

Sustainable Forestry Information for Georgia Landowners

Publication sponsored by the Georgia SFI® Implementation Committee





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Dear Georgia Forestland Owner,

By adopting the Sustainable Forestry Initiative® (SFI®) program, SFI certified companies formally commit to a forest management concept that ensures sustaining Georgia's forests from one generation to another. Now, we are inviting you, the family forest private landowner, to join us in this endeavor. The basics of sustainable forest management can be summed up as follows—start with a solid plan, work with qualified professionals, use contracts, follow Georgia Forestry Best Management Practices (BMPs), learn early and as often as you can.

Family forest owners are critical to the forest industry in Georgia, which requires a sustainable supply of wood grown from local forestlands. More than 90 percent of Georgia's 24 million acres of timberland land is privately owned. Family forestland owners are the largest group of landowners in Georgia and their forests are critical in many ways.

This booklet is designed to introduce you to important topics and provide other resources and professional contacts to help you. We encourage you to engage with these professional contacts listed throughout this booklet. Many of these organizations we included have publications addressing a wide range of forestry-related topics and may also provide technical assistance. You are encouraged to contact them for advice and questions on forest management.

- For more information regarding the SFI program and SFI-certified companies, please turn to the back cover.
- To express concerns about specific sites, we encourage you to first contact the Georgia Forestry Commission's water quality division. Alternatively, you may email our office at gamth@uga.edu, please include "SFI Inconsistent Practice Complaint" in the subject line.

Sincerely,
The Georgia SFI Implementation Committee



CHAPTER 1. SEEING THE FOREST FOR THE TREES

Healthy Forests and Healthy Markets

Trees sustain and enhance the quality of life by providing numerous benefits to all citizens; we count on our forests to provide clean air, clean water, and wildlife habitat along with meeting society's demand for forest products such as lumber, paper, food additives and clothing. Can't we just count on our family forests to always be there to provide these benefits? Healthy forests and a healthy forest industry are inextricably linked—each one relies on the other.

For a landowner, keeping the land as forest may not be a simple decision because of necessary tradeoffs.

Regardless of the owner's primary objectives, most want or need to generate income from their land to offset the cost of ownership. Income opportunities include harvesting timber, recreational leases such as hunting rights, agriculture, and developing or selling land for residential or other non-forest compatible uses. While development is needed to accommodate growing populations, land that is developed is typically lost for growing trees at least for a long period of time, if not forever.

Landowners who manage their forests well, considering proper tree

stocking levels, planting appropriate tree species on a site, conducting timely forest thinning, and in some cases, prescribed fires, will be well-positioned to generate income from their forest but only if there are viable markets to buy their timber. Without local forest product markets, landowners would be more apt to consider development or other land uses not compatible for forestry. A strong and profitable industry helps maintain a healthy forest base that benefits all citizens.

Management Plans

Successful forest management starts by developing a plan to meet your desired objectives. Forestland may be managed for multiple uses including recreation, timber, aesthetics, wildlife, and much more. With good planning, it is possible to manage for multiple objectives across your forestland but there are tradeoffs to consider. For example, you may choose a harvesting strategy that emphasizes game habitat or aesthetics over maximizing timber income if recreation is your top priority. The planning process helps you identify and prioritize your objectives and communicate those objectives to qualified professionals that turn plans into action.

Your forest management plan can be as detailed (short-term recommendations) or as general

(long-term recommendations) as you desire. For a single stand of trees, a brief plan may consist of several sentences to describe the steps necessary to plant a new stand of trees, how to improve their growth, thinning a stand of timber, conducting a timber sale, prescribed burning, timber harvest options or insect damage control. For large properties with multiple stand types or conditions, a more comprehensive plan may be appropriate to inventory the property, fully evaluate management options, and develop a timeline for management activities.

Registered foresters can assist you with the planning and implementation process. Please refer to "Qualified Resource Professionals" for more information about registered foresters. In addition to the paid services of a registered forester, landowners can also work with the GFC (Georgia Forestry Commission) to develop plans. For example, the GFC has an online "Conservation Woodland Program" to assist landowners with less than twenty acres. The GFC also offers a forest stewardship program for landowners with larger acreages who want to balance multiple land uses. Please visit GFC's "Forest Management and Conservation" website www.gatrees.org to learn more.

