TEXAS A&M FOREST SERVICE

Land Management Fact Sheet

Best Management Practices

http://tfsweb.tamu.edu

Erosion Control

Active management is often necessary to achieve landowner objectives for their property. This may include road construction, harvesting, prescribed burning, invasive species control, site preparation, planting, as well as many other management activities. Since these operations can result in excessive soil disturbance, erosion, and detrimental impacts to water resources if done improperly, Best Management Practices (BMPs) should be implemented to mitigate these risks. BMPs are state-of-the-art, non-regulatory methods designed to prevent erosion and protect water resources during and after management operations

Proper planning and layout of management operations is critical when it comes to preventing future erosion problems resulting from poor layout and design. However, planning alone is not enough and should be done in combination with implementing erosion control practices while onsite. These practices should be site-specific determinations, and based on several factors, including slope, soil type, and the expected traffic on the disturbed area.

Erosion Control Guidelines

- Use available planning tools and field reconnaissance to identify potential sensitive areas on your property, including streams, wet areas, steep slopes, and erodible soils.
- Avoid conducting operations on saturated soils. Rutting, especially on steep slopes, can result in substantial erosion and potential impacts to water resources.
- Conduct operations on the contour to minimize excessive soil disturbance.
- Implement appropriate erosion control structures on disturbed areas based on the expected traffic.
- Crown and ditch systems, turnouts, rock armoring, and/or revegation works well on high traffic areas.
- Waterbars, turnouts, slash, brush, mulch, and straw are effective on temporary roads, trails, and disturbed areas.
- Avoid constructing waterbars or turnouts on stream crossing approaches within stream buffers (SMZs).
- Avoid discharging runoff water on steep slopes, erodible soils, or into waterways.
- Restore and stabilize rutted areas, stream crossing approaches, and potential erosion problems resulting from the operation.

For more information please visit http://tfsweb.tamu.edu/water or contact your local Texas A&M Forest Service office.

Waterbars are commonly implemented erosion control structures on low traffic areas. To be effective, waterbars should be angled 30 - 45°, tied in on the uphill side, and have an outlet to direct runoff water.

Revegetation is an effective erosion control practice when conditions are favorable. Mixes that include legumes, annual / perennial seeds, and fertilizer can help facilitate long term establishment.