

**CONTINUING EDUCATION FOR LOGGING PROFESSIONALS
BEST MANAGEMENT PRACTICES**

<u>TIME</u>	<u>ACTIVITY</u>
7:30	Welcome And Introduction <ul style="list-style-type: none">- What's Going to Happen Today?- Certification- Registration
8:00	Clean Water <ul style="list-style-type: none">- National Geographic survey- BMPs are here for good- Need for protecting water quality- Your actions can directly affect water quality
8:25	Forestry and BMPs slide presentation
8:50	Break - Finally!
9:00	Regulatory BMPs - Maryland video
9:15	Review of the Blue Book <ul style="list-style-type: none">- Planning, Harvest layout- Roads- Tools (Soil surveys, Topo maps, Aerial photos)- Global Positioning Systems (GPS)
9:55	Wetlands/TMDLs
10:15	Break
10:25	Texas' BMP Video
10:40	Stream Crossings
11:00	Lunch
12:00	Travel to Field Stops
1:00	Field Stops <ul style="list-style-type: none">- Roads, Water bars- Stream crossings, SMZs- Ephemeral drains (dry drains) Fill out BMP evaluation forms BMP compliance trends
3:00	Return from Field <ul style="list-style-type: none">- Critique/Comments - Your chance to get us!- Hand out Certificates
3:30	Go Home

Online BMP Course Participants

2006 - 122

2007 - 128

2008 - 22

Stream Crossing Continuing Education Workshop Agenda

<u>TIME</u>	<u>ACTIVITY</u>
7:30	Welcome and Introduction <ul style="list-style-type: none">- What's Going to Happen Today?- Review of Handout Material
7:45	BMP Guidelines for Stream Crossings <ul style="list-style-type: none">- Texas Forestry BMP Handbook- Federal Regulations
8:15	Historic BMP Implementation on Stream Crossings
9:00	Break
9:10	Planning for a Stream Crossing <ul style="list-style-type: none">- Available Tools- Other Tools
10:00	Break
10:10	Types of Crossing <ul style="list-style-type: none">- Culverts- Fords- Bridges- Temporary Fill
10:40	Culvert and Portable Bridge Installation Video
11:10	Stream Crossing Remediation
11:35	Lunch
12:15	Travel to field stops
12:35	Field Stops <ul style="list-style-type: none">- Design / Layout Stream Crossing- Remediation
2:30	Return from field <ul style="list-style-type: none">- Critique Workshop
3:00	Go Home

**Texas Forest Service BMP Training
Cudlipp Training Facility
March 26, 2008**

9:00 a.m. **Introduction**

9:05 a.m. **Best Management Practices**

- BMP Program Overview
- Federal Legislation
- Forest Certification
- Nonpoint Source Pollution
- BMPs for Silviculture Operations
 - Using the Blue Book
 - Guidelines
 - Recommended Specifications
 - Appendix
- Forest Roads
 - Design/Layout
 - Waterbars/Wing Ditches
 - Road Stabilization
 - Road Maintenance

10:15 a.m. **Break**

10:30 a.m. **Best Management Practices Cont.**

- Streams
 - Stream Classification
 - Streamside Management Zones
 - Texas Reforestation and Conservation Act of 1999
- Stream Crossings
 - BMPs for Stream Crossings
 - Common Stream Crossing Methods
 - Bad Stream Crossing Methods
 - Restoration of Stream Crossing
- Firelines
 - BMPs for Firelines
- Forest Wetlands
 - Wetland Definition
 - Regulation for Forest Wetlands
 - 15 Mandatory Road BMPs for Wetlands

11:45 a.m. **Texas BMP Video**

12:00 p.m. **Lunch**

1:00 p.m. **Field Demonstration**

- On Site Stream Classification
- Waterbar/Wing Ditch Installation

4:00 p.m. **Adjourn**

TFS BMP Dozer Training

Speaking Points:

When possible blade lines rather than plowing a line, a bladed line is easier to remediate and install waterbars on. Plowed lines give no outlet for the water and trap the water in the fireline. The key is to direct the water off of the fireline and to prevent erosion.

Depth of bladed lines should only be approximately 4 inches deep. This reduces the amount of disturbed area and reduces the chances of erosion occurring.

When possible pull dirt that has been pushed out of the fireline back into the fireline and use to help construct waterbars.

Construction of waterbars:

- Construct on a 30 – 45 degree angle
- Waterbar should be 1 – 2 feet high or at least high enough to prevent water from running over the top of the waterbar
- Ensure that the waterbar is well compacted to prevent blowouts
- Tie uphill end of waterbar into the bank to prevent water from traveling around the end of the waterbar
- Downhill end of waterbar should be open to allow water to disperse
- Use in conjunction with wing ditches

Construction of wing ditches:

- Avoid tilting the blade and cutting a narrow channel
- Push your wing ditch slightly uphill and hook at the end
- Make sure the wing ditch is open and avoid damming the end with pushed dirt from the fireline
- Avoid tying wing ditches directly into streams and place wing ditches far enough away from streams to allow runoff to slow down and drop any sediment

Stream Crossings and SMZs:

- When possible avoid crossing the stream but if a crossing is necessary minimize the size and number of crossings
- When crossing a stream raise the blade up and avoid pushing through the stream. If installing a fireline perpendicular to the stream push the line to the stream and if possible go around the stream and pick up the line on the other side of the stream.
- Install firelines around the SMZ rather than inside when possible. When a fireline is needed inside the SMZ avoid pushing the line directly adjacent to the stream channel and if needed cross the stream and install the line on the far side of the stream.