Learn More

Resources are available online:

- **Georgia Forestry Commission** www.gatrees.org - Website includes a variety of information on the state of Georgia's forests (Reports section), lists of wood products manufacturers (Directories section) and much more.
- **Georgia Forestry Association** www.gfagrow.org - Website includes resources from the leading advocate for a healthy business and political climate for Georgia forestry, forest landowners and forest-based businesses.



Want to Go Further? Consider Getting Your Land Certified to the American Tree Farm System.

Sustainable forest management doesn't require certification, but choosing to certify is a public demonstration of commitment to sustainable forestry. SFI certification is an option for any forestland owner, though the American Tree Farm System (ATFS) may be more appropriate for woodland owners with less than 10,000 acres. Since 1941, the ATFS has educated and recognized the commitment of small landowners that share a commitment to protect wildlife habitat and watersheds, to conserve soil, and to provide recreation for their communities while producing wood.

ATFS recognizes and validates family forest owners for their work and commitment to sustainable stewardship of their land. The SFI program collaborates with ATFS to increase forest certification on family forest lands. SFI provides global market access to family forest owners through recognition of ATFS certification within its labeling system.

Contact **Georgia Tree Farm** at www.treefarmssystem.org/georgia or by calling 478-972-7899.

CHAPTER 2. MANAGE RESPONSIBLY

Harvesting and Reforestation

Sustainable forest management is the long-term goal accomplished through purposeful, short-term forest management actions. According to the Georgia Forestry Commission, “properly managed forests yield more timber, have higher net present value, suffer fewer environmental impacts, and enhance wildlife habitat more than non-managed forests.” Within this context, consider that it can take decades to grow a mature crop of timber. Many family forest landowners may only harvest timber once during their lifetime; therefore, careful consideration should guide timber harvesting and the reforestation that follows.

The Georgia Forestry Commission routinely provides forest owners with technical assistance. See the landowner services section of their website www.gatrees.org for more information and to download the publication, “Selling Your Timber”. The Forestry Commission recommends eight basics to consider as a starting point:

1. Hire a registered consulting forester
2. Develop a forest management plan
3. Plan the pre-harvest
4. Determine a selling method
5. Use a legal contract
6. Execute the sale and harvest
7. Monitor the harvest
8. Closeout with buyer/logger

Selling Your Timber

Timber harvesting can be used as a management tool to meet your management objectives, including profits. The timber sale brings to fruition many years of past timber growth and the condition of the forestland after the harvest profoundly affects forest productivity for many years to come. Marketing your timber can be a complex process. If you are unfamiliar with selling timber, you should consider seeking professional advice.

Reforestation Options

Timber is a renewable resource only if the harvest area is replaced with a new forest. Reforestation, or the re-establishment of a forest that has been removed by harvesting or natural causes, and afforestation, the establishment of a forest in an area where the preceding vegetation or land use was not forest, are the basic building blocks of forest sustainability. Reforestation planning should take place before a timber sale is arranged so the harvest can be designed to meet reforestation objectives. Consider the basic reforestation options described here.

Natural Regeneration: If natural regeneration is desired, it is important to determine if an adequate seed source exists for the desired species. Proper planning increases your chances of making sure that the site regenerates with the desired species for your management objectives (what you want to achieve with your forest), the appropriate species for the existing site conditions (bottomland wet site vs. upland dry site), and that the new trees are properly spaced (not too thick or too scattered) so that the area is fully stocked.

Seed-Tree Method: This is most used for natural regeneration of pine in the Southeast. Prior to harvest, a select number of trees should be

identified to be left as producers of seed for the next stand. The number of trees to be left as seed producers depends on the seed production for the species, degree of competition, and seed tree size. Seed trees can later be harvested when the young trees are established.

Shelterwood Method: This method differs from the seed-tree method in that more trees per acre are left as seed sources. This method is preferred for species such as longleaf pine where adequate regeneration of new trees may require more time. By leaving more trees, the seed source is increased and the overstory serves as a shelter for the developing reproduction. Depending on the species and management objective, the overstory could be removed after adequate regeneration is established, or selectively retained to add diversity to the stand.

Artificial Regeneration (Planting): The planting of seedlings grown in a nursery is the most common form of artificial regeneration for Southern pines. Proper planning and site preparation is crucial to successfully regenerate the stand. Planting is either done by hand or machine depending on the site conditions. The spacing to be used when planting is dependent on several factors including tree species, expected rotation length, desired forest products, expected mortality, wildlife considerations, and federal or state cost share programs.

