

June 2006



## Golden Triangle

# BMP Informer

Serving Jefferson and Orange Counties

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

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Welcome to the first issue of the Golden Triangle BMP Informer newsletter designed especially for forest landowners in Jefferson and Orange Counties.

We all want clean water for ourselves as well as for our children and grandchildren. In Texas, as a forest landowner, you have a special opportunity to protect water quality.

By using voluntary Best Management Practices (BMPs) on your forestland, you can continue to avoid unnecessary government regulations while providing clean water.

With a philosophy of protecting water quality in the forests of East Texas by non-regulatory means, the articles in this and future issues will provide you with information that you can use to make informed land management decisions based on your personal objectives.

Did you know...

**Forests produce the cleanest water of any agricultural land use.**

### Estimated Economic Impact from Timber Damaged by Hurricane Rita Texas Forest Service

Hurricane Rita damaged an estimated 533 million cubic feet of timber. The damaged timber volume could have been used to make various forest products such as lumber, plywood, OSB, and paper and paperboard products worth a total of \$3.7 billion. Such level of forest industry economic activity could have supported a total economic activity in East Texas worth \$13.2 billion. These indirect economic activities include upstream and downstream industries of the forest product industry, and the service sectors that support the timber-based communities. These estimates are based on historical average economic activities supported by the harvested timber volumes in East Texas.

A portion of the damaged timber will be salvaged. However, because of the large volume of timber damaged, the rapid decay of dead wood, and economic constraints, salvage operations are limited. The actual salvage ratio determines the ultimate negative economic impact of Hurricane Rita. For example, if only 25 percent of the damaged timber is salvaged, the potential negative direct and total economic impact would be 75 percent of the total economic activities had the timber not been damaged. This would mean a direct negative economic impact of \$2.8 billion to the forest sector in East Texas, and a total negative economic impact of \$9.9 billion due to Hurricane Rita.

If the Texas Forest Service/Texas Forestry Association Hurricane Rita Forest Recovery Task Force goal of 40 percent is achieved, the potential negative direct and total economic impact would be 60 percent of the total economic activities had the timber not been damaged. This corresponds to a direct negative impact of \$2.2 billion to the forest sector in East Texas, and a total negative economic impact of \$7.9 billion.

To achieve the higher salvage ratio, significant resources, effort, and cooperation are needed in the salvage operations to achieve the 40 percent goal and reduce the potential total negative impact by \$2 billion.

This estimation includes only the negative impact from damaged timber (trees that are blown down, snapped off, leaning more than 45 degrees, or otherwise are or will be dead and thus need to be salvaged), not the 435 million cubic feet of timber that was affected (trees that are leaning less than 45 degrees, have lost only part of their crown, have only a loss of foliage, or otherwise are not subject to imminent death). Nor does it include the reduced future timber growth in the damaged area in reforestation is not done immediately or appropriately. Also, large amounts of salvaged timber will cause substantial decline of timber prices, which is another form of loss to the landowner that is not included in this estimate.

## BMPs and Burning

Prescribed fire is a tool used to prepare sites for replanting, reduce accumulation of combustible materials, recycle forest nutrients, encourage growth of fire-adapted species, and aid in the general health of the forest. There are many guidelines and precautions that should be taken when doing a prescribed burn. Only trained, experienced individuals should conduct burns.

With fire come concerns of surface runoff, soil erosion and water quality. There are Best Management Practices that apply to burning and structures (such as firelanes) associated with it.

Firelanes are permanent barriers that will be maintained over time for the specific purpose of stopping the spread of fire or for access to an area for the control of a fire.

If you are building or maintaining firelanes on your property, make sure they have water control devices where needed. Waterbars and wing ditches can be used on firelanes just like they are on dirt roads. When using wing ditches, make sure they do not divert the runoff water directly into a stream.

Reseeding the firelane is another method of preventing soil movement, and is also good for wildlife.

Mowing, rather than reblading, should be used, if feasible, to maintain firelanes over time in order to avoid exposing bare soil to potential erosion.

Another thing to keep in mind when burning – burning in a streamside management zone (SMZ) reduces the filtering capacity of the litter on the forest floor. Plan burns that minimize impacts on the SMZ. You can keep fire out of an SMZ by putting a temporary fireline around the perimeter

## Improving My Land

### Site Preparation and BMPs

Almost one year after Hurricane Rita made landfall, landowners in southeast Texas are still trying to recover from the devastation caused by the storm. Some landowners were fortunate in that their timberland survived the storm with little damage while others are faced with the reality of starting over. By now many landowners have salvaged what was left and begin shifting their focus to preparing their lands to be replanted this coming winter.

Some sites will require little work to be done before replanting is possible while other sites may require extensive site preparation work. Site preparation is a vital tool for timberland owners who want to increase seedling survival and their initial growth rate. This activity could be as simple as just removing the debris left after the salvage operation or in some cases the site may need to be ripped and bedded before planting seedlings. As with any forest management activity, caution should be taken to ensure that these actions do not negatively impact water quality. Following are a few things to keep in mind when conducting any site preparation work.

