



CITIZEN'S GUIDE TO FLOOD AWARENESS



THE FLOOD HAZARD

Each hurricane season, June 1st - November 30th, an approaching hurricane poses a potential danger of rising sea levels with wind driven waves and strong currents. The Sea Islands of the southern coast of South Carolina are low-lying, separated from the mainland by salt marshes, estuaries and tidal rivers. This outer coastal plain as far as eighty miles inland is less than one hundred feet above sea level. This fact, along with the large range between high and low tides makes the southern coast particularly vulnerable to destructive flooding. Historically, an average of one hurricane or tropical storm makes landfall on the South Carolina coast every four to five years. Since 1900, when more accurate records were kept, eight category 2 or larger storms have visited destruction on the Sea Island's south coast. The primary factors contributing to flooding in Beaufort County and the City of Beaufort are surges of water from deep areas offshore in the Atlantic. Many large streams near the coast have wide mouths and are bordered by extensive areas of low marsh. In addition, the terrain at the coast is generally too low to provide an effective barrier. The offshore ocean depths are shallow for great distances, thereby generating a high Atlantic Ocean surge. To prepare for the eventuality of a hurricane every citizen should be aware of the *Beaufort County Emergency Preparedness Plan*, evacuation routes and proper property protection measures.

FLOOD WARNING SYSTEMS

Enter each hurricane season prepared. Have on hand extra supplies, bottled water, non perishable food, a flash light and a radio with extra batteries. All prescription medication should be taken care of early. Keep your car fueled.

When a hurricane **WATCH** covers your area, stay tuned to radio station WYKZ-FM 98.7, the Adventure Radio Group channels, or your local television station, County Channel, County's Web Site, WJWJ-TV, for NOAA National Weather Service advisories. Local radio stations along with other SC emergency broadcast stations will give up-to-date information.

If a hurricane is expected within 24 hours a **WARNING** is issued. Local officials will broadcast the Governor's evacuation order so that the area is clear 12 hours before gale force winds. Follow directions given by plantation security, firefighters, sheriff's deputies and SC Highway Patrol troopers to the designated evacuation routes. The County's Emergency Management Division encourages all residents to make plans to leave early to avoid heavy traffic delays.

EVACUATION ROUTES

NORTH OF THE BROAD RIVER

The Beaufort area will be evacuated along US 21 to US 17. Approaching the US intersection in Gardens Corner, one lane will be routed south on US 17 and one lane routed north on US 17.

The left lane at Gardens Corner will be routed south on US 17 to Pocatigo where the right lane will turn right towards Yemassee on US 17A for routing to SC 68 and Hampton. The left lane will continue to Interstate 95 for routing north on the Interstate.

Traffic in the right lane approaching Gardens Corner will be routed north on US 17 to State Road 303 to Walterboro where they will follow evacuation routes inland.

If three lanes of traffic are being used for evacuation both lanes on the left will be routed south US 17 at Gardens Corner and the right lane will be routed north on U.S. 17. The Three Lane Counter-flow plan will begin at US 21 and SC 280.

If four lanes of traffic are used they will be reversed at the intersection of US 21 and 280. The left two lanes will be consolidated into one lane prior to Gardens Corner and then all lanes will follow the Three-Lane plan.

SOUTH OF THE BROAD RIVER

Hilton Head will be evacuated via US 278 to I-95 and US 17 north. Both William Hilton Pkwy and the Cross Island Pkwy will be used to get motorists to I-95.

An alternate route inland will be US 278 to SC 170 (east to SC 462) toward Ridgeland, again connecting with US 278 west.

The Bluffton area, to include the Buckwalter Community, will be directed to use SC 46 for their evacuation. Motorists will remain on SC 46 to Hardeeville where they will be advised to follow US 321 toward the Estill and Augusta areas via SC 3 and SC 125.

Residents of Sun City Hilton Head will evacuate Sun City utilizing their Del Webb Boulevard Gate onto SC 170 turning left. They will follow SC 170 to SC 462 and SC 462 to Interstate 95.

Should a 3rd lane reversal be required to evacuate Hilton Head Island, the 3rd lane would begin at the intersection of the Cross Island Expressway and William Hilton Pkwy. Traffic would be routed on Hwy. 278 West, Traffic will be directed to I-95 or 321 North depending upon the lane of travel.

Should a full 4-lane reversal be utilized to evacuate the Hilton Head Island/Bluffton area, traffic will use all four lanes of Hwy 278 and will be routed to I-95. The center lane will be routed to US 17 north. The right lane will be routed north on I-95.

