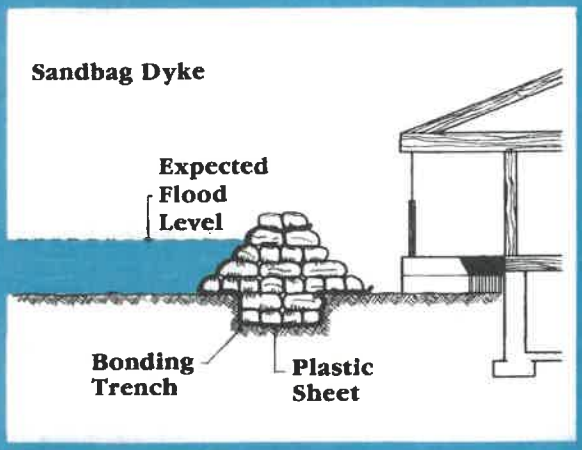
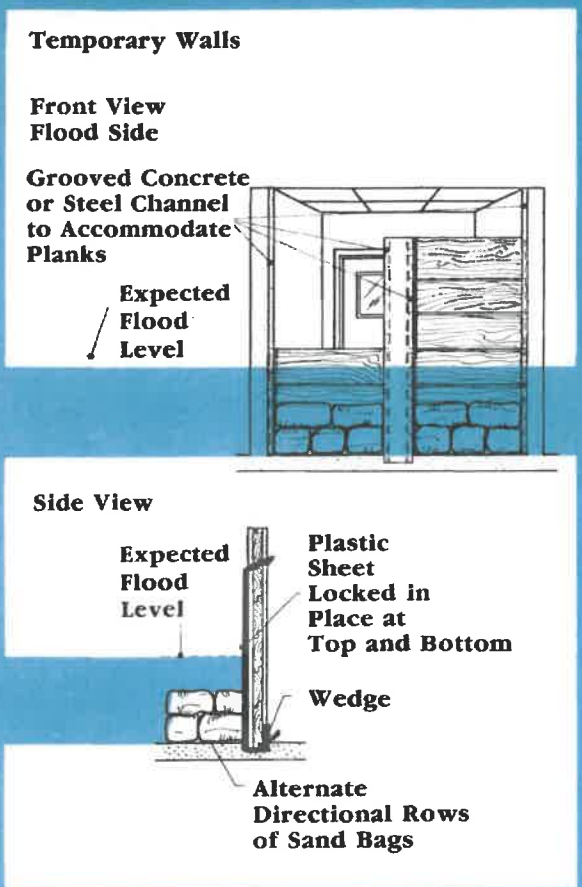
Emergency Floodproofing Measures



The diagram above illustrates how to construct a sandbag dyke quickly and efficiently to form a barrier against rising floodwaters.



Temporary walls constructed from planks, plastic sheets and sandbags can also provide effective protection during flooding. This diagram provides a side view and front view of a temporary wall.

Emergency floodproofing measures are put into place on short notice. The techniques commonly used involve building dykes or barriers using whatever natural or stored materials may be on hand at the site.

Although this work is generally inexpensive, it is hard work, and requires a pre-determined plan of action to ensure materials, labour and equipment are available at the time of flooding.

Emergency floodproofing measures should never be used as a substitute for permanent floodproofing measures. This is especially true in areas prone to ice jam flooding or where flash flooding occurs frequently.

Sandbag Dykes

Sand-filled bags, stacked in such a way as to form a barrier against rising floodwaters, is the most common emergency floodproofing technique. Many people can recall seeing this technique on television.

The bags must be strong enough to hold the sand or fill and withstand contact with water indefinitely. (Burlap and plastic bags can be purchased which are specially made to be filled with sand.)

Water exerts pressures against the sandbag dyke. If possible, a trench should be dug to prevent the dyke from moving. Other methods of anchoring the dyke include, but are not limited to placing the bottom of the dyke against or on ditches, raised roadbeds, foundation walls, or other permanent features.

The bags should not be totally filled with sand. This allows one to overlap the other, which serves to lock the bags together. In addition, the bags should be placed so that each layer is placed at right angles to the layers above and below. This adds stability to the dyke.

A durable plastic sheet should be used to prevent the seepage of water through the dyke.

Temporary Walls

A temporary wall can be constructed by stacking small wooden planks on top of each other to prevent the passage of water through them. The temporary wall is usually covered by a plastic sheet, and a double layer of sandbags is placed at the base to reduce seepage and provide stability.

The speed of floodwaters should always be considered when choosing the appropriate floodproofing method.

Wet Floodproofing

In some situations, particularly in sandy soils, water pressure on the foundation walls and floor can be so severe that buildings can be heaved out of the ground, or off their foundations, by the forces of the water.

In these circumstances, wet floodproofing (the deliberate flooding of a structure to balance the water pressure on the interior and exterior) may be necessary.

If wet floodproofing is used, the building should be flooded with clean water, if readily available. Although floodwater may be used, the building clean-up will be more difficult.

To lessen the interior damage caused by wet floodproofing, you should have a contingency plan to remove the building's contents and place electric motors, appliances, etc., and valuable possessions above the anticipated water level.

Wet floodproofing is an extreme method and is most often used as a last resort to prevent the collapse of walls or the uplift of basement floors. It should not be undertaken without professional advice.