

**US Army Corps
of Engineers®**

Wilmington District

HURRICANE PREPAREDNESS

**CESAW
District Circular 500-1-3
June 2012**

**DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 Darlington Avenue
WILMINGTON, NC 28403-1890**

DISTRICT CIRCULAR
NO. 500-1-3

1 June 2012

HURRICANE SEASON PREPAREDNESS

1. Purpose. The purpose of this circular is to enhance the awareness of all District personnel, and their families, of the threats posed by tropical storms and hurricanes. Additionally, this District Circular provides preparedness information should the Wilmington District, or any of the project sites, be threatened by a tropical storm.
2. Applicability. This Circular is applicable to all employees of the Wilmington District.



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Colonel, EN
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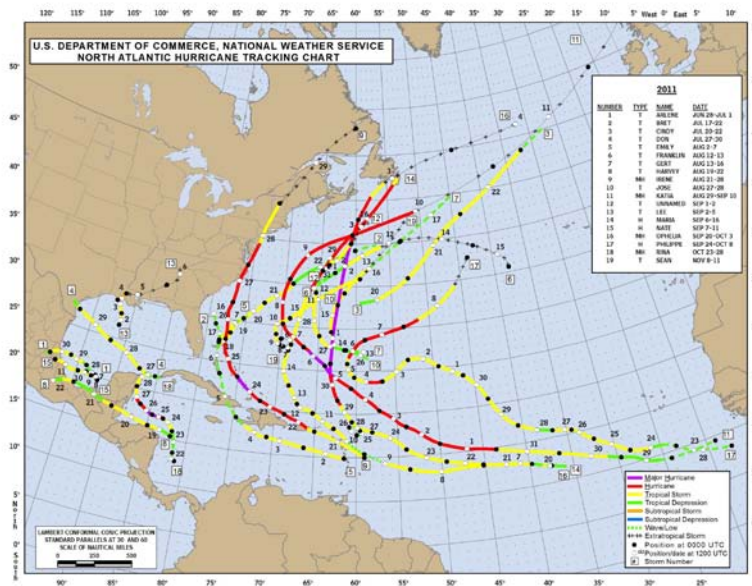
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HURRICANES, NORTH CAROLINA, AND PREPAREDNESS INFORMATION

- 1) **Hurricane Season 2011:** The 2011 Atlantic hurricane season produced 20 tropical storms. Of these 20 storms, 7 reached hurricane strength and 4 of these reached major hurricane status (winds of 110mph). It featured an above average number of tropical storms with a near normal number of major hurricanes. The season officially started on June 1 and ended on November 30, dates which conventionally delimit the period during which most tropical cyclones form in the Atlantic basin. The first tropical cyclone, Tropical Storm Arlene, developed on June 28, while the season's last storm, Tropical Storm Sean, dissipated on November 11. The most intense storm, Ophelia, was a Cape Verde-type hurricane that became a Category 4 hurricane on the Saffir-Simpson hurricane scale at unusually high latitude. The season featured a record sequence of weak tropical storms, beginning with Tropical Storm Arlene, and ending with Harvey. The season's first hurricane, Irene, was a powerful Category 3 hurricane that made landfall in North Carolina as a Category 1, causing significant damage and record flooding to the Northeast United States. The season tied 2010, 1995, and 1887 for the third highest number of tropical storms.



2) **Hurricane Season 2012 Forecasts.**

- a) While the National Oceanic and Atmospheric Administration doesn't release until May its prediction for the six-month Atlantic hurricane season that starts June 1, early indications are that the season may be average - around 11 named storms - after last year's busy season when there were 19 named storms and one unnamed storm.

- b) Colorado State University climatologists Phil Klotzbach and William Gray's April projections have the 2012 hurricane season considerably slower than normal; with 10 named storms, including four hurricanes, two major. The average season sees 12 named storms, including six hurricanes, with three of the six classified as major. They say that the tropical Atlantic is expected to be cooler than it has been in recent years and there is a "fairly high likelihood" that El Niño, the atmospheric force that suppresses storm formation, will develop by the summer. "Typically, El Niño is associated with stronger vertical shear across the tropical Atlantic, creating conditions less conducive for storm formation," Klotzbach said.
- 3) **North Carolina and tropical events**. Tropical events have impacted nearly all of North Carolina at one time or another, several examples of this include:
- a) Western North Carolina is not immune to the affects of decaying tropical storms as evident in the 2004 season when the remnants of Charley, Francis and Ivan crossed western North Carolina and In September 2004 the remnants of Hurricane Frances, a Gulf Coast land falling storm, brought heavy rainfall to Western North Carolina resulting in widespread severe flooding across the mountains and foothills resulting in \$10.5 million dollars in property damages. Major flooding developed along the French Broad River, which reached a near-record stage of 25 feet at Blantyre, and 21 feet in Canton.
- b) Hurricane Floyd, September 1999, caused the largest peace time evacuation in the nation's history and caused massive record flooding across inland sections of eastern North Carolina. At one time Floyd was classified as a category 4 hurricane on the Saffir/Simpson scale and will likely be categorized as one of the nation's most costly hurricanes in the 20th century. The greatest rainfall report was from a Cooperative observer in Washington...15.48 inches.
- c) Hurricane Fran moved onshore near Cape Fear on a Thursday evening in September 1996, and raced north toward Raleigh bringing hurricane force winds to the State Capital (Raleigh) and central North Carolina in 1996. The Category 3 hurricane destroyed or damaged 90% of the homes in North Topsail Beach. Hurricane FRAN was the worst natural economic disaster to occur in North Carolina history. In the NWS Raleigh (RAH) county warning area alone, the damage exceeded 2 billion dollars. It took more than 10 days for power to be restored in many areas.
- d) The last hurricane to make landfall in North Carolina was Irene in 2011.
- i) Irene was a Category 1 hurricane when it made landfall near Cape Lookout, North Carolina's on August 27, 2011, with 85 mph winds.
- ii) At least 55 fatalities occurred in the Caribbean, with another 10 in U.S. and Canada. Damages from Hurricane Irene totaled \$10.1 billion (2011 USD).

