



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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August 16, 2011

John Baum
ClimaCover
PO Box 1464
McKenna, WA 98558

RE: ClimaCover check dam system used for BMP C200 – Interceptor Dike

Dear Mr. Baum:

The Washington State Department of Ecology (Ecology) finds the ClimaCover check dam system functionally equivalent to BMP C200 Interceptor Dike. The specifications for the check dam system must adhere to the specifications attached to this letter. Should the specifications for BMP C200 Interceptor Dike change in the future, you must make appropriate modifications to the ClimaCover check dam system specification.

Ecology will place the ClimaCover specifications its website at <http://www.ecy.wa.gov/programs/wq/stormwater/newtech/equivalent.html> and ClimaCover will be included in the BMP C200 description in the next manual update.

Contractors may use the ClimaCover check dam system for interceptor dikes at construction sites without seeking additional Ecology approval. Manufacturer installation recommendations must be followed.

Ecology does not endorse this product or its manufacturer.

For more information contact me at (360) 407-6444, or via email at douglas.howie@ecy.wa.gov.

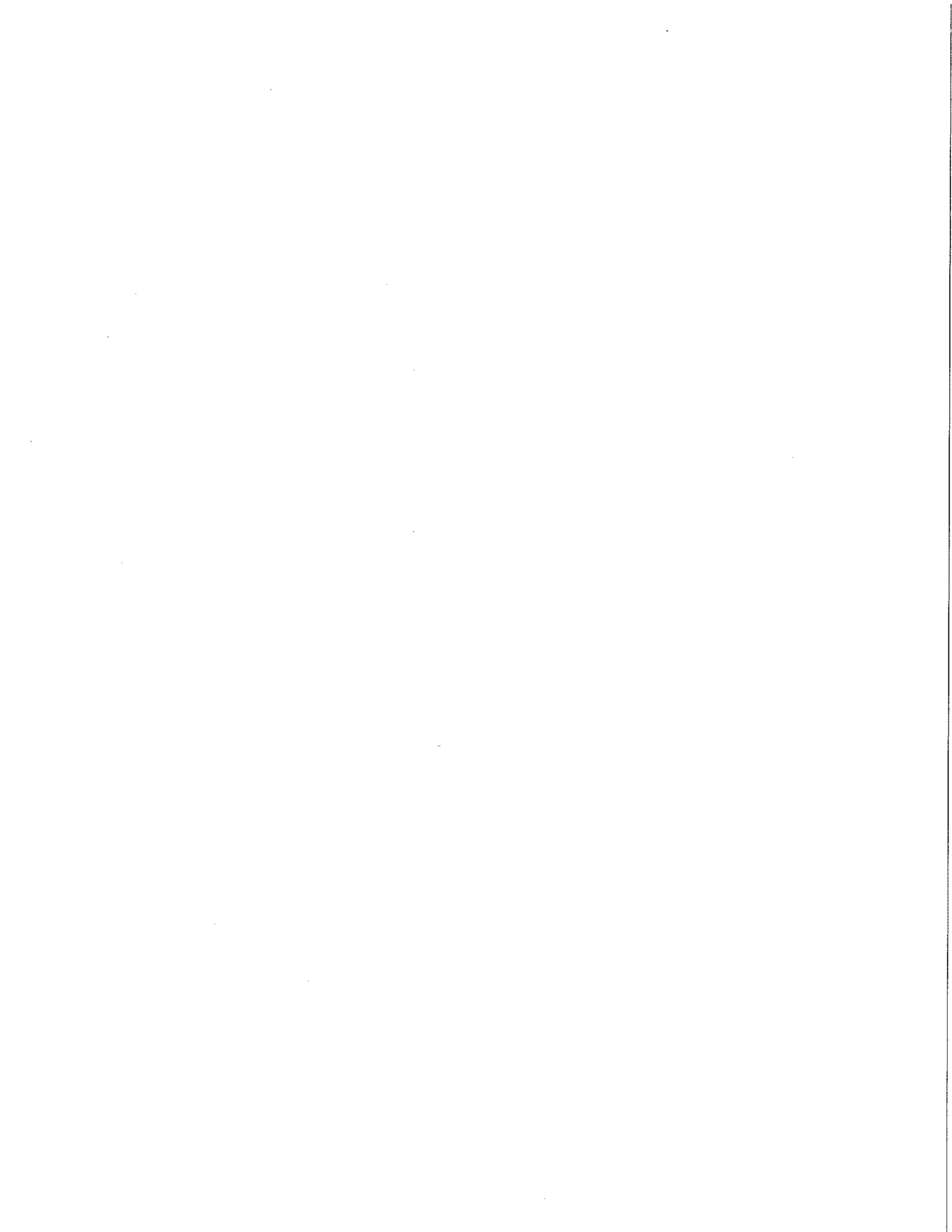
Sincerely,

Douglas C. Howie, P.E.
Stormwater Engineer
Water Quality Program

Enclosure

cc: Kurt Marx, TAPE Technical Lead, Washington Stormwater Center





BMP C200: Interceptor Dike using ClimaCover check dam system

Description:

A ClimaCover check dam/interceptor dike is a portable, flexible and reusable water-filled multipurpose barrier made from poly vinyl fabric and is used primarily for erosion and sediment control in ditches and swales. ClimaCover check dams are typically filled on the jobsite then drained once the barrier is no longer required.

Purpose

Provide a structure or ridge of compacted soil, or a ridge with an upslope swale, at the top or base of a disturbed slope or along the perimeter of a disturbed construction area to convey stormwater. Use the dike and/or swale to intercept the runoff from unprotected areas and direct it to areas where erosion can be controlled. This can prevent storm runoff from entering the work area or sediment-laden runoff from leaving the construction site.

Conditions of Use

Where the runoff from an exposed site or disturbed slope must be conveyed to an erosion control facility, which can safely convey the stormwater.

- Locate upslope of a construction site to prevent runoff from entering disturbed area.
- When placed horizontally across a disturbed slope, it reduces the amount and velocity of runoff flowing down the slope.
- Locate downslope to collect runoff from a disturbed area and direct it to a sediment basin.

Design and Installation Specifications

Disturbed areas around the dike must be stabilized with temporary or permanent vegetation or other channel protection during construction.

Channel requires a positive grade for drainage; steeper grades require channel protection and check dams.

- Review construction for areas where overtopping may occur.
- Can be used at top of new fill before vegetation is established.
- May be used as a permanent diversion channel to carry the runoff.
- Sub-basin tributary area should be one acre or less.
- Design capacity for the peak flow from a 10-year, 24-hour storm, assuming a Type 1A rainfall distribution, for temporary facilities. Alternatively, use 1.6 times the 10-year, 1-hour flow indicated by an approved continuous runoff model. For facilities that will also serve on a permanent basis, consult the local government's drainage requirements.
- Fill with water from water truck or stormwater runoff or pond.
- Fill port inner diameter is 1-1/8 inches. Use 1-inch poly pipe with female 3/4 inch garden hose adaptor.
- Prepare site and clear of rocks and debris, smooth bottom of ditch line for good

contact. Dig 4 to 6 inches below grade across ditchline and 10 inches wide to secure subgrade flap then stake and secure and backfill with dirt. Place bladder in check dam and center bladder side to side. Bring verticle walls into position secure straps then remove fill caps at each end to let air escape while filling, fill bladder until water comes out each fill port then reattach caps.

Interceptor Dikes shall meet the following criteria:

Top Width 2 feet minimum.
 Height 1.5 feet minimum on berm (use 20-inch diameter bladder).
 Grade Depends on topography, however, dike system minimum is 0.5%, maximum is 1%.

Horizontal Spacing of Interceptor Dikes:

Average Slope	Slope Percent	Flowpath Length
20H:1V or less	3-5%	300 feet
(10 to 20)H:1V	5-10%	200 feet
(4 to 10)H:1V	10-25%	100 feet
(2 to 4)H:1V	25-50%	50 feet

Stabilization depends on velocity and reach.

Slopes <5% Seed and mulch (of surrounding area) applied within 5 days of dike construction (*see BMP C121, Mulching*).

Slopes 5 - 40% **Dependent on runoff velocities and dike materials. Stabilization should be done immediately using either sod or riprap or other measures to avoid erosion.**

- The upslope side of the dike shall provide positive drainage to the dike outlet. No erosion shall occur at the outlet. Provide energy dissipation measures as necessary. Sediment-laden runoff must be released through a sediment trapping facility.
- No construction traffic over temporary dikes. Use temporary cross culverts for channel crossing.

Maintenance Standards

- Inspect diversion dikes and interceptor swales once a week and after every rainfall. Immediately remove sediment from the flow area.
- Inspect bladders for leaks, tears, and low water level.
- Damage caused by construction traffic or other activity must be repaired before the end of each working day.

Check outlets and make timely repairs as needed to avoid gully formation. When the area below the temporary diversion dike is permanently stabilized, remove the dike and fill and stabilize the channel to blend with the natural surface.

- Water can be pumped back into water truck or settling pond on site.
- Water must be dechlorinated prior to discharge, as appropriate.