Comparing Reforestation Costs

The cost of properly implementing natural regeneration for pine seedlings is not necessarily cheaper than planting. Planting costs are usually offset by the cost of pre-commercial thinning for naturally regenerated stands. Other deciding factors include genetics (improved seedlings), spacing control, and



ease of future thinning harvest operations. Both forms of reforestation require the same level of planning to ensure successful regeneration. A professional forester is your best source of information to help determine your reforestation needs. A forester can evaluate your objectives and recommend which harvest methods will lead to successful natural regeneration, or if reforestation is desirable through planting or direct seeding. Forests are a long-term investment, and an improper start will lead to costly problems in the future; therefore, it is essential to provide each new crop with the most favorable conditions possible.

Reforestation may be a deductible expense for qualifying taxpayers. Eligible expenses may include direct costs to plant or replant a stand for natural regeneration. Inquire with a tax professional regarding the most current rules.

Reforestation & Seedling Information:

Contact a professional forester or the Georgia Forestry Commission for information on renewing or re-establishing your forests.

Seedlings are available from the Georgia Forestry Commission's nursery (order online and through local commission offices) or from private nurseries (contact a consulting forester for suggested private nurseries).

CHAPTER 2. MANAGE RESPONSIBLY

Qualified Professionals

Consider working with qualified professionals—registered foresters and trained loggers—to help meet your forest stewardship goals. Combining the expertise of qualified foresters and loggers positions you to meet your forest management objectives, maximizing your profit, and sustaining your forest resources.

Georgia Registered Foresters

A professional forester can help you develop a forest management plan for your property and assist you with other forest management activities. At the least, landowners should consider contracting with a professional forester before selling timber because many landowners are not familiar with the process of selling timber or the recommended

steps to maximize their harvest income.

To legally practice forestry in Georgia, a forester must be registered with the Georgia State Board of Registration for Foresters. According to state law, to practice professional forestry in Georgia is defined as:

Any professional service relating to forestry, such as investigation, evaluation, development of forest management plans or responsible supervision of forest management, forest protection, silviculture, forest utilization, forest economics or other forestry activities in connection with any public or private lands, provided that forestry instructional and educational activities shall be exempted.

For more information on forester registration, to verify a registration

or to file a complaint, contact the Georgia Secretary of State's Georgia State Board of Registration for Foresters.

Qualified Logging Professionals

Just as a professional forester can provide invaluable assistance with forest management decisions and timber sales, a qualified logging professional may be equally beneficial to forest landowners at harvest time. Harvesting affects reforestation options, may pose risks to water quality and wildlife, and ultimately impacts the profitability of your forest management.

In Georgia, there is no state registration program for loggers comparable to that for foresters. However, there are qualifications to look for; for example, SFI-certified companies in Georgia require their wood suppliers to participate in the Georgia Master Timber Harvester (MTH) program. This program is a voluntary logger education program designed to foster improvement in the professionalism of wood producers or loggers.

The MTH program participants learn about principles of sustainable forestry, wildlife and rare species, Georgia best management practices for forestry, federal and state employment laws, OSHA compliance, transportation safety, and loss control.

Georgia's Forestry Best Management Practices

Georgia has 44,056 miles of perennial streams, 23,906 miles of intermittent streams, and 603 miles of canals and ditches. Many of these begin or flow through forestlands. It is critical for forest landowners to follow Georgia Best

Finding Qualified Professionals

Registered foresters may work as private consulting foresters or for logging companies, forest products companies or government agencies, such as the Georgia Forestry Commission. Contact your local GFC office to request assistance from their foresters or find other qualified professionals as noted below. If working with a private consulting forester, remember to always verify their registration with the **Georgia State Board of Registration for Foresters** <https://sos.ga.gov/georgia-state-board-registration-foresters>.

For Registered Foresters, visit one of the following sites:

- **Georgia Forestry Commission** www.gatrees.org: Directory of Consulting Registered Foresters under the Resources section
- **Association of Consulting Foresters** www.acf-foresters.org: 'Find a Forester' feature
- **Society of American Foresters** www.safnet.org: "Find a Certified Forester" feature

For Qualified Loggers, visit:

- **Georgia Master Timber Harvesters** www.gamth.org: A searchable directory allows you to verify if someone is currently active in this education program

Management Practices (BMPs) for Forestry when conducting forestry operations. BMPs not only protect water quality and the integrity of the land, but certain violations can result in fines and penalties.