- 4) **Storm Development Classification:** Tropical cyclone development is classified as follows:
- a) Tropical Depression: An organized system of clouds and thunderstorms with a defined surface circulation and maximum sustained winds* of 38 mph (33 kt**) or less.
 - i) **Sustained winds:** A 1-minute average wind measured at about 33 ft (10 meters) above the surface.
 - (1) ** **1 knot** = 1 nautical mile per hour or 1.15 statute miles per hour.
Abbreviated as "kt".
 - b) Tropical Storm: An organized system of strong thunderstorms with a defined surface circulation and maximum sustained winds of 39-73 mph (34-63 kt)
 - i) Tropical storm-force winds are strong enough to be dangerous to those caught in them. For this reason, emergency managers plan on having their evacuations complete and their personnel sheltered before the onset of tropical storm-force winds, not hurricane-force winds.
 - c) Hurricane: A hurricane is a type of tropical cyclone, which is a generic term for a low pressure system that generally forms in the tropics. Hurricanes are categorized according to the strength of their winds using the Saffir-Simpson Hurricane Scale. A Category 1 storm has the lowest wind speeds, while a Category 5 hurricane has the strongest:
 - i) Category 1 Hurricane Maximum Sustained Wind Speed: 74-95 MPH
 - ii) Category 2 Hurricane Maximum Sustained Wind Speed: 96-110 MPH
 - iii) Category 3 Hurricane Maximum Sustained Wind Speed: 111-130 MPH
 - iv) Category 4 Hurricane Maximum Sustained Wind Speed: 131-155 MPH
 - v) Category 5 Hurricane Maximum Sustained Wind Speed: Above 155 MPH
 - d) Only three Category 5 hurricanes have struck the United States since records began: The Labor Day Hurricane (1935) in the Florida Keyes, Hurricane Camille (1969) near the mouth of the Mississippi River, and Hurricane Andrew (1992) in Florida.
 - i) Hurricane-force winds can easily destroy poorly constructed buildings and mobile homes. Debris such as signs, roofing material, and small items left outside

become flying missiles in hurricanes. Extensive damage to trees, towers, water and underground utility lines (from uprooted trees), and fallen poles cause considerable disruption.

- ii) The strongest winds usually occur in the right front quadrant of the eye wall of the hurricane. Wind speed usually decrease significantly 12 hours after landfall.
- iii) Nonetheless, **winds can stay above hurricane strength well inland.** Hurricane Hugo (1989), for example, battered Charlotte, North Carolina (which is 175 miles inland) with gusts to nearly 100 mph.

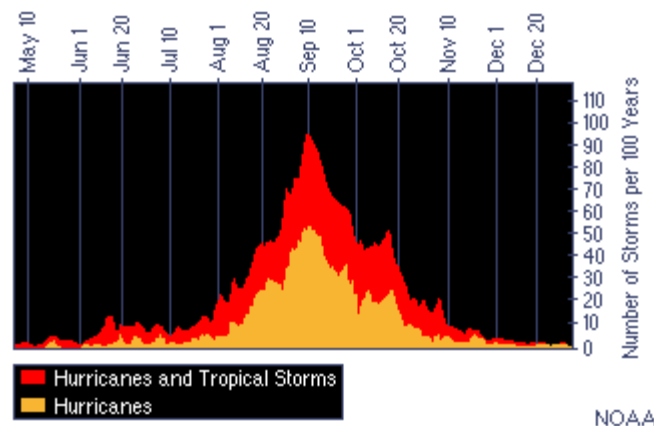
5) Watches vs. Warnings

- a) **TROPICAL STORM WATCH** is an announcement that tropical storm conditions (sustained winds of 39 to 73 mph) are *possible* within the specified coastal area within 48 hours.
 - b) **TROPICAL STORM WARNING** is an announcement that tropical storm conditions (sustained winds of 39 to 73 mph) are *expected* somewhere within the specified coastal area within 36 hours.
 - c) **HURRICANE WATCH** is issued when there is the possibility that you could experience hurricane conditions within 36 hours. This watch should trigger your family's disaster plan, and protective measures should be initiated, especially those actions that require extra time such as securing a boat, leaving a barrier island, etc.
 - d) **HURRICANE WARNING** is issued when there is the possibility that sustained winds of at least 74 mph are expected within 24 hours or less. Once this warning has been issued, your family should be in the process of completing protective actions and deciding the safest location to be during the storm.
- 6) **Hurricane Tracking map and chart.** The National Hurricane Center websites (<http://www.nhc.noaa.gov/>) provides information beginning June 1 on the potential for tropical cyclone development and will post forecast maps of projected path and strength of tropical storms and hurricanes for easy and quick reference, as well as printable charts for the do-it-yourselfers who want to plot and track.
- a) Additionally, the Federal Emergency Management Agency (FEMA) will post hurricane preparedness information (<http://www.fema.gov/hazard/hurricane/index.shtm>) as well as a kid's page (<http://www.fema.gov/kids/hurr.htm>) for tracking storms.

