

Slash Water Bar Video

Water Bars

Advantages

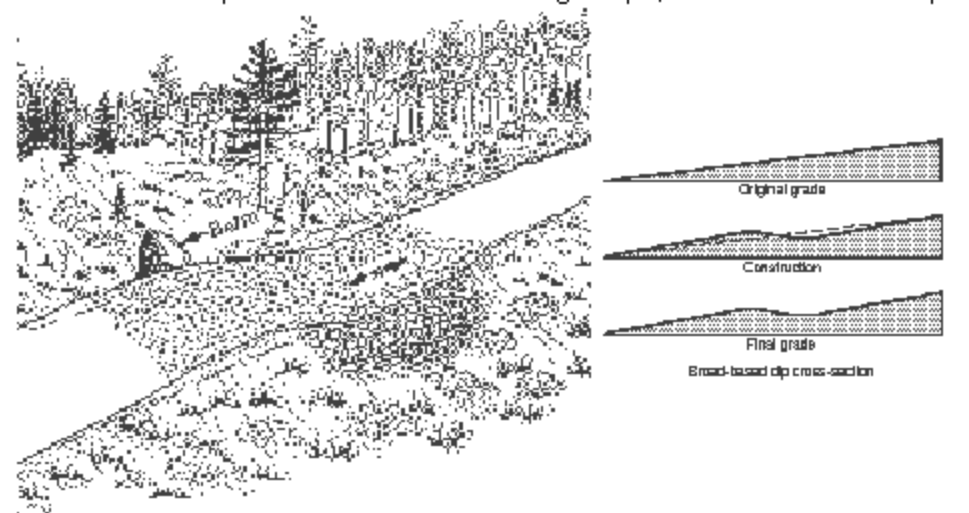
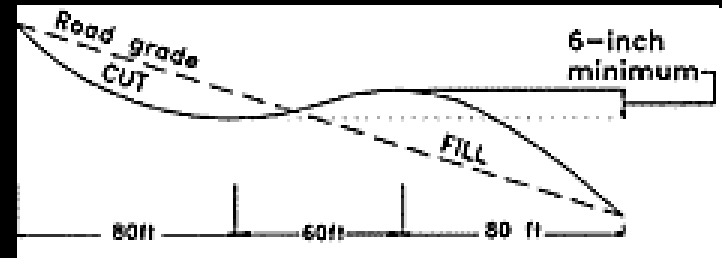
- Low cost for materials
- Use on site materials

Disadvantages

- Not for active haul roads
- Can be damaged by ATV's and follow up users

Broad-based Dip

- Long enough (over 100 feet) to allow vehicles to drive through them at normal travel speed
- As compared to water bar:
 - Longer
 - Not as tall
 - Wider spacing
 - Used on active roads
 - Can't be used on steep roads



Broad-based dip.



Earth Berm Video

Lead-off Ditch

- Carry water away from the road into vegetated area



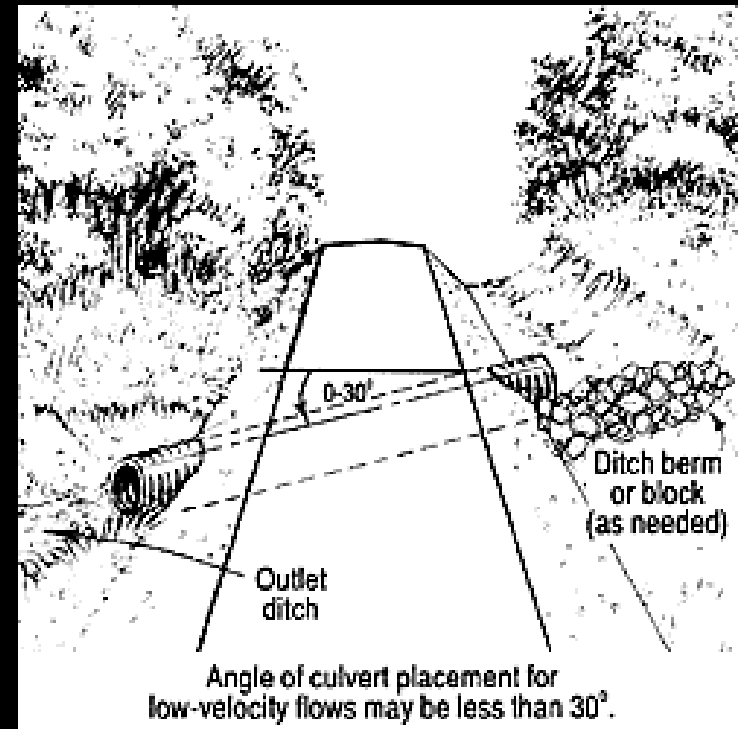
Berm directs water across contour of land, slowing flow and keeping water away from stream.