Best Management Practices – A Way to Protect Your Land

It is documented that well managed forests provide us with clean water. They also absorb rainfall, refill aquifers, slow and filter stormwater runoff, reduce floods, and provide habitat for fish and wildlife. Forestry operations, if done improperly, can negatively impact these benefits. Forestry Best Management Practices (BMPs) were developed to prevent these impacts from occurring.

Forestry BMPs are a set of guidelines that involve the application of conservation practices that effectively prevent or minimize the amount of nonpoint source pollution (NPS) generated during forestry operations. They help protect your soil and water, two key elements necessary for growing a healthy, sustainable, and productive forest. BMPs can include such measures as leaving a buffer zone of trees next to a stream, installing a culvert to cross a stream, or establishing grass on forest roads to prevent erosion.

The Texas Forest Service, with cooperation from the forestry community, monitors the implementation of these guidelines by evaluating randomly selected forestry operations. Compliance with the non-regulatory BMPs has steadily risen to 92 percent, according to a 2005 survey by the Texas Forest Service.

Computer models have estimated that over the past 15 years, BMPs have prevented over 100,000 tons of soil per year from eroding off East Texas forests, enough to cover a football field, end zone to end zone, 35 feet deep. These practices also kept over 12,000 tons of soil per year out of lakes and reservoirs.

WHAT CAN I DO TO PROTECT MY PROPERTY?

- Leave a 50 foot strip of trees along streams after harvesting your timber to help prevent sediment from entering streams and provide wildlife habitat.
- Install appropriate water control structures along roads to allow water to drain quickly. Stabilize and retire roads no longer in use.
- Avoid crossing streams when possible. If this is not possible, cross streams at straight sections and at right angles. Remove all temporary crossings and logging debris from channel and stabilize stream banks.
- Make sure the ground is stable enough for heavy equipment so rutting does not occur.
- Conduct operations on the contour of the land.
- Read and follow manufacturers' labels before applying silvicultural chemicals.
- Properly dispose of all oil and trash associated with the operation.

- When harvesting your timber, use a professional forester and choose a logger that has been trained in BMPs.
- Try to become familiar with BMPs and include them in your timber sale contract.

In Texas, if we demonstrate *voluntarily* that we can maintain or improve our water quality while harvesting or site preparing our timberland, we may avoid the pain of mandatory restrictions. We strongly urge you to use BMPs on your operations to protect water quality. With your help we can continue our water quality improvements and ensure the sustainability of our forests for all Texans to enjoy.

For More Information:

Texas Forest Service
PO Box 310
Lufkin, TX 75902-0310
(936) 639-8180
<http://texasforestservicetamu.edu>

Texas Forestry Association
PO Box 1488
Lufkin, TX 75901
(936) 632-8733
www.texasforestry.org

ing declining populations, as well as the likelihood of success in such an effort. Forest conservation activities such as tree planting, forestland improvement, and prescribed burning are among the eligible practices. Applications are ranked according to factors such as the type of habitat that will be restored; the project's potential to meet the program emphasis explained above, and by the resulting benefits to society.

For more information and eligibility requirements for WHIP contact the local USDA Service Center or visit www.tx.nrcs.usda.gov/

The cost-share programs listed in this brochure are available to all eligible landowners and each program has its own selection criteria, payment schedule, enrollment dates, and requirements. Also these programs require that best management practices (BMPs) or other environmental guidelines be followed while implementing the practices outlined in the cost-share program. It is the landowner's responsibility to contact the program's respective administering agency to see if he or she meets the program's requirements and discuss with them all of the program's options. More detailed information may be found by visiting the following websites:

Texas Forestry Association
www.texasforestry.org

Texas Forest Service
<http://texasforestservice.tamu.edu>

Natural Resource Conservation Service
www.nrcs.usda.gov

Farm Service Agency
www.fsa.usda.gov

This brochure was published in December 2007 and is only intended to be a general guide to various cost-share programs. Eligibility requirements and enrollment dates are subject to change without notice. Please contact the proper administering agency for eligibility and enrollment date changes.

This brochure was sponsored by the Texas SFI Committee and the Texas Reforestation (TRe).



A Landowner's Guide to Cost-Share Programs

"It is important for landowners to recognize these programs are out there and that they can reduce the financial burden of managing their property to meet their objectives."

Since 2002 over 28,000 acres have been reforested in East Texas using cost-share programs. In 2007 over 12,000 acres were reforested in East Texas through the EQIP program alone.



Conservation Reserve Program (CRP)

Administering Agency – Farm Service Agency (FSA)

The Conservation Reserve Program (CRP) is a voluntary program for agricultural landowners. Through CRP, you can receive annual rental payments and cost-share assistance to establish long-term, resource conserving covers on eligible farmland. The Commodity Credit Corporation (CCC) makes annual rental payments based on the agricultural rental value of the land, and it provides cost-share assistance for up to 50 percent of the participant's costs in establishing approved conservation practices. Participants enroll in CRP contracts for 10 to 15 years.

