



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

### **Basements May Flood if Drainage is Poor**

During extreme flooding, water pressure can collapse foundation walls. In some cases it might be preferable to allow the basement to flood and equalize water pressure. To avoid flood problems in the future, home owners can take several steps to improve drainage around the house:

- Get professional advice before starting a major grading project.
- Build small diversions or ditches to channel water away from your lot. Various regulations concerning water flow will apply and you must not change the flow in a way that adversely affects your neighbor. Before beginning a project, check with your neighbors and local officials.
- Use surface inlets to carry water to a surface drain. The drain outlet can empty into street gutters or storm sewers if permitted by local building codes.
- Grade your yard so that surface water drains away from the house. Often the fill used around a house settles and leaves a low area. This low spot must be filled so water runs away from the house. In the first 10 feet away from the house, the soil should drop a minimum of 6 inches. A minimum grade of 1 foot in 1000 feet generally is adequate after the first 10 feet.
- To prevent wood rot, there must be at least eight inches between the soil and the wood siding. The soil directly around the house should be of slow permeability so water does not penetrate near the house. Rock and gravel should not be used on the surface, since they will serve as a conduit for water into the ground.
- Install roof gutters and downspouts to carry water away from the house. Thousands of gallons of water will fall on the roof during a heavy rain and must be removed quickly from the area around the house. Downspouts can empty into a subsurface drain or be discharged over a grassy area.
- Water from downspouts that empty onto the lawn must be dumped and spread far enough from the house so the water does not enter the basement. On steeply sloping well-drained lawns with no basement water problems, a simple splash block usually will be sufficient. For houses with basement water problems, the water should be dumped at least 5 to 10 feet from the house.