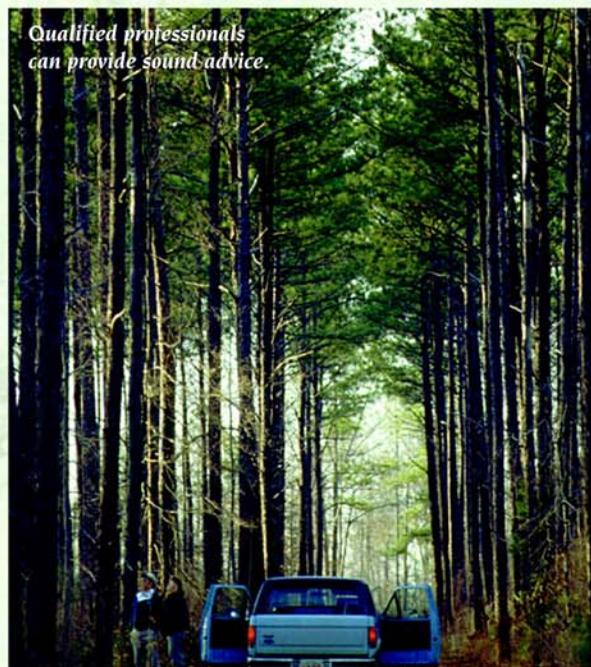


## The Importance of Planning

Any forest management activity, regardless of potential impact on water quality, should be thoroughly planned. The planning process should help identify sensitive areas and applicable BMPs.

Water quality protection begins with recognizing streams, rivers, and other bodies of water on your property. Water bodies, sensitive areas, and streamside management zones (SMZs) should be clearly identified in the field and then applicable BMPs should be determined and applied.

Forest managers, landowners, foresters, timber buyers, loggers and site preparation and reforestation contractors should plan every forest management activity. Planning will reduce your costs, minimize environmental impacts and preserve the long-term productivity of your land.



## Introduction to BMPs

BMPs emphasize planning, delineation, and protection of streamside management zones or stream buffers next to water bodies and provide guidance for harvesting and other forest management activities.

It is important to follow all forestry BMPs. Some of the most critical are listed in this brochure. The descriptions inside will help you understand the elements of a specific BMP; however, for more detailed information, refer to the Georgia BMP Manual for Forestry.

## BMPs and Sustainable Forestry

Forestry BMPs are an important part of the practice of sustainable forestry. Simply defined, sustainable forestry is "...the management of forests to meet the needs of the present without compromising the needs of future generations."

As part of the American Forest & Paper Association's Sustainable Forestry Initiative® (SFI) Program, a SFI implementation committee has been established in Georgia. The committee's goal is to promote the practice of sustainable forestry to all landowners in the state. A critical part of the committee's activity is a comprehensive training program designed for foresters, loggers and other contractors who work in forested areas. This program includes a major emphasis on forestry BMPs that are designed to protect water quality.

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### Sustainable Forestry Initiative® Program Participants in Georgia

Augusta Woodlands Corp.  
Bowater Incorporated  
Claude Howard Lumber Company  
Forest Investment Associates  
Georgia-Pacific Corporation  
Gilman Building Products LLC  
Ida Cason Callaway Foundation  
International Paper Company  
Interstate Resources, Inc. & Newport Timber LLC  
J. M. Huber Corporation-Engineered Woods Sector LP (North American)  
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The Sustainable Forestry Initiative® (SFI) program.  
The mark of good forestry in Georgia.  
For more information on the SFI<sup>SM</sup> program or to give your comments on the forest industry in Georgia, call 706.542.2430 or e-mail [sfi@smokey.forestry.uga.edu](mailto:sfi@smokey.forestry.uga.edu).

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## Georgia's Best Management Practices for Forestry

# Sustaining Your Forest and Georgia's Water Quality

As we enter the new millennium, Georgia's natural resources are being severely strained by rapid population growth. Protection of the quantity and quality of water in Georgia is of particular concern.

There is much evidence to indicate sound forestry is the best land use to protect water quality. However, it is important that the practice of forestry utilize BEST MANAGEMENT PRACTICES or BMPs, which are guidelines that protect soil and water quality during forestry activities. Sustaining the forest includes sustaining the water quality.

While this brochure will alert the reader to many areas of interest and concern, it is only intended to supplement the Georgia BMP Manual. Any technical questions should be referred to the Manual.

### BMPs Protect Your Property . . . and Your Investment

Whether you own an acre or a thousand acres, forestry BMPs will protect the value of your property. Georgia has 23.6 million acres of commercial forests that cover 64 percent of the state. Thousands of private landowners own and manage most of the State's forested area.

Georgia's BMPs are designed to help minimize soil erosion and stream sedimentation. BMPs help protect your forestland investment by keeping your land productive.

As a landowner, you may manage forests for many different objectives ranging from income and timber production to recreational benefits such as hunting, fishing, hiking, and birdwatching.

While BMPs specifically address water quality, they also benefit wildlife habitat and aesthetics. Whatever your objective, following Georgia BMPs just makes good sense.

*Following BMPs benefit Georgia's wildlife including the Great Blue Heron.*



## HISTORY OF BMPs IN GEORGIA

BMPs are practices that are economical, socially responsible, and effective from an environmental and forestry standpoint. Georgia's Forestry BMPs were first developed in 1981 by a Forestry Nonpoint Source Pollution Technical Task Force as required by the Federal Water Pollution Control Act.

Because of technological advances and changing land regulations, the forestry community and regulators began the revision of BMPs in 1997.