For eligibility requirements and enrollment dates please contact your local Farm Service Agency office or visit www.fsa.usda.gov

Environmental Quality Incentives Program (EQIP)

Administering Agency – Natural Resources Conservation Service (NRCS)

EQIP is a voluntary program that offers eligible landowners both technical and financial assistance in applying conservation practices that address needs and concerns determined by state and local conservation leaders. It assists landowners who apply for eligible conservation activities that are a part of their conservation and management plan. Forestry measures such as site preparation, tree planting, forest stand improvement and invasive species control are eligible practices in almost all east Texas counties. The program is administered through contracts developed with landowners who are accepted into the program. EQIP offers contracts with a minimum term that ends one year after the implementation of the last scheduled practices and a maximum term of ten years. Acceptance into EQIP is determined by eligibility of both the owner and the desired conservation practice. The NRCS and the Farm Service Agency will explain and assist landowners with eligibility requirements. Payments for installed practices are made in accordance with a posted payment schedule for the conservation activity planned. A list of eligible conservation practices as well as the payment schedule is available at the local Service Center or through the Texas NRCS web site. Because technical assistance is as important as financial assistance, landowners can receive help in installing their conservation practices from the NRCS, the Texas Forest

Service, and consultant foresters who are registered as Technical Service Providers. Application for EQIP can be made year-round, however contract development and funding does occur at a specified time during the year. Information on the closing of a sign-up period can be obtained through the local NRCS office or the Texas NRCS website.

For more information, contact the local USDA Service Center or NRCS district office or visit www.tx.nrcs.usda.gov/.

Grassland Reserve Program (GRP)

Administering Agencies – Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA)

Grasslands make up the largest land cover on America's private lands. For the first time, the U.S. Department of Agriculture has directed financial resources and technical expertise to help landowners protect and restore these lands. The program emphasizes support for grazing operations, plant and animal biodiversity, and the protection of grasslands under the greatest threat of conversion to other uses such as urban development and cropping. GRP is a voluntary program that helps landowners protect and restore grasslands while maintaining the areas as grazing lands. The program provides funding for easements, rental agreements, and cost share payments for eligible lands. Enrollment options are 30-year and permanent easements as well as 10, 15, 20, or 30-year rental agreements and cost-share restoration agreements.

Information on land and owner eligibility, and applicable land use limitations is available at the local USDA Service Center.

Southern Pine Beetle Prevention Program

Administering Agency – Texas Forest Service

The Texas Forest Service (TFS) offers federal cost-share incentives to encourage private forest landowners to initiate preventive measures against future infestations of the southern pine beetle (SPB). Precommercial thinning of 6-12 year old pine stands and first thinning of overcrowded pulpwood-sized stands within specified areas of East Texas known to be susceptible to SPB outbreaks are eligible for cost-shares.

This program can cover up to \$75/acre for thinning plus up to \$10/acre for forestry consultant fees.

For more information and eligibility requirements please contact your local TFS office or visit <http://texasforestservation.tamu.edu>

Wetland Reserve Program (WRP)

Administering Agency – Natural Resources Conservation Service (NRCS)

WRP is a voluntary program offered to landowners who want to restore wetlands that have been altered or converted to other land uses. These are wetlands that have been drained and/or had their forest cover removed so that the land could be used for agricultural or pasture purposes. Landowners can enroll eligible land through either the offering of conservation easements or by enrolling into cost-share agreements. The duration of the easements can be either 30 years or permanent, while restoration cost-share agreements are generally for ten years. Easement purchase and cost-share rates are established by the length of the offer. Restoration activities generally include restoring the natural hydrology and vegetation to the site. These may include the construction of shallow-water impoundments, re-shaping the topography, and the planting of bottomland hardwood trees. The emphasis of WRP is to restore and improve habitat for migratory bird and wetland dependent wildlife, restore the wetland's functions and values, and help achieve the national goal of no net loss of wetlands. Applications for the program are accepted year round, but will close at a specified time each year. Interested landowners are encouraged to contact their local NRCS office for more information and to make an application.

Additional information is available at:

www.tx.nrcs.usda.gov/

Wildlife Habitat Incentives Program (WHIP)

Administering Agency – Natural Resources Conservation Service (NRCS)

WHIP provides financial incentives to develop habitat for fish and wildlife on private lands. Participants agree to implement a wildlife habitat development plan and

NRCS agrees to provide a cost-share like assistance for the initial implementation of wildlife habitat development practices. NRCS and program participants enter into an incentive payment agreement for wildlife habitat development. Conservation practice incentive payments are based on the average cost of practice establishment. The program agreement typically lasts a minimum of 5 years from the date that the contract is signed. Emphasis is placed on restoring native habitats of species experienc-

BMPs Can Protect Your Land

Any land-disturbing activity, from construction to timber harvesting, has the potential to negatively impact soil and water quality. Texas BMPs for forestry are designed to prevent or minimize the impacts of forestry activities on your land.

Some of the most critical BMP guidelines address streams and road construction. They include:

- **Streamside management zones (SMZs)** or buffer strips of trees left along streams, lakes and wetlands are designed to filter runoff and maintain shade along waterbodies.

- **Erosion control measures** for roads and skid trails, such as water bars, culverts, ditches, and grass cover can reduce washouts.

- **Proper stream crossings** including the placement and installation of bridges, culverts, or fords to minimize environmental impacts to streams.

- **Waste disposal** recommendations for discarding oil and trash when servicing heavy equipment in the woods.

All of these and more are addressed in detail in the Texas BMP Manual for Forestry. To request a copy call the Texas Forestry Association at 1-866-TX-TREES.



