PURE WATER PARTNERS

Holiday Farm Fire Erosion Protection

Check Dams

What are Erosion Check Dams?

Check Dams are small, dam-like structures designed to trap and store sediment on a temporary basis. Check Dams can help slow water down, while also collecting sediments being carried through the drainage area. Check Dams can be effective when installed correctly **(Figure 1)**, monitored regularly, and used on a temporary basis. Check Dam structures can fail over time and increase localized erosion and infrastructure risk. If they are installed, they should be monitored and maintained on a regular basis.

It is recommended that wattles made of jute or native materials (willow cuttings) be used for Check Dam construction. These structures are relatively easy to place and remove. These materials reduce the threat of introducing non-native seed (as opposed to wheat straw wattles). Check Dams constructed of rocks or logs are difficult to construct and remove, and if installed monitored closely.

Where should they be used?

Check Dams may be an option in areas of moderate or high impact burn areas. They are likely not needed in areas with low burn impact. Check Dams can be placed in "flow channels" or areas of concentrated flows like gullies and ditches. They should only be used in area with low gradient to avoid the risk of structure failure. Check Dams are most effective when placed in a series (see photo) and installed correctly **(Figure 1)**. Check Dams should not be used in fish-bearing creeks as they can create passage barriers to fish and amphibians.

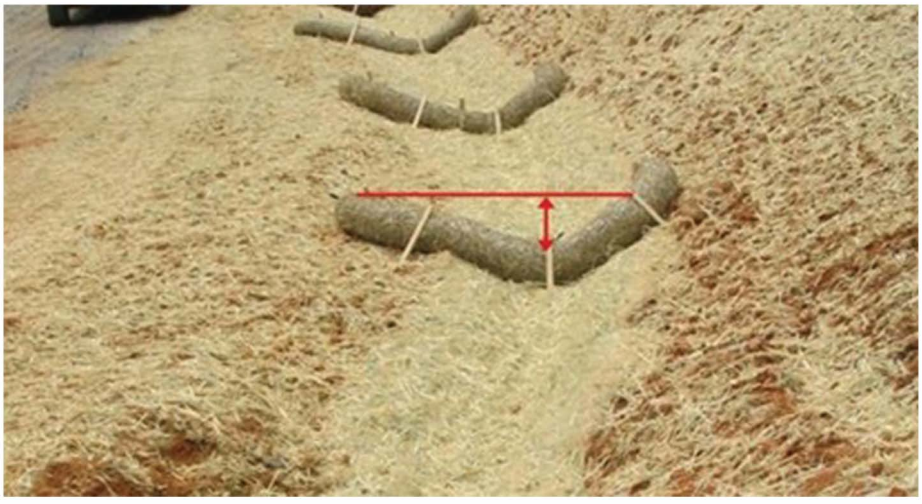
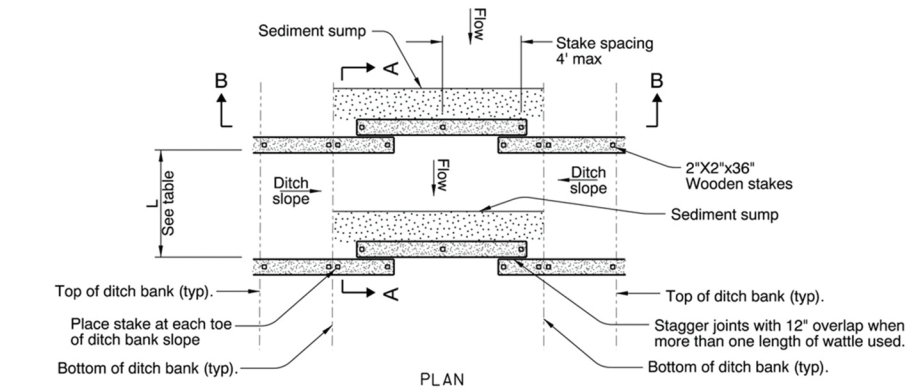