7) **Hurricane Season.** The portion of the year having a relatively high incidence of hurricanes. The hurricane season in the Atlantic, Caribbean, and Gulf of Mexico runs from June 1 to November 30.

a) Peak of the Season: Although the official hurricane season for the Atlantic Basin (the Atlantic Ocean, the Caribbean Sea, and the Gulf of Mexico) is from 1 June to 30 November, the peak of the season is from mid-August to late October, as depicted in the chart below.

b) **Deadly hurricanes can occur anytime in the hurricane season**

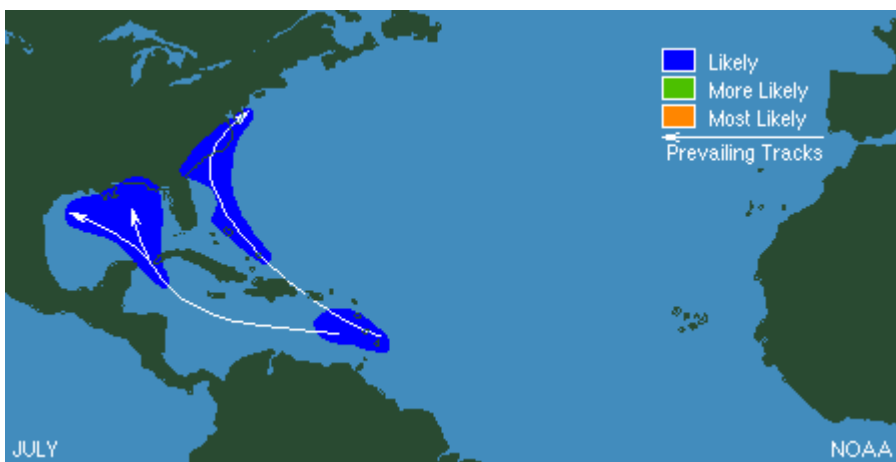
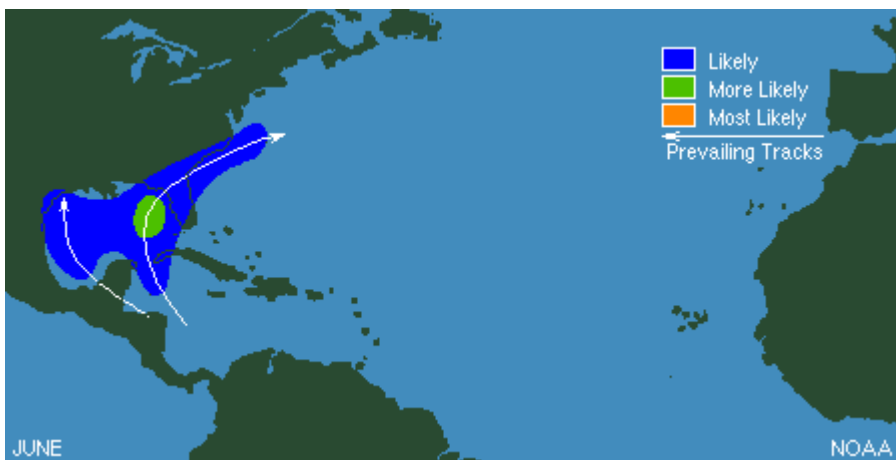


