

# Flood Safety Tips

## ATTENTION:

All or part of your property has been identified  
as lying in a flood hazard area.



## WATAUGA COUNTY

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Floods are a fact of life in North Carolina. Flood hazard areas have been mapped in each of the state's 100 counties. While hurricanes are generally considered a coastal problem, Hurricane Hugo illustrated that piedmont and mountain counties are not safe from the crushing winds and inland flooding cause by hurricanes. Hurricanes are the greatest storms on earth. You should be concerned about them, whether you live on the coast or inland.

Inland flooding events are more frequent than hurricanes. Although associated with smaller storm systems, these rains can cause dams to overflow, streams and rivers to swell. The resulting floods can cause great damage as well as loss of life, especially in mountainous areas, where heavy rains mean flash floods. Flash flood waves move at incredible speeds. They can roll boulders, uproot trees, and destroy buildings and bridges. Killing walls of water rolling down ravines and valleys can reach 10 to 20 feet.

### FLOOD WARNINGS

NOAA, the U.S. Commerce Department's National Oceanic and Atmospheric Administration, keeps a round-the-clock, round-the-calendar surveillance on the nation's rivers and is prepared to issue warnings when the threat of flooding occurs. A watch on the nation's river systems is maintained by National Weather Service River Forecast Centers located through the country. The River Forecast Centers produce flood forecasts for the major river systems and flash flood guidance for the smaller streams and headwater regions. National Weather Service Offices use this guidance information to issue flood warnings and flash flood watches to the public. Flash flood warnings are issued by National Weather Service Offices, which have the local and county warning responsibility.

Flood Warnings are forecasts of impending floods, and are distributed to the public by the NOAA Water Radio\*, commercial radio and television, and through local emergency agencies. The warning message tells the expected degree of flooding, the affected river, when and where flooding will begin, and the expected maximum river level at specific forecast points during flood crest.

NOAA Weather Radio

WNG538 – Mt Jefferson: Frequency 162.500

[www.weather.gov](http://www.weather.gov)

[www.nws.noaa.gov/os/water/tadd](http://www.nws.noaa.gov/os/water/tadd)

## BE PREPARED

Early flood and hurricane warnings provide time for people in threatened area to prepare, and by doing so, to lessen their damages.

### Before the storm threatens...

- Find out if your home is subject to flooding, Your local building inspection department has copies of the Flood Insurance Rate Maps, which identify property subject to a 100-year storm frequency.
- Inventory your property. A complete inventory of personal property will help obtain insurance settlements and/or tax deductions for losses. Inventory checklists can be obtained from your insurance representative. Be sure to take pictures and list descriptions. Store these and other important papers in waterproof containers or in your safety deposit box.
- Review your insurance policies and coverage to avoid misunderstandings later. Take advantage of flood insurance. Separate policies are needed for protection against wind and flood damage, which people frequently don't realize until too late.
- In addition, you will be better prepared if you consider the following suggestions:
  - Learn to recognize the warning signals of your local government, how they will be used, and what you should do when you hear them.
  - Listen to local radio/television stations for forecasts and emergency instructions. Post their dial channel listings for easy access.
  - Learn your children's school and/or day care center emergency plans.
- Learn your worksite's emergency plans.
- Decide on an alternate location to meet if an emergency happens while your family is away from home and cannot return.
- Know the location of the shelter nearest your home.
- Post all emergency plans/phone numbers in a prominent place (both at home and work).
- Learn your community's evacuation routes, as you may be forced to leave your home. This is especially important in low-lying areas where flooding could make roads impassable.
- Learn first aid. Professional medical assistance may not be immediately available.

### When a watch is issued...

- Monitor storm reports on radio and television.
- If considering moving to a shelter, make arrangements for all pets. Pets are not allowed in most shelters.
- Refill needed prescriptions.
- If evacuation has not already been recommended, consider leaving the area early to avoid long hours on limited evacuation routes.
- Check battery-powered equipment. It will be needed if utility services are interrupted.
- Keep your car fueled should evacuation be necessary. Service stations may be inoperable after the storm strikes.

### When a warning is issued...

- Keep your car fueled.
- Listen to local radio/television broadcasts for emergency instructions and the latest information.
- Follow the instructions and advice of your local government. If you are advised to evacuate, do so promptly.
- Keep phone lines open to notify local authorities of occurring events: such as fires, flash floods, tornado sightings, injuries or damage. Do not use the telephone to obtain emergency information.
- If, and only if, time permits... there are several precautionary steps that can be taken:
  - Turn off all utilities at the main power switch and close the main gas valve if evacuation appears necessary. Do not touch any electrical equipment unless it is in a dry area, or you are standing on a piece of dry wood while wearing rubber-soled shoes or boots and rubber gloves.
  - Move valuable papers, furs, jewelry, clothing and other contents to upper floors or higher elevations.
  - Fill bathtubs, sinks and jugs with clean water in case regular supplies are contaminated (sanitize these items by first rinsing with bleach).
  - Board up windows or protect them with storm shutters or tape (to prevent flying glass).
  - Bring outdoor possessions (i.e. lawn furniture, trash cans, tools, signs, etc.) inside the house or tie them down securely.
  - If you're caught in the house by suddenly rising waters, move to the second floor and, if necessary to the roof. Take warm clothing, a flashlight, and portable radio with you. Then wait for help. Rescue teams will be looking for you.
  - If it is safe to evacuate by car, you should consider the following:
    - Stock the car with nonperishable foods, a plastic container of water, blankets, first aid kit, flashlights, dry clothing and any special medication needed by your family.
    - **Do not drive where water is over the road.** Parts of the road may already be washed out.
    - If your car stalls in a flooded area, abandon it as soon as possible. Floodwaters can rise rapidly and sweep a car (and its occupants) away.
    - When outside the house, remember...**floods are deceptive.** Try to avoid flooded areas, and don't attempt to walk across stretches of flood water that are more than knee deep.

