Forestry BMP Overview
Riparian Training

Texas A&M
Forest Service

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Planning and Layout

- Aerial Photos
- Topographic Maps
- USGS Soil Surveys
- Field Reconnaissance
- Landowner Maps
- Weather Reports
3 Types of Streams

- Perennial
- Intermittent
- Ephemeral
Common Indicators for Classifying Streams

- **Stream flow**
  (What percentage of the year is the stream flowing?)
- Definition of the stream channel
- Shape of the stream channel
- Presence of water pools
- Vegetation in and around the stream
- Presence of aquatic insects or wildlife
- High water marks
- Soil and Debris movement
Other Things to Consider When Classifying Streams

- USGS Topographical Maps
- Historical Knowledge
- Time of Year/Current Weather Patterns
Perennial Streams

- Flow 90% of the time during a normal year
- May pool or dry up during drought years
- Have well-defined channels in a serpentine pattern
- Little to no vegetation growing in the channel
- May have visible aquatic insects and wildlife present
Intermittent Streams

- Flow 30-90% of the time during a normal year
- May pool or dry up during summer months
- Have well-defined channels *usually* in a serpentine pattern
- Some growing vegetation may be present in the stream channel
Ephemeral Streams

- Flow less than 30% of the time during a normal year usually immediately after rain events or shortly thereafter
- May or may not have well-defined channels
- Channel is primarily straight
- Growing vegetation may be present in the stream channel
Let's classify this stream!
Well defined channel

Channel is somewhat serpentine

Let’s take a closer look at the vegetation in and around the stream
In-stream Vegetation

Some In-stream vegetation present
Streamside Vegetation

Does anyone know what this is?

What about now?
I know from being at this site several times throughout the year that this site does dry up in late summer for about 2 or 3 months.
...And Other Useful Info

According to this USGS topographical map, this is an intermittent stream
Ground View
Streamside Management Zones

- Leave 50’ wide strip along perennial and intermittent
- Minimize disturbance within these zones (50 ft² BA/acre)
- Minimize cutting bank trees. Avoid crossings if possible
- Don’t push / fell debris into stream
- Use directional felling / Avoid felling across streams
- Keep roads, landings, and firebreaks outside SMZs
Don’t Operate in Saturated Soils
Perennial or Intermittent Stream
Surface runoff containing non-pint source pollution
50 square feet of basal area per acre evenly distributed
Minimize harvesting trees on the stream bank
Conduct machine planting and site preparation activities on the contour
Locate roads outside of the SMZ
Locate landings at least 50 feet outside the SMZ.
When necessary, cross at a location where the banks are even and the stream channel is straight.
Install an appropriate crossing. Never use dirt crossings.
Remove temporary crossings and restore stream banks to their original condition
Locate water control structures outside the SMZ

Ensure that structures discharge outside the SMZ
Avoid felling trees across the stream channel
Avoid pushing debris into streams. Remove any debris that accidentally enters stream channels.