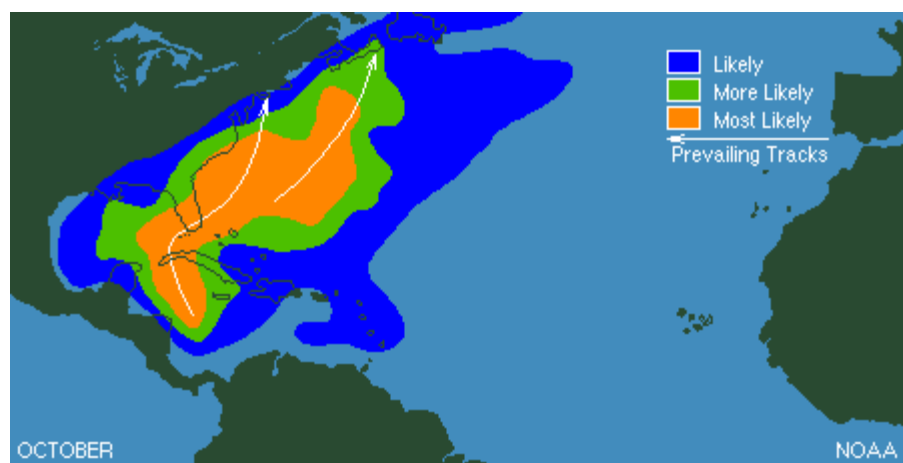
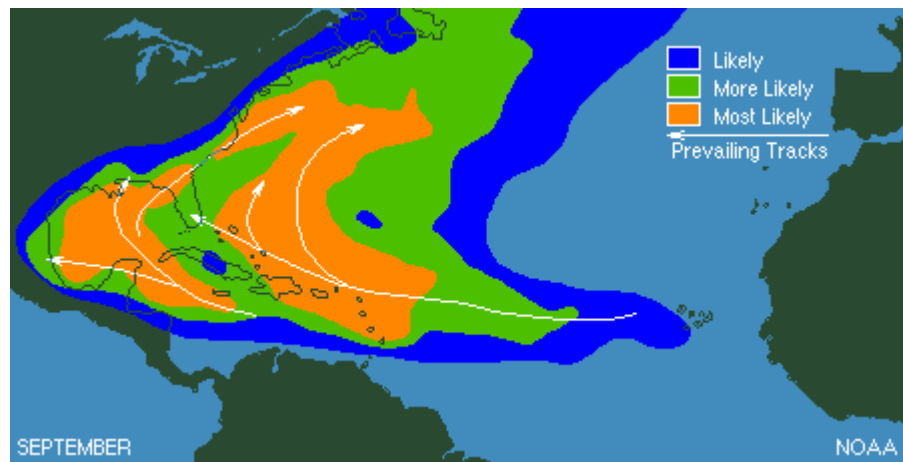
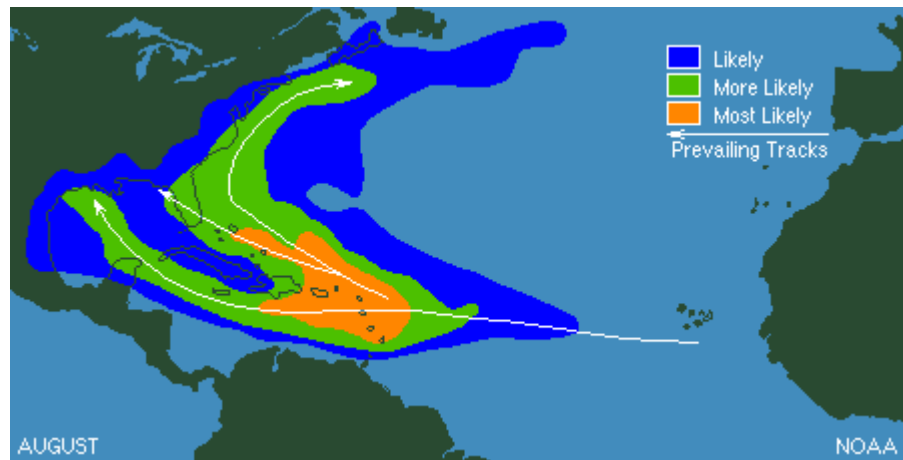
8) **Hurricane Names 2012.** When the winds from these storms reach 39 mph (34 kts), the cyclones are given names. Years ago, an international committee developed names for Atlantic cyclones. In 1979 a six year rotating list of Atlantic storm names was adopted — alternating between male and female hurricane names. Storm names are used to facilitate geographic referencing, for warning services, for legal issues, and to reduce confusion when two or more tropical cyclones occur at the same time. Through a vote of the World Meteorological Organization Region IV Subcommittee, Atlantic cyclone names are retired usually when hurricanes result in substantial damage or death or for other special circumstances.

Names for 2012

Alberto	Helene	Oscar
Beryl	Isaac	Patty
Chris	Joyce	Rafael
Debby	Kirk	Sandy
Ernesto	Leslie	Tony
Florence	Michael	Valerie
Gordon	Nadine	William

- 9) **Formation zones.** The zones where hurricanes form and the tracks they take are generally related to the time of year. Consequently, different areas of the country have a greater risk during different months although, again, patterns can vary considerably from year to year.





- 10) **Hazards and Threats**. Hurricane hazards come in many forms: storm surge, high winds, tornadoes, and flooding; the first and most important thing anyone should do when facing a hurricane threat is to use common sense. The threats are real; but awareness and preparedness can mitigate the impact.
- a) Storm surge: "The greatest potential for loss of life related to a hurricane is from the storm surge."
 - i) Storm surge is simply water that is pushed toward the shore by the force of the winds swirling around the storm. This advancing surge combines with the normal tides to create the hurricane storm tide, which can increase the mean water level 15 feet or more. In addition, wind driven waves are superimposed on the storm tide. This rise in water level can cause severe flooding in coastal areas, particularly when the storm tide coincides with the normal high tides. Because much of the United States' densely populated Atlantic and Gulf Coast coastlines lie less than 10 feet above mean sea level, the danger from storm tides is tremendous.
 - b) High Winds: The intensity of a land falling hurricane is expressed in terms of categories that relate to wind speeds and potential damage.
 - c) Inland Flooding: When it comes to hurricanes, wind speeds do not tell the whole story. Hurricanes produce storm surges, tornadoes, and inland flooding.
 - i) While storm surge is always a potential threat, more people have died from inland flooding from 1970 to 2000. Intense rainfall is not directly related to the wind speed of tropical cyclones. In fact, some of the greatest rainfall amounts occur from weaker storms that drift slowly or stall over an area.
 - ii) Inland flooding can be a major threat to communities hundreds of miles from the coast as intense rainfall can be caused by tropical air masses.
 - d) Tornadoes: Hurricanes can also produce tornadoes that add to the storm's destructive power. Tornadoes are most likely to occur in the right-front quadrant of the hurricane. However, they are also found embedded in the rain bands, well away from the center of the hurricane.
 - i) Some hurricanes seem to produce no tornadoes, while others develop multiple ones. Studies have shown that more than half of the land falling hurricanes produce at least one tornado; Hurricane Beulah (1967) spawned 141 according to one study.
 - ii) Tornado Facts

