

## HOW TO: Grade Reversals versus Rolling Drain Dips (RDD)



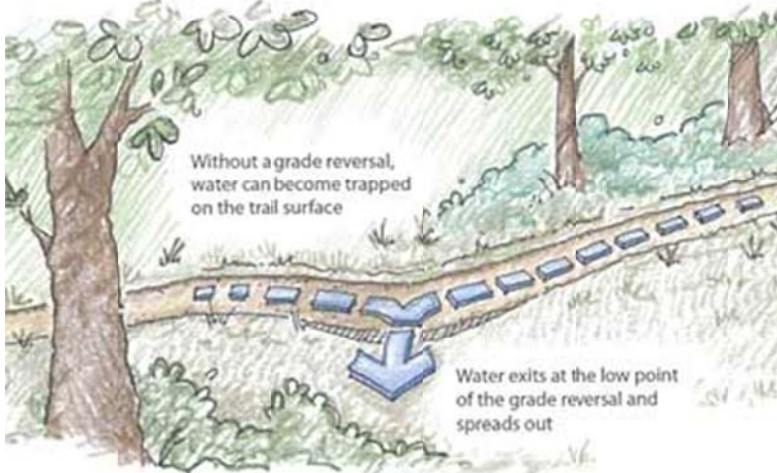
A grade reversal consists of a short dip followed by a slight rise every 20 to 50 feet and are built during trail construction to produce a sustainable trail.



Water is diverted off trail and into drain here.

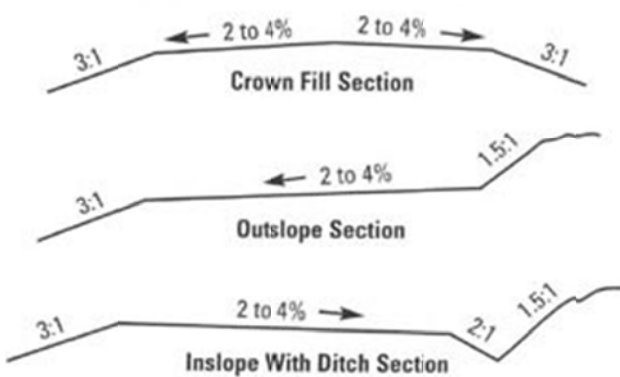
A rolling drain dip consists of  
1) a wide drain dip to divert water and  
2) a smooth, long, wide rolling ramp to help move water off trail.

Rolling Drain Dips are added to trails which do not have adequate grade reversals to minimize erosion.



Without a grade reversal, water can become trapped on the trail surface

Water exits at the low point of the grade reversal and spreads out



Crown Fill Section

Outslope Section

Inslope With Ditch Section