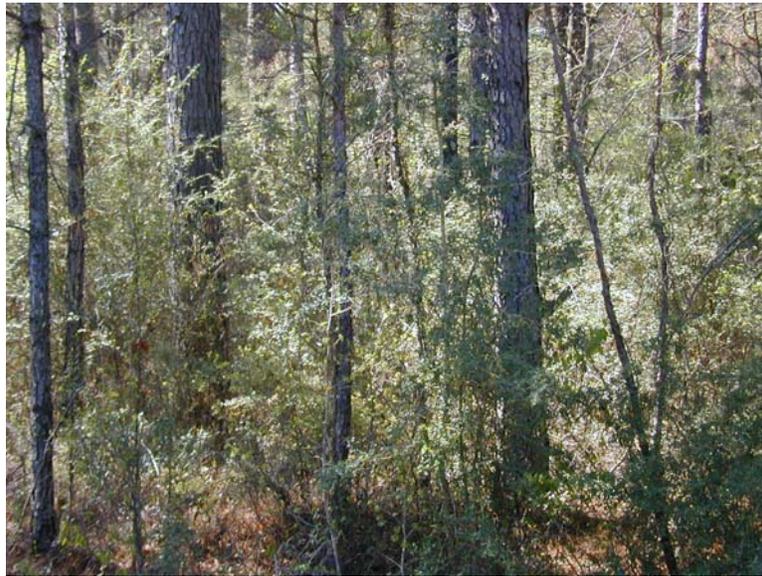


## Kisatchie National Forest-Winn Ranger District Woody Biomass Utilization in Hazardous Fuels Treatment

The purpose of the project is to reduce hazardous fuels and improve forest health in Wildland/Urban interface areas in the vicinity of Winnfield, Louisiana by using both prescribed fire and mechanical treatments. These treatments reduce the risk of impacts of wildland fire to public and private lands within the project area, protect local communities, provide for firefighter safety in the wildland/urban interface, and improve forest health while restoring fire dependent ecosystems.

Adjacent to Saline Lake there are numerous recreational homes and cabins on public and private property along the lake. Other areas include a church, a rural fire department and a state prison. Loblolly, longleaf and shortleaf pine forest types dominate this area. There is a large fuel build up of live and dead fine fuels in the under-story and mid-story (primarily highly flammable yaupon as well as deciduous hardwood brush) that has created a very hazardous wildland/urban interface situation. District prescribed burn records show no history of these lands being burned to reduce the fuel load due to the broken ownership pattern and adjacent improvements.



Fuel buildup in the vicinity of Saline Lake.

Previous mechanical methods used to reduce the fuels included mechanical mulching with a machine called a woodsgator. The woodsgator is effective at getting the aerial fuels down on the ground but the ground fuels increased. This created a safer burning environment, but the increase in ground fuels still resulted in increased smoldering during prescribed fire operations. The contract rates ranged from \$135.00 to \$175.00 per acre for the machine and operator plus contract administration of approximately \$8.00 per acre and \$20.00 per acre to then burn the area. Total cost then ranged from \$163.00 to \$203.00 per acre.

This year we have a service contract with a logging contractor who uses grapple skidders, shears and chippers to reduce the fuel loading. The under-story and mid-story are removed by shearing the undesirable vegetation, skidding it to a landing and then chipping it and trucking the material off site. These chips are sold to a mill that burns them for cogeneration in lieu of natural gas. A follow-up prescribed burn (preferably a growing season burn) in the year following mechanical treatment reduces sprouting and greatly increases treatment effectiveness. The resulting appearance of the treated areas is an open, park-like condition. These areas that were once considered to be difficult burns can now be safely and effectively burned without unnecessary resource damage or risk.



Fuel conditions following chipping treatment.

The cost of this contract is \$5.00 per acre plus administration of \$8.00 and prescribed burning of \$20.00 per acre. Total cost is \$33.00 per acre. This cost savings permits the Forest to accomplish many more acres of WUI and complicated treatments than previously possible. In FY 04, over 3,000 acres were treated with this method. Over 6,000 acres have been treated mechanically in the past 2 years, and these activities continue today. A stewardship contract for this work will be advertised this year.

This project won the 2004 National Fire Plan Award for Innovation in the Utilization of Biomass. In addition, Mr. Travis Taylor, our biomass utilization (chipping) contractor, has been selected as a recipient of the USDA, Forest Service Woody Biomass Utilization Grant Program-2005 for his study proposal "*Can Woody Biomass Utilization be Profitable?*". This project, in cooperation with the Kisatchie National Forest and Louisiana State University, will study the efficiency and marketability of biomass chipping and utilization on the Kisatchie National Forest.