- (1) When associated with hurricanes, tornadoes are not usually accompanied by hail or a lot of lightning, clues that citizens in other parts of the country watch for.
- (2) Tornado production can occur for days after landfall when the tropical cyclone remnants maintain an identifiable low pressure circulation.
- (3) They can also develop at any time of the day or night during landfall. However, by 12 hours after landfall, tornadoes tend to occur mainly during daytime hours.

11) **Hurricane Season Preparedness** “Have a Plan and Follow it”

- a) Knowing multiple safe routes inland and the location of shelters if evacuation is necessary are essential elements in your emergency preparedness planning.
- b) Appendix A provides recommended courses of actions that should be adhered to during hurricane season. Preparedness now eliminates confusion and wasted time when the threat is upon you.
- c) Charts indicating area shelters and maps detailing safe routes inland for New Hanover, Brunswick, and Pender Counties may be found in Appendix B, beginning on page B-1.
- d) For the Project sites, Appendix C provides webpage addresses of local National Weather Service Offices and Local Emergency Management Offices, as well phone numbers for support agencies such as the American Red Cross.
- e) Know the meaning of the severe weather and hurricane information released by the National Weather Service and National Hurricane Center.
- f) Discuss the purpose of preparation with the entire family. Have a clear understanding of where the family will gather and know which shelter will be used if necessary, when a watch or warning is issued.
- g) When a Hurricane Watch has been posted for your area a good practice is know where each family member may be reached if away from home. Leave informative notes if direct communication is not possible.
- h) Assemble a Hurricane Survival Kit and store it in a convenient location known to all family members. Hurricane Survival Kits should contain at a minimum, the following items. The last page of the circular is a tear out sheet with this information.

- i) Keep on hand a bag or can of lime to sterilize garbage and refuse in anticipation of reduced collection services.
- j) Keep local vicinity and state maps in all vehicles.

12) Sources of Preparedness Information

- a) National Hurricane Center - <http://www.nhc.noaa.gov/>
- b) Federal Emergency Management Agency (FEMA) www.fema.gov/areyouready N
- c) National Weather Service
 - i) Wilmington - <http://www.erh.noaa.gov/ilm/>
 - ii) Newport /Morehead - <http://www.erh.noaa.gov/er/mhx/>
 - iii) Raleigh – <http://www.erh.noaa.gov/er/rah/>
 - iv) Greenville-Spartanburg (SC) - <http://www.erh.noaa.gov/er/gsp/>
 - v) Wakefield (VA) - <http://www.erh.noaa.gov/er/akq/>
 - vi) Blacksburg (VA) - <http://www.erh.noaa.gov/er/rnk/>
- d) Local Television/Radio

13) District Personnel Actions

- a) 4001 Emergency Information. If a hurricane threatens, Wilmington District information on delayed reporting times, District closure, etc., will be available on the "4001 Emergency Information Line", (910) 251-4001, Employee Hurricane Bulletin; or employees may be contacted by their supervisor.
- b) District Office Preparations. See Appendix C, Information Management Office Storm Plan for Protecting Computer & Peripheral Equipment, for procedures to be followed prior to departing the District Office if storm conditions are anticipated.
- c) Personnel Accountability. In an emergency, accounting for personnel and providing valuable situational and safety information is the top USACE priority. As such, it is imperative to have a simple mechanism to ensure the accountability of civilian, military, and contractor employees and maximize their situational awareness.

- i) It is USACE policy to attain 100% accountability as soon as possible after a large-scale emergency, disaster, or Command-ordered evacuation. USACE has established a toll-free phone number/email for personnel accountability during emergencies when local personnel accountability procedures (e.g. reporting to supervisor) cannot be followed.
- d) The personnel accountability number is 1-877-HI-USACE (1-877-448-7223). Alternatively, the personnel accountability email is 877.hi.usace@usace.army.mil and can be used by those unable to access the phone line.
 - i) Personnel accountability is the responsibility of the local Command. The accountability policy and establishment of the 1-877-HI-USACE in no way eliminates any accountability or notification procedures implemented at the Division/District/Center level. The purpose of this number is to provide a simple method and single process to expediently achieve 100% accountability following a large-scale disaster, emergency, or Command-ordered evacuation when local personnel accountability procedures cannot be followed.
- e) Office Plans. All USACE local office emergency/contingency plans shall require all employees to call the number or email address within 72 hours of a large-scale disaster, emergency, or Command-ordered evacuation resulting in normal personnel accountability procedures not being followed. The message on the phone and the automatically generated email response both ask employees to identify themselves and provide contact information. Once the magnitude of the disaster is known, the message can be updated to provide information and procedures on leave and/or reporting to work, or to designate an alternate work location.
- f) Command Ordered Evacuation. In the event of a large-scale disaster, emergency, or Command-ordered evacuation, the impacted Division/FOA/Center will notify the USACE Operations Center (UOC). The UOC will track all employee contact until 100% accountability of the impacted organization has been achieved. If there has been a “no notice event” and employees begin calling/emailing the UOC, the UOC will attempt to contact the impacted organization for a situational assessment. If contact cannot be made, the UOC will assume there is an emergency situation and track personnel until otherwise informed.
- g) District/FOAs/Centers are responsible for ensuring employee awareness of 1-877-HI-USACE and 877.hi.usace@usace.army.mil and when they should be utilized.
- h) Districts/FOAs/Centers are responsible for providing an accountability roster of names to the UOC in the event of a large-scale disaster, emergency, or Command-ordered evacuation.

