NRCS
Natural Resources
Conservation Service

Sandbag Barrier

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NOTE

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. Shalow rooted trees can also fall. Therefore be extremely alert when around burned trees.

What is a sandbag barrier?

A sandbag barrier is an inexpensive temporary wall, one to two feet high that is constructed by stacking sand-filled or earth-filled sandbags and placing them to divert mud and other debris flows away from buildings. These barriers do not provide protection from high debris flows.

When is a sandbag barrier used?

These barriers are used to protect building sites vulnerable to low mud debris flows from steep, erodible slopes that are partially or completely void of vegetation due to wildfire burns. This is an inexpensive, temporary protection method that can be used by homeowners before predicted rainfall. Sandbags deteriorate when exposed to continued wetting and drying for several months If the bags need to be used for more than a few months, cement can be mixed with the sand. The cement and sand mixture will harden when the bags dry.

How is a sandbag barrier installed?

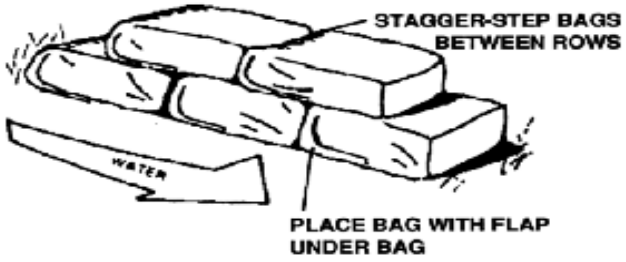
These barriers are easy to construct using burlap or plastic bags, sand, plastic, lumber, cement and plywood. Sandbag Protection lends itself well to installation by volunteer groups and individual landowners.

Selecting Treatment Areas: Begin by trying to direct debris flows away from buildings and other structures. Clear a path for the debris. Do not try to dam it or stop it. Protect your most valuable property first. Debris can enter a building through doors and windows. They should be boarded up and waterproofed with plastic sheets. Sandbags will not seal out water.

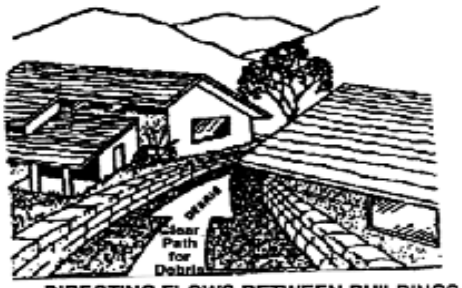
Filling Bags: Fill sandbags one-half full. Use sand, if available, or, local soil. Fold the top of the sandbag down and place the bag on its folded top (see illustration).

Placing Bags: Refer to the illustration. Place each sandbag as shown, finishing each layer before starting the next. Limit placement to two layers unless they are stacked against a building or sandbags are pyramided. It is important to place the bags with the folded top in the upstream or uphill direction facing the flow of water to prevent them from opening when water runs by.

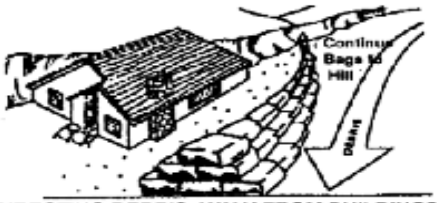
SANDBAG FILLING AND PLACEMENT



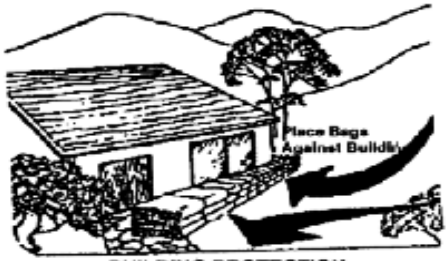
SLIDING GLASS DOOR SEALING
Control of Flows to prevent
seeping into sliding glass door



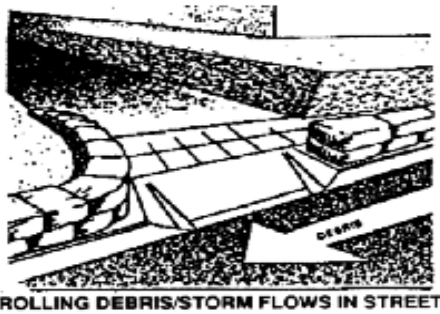
DIRECTING FLOWS BETWEEN BUILDINGS



DIRECTING DEBRIS AWAY FROM BUILDINGS



BUILDING PROTECTION



CONTROLLING DEBRIS/STORM FLOWS IN STREETS