



# Golden Triangle BMP Informer

Serving Hardin, Jefferson, and Orange Counties

**Updating FOREST LANDOWNERS on Forestry and Water Quality Issues**

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## From the Editor . . .

A forest landowner's right to manage his/her property as he/she chooses is of the utmost importance. Forest landowners have either purchased their land with hard-earned money or have acquired it from family members who purchased the land long ago.

Landowners have earned the right and should always have the right to manage their property in the manner that best fits their goals. However, these rights are accompanied by responsibilities.

Responsibilities include protecting water quality for future generations. Texas' non-regulatory BMPs allow landowners the opportunity to be a steward of the land and avoid prohibitive government regulations.

BMPs are simple, inexpensive practices that protect land from erosion and maintain stream quality.

### *Did you know...*

**Losing a layer of soil the thickness of one dime across one acre (about the size of a football field including the end zones) amounts to losing 10,000 lbs. (5 tons) of soil per acre?**

## What Can I Do About Dry, Powdery Summer Roads?

During the hot, dry summer, woods roads can be as troublesome for hauling timber as wet roads are in the winter. Many roads on sand or silt soils will not hold up to heavy traffic under the dry conditions we often experience in East Texas.

One way to help hold the road surface together is to add organic matter. This will provide both support and traction for vehicles.

A good source of organic matter is hay. Large round bales of hay can be rolled out along the roadway to cover the soft spots. An average round bale will cover a little more than 200 feet.

Another method used to hold dry roads together is to wet them with water trucks. Wetting roads is a costly and short-term solution compared to adding hay.

Adding hay will give you access under dry conditions and help protect the road from erosion long into the wet season. This additional organic matter will also make a great seed bed in the fall for replanting the roadway.

*Looking for a forestry consultant to aid in the management of your forested property? Call any Texas Forest Service office for a copy of the Professional Management Service Referral List. Over 60 names, addresses and phone numbers of firms that provide professional forest management services are listed. These services may include timber marketing, appraisals, management plans and other forestry activities.*

### How Do I Know What Size Culvert I Should Use?

The most critical factor in installing a culvert is correct sizing. Purchasing and installing a poorly-sized culvert can be a waste of time, money, and effort. Three factors determine what size is correct – drainage area, soil type, and slope.

#### Step 1: *Figure drainage area.*

Most of you who know your property well and can estimate the number of acres of watershed or drainage area. If you need help, contact your local TFS or NRCS office.

#### Step 2: *Determine the soil type.*

Grab a few handfuls of soil to tell if it feels like clay, sand, or a mixture of both. Heavier clay soils require larger culverts.

#### Step 3: *Figure the slope.*

Estimate the average slope of the drainage area. Steeper slopes require larger culverts.

The following gives proper culvert size for moderate slopes (5-15%) and medium soils:

<i>Area Drained (ac.)</i>	<i>Culvert Diameter (in.)</i>
10	24
30	30
50	36
75	42
100	48

### Improving My Land Revegetating Forest Roads

The following guidelines can help you create well-vegetated roads:

#### Seedbed Preparation

- If the soil is loose, or even firm but not compacted, and has not been sealed by rainfall, no seedbed preparation may be needed.
- If the soil is compacted, sealed by rainfall, or graded to clay, use a disk or similar equipment to loosen a 3-4" depth.

#### Planting

- When temporary plants (annual grasses) are used, a follow up with permanent vegetation is likely to be needed.
- If possible, use mixes. Legumes should always be used in mixes with grasses.
- Broadcast and lightly drag seed into soil, or firm with a roller.

#### Fertilizing

- In general, apply about 600 lbs. of triple-13 per acre either at the time of planting or mix into the top 2-3" during seedbed preparation.



Well-vegetated roads minimize erosion, provide wildlife habitat enhancement, and are pleasing aesthetically.

## Forestry and Water Quality in East Texas

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The increased demands on water resources in Texas may lead to a limited supply of available freshwater for future populations. Many approaches, including the highly controversial Marvin Nichols Reservoir in Northeast Texas, are being considered as possible solutions to this problem. The forestry community is doing its part to ease this burden by protecting water quality through the use of forestry Best Management Practices.

A report released by the Texas Forest Service titled “Voluntary Implementation with Forestry Best Management Practices in East Texas”, shows that the forestry community has achieved the highest rating ever for protecting water quality. Nine out of ten sites that involve forestry activities participate in environmentally sound practices.

Forestry Best Management Practices (BMPs) are practices determined to be an effective and practical means of preventing or reducing the amount of water pollution generated by forest management. In 1992, the Texas Forest Service started the Best Management Practices Project, which encourages landowners to protect water quality through voluntary means. This project provides technical assistance to landowners, professional workshops for loggers, public education, and random forestry site inspections.

The TFS project monitors 150 sites every two years to measure how well voluntary efforts are protecting water quality. Sites were chosen randomly throughout east Texas based on the annual timber harvest of each county. The four ownership groups that were targeted are public (national forests), forest industry (forest landowners who own forest product facilities), corporate landowners (forest landowners who do not own forest product facilities), and private landowners.

During the last round of monitoring Family Forest Owners showed an all time high in BMP implementation rate at 88.9%. Public ownership had the highest BMP implementation rating at 98.4%. All four ownerships had an overall BMP implementation rate of 91.7%. This is the highest BMP implementation rating ever monitored since the Texas Forest Service began monitoring in 1992. BMP implementation was generally higher when:

- a professional forester is used
- the logger has attended the Best Management Practices workshop
- the landowner is familiar with Best Management Practices
- the landowner is a member of a forestry organization
- Best Management Practices are included in the timber sale contract
- the timber is delivered to a major Sustainable Forestry Initiative<sup>SM</sup> mill.

Education is the key to continued success in this project. According to the report, “continuing effective educational programs for non-industrial private landowners and BMP training for loggers can minimize water quality impacts from silvicultural operations.” To view a copy of this report, visit the Texas Forest Service webpage at <http://texasforests-service.tamu.edu/pdf/forest/water/round6.pdf>.

Distribution of the *Sam Rayburn BMP Informer* is provided free of charge to forest landowners of Hardin, Jefferson, and Orange Counties. Funding has been provided through cooperation of the Environmental Protection Agency (EPA), the Texas State Soil and Water Conservation Board (TSSWCB) and the Texas Forest Service (TFS). **If you would like for your name to be removed from our mailing list please contact Shane Harrington at (936) 639-8180 or [sharrington@tfs.tamu.edu](mailto:sharrington@tfs.tamu.edu).**

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### **Culvert Installation**

When installing a pipe culvert, soil should be compacted at least halfway up the side of the pipe. Cover equal to a minimum of half the culvert diameter should be placed above the culvert (but preferably one foot of fill per foot of culvert diameter). Never use less than one foot of cover.

For multiple-pipe installations, the distance between pipes should be a minimum of half the pipe diameter.