In Georgia, BMPs were intended to be implemented through a voluntary program. While still a voluntary approach, elements of Georgia BMPs have been incorporated into Federal and State laws and regulations. Failure to follow BMPs may now result in fines or penalties.

### How to Protect Your Resources . . .

You have several options for implementing BMPs on your property. BMPs should be part of your contract for the sale and harvest of your timber or other operations you conduct. You may also have an agreement with those doing work on your property to use the BMPs you prescribe. And, landowners who do their own work can implement the needed BMPs as part of their ongoing operations.

It is important that you personally become knowledgeable about BMPs and communicate your expectations to those who work on your forestlands. As a landowner, you are ultimately responsible for the implementation of BMPs on your property.

### For More Information

There are many organizations dedicated to helping you learn about BMPs. State agencies can provide you with manuals and training on forest management activities in Georgia. For additional information on BMPs and to request a copy of the Georgia BMP Manual for Forestry, contact the Georgia Forestry Commission at 1-800-GA-TREES.



SMZs protect water quality and provide wildlife habitat diversity.

## AN INTRODUCTION TO GEORGIA'S FORESTRY BMPs

### Streamside Management Zones (SMZs)

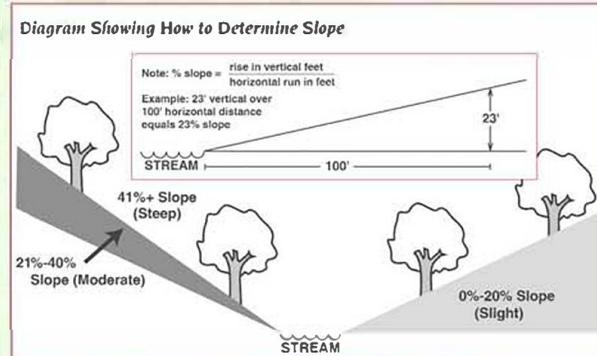
Land next to streams and other bodies of water needs special protection during harvesting and other activities. It is important to protect streams from nonpoint source pollution that could result from runoff if the forestry practices went right to the stream bank.

SMZs are buffer strips adjacent to perennial or intermittent streams or other bodies of water (lakes, ponds, reservoirs, etc.) where forestry practices are limited or carefully prescribed. Trees and other vegetation in the SMZ provide shade that buffers water temperatures; woody debris vital to the aquatic ecosystem; natural filtration of sediment and other pollutants (fertilizers and pesticides); and travel corridors and habitat for wildlife.

### SMZ Width Recommendations

There is no uniform formula to determine the appropriate width of an SMZ. In general, however, the steeper the slope and more erosive the soil, the wider the SMZ. Slopes should be determined from a point 100 feet perpendicular to the stream bank. Therefore, SMZ widths may vary along a stream's course and on opposite sides of the same stream. SMZs should be measured along the ground from the stream-bank on each side of the stream and not from the centerline of the stream.

The chart below will provide you with general guidance on the appropriate SMZ widths required for different water bodies.



### SMZ Widths by Slope Class and Stream Type

Slope Class	Minimum Width (ft) of SMZ on Each Side			
	Perennial (ft)	Intermittent (ft)	Trout (ft)	Intermittent Trout Stream (ft)
Slight (<20%)	40	20	100	35
Moderate (21-40%)	70	35	100	35
Steep (>40%)	100	50	100	50

### Road Building

Access roads are an essential element for any forest management operation. Whether existing or newly constructed, access roads create more potential for soil movement than any other forest management activity. Many existing woods or field roads are often poorly located and are not suited for today's harvesting equipment. Roads should be evaluated for potential water quality impacts, especially near streams or at stream crossings. If necessary, plan for improvements or relocate the road. With proper planning, construction and maintenance techniques, existing or newly constructed roads allow for productive operations and cause minimal soil and water quality impacts.



Road layout is an essential component of BMPs.

### Stream Crossings

From a water quality standpoint, stream crossings are the most critical component of the road system. Stream crossings should be avoided, if possible, through pre-harvest planning. If necessary, crossings can be made with the use of bridges, culverts, or fords. Where permanent or temporary crossings are used, the Federal Clean Water Act, Section 404, mandates the use of 15 baseline provisions. These mandates also apply to skidder crossings. Fords and logging debris for skidder crossings are not recommended. For more information regarding stream crossings refer to the Georgia BMP Manual.



Pole bridges can be used for temporary stream crossings under certain conditions.

### Harvesting

Timber harvesting encompasses several operations. In addition to cutting trees, it typically includes the layout, construction, stabilization and maintenance of roads, stream crossings, log decks, and skid trails. Potential adverse impacts can be avoided or minimized if your harvest plan considers: existing streams, other sensitive areas, soil type, topography, seasonal weather conditions, stand composition, and the type of equipment best suited for the site.

It is important to maintain shade along streams. Only selective harvesting should be conducted in SMZs.

### Site Preparation and Reforestation

Planning for reforestation before harvesting will help protect your land investment. Repeated selective harvesting without regard for reforestation usually results in a decline in stocking and value of desirable species. The choice of regeneration method is dependent on timber species, age, stocking, soils and landowner objectives. You can successfully regenerate by planting or naturally, using seed tree or shelterwood harvests.



Plan(ing) for the future.

Various site preparation methods may be used to prepare areas for natural or artificial regeneration. The method selected depends on soil type, slope, logging residue, cost and landowner objectives. The three primary site preparation methods are: mechanical, chemical, burning, or a combination of these options. The method should be suitable for the site and should not occur within SMZs.

Federal and private cost share assistance for site preparation and reforestation (up to 50%) is available. Many forest products companies offer forest management support through their landowner assistance programs. For more information, contact the Georgia Forestry Commission (1-800-GA-TREES).