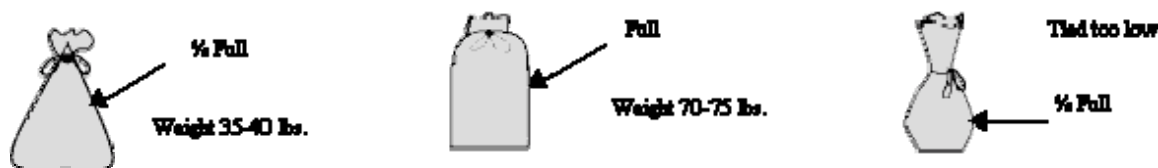


## How to Construct a Sandbag Emergency Levee

### How to Fill

Fill sandbag ½ to 2/3 full, tie at top so bag will lay flat when put in place. (Overfilled bags leave gaps in the levee allowing water to seep through).



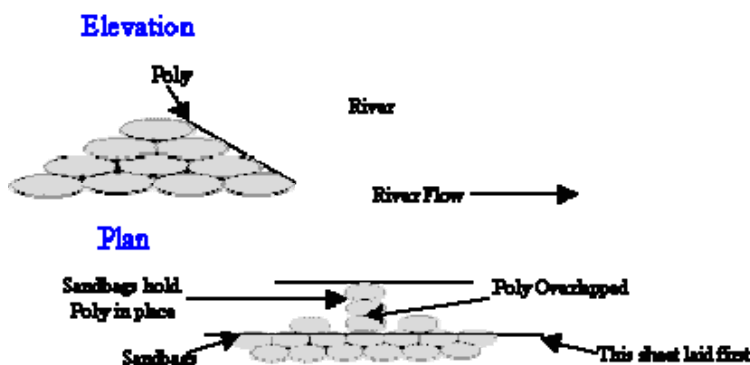
### Placing Sandbags

Sandbags should be placed flat on the ground, overlapped, tamped into place, and stair-stepped.



### Polyethylene

Polyethylene (poly) can come in rolls 20 ft. wide and 100 ft. long. It is a construction material used to wrap sandbag levees to prevent seepage. Poly should be placed on downstream portion of levee first, then worked upstream with a two- to three-foot overlap. Poly is held in place with sandbags.



#### Estimated number of sandbags per linear foot of wall.

Height in Feet	# of Bags Required
1	5
2	10
3	21
4	36
5	55

Five feet is the practical limit of a sandbag levee. If a higher levee is needed, alternative means of construction should be considered.

**Note: Preferred levee limit is 3 feet high.**

## Improvised filling of sand bags

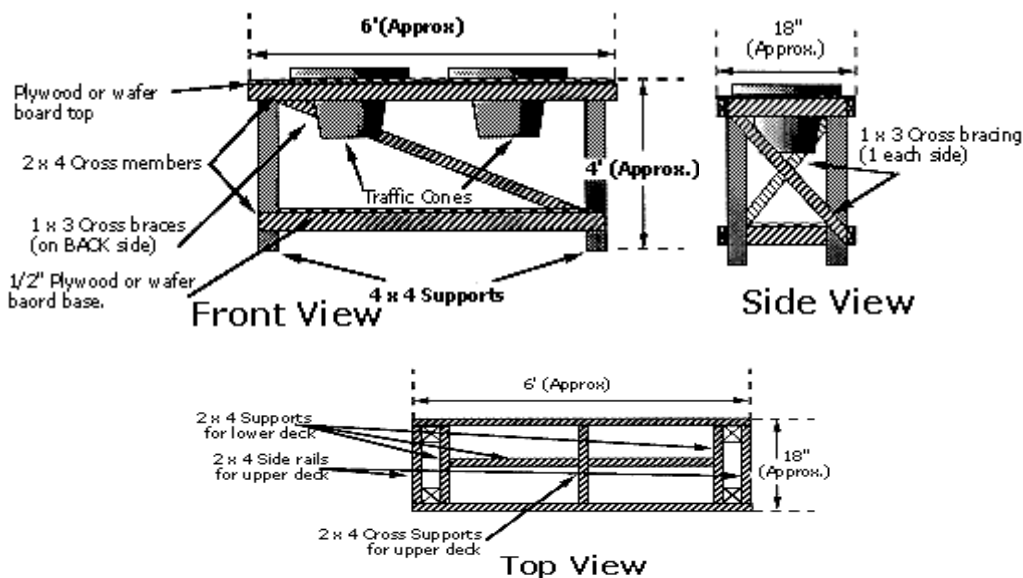
### From Breckenridge, MN:

**March 30, 1997** – Using a homemade bag-filler made from a sheet of plywood and two plastic traffic cones with the tops cut off, six people can fill 100 bags in about 11 minutes. The two men themselves filled 350 bags in about two hours.



### From Yellowstone County, MT: Constructing a Sandbag Filling Station

Dimensions given are approximate and may be field modified to suit local materials and needs. Distance between bottom of traffic cone and bottom deck should be equal to 3/4 of the bag height. For added strength, lag screws may be used to attach 2 x 4's to 4 x 4 posts. To reduce lifting heights, bottom deck should be as high as possible.



**Note:** Make sure distance between lower deck cone bottom is sufficient for sand bag height.

#### Materials List (Built as Shown)

- 2 - 1" x 3" x 8' Economy Grade
- 2 - 4" x 4" x 8' Economy Grade
- 6 - 2" x 4" x 8' Economy Grade
- 1 - Sheet 1/2" plywood
- 2 - Traffic Cones

#### Hardware

- 8, 16, and 20 penny Nails
- Optional Hardware
- 4- 1/2" Lag Screws