TEXAS FOREST SERVICE
The Texas A&M University System

Forest Management Sheet
Best Management Practices

http://texasforestservice.tamu.edu

Stream Crossings

Stream crossings can be a vital part of a silvicultural operation and often times are inevitable to avoid. However, when installing a stream crossing, either permanent or temporary, caution must be taken to ensure that the crossing is installed properly. Stream crossings are extremely sensitive areas due to their proximity to water, thus caution must be used to ensure water quality impacts are minimized or avoided. It is also important to make sure the location for the stream crossing is suitable and can handle the expected traffic level. Some crossings are designed specifically for skidding, some for vehicle traffic only, and there are some that can handle both. The type of stream crossing to be installed will depend on whether the crossing is permanent or temporary and the intended traffic type. Certain stream crossing alternatives may or may not be appropriate depending on whether the crossing is intended to be permanent or temporary. No matter whether you are installing a permanent or temporary stream crossing, Best Management Practices (BMPs) should be applied to both.

BMP Guidelines for Stream Crossings

- Choose proper stream crossing depending on purpose and intended traffic type and level.
- The number of stream crossings should be kept to a minimum.
- Stream crossings should be constructed to minimize the disturbance to stream banks and existing stream channels.
- Equipment should be kept out of the stream bed.
- Stream crossings should be installed perpendicular to the stream channel.
- Approaches should be constructed at a 90 degree angle to the stream crossing.
- All culverts should be of adequate size to carry the normal water flow anticipated during heavy rains (see culvert sizing chart in BMP Handbook).
- Culvert crossings should be routinely inspected to ensure the pipe is open, allowing proper water flow.
- All temporary crossings should be removed immediately once they are no longer needed.
- Stream banks and approaches should be properly restored and stabilized.
- Legacy stream crossings are not always the best option and should be thoroughly inspected before reactivating them.
- Dirt crossings should **never** be used and are never recommended.

Bridgemats provide a good alternative for temporary stream crossings with minimal impacts to water quality.

Culvert crossings should be properly sized and armored to prevent them from washing out..

More information regarding choosing and installing proper stream crossings can be found in the BMP Handbook. For a copy of the BMP Handbook please visit http://texasforestservice.tam.edu or your local Texas Forest Service office.