Planning for Wildlife

Forests of all types and ages provide important habitat for wildlife. If wildlife habitat for hunting or other personal enjoyment is one of your objectives, there are many things you can do.

Your choice of harvest and regeneration options will influence the type of game and non-game wildlife in your forest. Here are some simple ways to enhance wildlife habitat:

- **Provide wildlife corridors** or buffers to give wildlife safe passage across your property.
- **Grow plants** or mast-producing trees that provide food for wildlife.
- **Maintain SMZs** to protect fish and other aquatic species.
- **Create edge habitat** and food supply for wildlife by keeping individual forest stands of the same age relatively small.
- **Leave den trees** for mammals and cavity-dwelling birds as well as snags for birds of prey.



Species of Special Concern

As a landowner, it's important to be aware of plant and animal species and ecological communities that are designated as "impaired or critically imperiled, threatened, or endangered" and how forest management activities on your land may affect these species and communities. The Texas Parks and Wildlife Department (www.tpwd.state.tx.us) can provide information on species of concern in your area. The Nature Conservancy Department (www.nature.org) and NatureServe (www.natureserve.org) have

additional information on species and communities of concern.

Working for Texas Forests

Since 1995, the Sustainable Forestry Initiative (SFI)[®] program has existed to promote the perpetual growing and harvesting of trees in a way that is compatible with the protection of wildlife, plants, and soil and water quality.

In Texas and all across North America, SFI program participants adhere to a set of principles that address how they operate on their own lands and how they conduct procurement practices across all ownerships. Collectively and individually, SFI members promote the practice of sustainable forestry on all lands by funding logger and forester education and encouraging landowners to manage their forests sustainably.



Want More Information?

There are many in-depth resources available - often for free - on all of these topics. This information is provided by the SFI Implementation Committee of Texas as a quick guide and reference for landowners.

For more information or to request a comprehensive SFI Landowner Information Packet, call Texas Forestry Association at (936) 632-TREE, email tf@texasforestry.org or visit the TFA website at www.texasforestry.org. Additional resources are available through the Texas Forest Service website at <http://txforestservice.tamu.edu> or by calling the local Texas Forest Service office in your area.



Texas Forestry Association

Growing Your Assets

A Forest Planning Guide for Landowners



Private landowners like you own more than 62 percent of Texas forests. Decisions you make affect the value of your property, but also have many positive benefits for the economy and the quality of life in Texas. The SFI Implementation Committee of Texas understands and values the contributions of family forest owners and wants to provide you with resources that will help you sustain your forests today and for the future.

Start With a Plan

You plan for your vacation, your investments, your retirement, but have you taken time to develop a plan for your forest?

1. **Consider your objectives.** Are you interested in immediate and sustained income, wildlife habitat, recreation, retirement or even savings for college for a child or grandchild?
2. **Get help.** Get planning help from a professional forester or qualified resource professional and ask for a Texas Pro Logger when ready to harvest. They can help you plan for regeneration and harvesting and ensure that your plan complies with voluntary guidelines and state and federal regulations.
3. **Develop a plan.** Proper management helps your forestland gain value over time. Protect the value of your land with a plan that provides for reforestation, responsible harvesting and Best Management Practices (BMPs) to protect water and soil quality. Once you develop a plan, be sure to stick with it!



Tree farmers who manage lands in much the same fashion as other farmers – replanting, applying management principles, and with stewardship – will be rewarded with forests that are valuable and productive in the long run.

Plan for Regeneration First

A regeneration plan should come first in planning. If you wait until after harvest to plan regeneration, you could incur additional and unnecessary expense or have less than desirable results. Your options include:

Harvest Methods

Seed Tree

Good for regenerating pine and hardwood when the seed trees are of good form. Leave 10 to 20 evenly distributed seed trees per acre. Seed trees are typically removed after successful regeneration.

Shelterwood

Even-aged stands regenerate beneath the shade provided by mature trees from the previous stand. Good for naturally regenerating certain softwoods and hardwoods, such as oaks or southern pines.

Clearcutting

Recommended when you want to upgrade stand quality, such as planting genetically improved pine

or naturally regenerating hardwood species like oak. Generates the highest one-time income.

Single-tree selection

Also known as selective harvesting or uneven-age management, this method relies on natural regeneration and is used to manage both pine and hardwood. Although visually more attractive, harvest income per acre is usually less.

Thinning

This practice removes some of the lower-value trees in a stand to promote growth of the remaining healthy and vigorous trees. Thinning generates early income, promotes stand health, reduces wildlife risk and enhances wildlife browse.

Aesthetic Considerations

When harvesting, consider visual impact. You can often make a timber harvest more aesthetically pleasing by considering the size, shape and placement in your plan. When clearcutting, a strip of trees can be left as a visual buffer along the highway. All trash, oil and lubricant containers must be properly stored and removed following harvest.

Get advice from a qualified resource professional or professional forester BEFORE making decisions about harvesting or regeneration and choose a Texas Pro Logger when you're ready to harvest.



Forestry Best Management Practices

Texas has more than 23 million acres of land that is forested. According to the USDA 80% of all streams originate on forestlands. Most streams that originate or flow through East Texas forestlands are sources of water supply, prime recreation, and other high quality uses. Because of this, forest management programs should incorporate adequate measures to protect water quality in those streams.

