**Building Dikes to Prevent Minor Surface Flooding**

Standing water from melting snow or heavy rains can flood basements and damage yards, wells feed supplies, machinery and other property. Flooding is more likely to occur in low laying areas with poor surface drainage malfunctioning drainage systems, or ice dams.

A 1- to 3-foot-high sandbag or earth dike offers protection from shallow flooding (water depth less than 3 feet). Contact a construction firm, lumber yard, or the county emergency agency for information on where to buy sand and sandbags in the area. In some cases when only a small number of sand bags are needed, there may be access to pre-filled tube sand bags used to add weight to vehicles.

A sandbag dike can be constructed as follows:

1. Select the site for the dike making the best use of natural land features to keep it as short and low as possible. Avoid trees or other obstructions which would weaken the structure. Do not build the dike directly against a basement wall. Leave about 8 feet of space to maneuver between the dike and buildings. The goal is to keep the water away from a building’s foundation.
2. Remove ice and snow (down to the bare ground if possible) from a strip of land about 8 feet wide.
3. Fill and lap sandbags
   1. Fill bags approximately half full of clay, silt or sand. Do not tie.
   2. Place bottom layer of bags lengthwise with dike, then alternate direction of bags with each layer. Lap unfilled portion under next bag.
   3. Tamp thoroughly in place
   4. Build the dike three times wider than tall (a 36” dike should only be 12” tall).
4. Seal the finished dike to increase its water tightness. To seal the dike:
   1. Spread a layer of earth or sand 1 inch deep and about 1 foot wide along the bottom of the dike on the water side.
   2. Lay polyethylene plastic sheeting so that the bottom edge extends 1 foot beyond the bottom edge of the dike over the loose dirt. The upper edge should extend over the top of the dike. (This plastic sheeting, available from construction supply firms, lumberyards, and farm stores, should be about 6 mils thick. It comes in 100-foot rolls and is 8 or 10 feet wide.)
   3. Lay the plastic sheeting down very loosely so that the pressure of the water will make the plastic conform easily to the sandbag surface. If the plastic is stretched too tightly, the water force could puncture it. If possible avoid walking excessively or operating equipment on the plastic once it has been put in place.
   4. Place a row of tightly fitting sandbags on the bottom edge of the plastic to form a watertight seal along the water side.
   5. Place sandbags at about 6-foot intervals to hold down the top edge of the plastic. Place boards or dirt between these sandbags to prevent winds from disturbing the plastic. Again, as you work, avoid puncturing the plastic with sharp objects or by walking on it.