Since 1977, the Georgia Forestry Commission (GFC) has been the lead agency designated by the Georgia Environmental Protection Division responsible for developing, educating, implementing, and monitoring the use of BMPs for forestry operations. BMPs are designed to minimize or prevent erosion and subsequent stream sedimentation during forestry operations, such as forest road construction, harvesting, site preparation, controlled burning and tree planting.

Professional foresters, loggers, and others participating in the Georgia Master Timber Harvester voluntary education program have been specifically trained on Georgia's forestry BMPs.

Georgia Forestry BMP recommendations or requirements include:

- Streamside Management Zones (SMZs): The SMZ areas adjacent to perennial or intermittent streams are designed to prevent erosion from reaching these waterways and to keep stream temperatures cool. SMZ widths may range from 20 to 100 feet, depending on slope and stream type. They should be marked and identified on the ground and any timber to be harvested should be marked as well. SMZs should never be clearcut.
- Forest Roads: Existing road and stream crossings should be assessed for compliance with BMPs. Improvements may be needed before any forest practice begins.



- Stream Crossings: Construction of temporary or permanent stream crossing must comply with 15 BMPs federally mandated by the U.S. Environmental Protection Agency.
- Loading Decks and Skid Trails: Exposed soil in critical areas such as loading decks and skid trails should be promptly stabilized.
- Fire and Firebreaks: Intense fire should be kept out of SMZs, and firebreak installation should follow applicable BMPs. Georgia Forestry Commission personnel are appropriately trained, and landowners should require any other operators to also follow BMPs.
- Chemicals: Avoid the broadcast application of chemicals into SMZs, unless it is specifically prescribed and labeled for the area.

The Georgia Forestry Commission's Water Quality Division provides educational resources and promotes the use of forestry best management practices (BMP's) among the forestry community among the forestry community and investigates forestry water quality and wetland complaints. The Georgia Forestry BMP manual for Forestry and GFC Water Quality Division Contact information is available online at www.gatrees.org or by calling 800-428-7337.

CHAPTER 3. RESPONSIBLE FORESTRY CONSIDERATIONS

Biodiversity Protection

The worldwide decline of forest habitat and the related loss of biodiversity is a major environmental concern for us all. Practicing sustainable forestry means taking action to conserve vulnerable or rare wildlife and ecological communities whenever opportunities exist. A thorough knowledge and awareness of plant and animal species found on a property and their related habitat needs is essential for good land stewardship. Landowners need to be particularly aware of forests of exceptional conservation value, which include those species and ecological communities that are designated imperiled, critically imperiled, rare, threatened, or endangered, and must understand how forest management activities may impact these species.

Whether intentional or not, harming protected wildlife can be punishable by fines and possible imprisonment, which are designated under federal law by U.S. Fish and Wildlife Service and under state law by the Georgia Department of Natural Resources (Georgia DNR).

To best conserve biodiversity within our forests, good stewards should also take steps to protect rare and declining habitats not already protected by law. Imperiled species are defined by higher risks of extinction due to extreme rarity, restricted ranges, steep declines, or other factors making them especially vulnerable to extinction. They are designated by non-government organizations such as NatureServe. Because of their scarcity, significance, and sensitivity, rare habitats are often managed solely for their unique features.

Consider Conservation Easements or Other Incentives

If your forestland includes protected species or rare ecological communities, you may be able to reduce your tax burden through conservation easements and/or receive incentive and cost-share assistance for conservation practices that protect these. Be sure you understand the terms, obligations, and implications for future management before entering into an agreement.

Learn More

Resources to Help Identify and Protect Biodiversity

- **U.S. Fish and Wildlife Service's** endangered species section of their website www.fws.gov includes searchable listings, known locations, and descriptions of protected species.
- **Georgia DNR's Wildlife Division** website www.georgiawildlife.com includes information to identify rare and protected species in Georgia, habitat conservation priorities, and the "Landowner's Guide to Conservation Incentives."
- **NatureServe** www.natureserve.org, a non-profit organization, is the Georgia's DNR's partner for collecting and sharing biodiversity data by providing interactive data tools to the public.

Manage For Wildlife

Well-managed forests provide diverse habitats required by a multitude of game and non-game wildlife species. With careful planning, you can manage your forest and harvest timber to improve wildlife habitat, even in areas where endangered or imperiled species or rare habitats are found.

What You Can Do

Use borders or edges of harvest sites to create unique wildlife management opportunities. Edges are transition zones between forests and other land use types (cropland, pasture, etc.). These edges are used by wildlife for travel corridors, escape cover, nesting, and as a food source. Wider transition zones containing a diverse composition of shrubs, soft mast, heavy-seeded legumes, and native grasses provide greater benefits to wildlife.

