

**Figure 5DD: A public road entrance from a forest road**

**Caption:**

*This entrance onto a public roadway from a forest road is well stabilized.*

*It appears that the graveled surface of the forest road is adequately stabilizing the road, and providing a rough surface that 'kicks off' dirt and mud from truck tires, before entering the public road.*

*NOTE -- Some type of runoff control may be needed near the curve in the forest road, to control runoff before it flows toward the public road.*



**BMPs for Maintaining Roads**

- Rehabilitate and stabilize the road and side / cut banks according to the standards of **FPG .0209**.
- Monitor the condition of the road and its BMPs to see if runoff is being controlled and captured as intended. Take prompt action to protect water quality if BMPs are not properly functioning.
- Clean out built-up silt and sediment as needed from sediment traps, silt fences, bales, check dams, brush barriers or other places where sediment poses a risk to water quality.
- Maintain an open daylight corridor that provides suitable drying for the road surface.
- Maintain a road surface that provides good runoff control, water quality protection, and vehicle access.
- Close access to roads when suitable to minimize unnecessary use.
- If practical, perform road and ditch maintenance during times when heavy precipitation is not expected, so freshly tilled soil is less likely to be exposed to runoff flows.

**For Forest Owners:**

*Limiting access protects the road and its BMPs from damage, and protects your investment.*

*Consider reconstructing, relocating, or 'retiring' a road section that proves difficult to maintain, or shows signs of repeated heavy erosion.*

## Part 5 -- Skid Trails

Skid trails are pathways used to transport trees, logs, and other forest products from the woods to a deck, landing or roadside. Skid trails are usually for temporary use. However, if they are not constructed or used correctly, skid trails can have long-lasting impacts on water quality and site conditions.

### Rules Related to Skid Trails

#### Forest Practices Guidelines Related to Water Quality (FPGs)

##### North Carolina General Statute 77-13 and General Statute 77-14

##### DWR riverbasin and watershed 'Riparian Buffer Rules'

These 'buffer rules' for specific river basins and watersheds set limitations on skid trails within the mandatory buffer zone.

##### North Carolina Dredge and Fill Law

This state law requires that permits be secured for discharges of dredged or fill material in certain locations within the 20 Coastal Area Management Act (CAMA) counties. Refer to Chapter 6 for more information on this law.

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**Figure 5EE: A skid trail and stream crossing in Durham County, N.C.**



**Caption:**

*Note the BMPs on this skid trail and stream crossing:*

- Good use of leftover logging debris to mat the skid trail surface.

- Full-width, solid-surface panel stream crossing using bridgemats.

- Skid trail width is kept to a minimum.

- Skid trail curves (background) as it approaches the stream crossing from upslope, creating a 'break in the grade' before the stream.

**Figure 5FF: A curving skid trail in western North Carolina**

**Caption:**

*Note these BMPs -- Skidding is going uphill, which allows for better control of runoff.*

*The skid trail curves along the slope contour, rather than simply straight up/down.*

*Skid trail width is kept to a minimum, despite the long timber turning radius.*

*NOTE -- While the trail appears to be soft, there are no intensive ruts, gouges or trenches that might funnel runoff.*



**Helpful Hints:**

*The BMPs offered in this Part 4 may also be suitable for temporary roads that are needed for forestry use. If a road is likely to become permanent, then it is suggested you use the BMPs provided in Part 3 of this Chapter.*

*Minimizing the width of skid trails is especially important on thinnings and other partial harvests.*

*A switchback, or zig-zag pattern, may be useful when laying out skid trails in steep terrain.*

**BMPs for Skid Trails**

- Minimize disturbance to the soil such that surface runoff does not result in sediment transport into waterbodies. Where conditions warrant:
  - Concentrate skidding on as few skid trails as needed.
  - Limit primary skid trails to 10 percent of the total working area.
  - Avoid widespread or random skidding patterns with repeated passes.
  - Minimize placement and use of skid trails in ephemeral drainages. If skid trails must be within or cross an ephemeral drainage, additional BMPs are needed to protect water quality.
  - Create skid trails only as wide as necessary to safely operate your equipment and conduct the forestry operation. Avoid creating two-lane skid trails, which disturb more soil area.
  - Minimize the extent of gouges or trenches upon the ground surface that are created by the skidding of trees or logs.
- On sloping terrain, skid trails should follow along the land contours and should be kept to 25 percent grade or less when practical:
  - If trails must be located on steeper slopes, more BMPs than usual are needed to control and capture runoff to protect water quality.
- Install waterbars, brush barriers, turnouts or use other methods as needed to control and capture runoff.
- When forest management goals and site conditions warrant, frequently pack down leftover logging debris atop primary skid trails to minimize further disturbance to exposed soils:

**Did You Know?**

*This debris is commonly called 'slash' or 'laps.'*

- To be most effective, this should be done as the skidding is taking place, not simply after the job is completed. As the equipment operates on the debris, it helps break down the debris with each pass.
- Packing down logging debris is often an effective and affordable BMP to install at the approaches to stream crossings.

## Part 6 -- Decks and Landings

**Did You Know?**

*Other names for decks include: landings, ramps, setouts and docks.*

Log decks are locations where trees, logs or other forest products are removed from the forest and temporarily placed so they can be loaded onto trucks and transported from the job site. Because of the disturbance to exposed soil and repeated equipment traffic in a concentrated area, decks have the potential to produce significant runoff and erosion. As a result, there are rules that determine certain actions and practices that must be undertaken to protect water quality. These rules are noted below:

### Rules Related to Decks and Landings

#### Forest Practices Guidelines Related to Water Quality (FPGs)

**FPG**

#### North Carolina General Statute 77-13 and General Statute 77-14

#### DWR riverbasin and watershed 'Riparian Buffer Rules'

These 'buffer rules' set limitations on the location of decks and landings.

#### North Carolina Dredge and Fill Law

This state law requires that permits be secured for discharges of dredged or fill material in certain locations within the 20 Coastal Area Management Act (CAMA) counties. Refer to Chapter 6 for more information on this law.

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#### BMPs for Decks & Landings

- Minimize the number and size of decks.
- Establish decks at locations where soil disturbance is minimized.
- Site your deck with these factors in mind, as conditions allow:
  - Outside of the SMZ. If a deck must be sited within the SMZ, read and understand the requirements outlined within **FPG .0201**.
  - Outside of ephemeral drainages.
  - On flat terrain or gentle slopes.
  - Upon stable soils.
- Control runoff and/or capture sediment that flows off of the deck site.
- During use of the deck, maintain groundcover materials on exposed bare soil areas that may pose a risk to accelerated erosion.