Compost Log Sediment Trap

DATA TO BE PROVIDED

Spillway Location
Spillway Weir Elevation
Sediment Trap Volume

Source:
Adapted from Filtrexx™ International

Symbol:
CST

Detail No.
DE-ESC-3.1.3.4
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Effective FEB 2019
Construction Notes:

1. Compost log sediment traps should be placed on low grade or level contours to maximize runoff-sediment volume containment.
2. Compost logs are stacked so the horizontal base width is at least equivalent to the effective height (1H:1V); traps shall be installed so the effective height is at least 3 feet.
3. The volume of sediment storage shall be 3600 cubic feet per acre of drainage area.
4. Stakes shall be installed through the middle of the compost logs using 2 inches by 2 inches by 3 feet wooden hardwood stakes on 10 feet centers. Stakes shall be placed in a pyramid configuration perpendicular to compost logs where stakes cross at the apex of the compost log trap. Stakes shall be joined and secured with wire wrapping at apex using 16 gauge or multi-strand 20 gauge wire allowing 12 inches of stake above the compost log trap.
5. All base layers shall be staked on 5 feet centers; placed opposite the pyramid staking; where staking is present every 2.5 feet Half inch rebar may also be used when ground is frozen or extremely compacted. Staking depth for all soil types shall be a minimum 12 inches into native soil.
6. Concentrated flows, channels, or ditches directing flow into the trap shall employ energy flow dissipaters prior to flow contact with the trap compost logs or entry into the trap system. Dissipaters shall be placed at a minimum distance of 20 feet from the base course of the trap.
7. In order to prevent water flowing around the ends of the sediment trap, the ends of the trap must be constructed pointing upslope so the ends are at a minimum 1 feet higher elevation than the lowest point (mid-section) of the sediment trap. The mid-section of the sediment trap shall be the point of lowest elevation. A minimum of 10 linear feet per end each placed at a 30 degree angle is recommended.
8. The design engineer will determine the location of a controlled outfall which will also serve as the minimum freeboard location for the trap. Erosion control matting or appropriately sized riprap shall be installed under the first row of compost logs and extend from the trap a distance no less than 30 feet.
9. The compost log sediment trap must be reviewed on a regular basis to ensure that it is in a functional condition at all times. Remove the sediment at the base of the upslope side of the sediment trap when accumulation has reached one half (1/2) of the effective height of the trap.
10. The compost medium in the logs will be dispersed on site once the upgrade disturbed area has been permanently stabilized and approval is granted by the local delegated agency to remove the trap. The compost medium may be dispersed with a loader, rake, bulldozer or similar device and may be incorporated into the soil as an amendment or left on the soil surface to aid in permanent seeding or landscaping. The compost log mesh netting must be extracted and disposed of properly. In the case where biodegradable mesh netting has been used, the netting may remain incorporated with the compost medium when being spread on site.

Materials

1. **Stakes**: 2” x 2” x 36” hardwood.
2. **Compost media**: See requirements in Standard Detail and Specifications for Compost Logs (DE-ES-3.1.7).
3. **Filter sock**: See requirements in Standard Detail and Specifications for Compost Logs (DE-ES-3.1.7).
4. **Rebar**: 1/2” nominal.

**MAXIMUM DRAINAGE AREA: 5 ACRES**

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