14) Other advisories issued during hurricane season

- a) **INLAND TROPICAL STORM WATCH:** Announcements that tropical storm conditions (sustained winds of 39 to 73 mph) are *possible* within the specified interior area within 48 hours.
- b) **INLAND TROPICAL STORM WARNING:** An announcement that tropical storm conditions (sustained winds of 39 to 73 mph) are *expected* somewhere within the specified interior area within 36 hours.
- c) **INLAND HURRICANE WATCH:** An announcement that hurricane conditions (sustained winds of 74 mph or higher) are *possible* within the specified interior area. Because hurricane preparedness activities become difficult once winds reach tropical storm force, the hurricane watch is issued 48 hours in advance of the anticipated onset of tropical-storm-force winds.
- d) **INLAND HURRICANE WARNING:** An announcement that hurricane conditions (sustained winds of 74 mph or higher) are *expected* somewhere within the specified interior area. Because hurricane preparedness activities become difficult once winds reach tropical storm force, the hurricane warning is issued 36 hours in advance of the anticipated onset of tropical-storm-force winds.
- e) **TORNADO WATCH:** Issued to alert the public that conditions are favorable for the development of tornadoes in and close to the watch area. These watches are issued with information concerning the watch area and the length of time they are in effect.
- f) **TORNADO WARNING:** Issued by local NWS offices to warn the public that a tornado has been sighted by storm spotters, law enforcement or has been indicated by radar. These warnings are issued with information concerning where the tornado is presently located and which communities are in the anticipated path of the tornado.
- g) **FLASH FLOOD WATCH:** A flash flood watch means a flash flood is possible in the area; stay alert.
- h) **FLASH FLOOD WARNING:** A flash flood warning means a flash flood is imminent and everyone in the area should take immediate action.

APPENDIX A

RECOMMENDED ACTIONS WHEN HURRICANE WATCH IS ISSUED

RECOMMENDED ACTIONS WHEN HURRICANE WARNING IS ISSUED

RECOMMENDED ACTIONS WHEN EVACUTIONS ARE ORDERED

WHAT TO DO AT SHELTERS

RECOMMENDED ACTIONS DURING THE HURRICANE LANDFALL

RECOMMENDED ACTIONS POST EVENT – ALL CLEAR

ADDITIONAL PREPAREDNESS INFORMATION

APPENDIX A - RECOMMENDED ACTIONS

Actions To Be Taken When a Hurricane Watch Is Issued. A hurricane watch indicates conditions are favorable for hurricane force winds to occur in the area identified. When hurricane watches are issued, a specific area and period of time for danger are included. Check often for official bulletins on local radio and television, National Weather Service and National Hurricane webpages'. Immediately take the following actions.

Take inventory and restock the Hurricane Survival Kit (refer to paragraph 3.a.viii).

Lock and secure all windows, glass doors, etc., with storm shutters or other protective materials, such as plywood or pressboard. Glass that is coated with a plastic sunscreen is already somewhat protected. Wedge sliding glass door with a bar.

Move furniture away from exposed doors and windows. Cover furniture, computers, and electronics with plastic.

Survey area for limbs and branches that can brush against the house and trim them back.

Collect and place all loose articles indoors.

Fuel automobiles and check batteries.

Make plans to secure the house if evacuation is intended.

Make preparations to moor, anchor, or store boat in a safe place, keeping in mind high winds and the possibility of storm surge.

Check portable radio and obtain extra batteries. An automobile radio can also be used to stay informed.

Limit telephone calls.

Obtain adequate supplies of special or prescription medicines, baby needs, and sanitary items.

Package valuables such as titles, deeds, insurance papers, licenses, stocks, bonds, jewelry, etc., for safekeeping in waterproof containers. Consider relocating these items to a safe-deposit box.

For insurance purposes, take inventory of all valuables in your house, such as art work, electronics, and any other household belongings.

If a Red Cross shelter is to be used, contact a local kennel or the Humane Society to arrange for safeguarding pets and animals.

Draw all drapes and blinds to limit flying glass.

Lower, remove, and store DSS/television antennas in a safe place.

Turn off electricity to pool, add extra chlorine to the water, and cover pump filtration systems and intakes. Aluminum furniture can be placed in the pool for safekeeping.

Arrange for transportation should evacuation be necessary. This is especially important for the elderly and handicapped.

