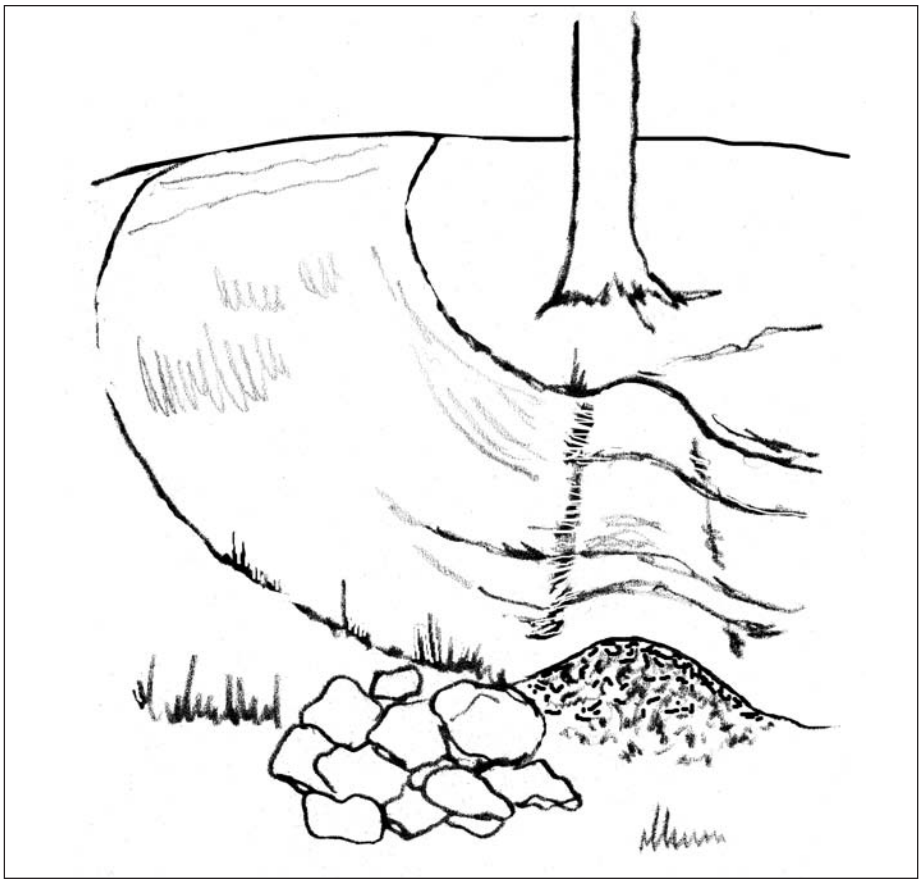
5.6 Water Bar



Description

A water bar is a diversion constructed across the slope of an access road or utility right-of-way. Water bars are used to reduce concentrated runoff on unpaved road surfaces, thus reducing water accumulation and erosion gullies from occurring. Water bars divert runoff to road side swales, vegetated areas or settling ponds.

Conditions Where Practice Applies

Water bars are used at construction site ingress/egress points, on long sloping access roads, on temporary construction roads, or at utility right-of-ways which do not have a stable surface or where runoff would otherwise collect and cause erosion.

