USDA United States Department of Agriculture

Sonoma County 2017

Natural Resources Conservation Service

after the fire

Erosion Control Mats

CAUTION: After a fire many trees are weakened from burning around the base of the trunk. The trees can fall over or blow down without warning. Shallow-rooted trees can also fall. Therefore be extremely alert when around burned trees.

What are erosion control mats?

An erosion control mat (ECM) is a protective mulch blanket or soil stabilization mat constructed with Rolled Erosion Control Product (RECP). The ECM is anchored on a slope to limit erosion from rainfall or overland flow, or to enhance revegetation. The RECP can be as simple as fiber (jute or coir) or synthetic netting staked down over straw mulch; or as complex as a multi-layer geosynthetic composite blanket.

When are erosion control mats used?

ECMs are used on severely burned slopes that have lost protective vegetative cover. ECMs are expensive so their use is generally limited to small areas to prevent erosion that would otherwise cause significant damage to high value properties. ECMs can be used in conjunction with or as an alternative to mulches. ECMs are not appropriate in all situations.

ECMs are not recommended for steep slopes with sandy soils, or slopes with many rocks on the surface, or for slopes with a significant amount of fire burned vegetation remaining. The ground surface must be fairly smooth, and such obstructions would prevent good contact between the ECM and the soil.

Erosion Control Mats

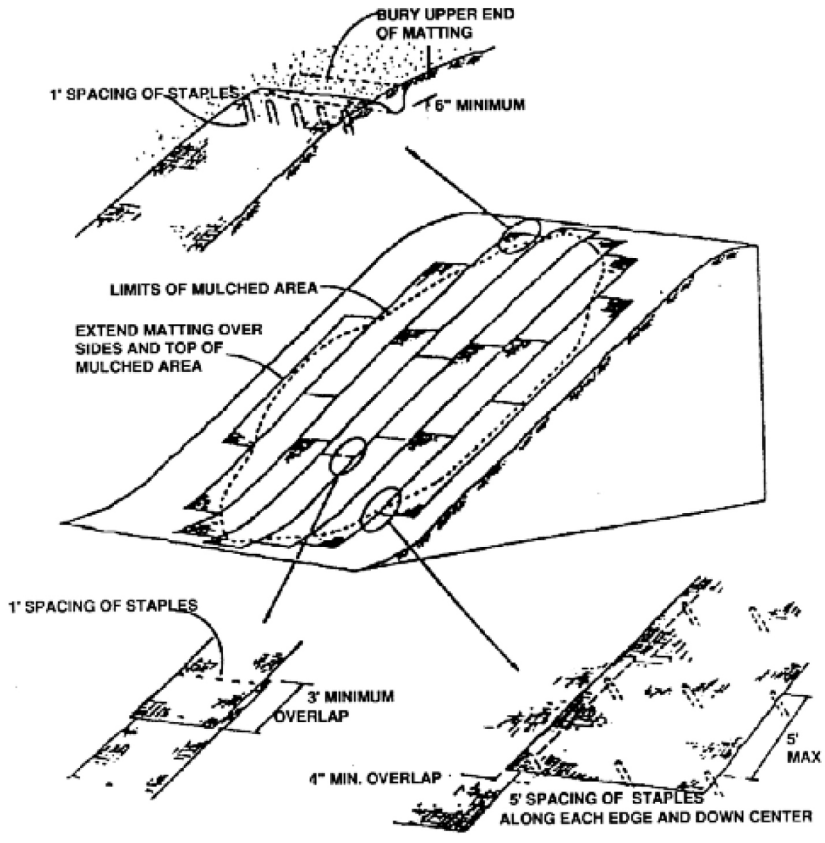
How are erosion control mats installed?

The soil surface should be reasonably smooth. Rocks and other obstructions which rise above the level of the soil and mulch must be removed.

The chosen RECP should be applied up and down the slope - never along the contour. The upper end of the roll at the top of the treated area should be buried in a trench at least 8 inches deep. Rolls should be laid out so that edges overlap each other by at least 6 inches across the slope. When more than one roll is required going down the slope. The ends going down the slope should overlap by at least 3 feet. This is extremely important!

Anchor pins or staples are used to anchor the netting to the soil surface. Anchor pins are made of rigid 0.12 inch diameter or heavier galvanized wire with a minimum length of 10 inches for hook or "J" type pins. Staples should be of wire .09 inches in diameter or greater and should have 'U" shaped legs that are at least 6 inches in length. Longer staples are needed for sandy soils.

Staples or anchor pins need to be driven perpendicularly into the slope face and should be spaced about 5 feet apart down the sides and center of the roll. Spacing between staples at the upper end of a roll, and at the end overlap of two, rolls should not be greater than 1 foot.



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SONOMA RESOURCE CONSERVATION DISTRICT

The methods described herein are exemplary only. Consult with a professional prior to making any changes in topography or installing or removing any structures. Serious harm to persons, property or the environment can occur. SRCD assumes no liability for actions taken based on the information provided herein.