### If you go to a shelter ...

- Take blankets or sleeping bags, flashlights, special dietary foods, infant needs and lightweight folding chairs.
- Register every person arriving with you at the shelter.
- Do not take pets, alcoholic beverages or weapons of any kind to shelter.
- Be prepared to offer assistance to shelter workers if necessary, and stress to all family members their obligations to keep the shelter clean and sanitary.
- Carry along survival supplies:
  - First Aid Kit
  - Canned/dried provisions, can opener, spoons, etc.
  - Bottled water
  - Extra family medication, prescriptions
  - Spare eyeglasses ,hearing aid and batteries
- Keep important papers with you at all times:
  - Driver's License and other identification
  - Insurance policies
  - Property inventory
  - Medic-alert or device with special medical information
  - Maps to your destination
- Take warm, protective clothing.
- Once in a shelter or safer area, stay there until location authorities tell you it is safe to return home.

### FLOOD INSURANCE

Call the insurance agent or broker who sold you your flood insurance policy immediately, if your home, apartment, or business has been damaged by the flood. The agent will submit a loss from to the National Flood Insurance Program (NFIP). This will assign an adjuster to inspect the property. That adjuster will call on you as soon as possible to inspect the damage your property has realized. Of course, the most serious damages will be handled first.

The amount of flood insurance protection available for a community depends upon whether the community is in the Emergency Phase or Regular Phase when it adopts and agrees to enforce acceptable floodplain regulations. At this point, a minimum amount of flood insurance is available at a flat rate. Later, after a detailed flood insurance study has been conducted and a Flood Insurance Rate Map (FIRM) developed, the community may then enter the Regular Phase of the NFIP. Once in the Regular Phase, a community resident may purchase higher amounts of coverage with premiums based on the likelihood of flooding as established by the FIRM.

More information available at:

[www.floodsmart.gov](http://www.floodsmart.gov)

(Official site of the NFIP)

### PROPERTY PROTECTION MEASURES

Every year, flooding causes more property damage in the United States than any other type of natural disaster. While recent improvements in construction practices and regulations have made new homes less prone to flood damage, there are a significant number of existing homes that continue to be susceptible to repetitive flood losses. Many of these homeowners feel they are trapped in a never-ending cycle of flooding and repairing, the house is rarely the same, and its value usually declines.

However, there are ways this cycle of repetitive flooding can be broken. Throughout the country, numerous examples can be found to illustrate practical and cost-effective methods for reducing or eliminating the risk of a house being flooded again. Or, in cases where flooding may be unavoidable, steps are taken to reduce the amount of damages incurred.

Some have reduced their flood losses by taking temporary measures such as moving furniture and equipment to upper floors or to higher elevations. Others have held back rising waters by sandbagging or building temporary levees.

More permanent approaches have also been used. The Federal Insurance Administration has published a manual that described various techniques that can be used to flood proof an existing building. This process is also known as "retrofitting".

The **Design Manual for Retrofitting Floodprone Residential Structures** presents a series of permanent retrofitting measures that can be incorporated into an existing house to reduce or eliminate the potential of future flooding. The measures covered include:

- Elevation of a structure
- Relocation of a structure
- Use of levees and floodwalls
- Sealing of a structure
- Protection of utilities

The **Design Manual for Retrofitting Floodprone Residential Structures** can be acquired free of charge by writing:

FEMA Distribution Center  
PO Box 2012  
Jessup, MD 20794-2012  
(800)480-2520

or online:

[www.fema.gov/media-library/assests/documents/336](http://www.fema.gov/media-library/assests/documents/336)

#### **FLOODPLAIN DEVELOPMENT PERMITS**

All properties located in "Zone A" or "Zone AE" on the community's Flood Hazard Boundary Map or Flood Insurance Rate Map are subject to regulations. Before undertaking development in "Zone A" or "Zone AE", a builder must secure a permit from the community. Development activities subject to these regulations are any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations. The community may levy a fine and/or obtain a court order to have the owner correct the construction if built without a permit or if not built according to the approved plans.

#### **DRAINAGE SYSTEM MAINTENANCE**

Streams, channels, and detention/retention basins can lose their carrying capacities as a result of dumping, debris, sedimentation and growth of vegetation. When a drainage system loses a portion of its carrying or storage capacity, overbank flooding occurs more frequently and floods reach higher elevations. Dumping in streams is a violation of regulations; it should be reported to your local permit office.