The edges can be managed for native forage by prescribed fire, disking, mowing, herbicides, or plantings along borders on a one to three year rotation. Additionally, timber harvests with irregular shapes (e.g., avoiding square blocks) create additional edge, while also reducing the harvest's visual impact.

Diversify your forest to attract greater abundance and diversity of wildlife. Consider planning for a diverse forest by maintaining a mixture of tree species, both hardwood and pine, and different aged stands from seedlings to mature trees.

Periodically thin stands to keep at least 30 percent of the ground in direct sunlight, implement a prescribed fire program on a two-year rotation among 15 to 40 acre burn units throughout the forest creating a checkerboard pattern, and maintain long stand

rotations to ensure quality habitat diversity. Maintain unique features on the landscape, such as openings and wetlands, and try to retain and enhance conditions for mast-producing hardwoods in your forests that are favored by wildlife.

Create forest openings to encourage native vegetation. Wildlife openings can provide early successional habitat composed of grassy and/or shrubby vegetation recovering from recent disturbance, which serves as escape cover, brood areas, forage, nesting cover, and many other benefits to wildlife. Open areas, when managed properly, serve as critical habitats for birds and pollinators. Maintain different stages of this early successional habitat by incorporating shrubby cover, fallow patches, and annual disturbance to promote quality vegetation for wildlife.

Manage for native forage by prescribed burning and winter disking or by planting 30 to 50 percent of the openings on a two-year rotation. Consider keeping 5 to 20 percent of the property in wildlife openings. These openings typically should be two to three acres each and can be abandoned agricultural fields, logging decks, power line right-of-way's, haul roads, skid trails, and firebreaks.

Learn More

Georgia Department of Natural Resources 'Wildlife Division Website www.georgiawildlife.org contains guidance on opportunities to obtain personal technical assistance through landowner programs and publications about wildlife and wildlife habitat management - read "How to Evaluate and Improve Land for Wildlife".



CHAPTER 3. RESPONSIBLE FORESTRY CONSIDERATIONS

Invasive Species

Threats to the health of your forest include invasive species and wildfire. Though you might not have control over where these problems originate at a regional level, you can take steps to reduce your risks and the negative impacts on your forest.

Your forestland is filled with plant, animal, insect, and disease species that have, over time, adapted to this specific environment. In ideal conditions, this amazing diversity of life exists in a state of perfect harmony and equilibrium.

Unfortunately, our Southern Forest ecosystems are under constant threat from invasive species. An invasive species (also called alien or exotic species) is any species that is non-native to a given ecosystem and whose introduction causes, or is likely to cause, environmental and economic harm.

Invasive species often out-compete native species for the food and space they need to survive. Because the invading species typically have few or no natural enemies (which control their populations in their native environment), these intruders often flourish, upsetting the delicate balance of life. Invasive species are one of the most significant threats to the long-term health of our forests.

Invasive plants are often easy to identify because they are so visible. Species such as cogongrass, kudzu, Chinese privet, honeysuckle, and Japanese stilt grass grow in such thick abundance that they literally cover and smother the surrounding native vegetation effectively creating a monoculture.

Not every invasive species is easy to detect, which is problematic since early detection is essential to



The hemlock woolly adelgid, an insect from Japan, attacks hemlock trees in their native Georgia mountain range. They can be detected from fall until spring by woolly sacs that cover their eggs on trees. *photo credit: Steven Katovich, Bugwood.org*



Chinese privet, which was introduced as an ornamental throughout the South, has now invaded every ecoregion of Georgia. It prefers low-lying moist sites and dominates the understory of many bottomland hardwood stands.

photo credit: Chuck Barger, University of Georgia, Bugwood.org



Sawdust tubes produced by ambrosia beetles on a dead Redbay tree and magnified photo of **adult ambrosia beetle** (lower left corner). This beetle, an exotic from Southeastern Asia, introduces a fungus into native Redbay trees that causes laurel wilt disease.

photo credits: right - James Johnson, Georgia Forestry Commission, Bugwood.org for tree left - Michael C. Thomas, Florida Department of Agriculture and Consumer Services, Bugwood.org

combating an invasive species. In fact, invasive insect species such as the hemlock woolly adelgid, Asian longhorned beetle, emerald ash borer, and Sirex woodwasp can infest large areas of forestland before they are discovered.