Actions To Be Taken When a Hurricane Warning Is Issued. A hurricane warning is issued when winds of hurricane strength (at least 74 MPH) are expected in a specific area within 24 hours. The warning will identify coastal areas where these conditions are expected to occur. Depending on the strength, location, and direction of the hurricane's movement, coastal areas can require as long as 24 hours to evacuate. For this reason, be prepared to evacuate even if the weather does not appear threatening at the time. Pay close attention to official information sources, disregard rumors. Prepare to take the following actions.

Turn refrigerator and freezer to their coldest settings. In case of power failure, cover freezer with blankets. To maintain coldness, open only when necessary.

Fill containers, bathtub, and washing machine with water.

Relocate Hurricane Survival Kit to central area.

Review evacuation routes and shelter sites (see maps for specific counties).

Use the telephone only for emergencies.

Evacuation. When a hurricane threatens to strike, the Emergency Management Director and local government officials will decide if and when evacuation is necessary. Local radio and television stations will provide notification of areas to be evacuated and information on which Red Cross shelters are opened and staffed. If evacuation is advised, the following information applies.

Act immediately. Do not take the chance of becoming marooned.

Store perishables, taking a week's supply of nonperishable foods. Prepare a meal and snack for family members because it may be some time before food or beverages are provided.

Mass transportation pickup points and schedules will be broadcasted on television and radio. A minimum number of buses will be available. If transportation is to be provided by friends or neighbors, contact those individuals.

Travel with care, leave early and follow recommended routes. Stay away from low-lying areas. Avoid obstructions, wires, and trees. Keep radio on and listen for additional instructions and bulletins.

Turn off water and electricity at the main valve, breakers, or fuses. Turn off propane gas tanks that service individual appliances like a stove or grill.

Do not turn off natural gas unless local officials advise to do so.

Lock home securely.

Take Hurricane Survival Kit.

What To Do At The Shelter.

Upon arrival at the Red Cross shelter, all individuals will be registered and briefed on the shelter's rules and procedures.

While using the shelter, each person has an obligation to help keep the building clean and sanitary. If possible, volunteer to assist the shelter workers in some way.

Communications with shelters will be maintained via law enforcement officials patrolling the area or assigned to shelter sites, as well as updated news media, as long as the stations maintain power.

Stay calm and anticipate behavioral changes, especially in children.

Do not attempt to take pets, firearms, or intoxicating beverages into the shelter. The only animals allowed in shelters are assistance animals (ex. seeing-eye dogs).

Cots and blankets will be provided for the elderly and those with special needs, but others need to bring sleeping materials.

Families should bring small items to entertain their children, such as books, cards, and games. Shelters do not provide day care.

Remember the Red Cross shelter will not have all the comforts of home. Be prepared to make the best of the situation.

During The Hurricane. Remain indoors during the hurricane. If the calm center passes directly overhead, there will be a lull in the wind lasting from a few minutes to an hour or more. Do not go outside unless emergency repairs are absolutely necessary. Remember, at the other side of the eye the winds rise rapidly to hurricane force and come from the opposite direction of the leading edge. Electricity, water, gas, and telephone services may be interrupted. Do not run water, as it conducts electricity. Stay calm and listen to the radio for the ALL CLEAR.

After The ALL CLEAR Is Given.

Continue to monitor radio and television bulletins for updated information. Local law enforcement agencies will control access into affected areas.

To avoid post-hurricane disasters, follow the instructions below.

If driving is necessary, avoid disaster areas unless they encompass home or work; remember that local law enforcement agencies will control access into affected areas regardless.

Drive with extreme caution and be alert for road obstructions, downed electrical wires, and flooded low spots. Do not sightsee.

If public transportation was provided to the shelter, return transportation will also be provided.

Evaluate your home with extreme care and survey surroundings for downed wires, escaping gas, downed trees, structural damage, etc.

Do not enter flooded areas or touch electrical equipment if the ground is wet, unless you are certain that the power is off. If water has been present anywhere near electrical circuits and electrical equipment, turn off the power at the main breaker, or fuse on the service panel. If anyone experiences electric shock, call 911 immediately. Even minor shocks can cause life-threatening conditions.

Inspect your home for damage. Photograph the inside and outside, showing flooding or wind damage.

Check all utility systems to be sure they are safe. Take photographs of major damage before beginning any repairs.

Report broken or damaged water, sewer, and electrical lines to appropriate representatives; have phone numbers as part of your preparedness plan.

Check for the possibility of food spoilage. Spoiled perishables should be disposed by double bagging before placement in garbage container for collection.

Wait 30 minutes after power is restored to operate air conditioners and water heaters, to prevent system overloads.

When using gasoline and diesel generators to supply power to a building, switch the main breaker or fuse on the service panel to the “off” position before starting the generator. Never connect a generator to your home’s electrical system. Connect appliances directly with properly sized power cords. Make sure the generator is grounded.

Operate all gasoline-powered devices, such as pumps, generators, and pressure washers outdoors. Never bring them indoors as this can cause carbon-monoxide poisoning.

Do not drink water from the faucet until local officials have advised that it is safe from contamination. Use emergency supply or boil tap water for one minute (at a rolling boil) before drinking.

When boiling water is not possible, you can treat water with chlorine tablets, iodine tablets, or unscented household chlorine bleach. If you do use chlorine tablets or iodine tablets, follow the directions that come with the tablets. Using household chlorine bleach, add one-eighth teaspoon of bleach per gallon of water if the water is clear. For cloudy water, add one-fourth teaspoon of bleach per gallon. Mix the solution thoroughly and let it stand for about 30 minutes before using it. (Note: Treating water with chlorine tablets, iodine tablets, or liquid bleach will not kill parasitic organisms.)