Forestry operations, if conducted improperly, have the ability to negatively impact water quality in a number of ways such as: excessive sedimentation, nutrient loading, organic material loading, chemical loading, and thermal changes. These impacts to water quality are considered to be a form of pollution described as nonpoint source (NPS) pollution. NPS pollution arises from man's activities and is carried over and through the soil by rainfall runoff.

Forestry Best Management Practices (BMPs) are designed to help landowners, foresters, loggers, and others protect water quality during forestry operations. BMPs can prevent, or at least greatly reduce, NPS pollution from forest management activities. Use of BMPs in Texas is voluntary; however, implementing these practices by all involved in forest management will help protect water quality without the need for strict government regulation. Even though use of BMPs is voluntary, over 90% of forestland owners since 2002 have chosen to implement these environmentally sound practices on their forestlands.

Planning

Careful planning of forestry operations can help reduce the potential for creating excessive NPS pollution. Road systems and log sets should be designed to avoid streams and other water bodies when possible and minimized when it is not possible to avoid them altogether. In planning activities, topographic maps, aerial photographs, and soil surveys in combination with a field reconnaissance and landowner knowledge should be used to determine site conditions and to pin-point problem areas. All personnel that will be operating on the site should be familiar with the plan before any operations begin.

Road Construction and Maintenance

Studies have shown that poorly designed and/or implemented road systems are the major cause of NPS pollution from forestry operations. BMPs for roads should be carefully planned and then implemented properly to minimize NPS pollution. A well-designed road system will be much less expensive to maintain than a poorly designed, erosion prone, system.

BMPs for both temporary and permanent roads include establishing new roads on firm ground away from streams while old, poorly designed roads should be retired. There are also very specific BMPs that can be implemented to help maintain roads such as: crowning the roads to facilitate drainage; using water diversion devices such as rolling dips or waterbars to

aid in keeping water off and away from the road; vegetating roadways with grass to help stabilize them from surface erosion. Roads unprotected by properly implemented BMPs may have water draining down the middle of the roads which can cause severe erosion or gullies and render the road both unusable and a potential water quality problem.

Stream crossings are where water and road collide and have the largest potential for impacting water quality. Therefore, stream crossings which are part of the road system should also be carefully designed and implemented. Plan to avoid crossings if at all possible, however, when it is necessary be sure to use BMPs at these critical points. Stream crossings should always occur in a straight section of the stream and be installed at a right angle to the stream channel. Permanent crossings, like culverts, should be of appropriate size to accommodate the peak flows of storm surges. Temporary crossings like logs or brush should always be removed upon completion of the operation. Leaving crossing material in place can cause significant water quality risks by causing the stream channel to become blocked and in some cases re-route itself.

Harvesting

Harvesting is an integral part of forest management. The landowner and logger are both responsible for the degree to which the environmental quality of a site is maintained during a harvest operation. The landowner is responsible for having a clear plan and the logger is then responsible for the execution of that plan.

The main concern during a harvest operation is the potential for erosion due to tree felling, skidding, loading, and hauling which disturbs the forest floor and exposes bare soil. Skid trails should be laid out to take advantage of topography and minimize disruption of natural drainage patterns. Upon completion of use, skid trails should have waterbars installed or be covered with logging slash. Vegetation of some trails through seeding may be necessary to prevent erosion. Log sets are subject to heavy traffic and should be located on firm ground away from streams and other water bodies.

Site Preparation/Tree Planting

Like harvesting, the major problem associated with site prep and planting involves the potential for soil erosion. Mechanical site prep should minimize disturbance of areas adjacent to streams or other water bodies. Mechanical site prep should occur on the contour of the land or in other words, follow the natural topography or slope and it should be avoided on slopes greater than 30% or highly erosive soils.

Fire

Fires both prescribed or wildfires can affect surface runoff and soil erosion. If much of the forest litter remains after a fire, soil movement will be minor on slopes of 25 percent and less. A significant amount of soil movement can be caused by the constructions of firebreaks rather than the burn itself. To minimize erosion, firebreaks should have BMPs such as waterbars and wing ditches installed.

Streamside Management Zones (SMZs)

One of the most environmentally sensitive areas in the forest is the zone along a stream channel, often called a “streamside management zone” or “riparian buffer.” Generally, these zones should be left relatively undisturbed. Ground cover should be retained as a filter to capture any sediment or other pollutant running towards the channel. While selective harvesting is allowable, trees along the stream bank should be retained. The root system of these bank trees support and stabilize the stream bank integrity and also provide shading along the stream to protect it from solar heating. This zone should extend a minimum of 50 feet from both edges of a stream bank on all streams that have flow at least 3-4 months of a typical year. The SMZ can be wider than 50 feet to accommodate steep slopes or flood prone areas or for other management purposes. It is recommended that the SMZ boundary be delineated and easily identified during any operation.

