



## ***Ensuring a safe and secure homeland for all North Dakotans***

### **Flooding, Excess Rain, and Basements**

*Water in basements is always a problem with large amounts of rain and flooding. Water seeping through basement walls and floors is a common sight. This is because water seeks its own level. When the soil surrounding a basement foundation wall is saturated or flooded with water, the pressure exerted against the soil side of the basement wall is increased. The pressure provides the force to encourage leakage through cracks, splices, or at the connection of the foundation wall to the footing. The method of basement wall construction, whether a reinforced poured concrete or block construction, has a large effect on how to handle basement water. An unreinforced block basement cannot stand very much pressure and will collapse quite easily. If a lot of water is seeping in, it may be better to let the basement flood. Remove or elevate any items that can be damaged.*

#### **■ A Flooded Basement**

If it is possible, shut off electricity in the basement, but don't do it standing in water! The electrical service panel is commonly in the basement and any shorted out receptacles should trip the breakers. To shut off the electricity, use a dry, wooden stool which is higher than the water, wear rubber boots that aren't wet on the inside, and wear rubber gloves. If this is not possible, have the power company cut the power if there is no shut off outside of the house. No matter the type of basement wall construction, if the basement is flooded with more than 6 inches of water, don't be in a big hurry to pump it out. More damage could be caused by pumping the water out too soon than by letting it remain. Water in the basement helps brace the walls against the extra pressure. If pumped too soon, floors may push up and walls cave in. Don't pump until water around the house recedes. Then pump out about one-third of the water each day, make sure it is well away from the house. Use a gasoline powered pump or one connected to an outside line, not the house electrical system. While pumping out the dirty water, wash off the walls with clean water and remove any mud while it is wet.

#### **■ A Leaking Basement**

If water is leaking into the basement and the sump pump can keep up with it, then some additional precautions may be warranted. If the basement walls are cracked or weakened (out of plumb or bulging), it is recommended that braces or shoring be installed temporarily to reduce the possibility of collapse. Unbraced block basements are particularly susceptible. Long poles, 6 inches or more in diameter, can be used horizontally to hold walls apart. A screw jack between one wall and the end of the pole can be used to put equal pressure on both walls. Depending on the length and condition of the wall, several such braces may be necessary. One every 10 feet or so of wall length and about 4 feet up on the wall from the floor are suggested. Use a continuous large timber piece or other such device to spread the pressure from the pole to the wall. Otherwise, the pole could puncture the wall and cause more cracking.