



CHECK DAMS

DEFINITION AND PURPOSE:

Check dams reduce scour and channel erosion by reducing flow velocity and encouraging sediment settlement. A check dam is a small device constructed of rock, gravel bags, sandbags, fiber rolls, or other proprietary product placed across a natural or man-made channel or drainage ditch. **Not to be constructed from straw bales or silt fence.**

APPROPRIATE APPLICATIONS:

Check dams can be placed at intervals along drainage swales or channels. The top of the downstream check dam should be level with the base of the upstream check dam. Check dams can also be used during the establishment of grass linings in drainage ditches or channels or in temporary ditches where the short length of service does not warrant establishment of erosion-resistant linings.

CONDITIONS FOR EFFECTIVE USE:

Type of Flow: Moderate concentrated flow.

Contributing Area: Maximum of 10 acres.

Not to be used in perennial streams.



Triangulated silt dikes used as check dams.

WHEN BMP IS TO BE INSTALLED:

Before disturbing vegetation in contributing drainage area; right after construction of drainageway.

STANDARDS AND SPECIFICATIONS:

Check dams should be placed at a distance and height to allow small pools to form behind them. Install the first check dam approximately 5 meters (16 feet) from the outfall device and at regular intervals based on slope gradient and soil type. For multiple check dam installation, backwater from the downstream check dam should reach the toe of the upstream dam. High flows (typically a 2-year storm or larger) should safely flow over the check dam without an increase in upstream flooding.

OPERATION AND MAINTENANCE PROCEDURES:

Inspect every week and after every ½" storm event. Remove trash and leaf accumulation. Remove sediment when depth reaches one-half of the check dam height. Repair/restore dam structure, if necessary, to original configuration to protect the banks.

SITE CONDITIONS FOR REMOVAL:

Remove after contributing areas have been adequately stabilized and vegetation is adequately established in drainageway. Regrade and vegetate area of check dam.

TYPICAL DETAILS:

RM-1.1, RM-1.2, and RM-1.3