalline Ridges and Mountains,66d
- Southern Dissected Ridges and Knobs,67i
- Southern Hilly Gulf Coastal Plain,65d
- Southern Inner Piedmont,45a
- Southern Limestone/Dolomite Valleys and Low Rolling Hills,67f
- Southern Metasedimentary Mountains,66g
- Southern Outer Piedmont,45b
- Southern Sandstone Ridges,67h
- Southern Shale Valleys,67g
- Southern Table Plateaus,68d
- Talladega Upland,45d
- Tallahasee Hills/Valdosta Limesink,65o
- Tifton Upland,65h

Source: Atlanta Regional Commission

Notes: