



# Deltic Timber Corporation and Sustainable Forestry

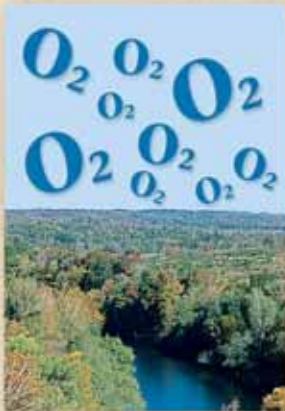


The Sustainable Forestry Initiative (SFI) is a regulatory system applicable to the United States and Canada that ensures social responsibility regarding all aspects of forestland ownership and utilization. As a member of the American Forest and Paper Association, Deltic Timber Corporation is committed to this initiative which correlates with our desire to ensure that our forests are managed with utmost care and responsibility.

Forestland ownership is something that is treated with great respect at Deltic Timber. We fully realize the importance and value our forests have. First of all, they provide the physical resources utilized to build thousands of homes and offices as well as hundreds of other important wood products utilized in societies around the world. They also provide jobs, income, and recreational opportunities for thousands of families and individuals.



Our forests also serve as valuable habitat for a multiplicity of wildlife species, as filters for water supplies, and as generators of the oxygen that's so critical for life on our planet. But the greatest aspect of a forest is that if it is managed responsibly, it is a RENEWABLE RESOURCE that can perpetually accommodate all the characteristics listed above.



The core of the SFI is composed of several principles that are listed below.

These principles help to ensure the viability of our North American forests for generations to come:

- Scientific, economic, environmental, and socially responsible practices are utilized and promoted.
- Reforestation is promptly accomplished.
- Forest health and productivity are not compromised.
- Protection of water resources is vital.
- Protection of special sites and biological diversity is maintained.
- Legal compliance at the local, state, and federal levels is achieved.
- Continual improvement in forest management is essential.

As part of our day-to-day forestry operations, Deltic complies with Best Management Practices (BMPs) that have been established by the states in which we operate. BMPs are guidelines put into place primarily to protect forest water quality before, during, and after silvicultural



practices. BMPs also help to maintain and enhance forest soils so that their productivity and monetary value is not diminished over time. Deltic's commitment to BMPs is sound and often our efforts to adhere to them are above and beyond what the guidelines require. This is simply because we want to maintain our forests in the best possible condition not just for this generation's utilization, but for future ones as well.



***Some major issues of interest for BMP's are:***

Streams and other bodies of water in the forest. These valuable areas are protected by leaving Streamside Management Zones (SMZs) consisting of timbered buffers along their banks. These buffers help to serve as filters for possible sedimentation of creeks and rivers. Other SMZ benefits include providing species and age diversity in the forest, serving as travel corridors and nesting habitats for many species of wildlife, maintaining cool water temperatures by shading creeks, and providing hard and soft mast that is fed upon by numerous wildlife species.

Road construction and maintenance. These activities are not overlooked in their importance to forest health. Roads should be constructed along the contours of the land, preferably being located on the tops of ridges or parallel to creek and river channels so that the potential for significant run-off is minimized. Construction techniques should also consist of an adequate number of turnouts, water bars, and dips to channel the flow of water off of the road as quickly as possible. If roads must cross creeks, measures such as culverts, pallets, low-water crossings, and the proper angle of the crossing itself should be utilized to minimize stream disturbance.



Once road construction and timber harvest is complete, roads in need of stabilization are planted with a mixture of seeds that grow plants beneficial to multiple species of wildlife and help to hold the soil in place. This seeding also helps to stabilize the roadbed and provides a much more aesthetically pleasing forest.

To further prevent erosion, roads may be closed off to vehicular traffic by either placing berms or locked gates at their entrance.

Harvesting and Reforesting. In order to maintain a perpetually healthy and vigorous forest, proper management and knowledge of the site is critical. Depending on a site's individual characteristics, there are several varying methods to harvest a stand. The most common methods of harvesting are thinning, single tree selection, seed tree cuts, and clear-cuts. Regardless of the method chosen for a particular site, there are the following standard procedures that should be followed for harvesting and reforesting:

- Design the skid trails and loading locations so that the area of ground disturbance is minimized, especially around bodies of water.
- Inspect the logging jobs frequently to ensure that significant erosion isn't occurring and that residual trees aren't damaged.
- Place water bars, turnouts, and/or seed and mulch along roads and trails to ensure that the soil is stabilized quickly.
- Ensure that the seed bed is adequately prepared by ripping and planting along the contours of the land or by scarifying the soil if natural reseeding is to take place.



- Periodically inspecting the seedlings to ensure that an adequate number of trees survive to perpetuate the new forest.

Visual Impacts. Attempts should always be made to improve the appearance of land. Some actions that can help with this are: Not placing log loading areas adjacent to highways, making your harvest cuts as irregularly-shaped as possible, leaving forested buffers along roads, leaving SMZs, filling in temporary roads and seeding them with plants that are beneficial for wildlife and useful for stabilizing the soil. Additionally, the spacing of harvested areas matters. By allowing stands that have been harvested to reach a pre-selected height of around 5 feet before harvesting the adjacent stand, we maintain an aesthetically pleasing and diverse landscape and that helps to increase the “edge effect” and biodiversity of the area.



Wildlife Management. The items listed above are just few of the numerous considerations that Deltic employees consider each and every day in our woods to provide the highest quality wildlife habitat for the many species that call our forests home. Quality habitats are diverse habitats, and that’s what you will find throughout Deltic’s ownership. All species, regardless of whether you’re talking about white-tailed deer, migratory songbirds, bullfrogs, or largemouth bass are dependent on quality habitats to have thriving populations.



By managing to provide a diverse mosaic of habitats across the landscape, an appealing situation is created for numerous species. Creating high quality habitats requires paying specific attention to a few critical habitat principles when harvesting timber, as listed below:



- Forest Edge is Critical. Edge can simply be defined as an area where two or more different habitat types adjoin one another. The creation of different habitats in close proximity to one another allows for animals to meet more of their life’s requirements in a smaller area. This reduces the chance of a collision with an automobile or predation that occurs when they have to travel greater distances from one habitat to another. In order to create the maximum amount of forest edge, timber harvests should be made as irregularly shaped as possible.



created across the landscape.

- Size does matter. By limiting the average size of our harvested areas to less than 120 acres, you can be certain that you don’t reduce biodiversity by allowing a single habitat type to dominate your landscape. With smaller averaged harvest areas, more edge is

What’s Harvested Matters. A few of the factors we consider for wildlife prior to and during timber harvest are:

- Leaving den trees. Hollow trees or trees with lots of cavities are critical for species such as wood ducks, squirrels, and raccoons. By leaving these trees on a tract, these animals retain preferred nesting sites.

- Leave Snags and other woody debris. Dead and dying trees provide great perches for hawks, owls, woodpeckers and other avian species. Downed woody debris provides homes for animals such as rabbits, mice, foxes, bears, reptiles, amphibians, and insects.

- Leave SMZs. As mentioned previously, the presence of SMZs are critical. They provide mast and edge, are travel corridors, cool streams, and are utilized as nesting locations for species such as tanagers, hawks, and bats.



- Cleaning off loading areas so that hunting clubs can plant numerous wildlife food plots across our landscape.

• Protection of habitat where critically imperiled and Federally Threatened and Endangered Species occur. Through a combination of on-the-ground inspections and a sophisticated mapping process, we can preserve the habitats of all the rare species that call our timberlands home.

- Management of harvest residue through proper utilization and appropriate slash disposal methods enhances planting access, reduces fire hazard, and provides wildlife habitat.



- Maintaining knowledge of invasive exotic species and other special sites on our lands. Invasive exotic species are non-native plants and animals that adversely affect the habitats they invade in an ecological and/or economical manner. Frequent inspections and control efforts on company lands are conducted to prevent the spread of invasive species. Special sites, such as rural and abandoned cemeteries, Native American areas, and species-specific management zones are perpetually catalogued into our geographic information system to help better manage these areas.



Practicing sustainable forestry is nothing new to Deltic Timber Corporation. We've been professionally managing our forests in Arkansas and north Louisiana for more than half a century. It's a lifestyle that we're proud of. We realize that those who manage to sustain their forestland not only receive economic benefit, but also provide jobs to thousands of people, a service to our society, and habitat for wild creatures.

Other important sustainable forestry resources for forest landowners can be found at [www.arkforests.org/programs-sfi.html](http://www.arkforests.org/programs-sfi.html). For more information on the Sustainable Forestry Initiative or Deltic Timber Corporation, please visit [www.sfiprogram.org](http://www.sfiprogram.org) or [www.deltic.com](http://www.deltic.com).

