



# Straw Bale 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 straw bale check dam?**

These are temporary sediment barriers constructed of straw bales across very small drainages

**When is a straw bale check dam used?**

These temporary structures are used to slow debris flow. They are not intended to provide protection from large storm events nor to control debris flows in water bodies such as creeks, streams and rivers. Straw Bale Check Dam design limits are as follows:

Slope	Maximum drainage area between check dams	Maximum Slope Length
0 - 15 %	1 acre	200 feet
15 - 20 %	1/2 acres	100 feet
> 20 %	Not Recommended	

**How are straw bale check dams installed?**

Bales should be bound with wire or nylon string. Twine bound bales are less durable. The bales should be placed in rows with bale ends tightly abutting the adjacent bales.

**Downstream Row** (refer to illustration): Dig a trench across the small channel, wide enough and deep enough to so that the top of the row of bales placed on their long, wide side is level with the ground. The tops of bales across the center of the channel should all be level and set at the same elevation. Place the bales in position and stake them according to the instructions below.

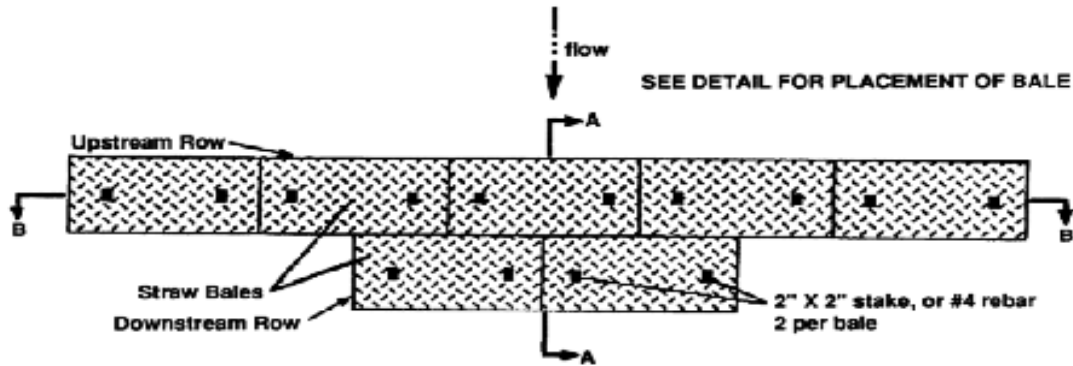
**Upstream Row**: Dig another trench across the small channel, upstream and immediately adjacent to the first row of bales. The trench should be wide enough to accommodate a row of bales set vertically on their long edge. The trench should be deep enough so that at least 6 inches of each bale is below ground starting with the bale in the channel bottom. The trench should be as level as possible so that the tops of the bales across the center of the channel are level and water can flow evenly across them. Continue this trench up the side slopes of the small channel to a point where the unburied bottom line of the highest bale (point "C", illustration) is higher than the top of the bales that are in the center of the channel (point "D", illustration).

**Anchorage**: Drive 2 x 2 stakes or #4 rebar through the bales and into the ground 1 1/2 to 2 feet for anchorage. The first stake in each bale should be driven toward a previously laid bale to force the bales together (see illustration).

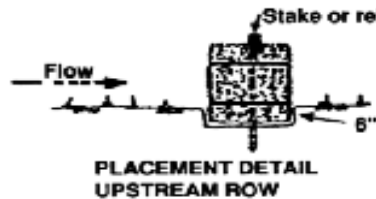
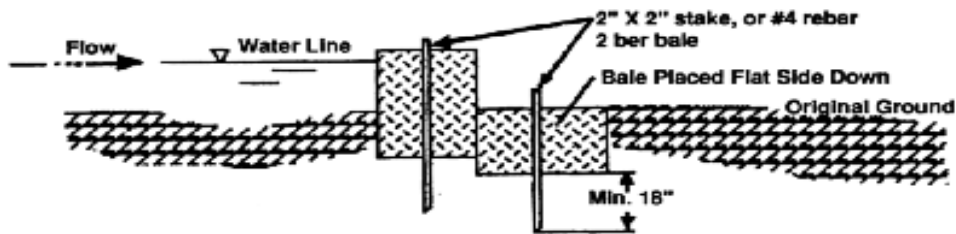
**What maintenance is needed?**

Inspect the bale check dam and provide necessary maintenance following each storm period. Remove the bales and stakes once permanent drainage and stabilization is re-established. Used straw can be used as mulch in other areas.

**Plan - Typical Straw Bale Check Dam**



**Section A-A**



REMOVE #4 REBAR AFTER STRAW BALES ARE NO LONGER IN PLACE

**Section B-B**

