## DRAINAGE

**OBJECTIVE:** Prevent erosion and create a dry treadway by moving water across and off the trail. Trail maintainers keep pre-existing drainages well shaped and clear, and they have the option to install minor drainages if appropriate.

A. <u>Cleaning waterbars</u> - On sloped sections of trail, you might see pre-existing drainages called waterbars reinforced with large rocks or wood. A waterbar consists of the shallow ditch across the trail, plus a longer, fanshaped outflow ditch downhill off the trail.

 Sticks, leaves and other organic matter clog the waterbar. Start uphill clearing material and move

downhill along the drain beyond

 Reshape a wide, shallow ditch uphill of the wood/rock (12-18"

wide, 6-8" deep and gently

○ Reshape a long, wide outflow

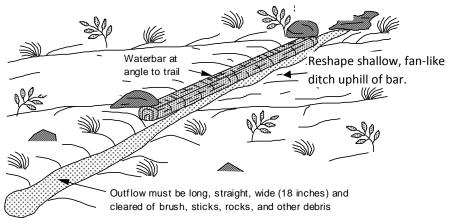
the outflow ditch.

sloping.

ditch.

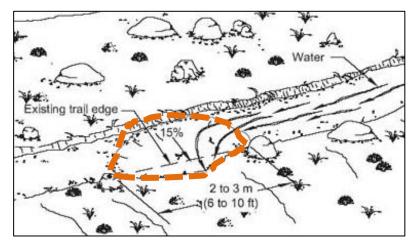
## SUGGESTED TOOLS

- o Hoe
- o Rake
- Pick mattock (for badly neglected drains or rocky soil)
- Loppers (for exposed roots)
- Shovel (for badly neglected drains)



<sup>(</sup>Diagrams from the AMC White Mountain Trail Adopter Manual)

 Reinforce the trench across the tread by packing soil on downhill side of the wood or rock reinforcement.



## B. Install a minor "bleeder" drain

If you see water pooling on a mostly flat section of trail, look to see if there is a slight downhill edge or a natural low point at the side of the trail where water could flow away. If yes, use a hoe or mattock to shape a "bleeder" a shallow, wide fan-shaped drain that tapers to a narrow outflow on the downhill side.

## C. Trail is flooded, muddy or gullied (eroded) and I don't know what to do

Note the location and general extent of the water problem on your report. This will help document the issue over time and alert the BCTC to the issue for further assessment.