Should a full 4-lane reversal be utilized to evacuate areas north of the Broad River, traffic will use all four lanes of Hwy 21 (beginning at Hwy 21 and Hwy 280) and will be routed north or south on Hwy 17.

FLOOD SAFETY

If a hurricane **WARNING** is issued, citizens could be asked to evacuate. Before leaving, windows and doors should be locked and boarded up. Towels or rugs should be put around openings to reduce seepage. Light weight or easily damaged items should be moved to the highest location possible, secured and covered with plastic. Be sure to secure outdoor furniture and potted plants. Small appliances should be unplugged and utilities turned off - **only if you know how**. Dangerous chemicals, insecticides, herbicides or gasoline should be put in water tight containers and in a high spot. You must make arrangements for your pets. Pack your car with the following: portable radio, flashlight, batteries, blankets, extra clothing, baby products, food, medicines, toilet articles, important papers and valuables.

Remember to drive safely using designated evacuation routes. Watch for dangling electrical wires and flooded low spots.

FLOOD INSURANCE

The National Flood Insurance Program (NFIP) was created by Congress in 1968 to provide homeowners flood insurance at a reasonable cost. Since homeowners policies **do not** cover flooding, separate policies are available on almost any enclosed building and its contents including single family homes, condominiums, mobile homes on foundations and commercial buildings. Contents of rental units are also insurable. Depending on your coverage, location (flood hazard zone) and elevation of the structure rates will vary. On single family homes the maximum coverage is \$250,000 on the building, \$100,000 on contents. There are separate deductibles on the building and contents. Policies can be written for one or three years. Flood insurance is required by law for federally financed loans when buying, building or improving structures. But you must act in advance. There is a thirty (30) day waiting period on new policies. Check with your local insurance agent for specific rates and coverage.

PROPERTY PROTECTION MEASURES

When building a new structure in a flood hazard zone, the surest way to protect property and reduce damage is to build above the base flood elevation and strictly follow all building codes. Older buildings that were built below the BFE before adoption or changes in the flood regulations can be protected to reduce damage. The best way to minimize damage is to eliminate any enclosed habitable spaces at ground level; in the case of an emergency, remove all valuables i.e., furnishings, clothing etc. to a higher level. Provide watertight closures at windows and doors; remove any non-water resistant materials below base flood elevation; move any mechanical and electrical equipment below base flood elevation to a higher location and structurally reinforce the building's foundation. In an extreme case where the existing structure is on slab on grade, it can be retrofitted by elevating the structure above the BFE or by flood proofing the building. Flood Protection assistance is provided at no charge by the County and City. Site visits can be arranged to advise property owners of the most appropriate flood protection methods. The U.S. Army Corps of Engineers has agreed to participate with the County and the City of Beaufort staff in providing this service. **Planning in advance is the surest way to protect your property.**

FLOODPLAIN DEVELOPMENT REGULATIONS

The City of Beaufort and Beaufort County Ordinances require that all developments in our area obtain a building permit before the start of any construction. All new structures, including mobile/manufactured homes built or placed in flood hazard zones must be elevated to or above the base flood elevation. If additions, remodeling or repairs to an existing structure equals or exceeds 50% of the building's market value, the entire building must be elevated above the base flood elevation. If a structure has been substantially damaged and the cost to restore the building to its before damaged condition exceeds or equals 50% of the market value before the damage, it also must be elevated above the BFE. Verification of the actual elevation of the lowest habitable floor on all new or substantially improved structures is required on an Elevation Certificate. The certificate must be completed by a Registered Professional Land Surveyor or an Engineer. It is maintained as public record.

Non residential structures if constructed below the base flood elevation, must be flood proofed and certified by a registered professional Architect or Engineer licensed to practice in South Carolina. The FEMA Flood Hazard Zone Maps has been adopted as part of our local flood damage prevention ordinance. It identifies four zones in which a range of flooding and damage can occur. A flood disclosure statement is required on all final plats within the V and A zones. The zones have been identified as follows:

- 1) V Zone - coastal high hazard subject to 100 year flooding and storm surge
- 2) A Zone - 100 year flood plain
- 3) B Zone - 100 to 500 year flood plain
- 4) C Zone - minimal flooding

Illegal flood plain development or illegal modification of a structure in a flood plain can often endanger adjoining properties by diverting flood waters or producing damaging debris. The County's Building Inspection Department and City of Beaufort Code Enforcement Office can answer inquiries or investigate any reports of illegal flood plain construction. Telephone (843) 255-2065 or (843) 255-2020 (County). (843) 525-7040 (City).