Summary

This insert provides only a brief overview of the BMPs for forestry in Texas. The Texas Forest Service (TFS) and Texas Forestry Association handbook, *Texas Forestry Best Management Practices*, provides a complete listing and more detailed presentation of BMPs. This publication is free and available from the Texas Forestry Association (936) 632-8733, at your local Texas Forest Service Office, or you can download a copy of the BMP Handbook and other informative brochures related to protecting water quality from the TFS website at the following link:

<http://texasforestservation.tamu.edu/main/article.aspx?id=74>

Developing A Meeting Agenda

- ◆ *When our time is requested it is of the utmost importance that we be granted a snapshot of how that time will be utilized. Our ability to prepare both mentally and emotionally is dependent upon that offering of information.*
- ◆ *This information should be distributed at least one to two weeks prior to actual meeting time.*
- ◆ *Despite their tone or purpose, all meeting agendas should outline the following criteria:*
 1. *Time, length and location:* *Perhaps the most seemingly simple of all the criteria but also perhaps the most important. These key elements often determine both attendance level and attitude toward attendance.*
 2. *Individuals to participate:* *Allowing attendees to be made aware of those who will be in attendance will grant them a more in depth feel of the nature and purpose of the occasion.*
 3. *Synopsis of past interaction:* *Attendees need to be informed and/or reminded of what occurred in times prior. A more knowledgeable audience is a more participatory audience.*
 4. *Topics and goals for discussion:* *Enumerate these items in detail along with any individuals who will be presenting the material.*

Leg Work Prior to Meeting Time

- ◆ *First and foremost, a specific purpose must be defined. Will it perhaps be mainly informational or will specific action and/or persuasion be the main focus?*
- ◆ *Solicit input from key players on construction of a meeting agenda. Various viewpoints and suggestions help create a more well-rounded schedule. Make sure that any and all material is new and not merely a repetition or a rehashing of already discussed items. Once constructed distribute its contents as well as any ancillary materials, i.e., articles, research or documents to all who are invited to attend. Those who feel prepared and included are more likely and willing to participate at the actual meeting.*
- ◆ *Seek discussion in regards to appropriate and feasible meeting times. Often the subject of time can initiate feelings of dismissal or disregard if all angles and suggestions are not taken into account. Make sure that once a time is decided upon adherence to that time is stringent.*
- ◆ *Location, location, location. Often underestimated in importance, the environment and set up for seating plays a huge role in the level and depth of participation for attendees. Elements such as seating arrangement and size of group should be examined closely.*
- ◆ *Choice of refreshments should also be determined early on. Food is one detail that cannot be ignored as people feel more “catered” to and more willing to be present when fed adequately and with aesthetically pleasing fare.*

During The Event

- ◆ *As a facilitator it is your first priority to greet attendees with warmth. Utilize your personality and social skill to initiate that all important “chit-chat” period prior to meeting time. It is vital to setting a tone of rapport and equality. All members should feel that their presence is noted and is important.*
- ◆ *Remember to lead by example during any and all interaction. Listen attentively, lean forward, maintain eye contact, and provide verbal and nonverbal feedback to show mindfulness. Your actions will inspire those in attendance to follow suit.*
- ◆ *Don't forget the food! It is your choice in terms of the when (before, during, after), but absence of this all important item is a huge mistake!*
- ◆ *Check the clock. Remember to always start exactly on time so as to set a tone of trustworthiness. If you start on time attendees will assume that all other elements will be attended to with the same consistency.*
- ◆ *Contents of the agenda should be carefully reviewed and delegation of any duties necessary during the meeting should be made at this time. Duties such as time keeping for tracking the meeting's progress and keeping of the minutes should be distributed. Allowing attendees a chance to volunteer makes them feel more a part of the action.*
- ◆ *Set ground rules in terms of what you expect and encourage. Let them know up front that their participation, viewpoints and analysis of meeting content is important and wanted. Attendees want to know that you value their voice and opinions.*

- ◆ *Begin actual discussion of agenda items. As a facilitator it is your job to make sure that all topics stay on track. If you see too many tangent topics arising it is your responsibility to guide the discussion back to the agenda format.*
- ◆ *Sum up meeting activity. Reiterate all decisions, delegations and/or agreements made during the meeting and ask for any opinions or comments regarding such items.*
- ◆ *Allude to anticipated follow ups and ask for suggestions regarding a date, time and place.*

After The Fact: Follow Up Suggestions

- ◆ *Always make sure that all minutes are completed and made available to all attendees within a week's time.*
- ◆ *Make sure that any decisions and/or delegations made during the meeting are being pursued adequately.*
- ◆ *Review any mistakes or problems that occurred and research methods for improvement or correction.*

Handling Conflict During A Meeting

- ◆ *Remember that the situation is not personal. The problem lies with something that is external to you. Always approach the scenario with that in mind to keep your “human” defensiveness in check.*
- ◆ *The most common mistake is immediately attempting to “fix” the problem at hand. First and foremost, the person in question wants to vent, to be heard, to be listened to, to have his/her feelings acknowledged.*
- ◆ *Utilize “I” language and their name to open empathetic discussion about their predicament.*
- ◆ *Tackle the issue not the individual. Use “we” language to present your case as you and the attendee against the problem not you against the customer.*
- ◆ *Paraphrase and clarify. To be specific when identifying the root of the problem or source of conflict you must engage them by restating their “perception” of the problem at hand.*
- ◆ *Keep discussions to issue at hand. Do not allow an opportunity to address multiple conflicts occur.*
- ◆ *Find something to agree upon.*
- ◆ *Offer a solution to the problem that you feel feasible to accomplish.*
- ◆ *Ask for feedback to confirm an agreement to begin action.*
- ◆ *If possible end with an approximation of time for completion of action to occur.*

