

June 2011

Emergency Preparedness Pointers

Spring Run-Off Preparedness

The Boise River has been experiencing high flows this Spring. It will likely continue to flow at bank full, 6,500 cfs (cubic feet per second) or higher while snow levels remain above average for this time of the year in the mountains. These flows are below the official flood stage flow of 7,000 cfs. But flooding doesn't just occur from high river flows. Other events can create issues; localized flooding could occur from a clogged storm drain, fallen trees or other debris causing an obstruction under a bridge or riverbank erosion from the sustained high flow rates. If a flood threat is ever identified in your area, one of the simplest ways to protect your home is with sandbags. Using proper sandbagging techniques can reduce or eliminate flood damage to your home and save you from unnecessary back ache in the process.

Sandbag Basics

The materials sandbags are made of vary from burlap to plastic. Empty sandbags store well, but filled bags may decompose or break, depending on the bag material and storage location. Heavy bodied or sandy soil is best for filling sandbags. Course sand can sometimes leak through the weave of a bag, if this is the only material available it is best to double bag it. Gravelly or rocky soils are not good choices for fill because the material is too permeable and won't repel the water flow.

Filling Sandbags

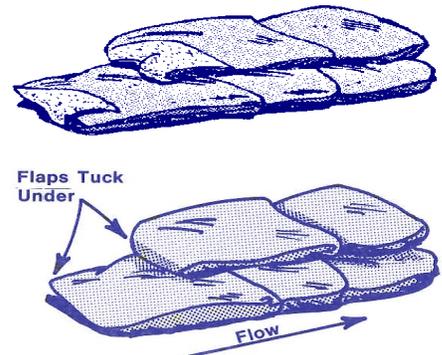


Filling sandbags is a two-person operation. One member of the team will hold the empty bag between their feet and slightly in front of them. Their knees should be slightly bent to avoid back strain as they hold the throat of the bag and fold it to form a collar. The bag holder should keep their arms extended so they may create as much distance as possible between their face and the shovels of sand. Goggles or safety glasses and work gloves are recommended for both members of the team. The shoveler should carefully release the rounded shovel full of soil/sand into the throat of the bag. Doing this too quickly can raise dust and spill the fill material; accuracy is more important than speed in this operation. Bags should not be filled more than half full or less than one third of their capacity.

Sandbag Placement

It is important to remove any debris from the area where the bags will be placed. If the bags are open, fold the unfilled portion of the bag into a triangle shape. If the bags are tied, you will have to flatten the flare of the tie when placing the bags. Place the ½ filled bags lengthwise and parallel to the direction of flow, keeping the unfilled portion under the weight of the sack. Place succeeding bags on top, offsetting by ½ bag length of the previous row. Stamp the bags into place to eliminate voids and form a tight seal. Stagger the joint connections when multiple layers are necessary. For unsupported layers over three courses high, use pyramid placement method.

Source: U. S. Army Corps of Engineers



To use the pyramid method, first dig a bonding trench that will be one sack deep and two sacks wide. Place bags in this bonding layer, using this layer as the centerline for the pyramid. Next, place the sandbags to form a pyramid by alternating header courses (bags placed crosswise) and stretcher courses (bags placed lengthwise). Make sure to overlap sacks, keep staggered placement, tuck in ends and tamp into place.

