

1 Steps to Reduce Flood and Water Damage in Homes and Businesses

The following section is modified from the North Dakota State University, Extension Service, Flood Disaster Education website: link provided in Section 6.

If flooding is anticipated, many things can be done to reduce damage to home and property before the snow melts or before a heavy rainstorm. This checklist can help you take the steps needed to reduce the severity of damage from flooding on your home, family or business.

1.1 Home & Business Preparedness

Check your sump pump.

Clean the sump pump and pit, and test the pump by pouring water into the pit. Consider having a spare submersible portable sump pump. Make sure the discharge hose delivers the water several feet away from the house to a well-drained area that slopes away from the house. If the hose outlet is too close to the house foundation or on flat ground, the water may simply recycle down through the house's drain tile at the base of the foundation, or along the basement walls to the sump. Don't run the sump pump water into a rural septic system because the water may saturate and damage the drain field. In cities, don't run the sump pump water into the sanitary system; it may overload the system and cause sewage backup, and such actions may also be illegal.

Move valuables to higher locations.

Take items such as irreplaceable family photo albums, high school yearbooks, personal videotapes, tax records, insurance policies, computers and backup discs, and household inventories off the bottom shelves in the lower level of your home, and move to a second floor if available.

Plug basement floor drains if possible.

If your floor drain has a removable grid cover, a flexible rubber ball about 1-¼ times the inside diameter of the pipe can be wedged into the drain to create a tight seal. The pressure might be quite high so brace the ball securely with a length of 2 by 4 lumber against the ceiling. Hold a board or piece of plywood on the ceiling and slide the 2 by 4 against the bottom of the board to avoid damage to plaster ceilings. For a suspended tile ceiling, remove ceiling tiles to get access to the ceiling joists. Span a 2 by 4 across the two joists and wedge the vertical 2 by 4 between it and the ball in the drain. Some hardware stores sell a plug that has a rubber center that expands to fill the pipe when the top and bottom metal plates are squeezed.

Cover basement floor drains that have permanent grid covers.

If your floor drain cover cannot be removed, place a partially inflated inner tube around the drain, and top it with a square or two of plywood (not particle board). The plywood must be larger across than the inner tube to cover it. Brace this in place against the ceiling with 2 x 4s, as described above for the rubber ball in the drain. Be prepared for some seepage.

- Plug bathroom and utility drains to reduce flooding.**
Unbolt toilets from the floor and plug the outlet pipes using the same procedure as for floor drains. Shower drains can be plugged this way too. Most washing machines and basement sinks have their drain connections about 3 feet above the floor so they may not overflow if the water doesn't get that high. If necessary, these drains can be disconnected and capped or plugged with braced rubber balls.
- Move snow away from the house's foundation and slope the ground.**
If the ground is sloped at least one inch per foot near the house, moving snow just 3 to 5 feet from the house will reduce problems.
- Contour ground surface to keep water out of window wells.**
Because windows can't withstand much pressure, build dams and contour the ground so water will naturally drain away from the house.
- Ensure roof gutters and downspouts are in place and functional**
As the snow melts, downspouts and extensions can carry the water away from the house. Using salt or a chemical can assist in melting the ice within the gutters, but may damage the lawn.
- Prepare appliances for flooding.**
Shut off appliances at the fuse box or breaker panel and unplug them if possible. Put freezers, washer, dryers and other appliances up on wood or cement blocks to keep the motors above the water level. If high water is imminent and large appliances can't be moved, wrap them in plastic, and tie it in place with cord or rope. The water will still enter the appliance, but the plastic will keep much of the silt out, making cleanup easier.
- Shut off electricity to areas of the home that might flood.**
Even if floodwaters have not reached electrical outlets, the risk of electrical shock to someone entering a flooded basement is high unless all electrical breakers have been switched off, or electrical fuses unscrewed, disconnecting the electrical service to all motors and electrical appliances. Do NOT stand in water and turn off electrical service. If the floor is damp but not flooded stand on a dry piece of wood or plastic crate, in addition to using a plastic or rubber pole or a piece of dry wood to flip the switches. Do NOT stand on a metal ladder or step stool! If floodwaters have already entered the home to an unsafe level, call the power supplier and have the electrical supply to the house disconnected. Taking these precautions will reduce the chances of electrical shock.
- Move hazardous materials to higher locations.**
Paint, oil, cleaning supplies and other dangerous materials should be moved to reduce the chance of leaks into the floodwaters and the environment.
- Plan an escape route and destination.**
If certain roads or streets are known to flood easily, know an alternate route to evacuate the area. Where would you go if your home flooded? Local shelters or the home of a family member or friend are the most common locations.

- Plan in advance for pets (and livestock) and assemble supplies for them.**
Make plans for your pets in the event of a flood. If you evacuate your home, **DO NOT leave your pets behind!** Although pets aren't allowed in most shelters due to health regulations, most pets cannot survive on their own or may become lost if left behind.

Have a travel carrier or crate, bedding, and leashes and collars/harnesses ready prior to evacuation. Take pet food and other supplies with you in case they're not available later. Consider packing a "pet survival" kit in advance, to be ready to go if disaster hits. During evacuation planning, visit FEMA's pet evacuation webpage listed in Section 6 for more details on preparing your pet for a disaster and evacuation. If you have livestock, evacuation is your best solution, so be sure your animals can be identified. Review FEMA's livestock evacuations webpage listed in Section 6.

- Assemble supplies in case the electricity goes off.**
Gather water, food that requires no refrigeration or cooking, a non-electric can opener, a battery-powered radio, flashlights, and extra batteries.
- Assemble supplies for a possible evacuation.**
Gather water, nonperishable food, paper plates/cups and plastic utensils, extra clothing and shoes, blankets or sleeping bags, a first aid kit and prescription medications, cash and credit cards, important phone numbers, and any special items for babies and the elderly.

1.2 Family Preparedness

- Discuss what to do in case of a flood.**
As in the case of wildfires, flood evacuation routes must be identified, carefully planned, and practiced. Should the primary route be flooded, closed, or inaccessible, then alternative routes must also be considered. Climbing into the attic or refusing to evacuate is NOT an option.
- Identify a central point of contact – an out-of-town family member or friend.**
If family members get separated during an evacuation, each should get in touch with the emergency contact. Make sure everyone has the contact's phone numbers, and that small children have contact information on a necklace card.
- Discuss safe emergency procedures.**
Adults need to know where electric fuse boxes, water service mains and natural gas mains are located and how to turn them off if necessary.
- Discuss the situation with children honestly and openly.**
Hiding the emergency situation from children will cause unnecessary stress. Answer their questions and be open, honest and caring. Emphasize the need to follow directions and stay with the family, a known adult or the school officials.