Nonverbal Messages: **Their Personal & Professional Impact**

- *Appropriate nonverbal skills are based in some very simple, ancient philosophies with which most of us are aware.*
- *Even as children many of our parents imparted us with the basic common courtesies that underlie good nonverbal behavior and good customer service: always say with sincerity please and thank you, pay attention and don't interrupt someone who is speaking, treat others fairly, always look someone in the eye, say I'm sorry...*
- *Nonverbal Communication consists of all those elements that "accessorize" our verbal messages. Often serving as our most powerful clues to the "true" or "hidden" meaning behind our spoken words, these unspoken modes of communicating reveal the feelings, mood and/or attitude of the sender.*
- *Many research efforts have revealed that nonverbal communication accounts for approximately 93% of all communication efforts while verbal represents a mere 7%. Thus, our nonverbal communication is more believable than our verbal counterparts.*
- *Much of our opinion of another is based upon their exhibition of specific nonverbals; we often determine if someone is "nice" or "rude", "professional" or "unprofessional", "responsive" or "disinterested" based upon how they interact with others using nonverbal communication. First impressions are created primarily through observation of one's nonverbal behavior.*
- *Whereas verbal messages have a distinct starting and stopping point, nonverbal communication is present at all times and someone is always watching and observing. Even during those moments when words are not expressed, our nonverbals speak loudly for us.*
- *This mode of communication has a direct bearing on the ability to gain, maintain or lose a customer base. Many a business has succeeded or failed based upon the awareness and implementation of nonverbal power.*

Nonverbal Messages: The Varieties & Their Possible Meanings

Although not exhaustive, a brief list of such nonverbal elements as mentioned above is provided below:

- ◆ **Eye Contact**: *Strongest element for indication of interest or involvement. Feel confirmed/disconfirmed, respected or disrespected based upon the presence or absence of this element. Deceit or dislike is also implied when not utilized.*
- ◆ **Handshake**: *The act of extending your hand is a compliment to the recipient. It is also the element that transmits a huge amount of information about your character in an extremely short period of time.*
- ◆ **Tone of Voice**: *Above all this proves that nonverbal is more powerful than verbal. Even a child or pet responds accordingly and it carries the power to make or break someone's day.*
- ◆ **Pauses, Hesitation or Silence**: *The aspects of nonverbal communication that often "speak" the loudest. It can also be used as a form of punishment and often is used as tool for alerting others to our true feelings about a situation.*

Tips To Remember

- ◆ *Become more aware of your own nonverbal behavior and its potential impact on others.*
- ◆ *Realize that interpreting another's nonverbal communication is a subjective process.*

TEXAS FOREST SERVICE

Recruit, Retain and Encourage Members

August 8, 2008

COMMUNICATION

- ▣ State objective concisely in terms of the needs and interests of your group.
- ▣ Detail objective and support it with facts.
- ▣ Ask for and/or respond to questions.
- ▣ Probe for agreement.
- ▣ Summarize and confirm conclusion.

DELEGATION

- ▣ Explain need for delegation.
- ▣ Use delegation of task to motivate.
- ▣ Explain task and ask member's view.
- ▣ Specify responsibility and authority.
- ▣ Confirm member's understanding and set up review.

DEALING WITH COMPLAINTS

- ▣ Ask member to detail complaint.
- ▣ Get agreement on substance of complaint.
- ▣ Ask member for solution.
- ▣ Schedule time for investigation and/or agree on action plan.
- ▣ Set a date for follow-up meeting.

POSITIVE DISCIPLINE

- ▣ State the performance problem.
- ▣ Ask the member's view.
- ▣ Ask the member for a solution.
- ▣ Agree on a plan.
- ▣ Give the member a verbal or written warning and set up a review.

TFLC Leadership Workshop Agenda
How to Recruit, Retain & Encourage Members
August 8, 2008

I. Non-verbal Behavior/Listening Skills

- A. Impact & Importance**
- B. Varieties & Styles**
- C. Tips for Use**

II. Self-Esteem

- A. Origin of Development**
- B. Using Personal Power & Influence**
- C. Resultant Reactions & Responses**

III. How to Run a Meeting

- A. Delegation of Duties**
- B. Conflict Resolution**
- C. Time Control**

IV. Developing a Meeting Agenda

- A. Time, Length & Location**
- B. Individuals to Participate**
- C. Synopsis of Past Interaction**
- D. Topics & Goals for Discussion**

Tree Farm Certification and Recertification for Area 6

<u>Year</u>	<u>New Certifications</u>	<u>Reinspections</u>
2005	23	7
2006	8	36
2007	23	73
2008	35	7

American Forest Foundation Tree Farm Inspection Record

AFF Form 004 Revised 1/04

Reinspection: Recertification Decertification Deceased
 Initial Inspection: Sold Substandard
 Pioneer Certified No Interest Missing Owner

State _____ Tree Farm Number _____

Graduate Pioneer to Certified Y N/A
 Tree Farm Sign Needed Y N
 Owns Multiple Tree Farms Y N

Field Inspection Date ____/____/____
 Tree Farmer Interview Date ____/____/____ Type: Field Phone

Tree Farmer

Owner _____
Last or Organization Name First Name MI
 Address _____
 City _____ ST _____ ZIP _____
 Phone _____ E-Mail _____

Tree Farm

Ownership Non-Industrial Private Municipal
 Public Other _____
 Acreage _____ County _____
 Location Legal: _____
 Local: _____
 Residence? Yes No

Inspecting Forester

Name _____
Last Name First Name MI
 ID # _____ Phone _____
 Email _____
 Employer Type: Industry State Consultant Federal Retired Other
 Employer Name: _____
Organization Name

Forest Management Activity (since last inspection)