Even more difficult to spot are invasive microorganisms, which can wreak havoc upon a healthy forest. Invasive microorganisms have caused some of the most notorious tree diseases. For example, American chestnut blight and Dutch elm disease both single-handedly wiped out nearly every living host tree in North America. A recently introduced insect, Redbay ambrosia beetle, and its associated fungal pathogen are causing similar destruction to our native redbay trees in Georgia's maritime forests.

Managing Invasive Species

There is no single action that will eliminate the threat of invasive species. Instead, a strategy for invasive species management includes four key elements:

1. prevention, 2. detection, 3. control and management, and 4. restoration and rehabilitation.

Most invasive species are unintentionally introduced by people, so it is extremely important to prevent the arrival of invasive species in the first place. Control access to your property to reduce the chances of someone accidentally introducing an invasive species to your forest. Early detection programs are necessary to discover invasive species once they have arrived. Take periodic

Learn More About Invasive Species

Resources are available online or by calling:

- Georgia Forestry Commission www.gatrees.org – Go to the Forest Health section.
- Georgia Exotic Plant Pest Council www.gaeppc.org
- Georgia Invasive Species Task Force www.gainvasives.org
- University of Georgia, Center for Invasive Species and Ecosystem Health – Go to the website www.bugwood.org or call 229-386-3298.

walks through your forest, in every season of the year, to look for any signs of invasive species such as unfamiliar plants or unhealthy groups of trees.

Once an invasive species is well established, it is often impossible to remove it entirely and permanently from your land; however, you can take steps to control its spread and minimize its impact on native species. Keep your forests healthy through sound forest management so that they better resist the effects of invasive species. In the unfortunate event that an invasive species causes major changes to your land (such as widespread tree mortality), efforts can be taken to restore and rehabilitate your land to a condition that meets your needs and objectives.

CHAPTER 3. RESPONSIBLE FORESTRY CONSIDERATIONS

Wildfire Risk Reduction

Wildfire can be defined as an uncontrolled fire capable of destroying or significantly damaging all vegetation, including mature trees. According to the Southern Group of State Foresters, the South consistently has the highest number of wildfires per year compared to the rest of the country partly due to a year-round fire season. Fortunately, there are basic forest practices that can reduce the risk of wildfire on your property.

Begin by assessing your risk. Conditions that put a forest at higher wildfire risk include dense or an impenetrable layer of shrubs, trees, and vines; ladder fuels such as vegetation that “climbs” into the upper tree canopy (thus allowing fires to climb); hazardous buildup of understory vegetative fuel; and a lack of firebreaks.

If you find conditions that need attention, the following management practices help reduce risks:

- Prescribed fire is a method to apply a natural process that reduces the buildup of woodland fuels and typically improves ecosystem health.
- Cutting or removing trees (thinning) to reduce the density of standing trees that could serve as a ladder fuel or later accumulate as woody debris on the forest floor.
- A network of firebreaks, including both natural and man-made types, reduces the risk of wildfires spreading. All firebreaks should be built and maintained according to Georgia’s Forestry BMPs.
- To maximize the benefits of these and other management practices, consider seeking assistance from a registered professional forester.



photo credit: UGA Warnell School of Forestry and Natural Resources

Learn More About Reducing Wildfire Risks

Resources are available online or by calling:

- Georgia Forestry Commission www.gatrees.org - Go to the Forest Fire section of the website or call 1-800-428- 7337.
- North Carolina Cooperative Extension <http://content.ces.ncsu.edu/catalog/> - Search for the publication “Minimizing Wildfire Risk—A Forest Landowner’s Guide”.
- The National Fire Protection Associations’ Firewise Communities Program Firewise.org - Find training resources to help communities reduce wildfire risks.

Harvest Residues

When a timber harvest occurs, logging professionals do their best to make sure as much wood as possible is utilized from every tree. The material that is left behind is typically referred to as logging slash and is comprised of limbs, tops, and needles or leaves. A good harvest plan should address how this material will be managed.

The management of harvest residues can impact future forest conditions and management. When this material is piled and left on the harvested site, it takes many years to break down unless it is burned. The presence of this material may prevent the use of this area from being converted into a wildlife food plot or other valuable use.

When managed properly, harvest residues can provide many environ-

mental benefits. If the decision is made to spread the logging slash across the harvested area, you are contributing to the process of nutrient recycling. As this material breaks down and re-enters the soil, the nutrients released become available for the residual trees to take in. Small, scattered brush piles provide cover for various animal species. Spreading slash over main skid trails can also lessen the impact that logging equipment may have on soil compaction. Finally, if this material is distributed on slopes, it can prevent erosion from occurring until native vegetation can establish itself.