- The boundaries of all Streamside Management Zones (SMZs) should be clearly marked before beginning site preparation activities.
- All firebreaks and firelanes should have well-installed and maintained water control structures such as waterbars and wing ditches to minimize erosion.
- Ripping, shearing, windrowing, and mechanical planting should follow the contour of the land to prevent excessive erosion.
- Minimize the amount of soil that is pushed into a windrow.
- Soil disturbance should be kept to a minimum. Avoid intensive site preparation on steep slopes and slopes with highly erodible soils.
- All reasonable attempts should be made to stabilize and repair erosion resulting from site preparation activities.
- All trash associated with site preparation activities should be disposed of properly and all equipment fluids should be caught in containers and disposed of properly as well.

These guidelines along with others can be found in the Texas Forest Service's Best Management Practices (BMPs) Handbook. These BMP guidelines are designed to prevent or greatly reduce the chances of negatively impacting water quality during any forest management activity. You can get a copy of the Texas Forest Service's BMP Handbook by going to <http://texasforests-service.tamu.edu> or by contacting your local Texas Forest Service office.

## Best Management Practices Need to be Applied When Salvaging Timber Damaged by Hurricane Rita

The destruction caused by Hurricane Rita in southeast Texas left many forest landowners searching for answers about what to do with all the broken and damaged timber. Salvaging this timber and starting over may be the only option for many. When conducting these operations, best management practices (BMPs) should be applied as if it were a normal harvest.

Forestry BMPs are voluntary practices that are designed to be an effective and practical means of preventing or reducing erosion and the amount of water pollution generated by forestry activities. A report recently released by the Texas Forest Service documents the positive results the forestry community has achieved in protecting water quality through the implementation of BMPs.

However, in cases where there is a sense of urgency to harvest the timber, as in a salvage operation, we must still remember the long term benefits of using BMPs. BMPs help protect soil and water, two key elements necessary for growing a productive forest. Here are some things to keep in mind when harvesting or salvaging timber:

- **Make sure the ground is stable enough for heavy equipment.** Hurricane Rita dumped over 10 inches of rain in some areas. While most of East Texas was extremely dry before Rita, some areas may now be saturated. Operating heavy equipment during wet conditions can cause excessive rutting, leading to losses in the site's productivity and causing impairments to water quality.
- **Pay close attention to Streamside Management Zones (SMZs) during salvage operations.** Over 400,000 acres of timber were damaged by Hurricane Rita. Among the hardest hit areas were SMZs (50 foot buffer strips that aid in protecting water quality). Spotting the boundaries of these zones now may be impossible for the salvage contractor. Remarketing or flagging these boundaries can increase their visibility.
- **Special care should be taken when operating in the SMZ.** These zones act as the final filter before any sediment or debris reaches the stream. Haul roads, skid trails, and landings should be located outside of these areas.
- **Every effort should be made to protect and leave trees not severely damaged.** This is critical when operating inside the SMZ to prevent destroying the filtering and stream shading effects of this zone. A residual density of 50 square feet of basal area per acre should be left where possible.
- **Trees and tops should not be felled across or pushed into streams.** Hurricane Rita undoubtedly caused a lot of debris to enter East Texas streams, potentially negatively impacting water quality. Though this was due to a natural occurrence, any additional debris that enters the stream as a result of the salvage operation should be removed. Failure to do so could result in reduced stream flow and impaired water quality.
- **Use dispersed skidding or cable retrieval when removing timber from the SMZ.** Utilizing this method will allow the forest floor to remain virtually undisturbed, maintaining the filtering capacity of the SMZ.

When conducting hurricane salvage operations, landowners, loggers, and foresters should continue to practice sustainable forestry. Following the state's recommended BMPs is one way to ensure this. You can get a copy of the *Texas Forestry Best Management Practices (Bluebook)* at your local Texas Forest Service office or at <http://texasforests-service.tamu.edu>.

Distribution of the *Golden Triangle BMP Informer* is provided free of charge to forest landowners of 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). PLEASE ADVISE US IF YOU WISH FOR YOUR NAME TO BE REMOVED FROM OUR MAILING LIST.

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## Looking for a Good Logging Contractor?

The Texas Forest Service maintains a list of all logging contractors who have attended the TFS/TFA Forestry Best Management Practices Workshop. This list is available at any TFS district office.

You can also access a list of BMP-trained loggers on the Texas Forestry Association's website at <http://www.texasforestry.org>. Click on *Logger Training Records*. TFA's list also shows the other courses completed by the loggers, including those with Pro Logger certification. By clicking on *Programs*, you can learn about the Pro Logger Accreditation Program, the Texas Logging Council and other TFA programs



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