

5. REFORESTATION / STAND MANAGEMENT



Bedding on a contour.

Mechanical site preparation treatments must be used in such a manner as to minimize displacement of forest litter and topsoil, soil compaction and erosion, stream sedimentation and the deposition of debris into waters of the state. The degree of mechanical site preparation should be limited to the amount that is needed to get a well stocked stand of desirable trees. In general, mechanical site preparation should be excluded from soils with slopes exceeding 25%. No mechanical site preparation should be used in SMZs.

Drum chopping is one of the most desirable methods of mechanical site preparation for the protection of soil and water quality. When chopping is done on steep slopes it should always be done up and down hill so that sediment can be trapped in the slits created by the chopper blades.

Bedding on slopes exceeding 2% should follow the contour.

On slopes 2% or less, beds should follow the natural drainage of the land. *Ripping and/or sub-soiling* should be done on the contour.

Disking should be done on the contour and restricted to areas with slopes 10% or less.

Shearing requires that the operator keep the blade out of the soil to minimize soil disturbance. Avoid over-raking the area. The retention of small limbs, twigs, bark and rock on the ground surface helps reduce soil erosion.

Windrows should be laid out on the contour of the land 100 to 300 feet apart depending upon the slope of the land and erodibility of the soil. Topsoil should not be pushed into windrows. Debris may not be piled into any water of the state.

Straight blade bulldozing is the least desirable method of mechanical site preparation.



Windrows.

Chemical site preparation, with or without the use of fire, can duplicate or surpass mechanical site preparation results with less water quality impact.

Herbicide applications must follow the manufacturer's label instructions, EPA guidelines and Alabama State Law. Herbicides should not be aerially or broadcast applied in SMZs. Under no circumstances should herbicides be applied directly onto or allowed to drift or wash into surface waters unless labeled for such applications. Do not mix or clean equipment or herbicide containers in or near streams or water bodies. Frequent inspection of equipment is recommended.

Prescribed burning should be designed and managed to minimize adverse environmental effects. Avoid intense spray and burns on steep slopes and highly erodible soils if water quality would be impacted.

Constructed firebreaks can be tied into existing natural barriers to minimize the need for fresh soil disturbances. Firebreaks should be stabilized with water diversion devices to minimize erosion and conveyance of sediment laden runoff into waters of the state. Vegetating firebreaks can further reduce erosion and the movement of sediment and other pollutants into waters of the state.

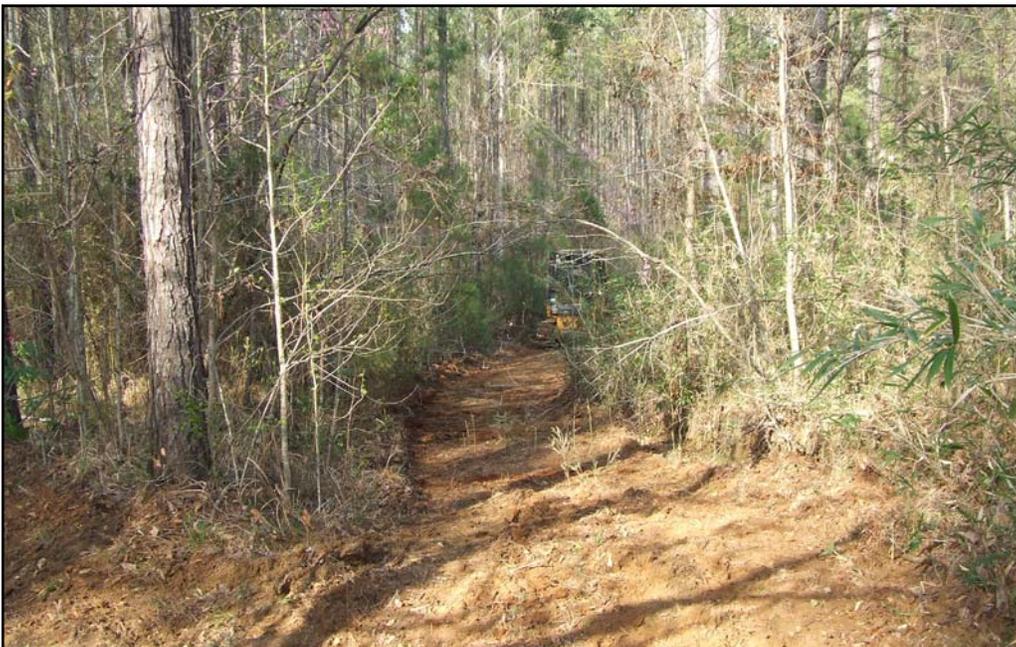
Wildfires demand that the primary objective of firebreak construction is to bring the fire under control.



Tree planting with a furrow type machine should be done on the contour.



Planting on a contour.



Constructed firebreak.