NATURAL AND BENEFICIAL FUNCTION OF THE FLOODPLAIN

As a coastal community, it is important that we preserve and maintain the natural resources, which can protect land and property when storms occur. Dunes and sandy beaches on the barrier islands buffer inland areas from high tides and wind driven storm surges. Property damage can occur when a dune is not protected and breached by floodwaters. Wetlands and salt marshes also serve vital functions in protecting land and flooding, erosion and wave energy. Wetlands, buffers and the vegetation found in them can absorb great quantities of stormwater, slow the flow of water, store it and then release it more slowly over the floodplain after the storm passes. Wetlands can filter many pollutants found in stormwater before it reaches the salt marshes, thereby protecting water quality, preventing degradation and loss of this habitat. Salt marshes can absorb wave energy from storms and hurricanes, which can prevent shoreline erosion and help protect inland areas by dissipating this energy over many acres. The adjacent maritime forest, with its live oaks, can help buffer high winds and storm surge before reaching inland areas. Therefore, protection of these resources and habitats can help protect life, land and property from loss. An example of protecting these types of resources can be found in the Okatie River headwaters. Beaufort County has purchased and protected from development approximately 140 acres of waterfront property in this watershed located near the juncture of US Highway 278 and SC Highway 170.

DRAINAGE SYSTEMS MAINTENANCE

There are a number of drainage ditches and canals throughout the County. In order for the drainage system to operate efficiently, ditches, streams and canals must be kept clean. Debris, even leaves and grass clippings, in ditches and streams obstruct the flow of water and may cause overflow onto streets and yards. The County and City of Beaufort have adopted an ordinance that makes it illegal to throw trash and debris in drainage channels because it impedes the flow of water. If you know of any action affecting the drainage system that is being done without a permit or of any illegal dumping please call the Public Works Department or the Building Inspection Department. Public Works (843) 255-2800 or the Building Inspection Department at (843) 255-2065 - City (843) 525-7040.

Our drainage system is a network of man made and natural water carrying channels forming separate water sheds. Just as with the natural resources which protect the area, the drainage system is of particular importance in times of severe rainstorms. Destructive flooding can result from a failure in the storm water runoff system, which drains the developed area discharging storm water to the surrounding salt waters. The Public Works department periodically inspects the various channels for any problems, which might cause local flooding. To reinforce the need to protect our drainage network the County's "No Dumping Ordinance" prohibits the alteration of any drainage system by dumping refuse or debris.

The Beaufort County Building Inspection Department, the Public Works Department or the City of Beaufort Building Codes Office can answer inquiries or investigate any reports of illegal alteration of protected natural areas or drainage channel. Telephone (843) 255-2065 or (843) 255-2800. City (843) 525-7040 or (843) 525-7054.

MAP INFORMATION FOR FLOOD INSURANCE

The City of Beaufort and Beaufort County will provide all of the following information for our community, as well as general flood program information:

1. The community's number
2. The panel number
3. The effective date of the firm's (flood insurance rate map) index (cover panel)
4. The firm zone
5. The base flood elevation
6. We will provide this information on both new and existing properties
7. When you call we will need the following information: The District, Map, and Parcel Number and address of your property in question
8. We will also provide information on retrofitting new and existing properties to meet the Flood Plain Regulations
9. Elevation Certificates are on file and are available upon request

Please call (843) 255-2065 (County) or (843) 525-7040 (City).

For additional information concerning flood damage control or other related materials, the following is a list of departments and agencies that you may call. You may also obtain information regarding Flood Damage Control and evacuation by visiting the Beaufort County website at www.bcgov.net or the City of Beaufort website at www.cityofbeaufort.org.

Beaufort County Building Inspection Department
100 Ribaut Rd.
Beaufort, SC 29902
(843) 255-2065
www.bcgov.net

City of Beaufort Building Codes
1911 Boundary Street
Beaufort, SC 29902
(843) 525-7040
www.cityofbeaufort.org

S. C. Land Resources
1000 Assembly Street
Columbia, SC 29202
(803) 734-9100
www.dnr.sc.gov

Beaufort County Library
311 Scott Street
Beaufort, SC 29902
(843) 255-6430
www.bcgov.net

S. C. DHEC/OCRM
1362 McMillan Ave., Ste. 400
Charleston, SC 29405
(843) 953-0200
www.scdhec.net

FEMA – Regional Office
3003 Chamblee Tucker Road, Ste. 270
Atlanta, GA 30341
(770) 220-5200
www.fema.gov