



# Rock Check Dam

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**NOTE**  
 After a fire many trees are weakened from burning around the base of the trunk. The trees can fall over or blow down without warning. Shallow rooted trees can also fall. Therefore be extremely alert when around burned trees.

## What is a rock check dam?

A small rock dam constructed across a drainage way, swale or road ditch.

## When is a rock check dam used?

Rock Check Dams are used where runoff is concentrated in a drainage way, swale, or road ditch that has lost all its natural protection due to the fire, or will receive increased flow rates as a result of fire in the contributing drainage area. The rock dams will reduce erosion and trap sediment generated from adjacent areas or the ditch itself. Rock Check Dams should be limited to use in open channels that drain 50 acres or less.

## How is the rock check dam installed?

The maximum height of the rock check dam should not exceed 3.0 feet. The top of the dam should be at least 1 foot below the top of the channel or swale. The top width should be a minimum of 3 feet. The maximum spacing between the dams should be as follows:

Channel Slope %	Rock Check	Dam Spacing	(feet)
	Dam Height, H		
	1ft	2ft	3ft
< 2	100	200	200
2 - 5	40	80	120
5 - 10	20	40	60
10 - 15	13	25	40
15 - 20	10	20	30
> 20	not recommended		

The center of the dam shall be at least 1.5 feet lower than the sides. The base of the dam should be keyed into the channel bottom to a depth of 2 feet. The ends of the dam should be keyed into the channel sides a minimum of 4 feet. The rock should be of sufficient size and quality to meet Colorado Department of Transportation specifications for 9 inch D50 Rock Riprap.

**What maintenance is required?**

The Rock Check Dam should be inspected after every rainfall event, and repaired as necessary.



Figure 1 - Typical rock check structure

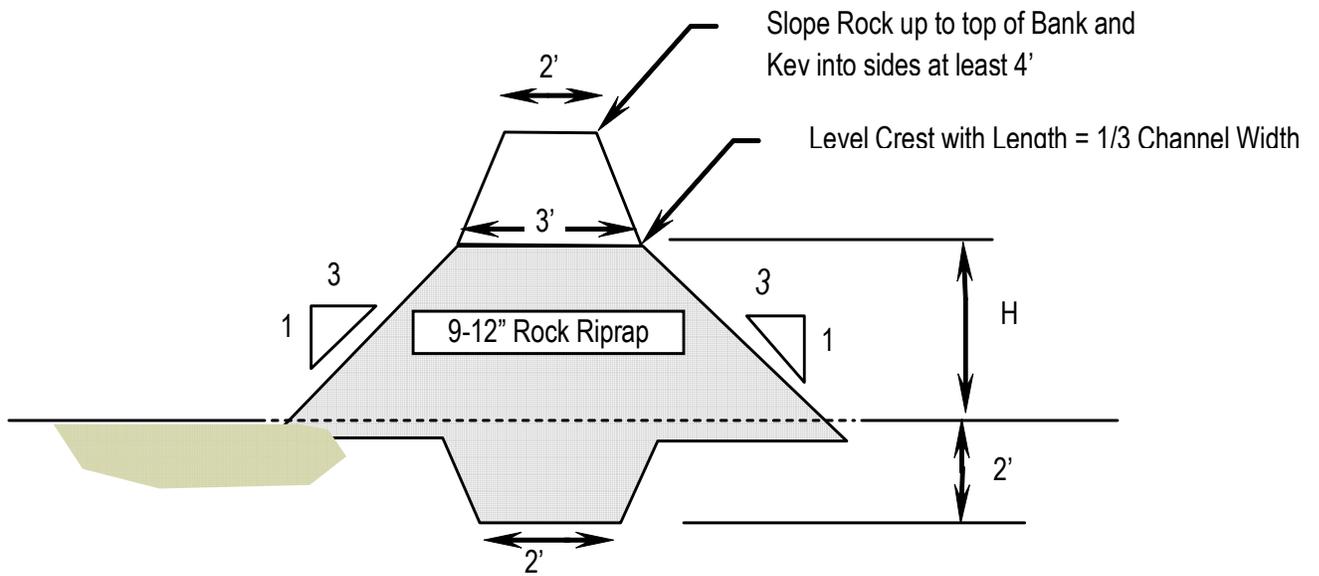


Figure 2 - Typical cross section of rock check structure