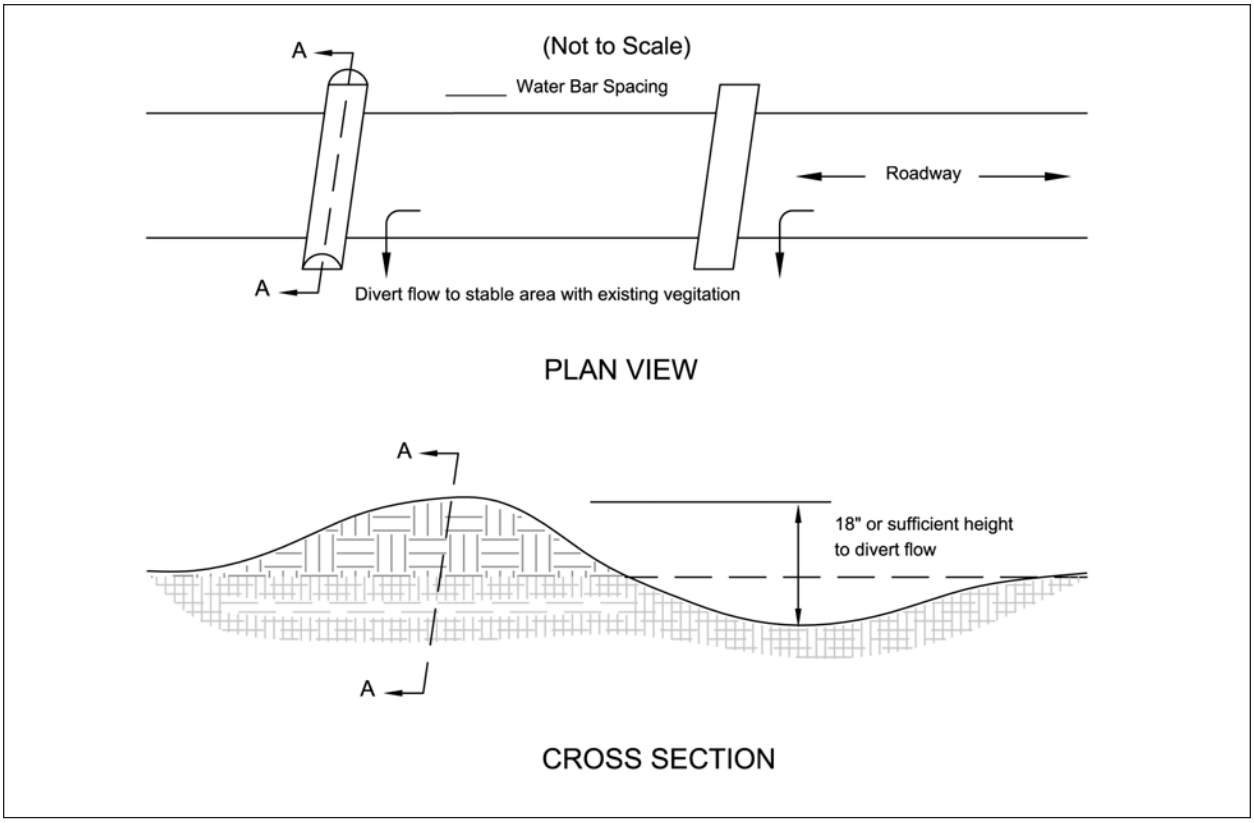
Planning Considerations

If the contributing area is disturbed, this practice should be associated with sediment traps that will receive and treat the runoff.

The outlet of each water bar must be resistant to erosion. For small contributing areas, spreading the flow into a undisturbed vegetated area may be sufficient. For larger areas or higher velocities flow may need rock outlet protection to prevent gully erosion.

Specifications
for

Water Bar



1. The minimum water bar dimensions shall be:

   Top width of berm/dike – 2 feet minimum.

   Height/depth – 18 inches unless otherwise noted on plans.

   Side Slopes – Sufficiently flat to accommodate the expected traffic.

2. The spacing between water bars shall be as noted:

   Table 5.6.1 Water Bar Spacing

Road Grade (%)	Distance (Ft.)
1	400
2	250
5	135
10	80
15	60
20	45

3. The field location shall be adjusted as needed to provide a stabilized safe outlet.
4. The diverted runoff shall be directed onto an undisturbed vegetative area, to a settling trap or basin or trap if contributing area is stable.
5. Diversions/dikes shall be compacted by traversing with equipment during construction.
6. The water bars shall be angled slightly downslope across the centerline of the travel lane.