Lead Off Ditch Video

Cross-drainage Culvert

- Allows water from roadside ditches to move from one side of the road to the other
- Needs to be long enough so that road fill does not extend beyond the end of a culvert
- Install at grades at least 2% more than the ditch grade and angled 0 to 30 degrees to improve inlet efficiency



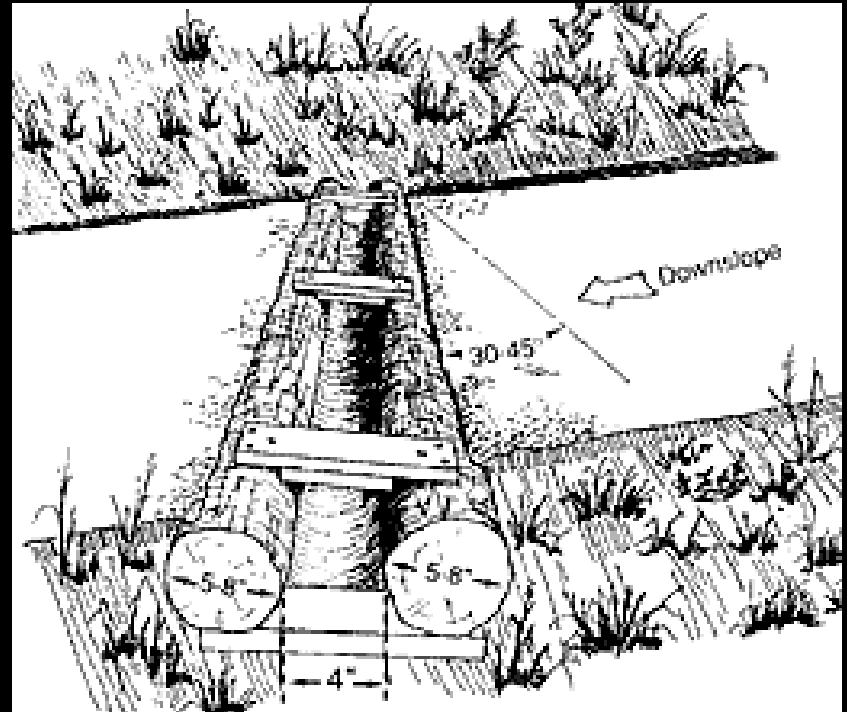


Open Top Box Culvert

Can serve two functions. They divert water off a traffic surface and permit water to drain across it. They are most frequently built from logs or lumber.

Open-top Culvert

- Provide cross drainage and road surface drainage. Usually installed on seasonal or temporary roads
- Angled 30 to 45 degrees to improve inlet efficiency
- Need to be cleaned out with shovel or trowel





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Open Top Diversions

Advantages

- Lower cost for materials
- Simple
- Will capture overland flow

Disadvantages

- Needs maintenance
- Difficult to grade road

Alternative Road Surfacing Options



High Density Polyethylene (HDPE) Plastic Road



Non-woven geotextile fabric

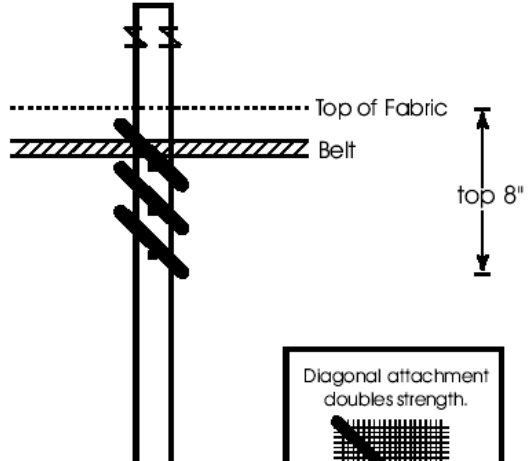
Wood Mat



Sediment Control

Safety Net

Hand Installed silt fence



Silt Fence and Biolog Video

Silt Fence Tips

- fabric embedded 6 (or 8 or 12) or more inches and cannot be pulled out by hand
- stakes on the downhill side
- placed along a contour with j-hook patterns
- fence tight, and not sagging
- longest segment 330 feet or shorter
- drainage area 0.25 acres per 100 L.F.
- If used on a slope, allow room at the toe and above for multiple rows of fencing

Silt Fence

Advantages

- Can be installed without equipment

Disadvantages

- Requires purchase of materials and hand labor
- Needs to be removed after vegetation grows
- Needs maintenance

