



STRAW BALE BARRIER

Straw Bale Barriers may be used to control runoff from small disturbed areas provided that runoff is in the form of sheet flow. Since straw bales tend to deteriorate within a 3-month period, they should be considered as short-term control measures.

Straw Bale Barriers should not be used in areas of concentrated flows (e.g. channels, swales, erosion gullies, across pipe outfalls, as inlet protection, etc.) or in areas where they cannot be properly staked (e.g.

paved areas).

The maximum slope length above any Straw Bale Barrier should not exceed that shown in Table 4.4 (on pg. 9). The slope length shown is the distance from the barrier to the drainage divide or the nearest upslope channel. NOTE: Slope length is not increased by use of multiple rows of barriers!

TABLE 4.4
Maximum Slope Length for Straw Bale Barriers and Wood Chip Filter Berms

Slope - Percent	Maximum Slope Length (ft) Above Barrier
2 (or less)	150
5	100
10	50
15	35
20	25
25	20
30	15
35	15
40	15
45	10
50	10
>50	Not Permitted

Straw Bale Barriers should not be used in areas where rock prevents full and uniform anchoring of the bales.

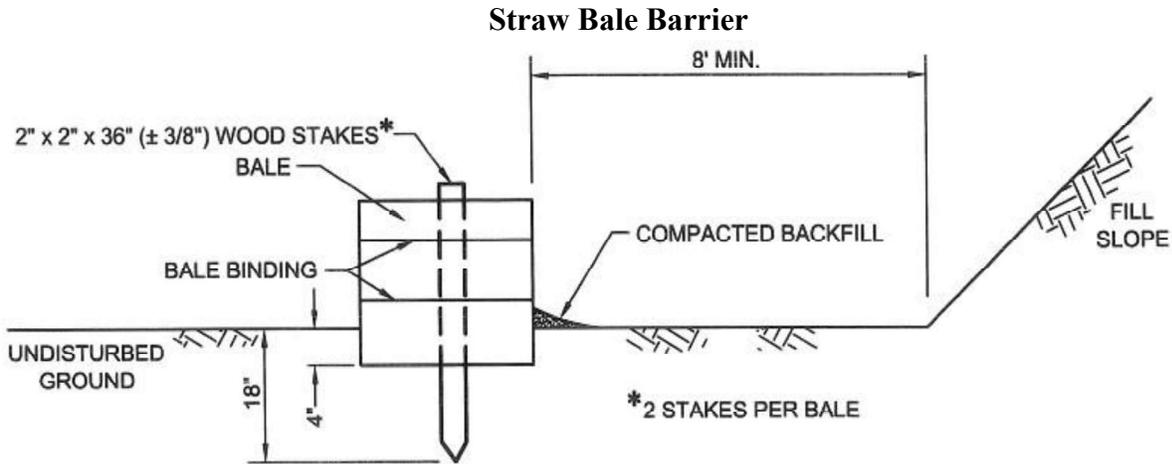
Straw Bale Barriers should be installed according to Standard Construction Detail # 4-13 (on pg. 10).

Bales should be placed on edge and installed in an anchoring trench. When improperly placed and installed (such as staking the bales directly to the ground with no soil seal or entrenchment), undercutting and other failures typically occur.

Two support stakes should be driven through each bale to the depth 18" below the ground surface.

The excavated soil should be backfilled and compacted on the upslope side of the bales.

STANDARD CONSTRUCTION DETAIL # 4-13



Straw Bale Barriers shall not be used for projects extending more than 3 months.

Straw Bale Barriers shall be placed at existing level grade with ends tightly abutting the adjacent bales. First stake of each bale shall be angled toward adjacent bale to draw bales together. Stakes shall be driven flush with the top of the bale (see Figure 4.4 on pg. 9). Both ends of the barrier shall be extended at least 8 feet up slope at 45 degrees to the main barrier alignment (see Figure 4.1 on pg. 13).

Compacted backfill to extend approximately 4 inches above ground level.

Sediment shall be removed when accumulations reach 1/3 the above ground height of the barrier. Damaged or deteriorated bales shall be replaced immediately upon inspection.

Any section of Straw Bale Barrier which has been undermined or topped shall be immediately replaced with a Rock Filter Outlet. See Standard Construction Detail # 4-6 (on pg. 11). Bales shall be removed when the tributary area has been permanently stabilized.

Figure 4.4
Straw Bale Barrier Installation

