

# Floods: Steps to Reduce Flood and Water Damage

Many things can be done before an impending flood to reduce damage to home and property. This checklist can help you prepare to reduce the impact of water or a flood on your home and family.

## ***Know your flood risk.***

Call your local emergency management office, building department or floodplain management office for information about flooding. Ask to see a flood map of your community. There may be a projected flood elevation for your neighborhood. This information may be on a community website. This information will help you determine required preparation.

## ***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 drain tile. Don't run sump pump water into a rural septic system because the water may saturate the drain field. In cities, running sump pump water into the sanitary system may overload the system and cause sewage backup, plus it may be illegal.

## ***Move valuables to higher locations.***

Move items such as irreplaceable family photo albums, high school yearbooks, personal videotapes, tax records, insurance policies and household inventories to high shelves or even the attic. Make copies and store them in another location not likely to flood.

## ***Preventing sewer backup.***

Sewer backup often occurs when storm water enters the sanitary sewer and causes an overload of water in the system. The overloaded system begins to backflow into household lines, causing sewer water to enter basements.

One way to prevent sewer backup in your home is to plug or cap all sewer openings in the basement. This includes floor drains, toilets, sinks, showers, etc. After lifting toilets and taking off sink traps, you can cap openings with wooden plugs, expandable plugs, screwed caps or by other methods.

## ***Check floor drains for a float plug.***

A floating floor drain plug (a ball in the drain pipe) will rise and plug the drain.

## ***Plug basement floor drains with removable grids.***

Remove the grid. 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. (The plates are drawn together by a bolt, so you will need a wrench.) A flexible rubber ball about 1¼ 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 2X4 against the ceiling. Hold a board or piece of plywood on the ceiling and slide the 2X4 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 2X4 across the two joists and wedge the vertical 2X4 between it and the ball.

## ***Cover basement floor drains with permanent grids.***

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 just as with the ball on the drain. Be prepared for some seepage.

## ***Reduce flooding from other drains.***

Unbolt toilets from the floor and plug the outlet pipe 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 may not overflow if the water doesn't get that high. If necessary, these drains can be disconnected and capped or plugged with expandable plugs or braced rubber balls.

## ***Prepare appliances for flooding.***

For protection against shallow flood waters, the washer and dryer can sometimes be elevated on masonry or lumber at least 12" above the projected flood elevation to keep the motors above the water level. Other options are moving the washer and dryer to a higher floor or building a floodwall around the appliances. Shut off appliances at the fuse box or breaker panel. If high water is imminent and large appliances can't be moved, wrap them in polyethylene film, tying the film in place with cord or rope. The water will still get in, but most of the silt won't, so cleanup will be easier. For gas-fired clothes dryers and hot water heaters, it is best to shut off the gas and disconnect the appliances from the gas lines. Rapidly rising waters can "float" the dryer, and floating debris can displace appliances, breaking the gas line and creating a fire hazard.

***Shut off electricity to areas of the home that might flood.***

Even if floodwaters are not reaching electrical outlets, the risk of electrical shock to someone working in a flooded basement is high due to electric motors in the furnace, freezer, washer, dryer and other appliances. Shut off electrical breakers or unscrew fuses. Don't stand in water while turning off electrical switches. If this must be done, use a dry piece of wood or a plastic or rubber pole to do the switching, and stand on a block of wood or a plastic crate that doesn't conduct electricity. If floodwaters are getting close to the electrical entrance box, call the power supplier and have the electrical supply to the house disconnected. If the floor is damp but not flooded, ground fault circuit interrupters reduce the risk of using electricity. In newer homes, interrupters can be identified by the buttons between the top and bottom outlets. They can be added to any outlet or in an extension cord to reduce the hazards associated with working around water.

***Move hazardous materials to higher locations.***

This includes paint, oil, cleaning supplies and other dangerous materials.

***Anchor fuel tank securely.***

A fuel tank can tip over or float in a flood, causing fuel to spill or catch fire. Cleaning up a house that has been inundated with flood waters containing fuel oil can be extremely difficult and costly. Fuel tanks should be securely anchored to the floor. Make sure vents and fill line openings are above projected flood levels. Propane tanks are the property of the propane company. You'll need written permission to anchor them. Ask whether the company can do it first. Be sure all work conforms to state and local building codes.

***Discuss safe emergency procedures.***

Teach adults and older children where electric fuse boxes, water service mains and natural gas mains are and how to turn them off.

***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 and flashlight, extra batteries.

***Keep the car fueled.***

Stations may not be able to operate because of lack of electricity.

***Plan and practice an evacuation route.***

Contact your local emergency government office or local American Red Cross chapter for a copy of the community flood evacuation plan. This plan should include information on the safest routes to shelters. Individuals living in flash flood areas should have several alternate routes to higher ground. Where would you go if your home flooded - a local shelter, a family member or friend's house?

***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, special items for babies and the elderly.

***Plan for pets.***

Pets aren't allowed in human shelters due to health regulations. Plan ahead for a safe, higher location for your pet and arrange for the pet's care. If left behind, stressed pets can damage your house, and their safety is at stake too.

***Develop an emergency communication plan.***

In case family members are separated during a disaster because of work or school, choose a long-distance relative or friend who can serve as the "family contact." After a disaster, it is often easier to call long-distance than to place a local call. Make sure everyone in the family knows the name, address and phone number of the contact person.

***Discuss the situation with children honestly and openly.***

Hiding the situation from them will probably be even more stressful.