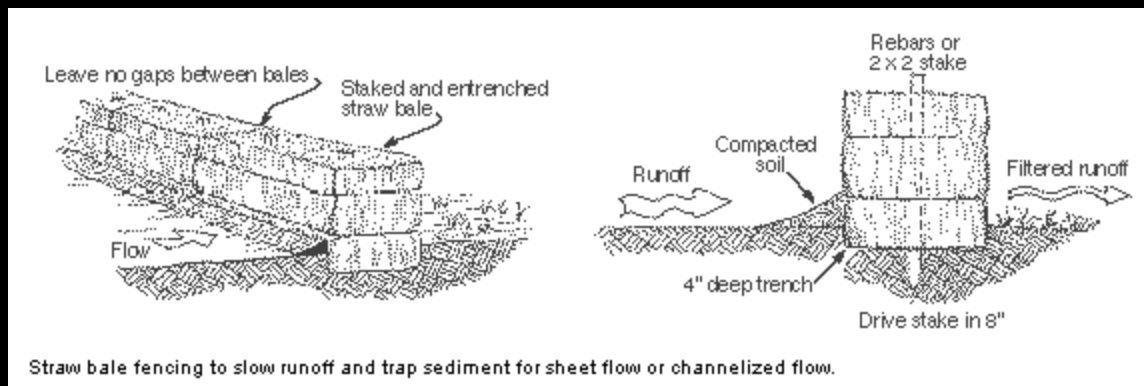
Berms: slash mulch, rock, and corn stalks





Straw Bales

- Slow the flow of runoff and trap sediment until vegetation is established at the sediment source



Berms and Barriers

Advantages

- Can use materials available on site
- Very effective at holding back water

Disadvantages

- Requires equipment to haul or place materials
- Straw Bales need to be trenched in and staked

Sandbags



Sediment Trap



Sediment Trap Tips

- Basin is located on the site to intercept surface runoff
- Erosion protection placed at the outlet
- Trap is longer than it is wide creating a longer flow path

Sediment Control Logs

Available in the
following materials:

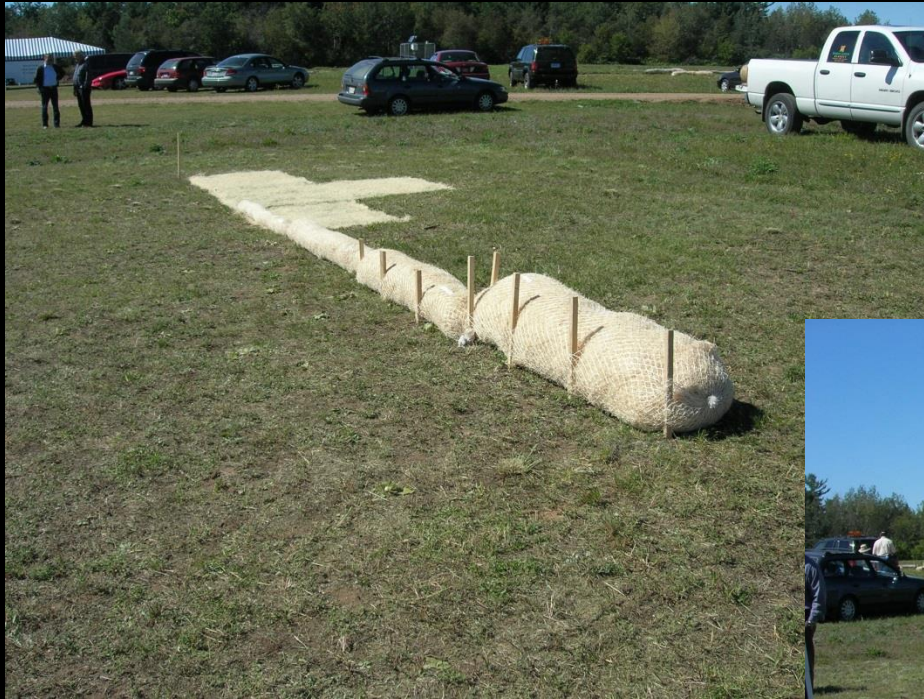
- Straw
- Wood fiber
- Coir
- Compost
- Rock
- Wood chips







Sediment Control Logs are available in different sizes with different flow rates



Rock Log



Wood Chip Log



Ecosnake



Are these filter logs installed well?



Straw log and compost log ditch checks



Sediment Control Log Tips

- **Sediment control log properly keyed into the ground**
- **Log staked (if required)**
 - **Proper stake size**
 - **Stakes placed at 2 ft intervals**
 - **Installed at proper angle on downstream edge**
- **Adjacent logs butted or overlapped well**

Use of Fabric Video

Fabric

Advantages

- Contains materials
- Added strength to materials
- “Cleaner”

Disadvantages

- Cost
- Time to install