Photo 1: Check Dam placement in drainage swale

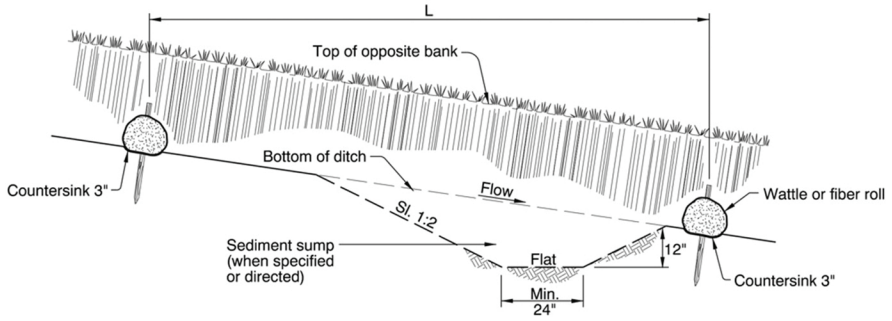
Resources

The Pure Water Partners (PWP) program is working to assist landowners with erosion control on properties impacted by the Holiday Farm Fire. In appropriate areas, Check Dams may be a part of that integrated approach. If you are interested in assistance with erosion control on your property, including the potential use of Check Dams, please sign up for a PWP site assessment at ***www.purewaterpartners.org***

Figure 1: Check Dams

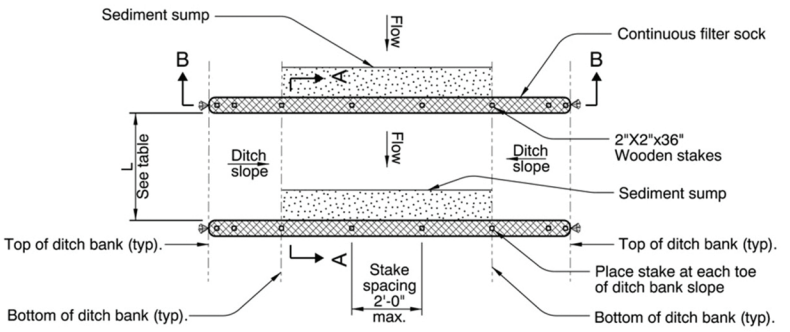


PLAN

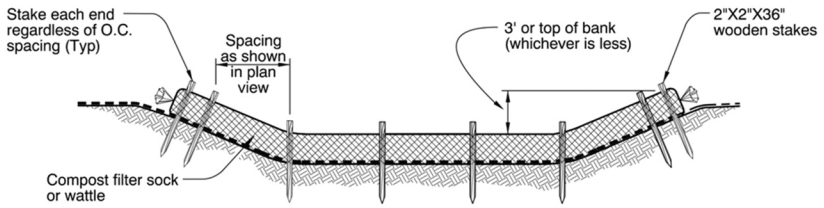


SECTION A-A

WATTLE / FIBER ROLL CHECK DAM - TYPE 2



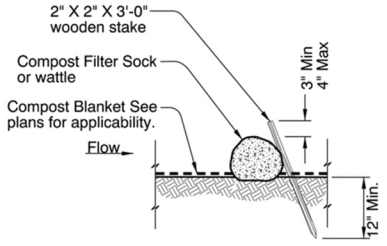
PLAN



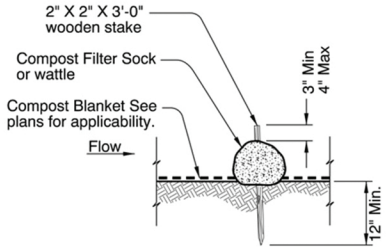
SECTION B-B

Note:
For stacking options refer to RD1032.

COMPOST FILTER SOCK CHECK DAM - TYPE 6



ALTERNATIVE 1 (Staking)



ALTERNATIVE 2 (Staking)

FIBER ROLL STAKING

MAXIMUM SLOPE LENGTH (L) ABOVE CHECK DAM (in FT)				
TYPE 2 AND 6 CHECK DAMS				
Slope %	Check dam diameter			
	8"	12"	18"	24"
2 or less	300	375'	500'	650'
5	200	250'	275'	325'
10	100	125'	150'	200'
15	70'	85'	100'	160'
20	50'	65'	70'	130'
25	40'	50'	55'	100'
30	30'	40'	45'	65'
35	30'	40'	45'	55'
40	30'	40'	45'	50'
45	20'	25'	30'	40'
50	20'	25'	30'	35'

CALC. BOOK NO. N/A

BASELINE REPORT DATE 01-JAN-2013

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

OREGON STANDARD DRAWINGS

CHECK DAMS
TYPE 2 AND 6

2015

DATE	REVISION DESCRIPTION

RD1006

RD1006