	Type	Acres / Comments
Harvest Method	<input type="checkbox"/> Coppice	_____
	<input type="checkbox"/> Even-Aged	_____
	<input type="checkbox"/> Uneven-Aged	_____
	<input type="checkbox"/> Other	_____
Stand Improvement	<input type="checkbox"/> Total Volume MBF	_____
	<input type="checkbox"/> Thinning	_____
	<input type="checkbox"/> Pruning	_____
	<input type="checkbox"/> Fertilization	_____
	<input type="checkbox"/> Vegetation Control	_____
Reforestation	<input type="checkbox"/> Other	_____
	<input type="checkbox"/> Natural	_____
	<input type="checkbox"/> Seeded/Planted	_____
Protection	<input type="checkbox"/> Other	_____
	<input type="checkbox"/> Fire	_____
	<input type="checkbox"/> Insect	_____
	<input type="checkbox"/> Disease	_____
	<input type="checkbox"/> Erosion Control	_____
Wildlife	<input type="checkbox"/> Other	_____
	<input type="checkbox"/> Food Plots	_____
	<input type="checkbox"/> Shelter/Habitat	_____
Recreation/Access	<input type="checkbox"/> Other	_____
	<input type="checkbox"/> Trails/Roads	_____
	<input type="checkbox"/> Scenic Value	_____

Recommendations (next inspection cycle)

Harvest Method _____
 Stand Improvement _____
 Reforestation _____
 Protection _____
 Wildlife _____
 Recreation/Access _____
 Other _____

Notes:

Authorization

State Approval _____ Date ____/____/____ Certification Approved: Yes No
 Regional Approval _____ Date ____/____/____ Certification Recommended: Yes No
 Inspecting Forester¹ _____ Date ____/____/____ Certification Recommended: Yes No
 Tree Farmer² _____ Date ____/____/____

1. See last page for AFF Standards of Sustainability Auditor Verification Form.
 2. Signature affirms compliance with all relevant laws/regulations and permits agents of ATFS ingress and egress for inspection/verification purposes.

Certified Family Forest

"Our parents provided a basis for us by practicing good forestry on their land ... they instilled in us a stewardship ethic for the land: forest land is important, it's valuable, and it should be managed in a way that is beneficial to everyone and everything. That's the main reason we became certified Tree Farmers. We manage our forest for timber production, yet we provide a habitat for wildlife and recreational opportunities for our family. And we do all this while taking care not to jeopardize water quality or soil conservation. We hope to instill this same stewardship ethic in our daughters."

Bill & Jill Russell,
2006 Outstanding Tree Farmers
of the Year for Texas

The Tree Farm System & Tree Farm Certification in Texas

Established in 1941, the American Tree Farm System is the oldest and largest forest certification program in the United States. Sponsored by the American Forest Foundation, it recognizes and encourages good stewardship of private forestlands.

Texas joined the national tree-growing effort made possible by the American Tree Farm System in 1944. There are currently 2,200 Tree Farms in Texas that together encompass more than 700,000 acres. Nationally, 70,000 certified Tree Farmers are managing 30 million acres of forest in the United States.

Texas Forestry Association provides administrative support. For more information, contact TFA at 936-632-8733 or email tfa@texasforestry.org. Also, visit the TFA website at www.texasforestry.org and the American Tree Farm System at www.treefarmssystem.org.

The Sign



of Sustainable Forestry

Tree Farm A Certified Forest

What is Tree Farming?

A Tree Farm is at least ten (10) acres of forestland under management, with a written management plan that accounts for water quality, wildlife habitat, soil conservation, biodiversity and recreational opportunities, as well as production of forest products. Tree Farming implies continual stewardship and sustainable production of forest products over time.

Roots of Sustainable Forestry

Pride. Tree Farmers receive a certificate and a green and white sign that signifies a place where excellent forestry is practiced. Just as important, they share the satisfaction that comes from managing their land to the highest standards of good stewardship, and knowing that this commitment has been recognized by their peers. Each year, Tree Farmers from around the country compete for the honor of being named zone, state, regional or national Tree Farmer of the Year.

Profit. Being a Tree Farmer often means you'll grow and harvest more timber, and receive top income for your products. Along with the financial rewards will come healthier forests, cleaner water and

better habitat for wildlife, the other rewards that landowners seek from investing in sound, sustainable forestry.

Pleasure. Many people are drawn to Tree Farm simply because they enjoy being in the woods. Some look forward to the hard work of planting and tending, while others take their pleasure in recreation or the natural beauty of their forests.

Becoming a Tree Farmer

Sound, sustainable forests begin with determining objectives, deciding what resources are available on your land, and developing a written forest management plan that meets American Tree Farm System guidelines as well as addresses your forest's needs for generations to come.

Qualified landowners committed to sustainable forestry have their property inspected, and if it meets Tree Farm standards, the landowner is enrolled in the Tree Farm System.

Tree Farms are initially certified by qualified inspectors, and then recertified periodically to ensure compliance with American Tree Farm principles and guidelines.

Become A Tree Farmer

(please print or type)

Name _____
I own _____ acres of woodland in _____ County

Address _____

City, State, ZIP _____

Home telephone _____

Work Telephone _____

E-mail _____

Directions to Property _____

Do you have a written management plan for your land? Yes No

Do you use the services of a professional forester? Yes No

Mail to:

Texas Forestry Association
PO Box 1488
Lufkin, TX 75902-1488



Texas Forestry Association