As our society looks for sustainable sources of energy, harvest residues are being looked at as a viable source with potential financial benefit to landowners. For decades, existing forest product

facilities have used harvest residues for power generation, also referred to as bioenergy production. More recently, dedicated bioenergy facilities have been expanding in local markets as possible buyers for this and other material.

Landowners can save on site preparation costs if harvest residues are removed instead of paying to have it burned or windrowed. Financial benefits also extend to the logger by utilizing the entire tree that is brought to the loading area instead of incurring the cost of taking it back into the woods.

As good land stewards we need to make sure that harvest residues are managed to create the best possible situation for the benefit of the land and the landowner. Don't let the management of harvest residues be an afterthought; incorporate it into your harvest plan.



A skidder operator delivering trees at an in-woods clean-chipping operation featuring a loader, flail, disk chipper, and chip van.

photo credit: USDA Forest Service - Forest Operations Research, USDA Forest Service, Bugwood.org

CHAPTER 3. RESPONSIBLE FORESTRY CONSIDERATIONS

Aesthetics and Special Sites

The sudden removal of mature trees can seem like an all-out environmental assault, especially to the uninformed. Now, consider that people use products from the forest every day—from paper and packaging to building products. Unlike fossil fuels, trees do re-grow and are a renewable natural resource. In fact, even if not replanted, forestland will usually regenerate itself quickly if harvested correctly, shortening the length of time of the land’s unsightly appearance. Perhaps more difficult for the public to grasp is that what some call a “messy” harvest site is actually advantageous to a wide variety of wildlife, such as pollinators and certain bird species.

Even armed with this knowledge about society’s need for forest products and the renewability of forests, to the public freshly harvested land can be a short-term eyesore, which can further be aggravated by adverse weather, difficult site conditions or poor planning.

There are several strategies that can help landowners minimize the visual impact of a forest harvest, many of which are also addressed through Georgia BMPs for Forestry. They include:

- Applying gravel on haul roads to minimize dirt deposited on the highway;
- Locating the log deck (landing) away from public roads;



photo credit: Scott Thackston, Georgia Forestry Commission



photo credit: Scott Thackston, Georgia Forestry Commission

- Installing a curve in a haul road to screen the harvest from public view;
- Seeding the landing and haul road with native grasses once the harvest is completed to create wildlife habitat and prevent erosion; and
- Installing a gate at the entrance of the haul road to reduce trespassing and prevent damage to the road.

If your property is located next to a major road or sensitive area such as a school or church, you may also consider leaving a strip of woods (sometimes called a visual buffer) along the road or sensitive area to minimize public concerns.

Your forest management plans should also consider other special sites based on their significant social concerns. Whether a cemetery, an old home site or a location of family significance, such sites add unique characteristics to the land and should be protected.

You should also consider high priority conservation sites, which could include isolated wetlands and prairies for example. The Georgia State Wildlife Action Plan includes a list of high-priority habitats to be aware of.

Careful planning can minimize visual impact and protect special sites when harvesting your land; these measures frequently cost little or nothing to implement. Close consultation with a professional logger and forester is essential. A little bit of forethought before your timber harvest will provide many long-term benefits.

photo credit: UGA Warnell School of Forestry and Natural Resources



CHAPTER 4. CONNECTING TO RESOURCES

Landowner Incentives

Family forestland owners may qualify for incentives for a variety of forest management activities, including tree planting, timber stand improvement, wildlife habitat enhancement, and other conservation practices. Your state forestry or wildlife agency can provide you with detailed information about these programs. Several common programs are listed below.

- **Conservation Stewardship Program (CSP).** Administered by the USDA Natural Resources Conservation Service, this Farm Bill program provides financial and technical assistance to agricultural producers and non-industrial private forestland owners to maintain and improve their existing conservation systems and adopt additional conservation activities to address priority resource concerns including soil, air, and habitat quality, among others. Participants earn CSP payment for conservation performance. The higher the performance, the higher the payment.
- **Conservation Reserve Program (CRP).** Administered by the USDA Farm Services Agency, this Farm Bill program is an incentive-based, voluntary program that pays incentives to put less productive land into conservation uses that benefit wildlife, improve water quality, and conserve soil. CRP allows for certain forest management practices such as thinning and prescribed fire, according to program guidance and standards.
- **Emergency Forest Restoration Program (EFRP).** Administered by the USDA Farm Services Agency, this Farm Bill program works with county committees to determine if non-industrial private forestland is eligible for financial assistance because of a natural disaster that

if left unaddressed would create harm to natural resources of the land and significantly affect future land use.

- **Environmental Quality Incentive Program (EQIP).** Administered by the USDA Natural Resources Conservation Service, this Farm Bill program provides financial and technical assistance to agricultural producers and non-industrial private forestland owners to address natural resource concerns and deliver environmental benefits such as improved water and air quality, improved or created wildlife habitat, among others. Typical incentive payments range from 75 percent to 90 percent of average costs for qualified landowners.
- **Southern Pine Beetle Initiative (SPBI).** Administered by the Georgia Forestry Commission, this program helps landowners implement various silvicultural practices that will either prevent or minimize impacts of future Southern pine beetle infestations or to restore areas already impacted by these destructive insects.

Property Tax

The state of Georgia provides property tax reductions for landowners who actively manage their woodlands. For example, the Conservation Use Value Assessment program provides property tax reductions for landowners who maintain their property in conservation use for a set number of years. The Forestland Protection Act provides a similar conservation option for private and corporate forest landowners with larger acreages (200+ acres), who primarily managed their land for timber production or wildlife habitat. For more information, contact your county Tax Assessor's office or the Georgia Department of Revenue.





Technical Assistance Directory

Advocacy and Certification:

- Georgia Forestry Association
www.gfagrow.org
- SFI In Georgia
www.SFI-georgia.org
or call 706-542-7691
- SFI North America
www.forests.org
- Tree Farm In Georgia
www.treefarmssystem.org/georgia
or call 478-972-7899

Biodiversity Protection:

- Georgia Department of Natural Resources Wildlife Division
www.georgiawildlife.com
- U.S. Fish & Wildlife Service
www.fws.gov

Forest Health and Management:

- Georgia Forestry Commission
www.gatrees.org
or call 1-800-428-7337
- Warnell School of Forestry and Natural Resources Outreach
www.warnelloutreach.org

Landowner Incentives:

- Georgia Department of Natural Resources
www.georgiawildlife.com
- Georgia Forestry Commission
www.gatrees.org
or call 1-800- 428-7337
- USDA Natural Resource Conservation Service
www.ga.nrcs.usda.gov
or call 706-546-2272

Qualified Natural Resource Professionals:

- Association of Consulting Foresters
www.acf-foresters.org
- Georgia Forestry Commission
www.gatrees.org
or call 1-800-428-7337
- Georgia Master Timber Harvester
www.gamth.org
- Society of American Foresters
www.safnet.org



About SFI and the Georgia SFI Implementation Committee

This forest landowner information packet is provided by the Georgia Sustainable Forestry Initiative (SFI) Implementation Committee. So, what is SFI and why should you care about the SFI program?

The SFI program is a forest and forest products certification program whose participants manage their land or procure fiber (timber, etc.) in a way that combines the perpetual growing and harvesting of trees with the protection of wildlife, plants, and soil and water quality. The SFI Standards require certified companies and landowners to provide assurances of sustainable forest management or fiber sourcing (wood procurement). This includes long-term forest and soil productivity protection, biological diversity conservation, logger education, and adherence to forestry best management practices, among other things. SFI-certified product labeling provides consumers with assurance that they are buying wood and paper products from well-managed forests, backed by rigorous third-party certification audits.

The SFI program's unique grassroots network of SFI Implementation Committees, like the one in Georgia, facilitate collaborative sustainable forest management activities on state (U.S.), province (Canada), and regional levels. The Georgia SFI Implementation Committee includes over 30 SFI-certified companies operating in Georgia and supporting organizations including the Georgia Forestry Commission, Georgia Department of Natural Resources, UGA Warnell School of Forestry and Natural Resources, and other natural resource-focused organizations.

- The SFI program has been making a positive difference in Georgia forests since 1995. A few notable accomplishments of the Georgia SFI Implementation Committee include:
- Trained over 1,500 loggers, foresters, and others on sustainable forestry practices and Georgia's Forestry Best Management Practices;
- Provided sustainable forestry information to more than 10,000 family forest owners; and

Applied SFI principles on millions of acres of SFI-certified lands in Georgia and beyond through the wood procurement activities of SFI certified mills.

For the full list of Georgia's SFI-certified companies and supporting organizations and more sustainable forestry information, please visit our website sfi-georgia.org or use your phone to scan the QR code below.