Advise friends and family members that you are safe. They may not be able to contact you.

Snakes, animals, and insects instinctively travel inland to higher ground to escape approaching floodwaters. Take precautions.

Use streets and roads as little as possible to allow recovery operations to proceed.

Wait for professionals to turn gas back on, to avoid the possibility of a leak leading to an explosion.

Beware of repair scams. Don’t be rushed into signing a contract with any company. Instead, collect business cards and get estimates for the proposed job. Investigate the track record of any roofer, builder, or contractor that you consider hiring. Call the Wilmington Better Business Bureau (910) 341-3006 for help.

Additional Hurricane Season Precautions.

Create a Disaster Plan (applicable for any event)

Plan how your household would stay in contact if you were separated.

Pick a friend or relative who lives out of the area for household members to call to say they are okay.

Post emergency telephone numbers by telephones.

Teach children how and when to dial 911.

Make sure everyone in your household knows how and when to shut off water, gas and electricity at the main switches. Consult with your local utilities if you have questions.

Draw a floor plan of your home and mark two escape routes from each room.

Take first aid and CPR class. Local American Red Cross chapters can provide information.

Consider ways to help neighbors who may need special assistance, such as the elderly or the disabled.

Pets

Make arrangements for pets as they are not allowed in public shelters, with the exception of service animals for those who depend on them.

If the animal shelter is full or your county does not offer animal boarding, your veterinarian may be willing to board your pet. Also, there are private boarding facilities listed in the phone book. If you are evacuating and going inland, check with hotel chains, as some of them do allow pets.

If you have no other option, leave the animal inside with plenty of food and water.

Do not leave pets outside; an animal sensing an approaching storm is capable of running long distances to escape it.

Do not tie your pet outside, especially in low-lying areas.

Make sure your pet has an ID so it can be identified if it escapes. Consider getting a microchip implanted to provide back-up identification.

Houses and Mobile Homes.

Trim dead wood from trees.

Secure loose rain gutters.

If shutters do not protect windows, stock plywood or pressboard, nails, and masking tape, which can be used to protect windows.

Inventory personal property for insurance purposes and store the inventory in a waterproof place, such as a safe-deposit box.

Review insurance policies and ensure they cover both wind and water damage.

Keep the family car in good repair and the gas tank full.

Secure all awnings over doors and windows.

Ensure mobile home's tie-down system meets local and/or state codes.

High-Rise Apartments.

Be familiar with the location of all exit stairways. Count the number of steps from apartment door to the exit door in the event lights are off in the corridors and halls.

Do not use the elevator unless absolutely necessary to evacuate elderly or disabled individuals.

Predetermine a location outside the building for family members to meet if asked to evacuate.

Rehearse the evacuation plan. It could save lives.

Do not leave loose items on the terrace or patio. They can cause damage.

Tips from the Department of Insurance.

Homeowners should review their insurance policies with their agents. Most standard homeowners' policies do not cover flood damage, and some policies in coastal areas may not cover windstorm damage.

Make sure that you have hurricane and flood insurance, and know the difference between the two. Typically, hurricane insurance covers damage from wind and wind-driven rain, and must be obtained through an insurance agency, as there is no National program. Flood policies cover flood and rising water damage only. Flood insurance can be obtained by qualifying property owners by contacting your local agent or through the National Flood Insurance Program. Call 800-638-6620 for more information.

Typically, insurance covers building property, electrical and plumbing systems, central and portable air conditioning equipment, furnaces, water heaters, permanently installed carpeting, refrigerators, cooking stoves, built-in appliances (such as dishwashers), portable appliances, food freezers, detached garages, debris removal, and personal belongings such as clothing, furniture, electrical equipment, and original artwork (up to \$2,500).

Be aware that insurance does not cover building and personal property, damage caused by moisture, mildew or mold that could have been avoided by the owner, currency, precious metals, stock certificates, living expenses like temporary housing, financial losses caused by business interruption, self-propelled vehicles such as cars and motorcycles, and property and belongings outside of a building, such as trees, plants, wells, and septic systems.

Don't wait until the storm is approaching to upgrade your coverage. Be sure to discuss with your agent whether you need coverage for replacement value or actual cash value of your property.

Make a list of your belongings and take pictures or videotape them. Include a close-up shot of the day's newspaper to provide the date. Keep your inventory list along with purchase receipts, pictures, and your insurance policy in a safe-deposit box or other safe place away from your home. If you are forced to evacuate, take a copy of your policy with you.

Residents living in rental property should consider purchasing renter's insurance to cover losses of personal property within the rental unit.

For questions or problems concerning your insurance coverage, contact the following.

The Consumer Services Division of the N.C. Dept. of Insurance: (800) 546-5664;
www.ncdoi.com

The Attorney General, Consumer Protection: (919) 716-6000; www.ncdoj.com

Employment Security Commission: (919) 733-3098; www.ncesc.com

FEMA: (800) 462-9029; www.fema.gov

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APPENDIX B

DISTRICT HEADQUARTERS AND SURROUNDING COUNTIES

National Weather Service Offices

Local Radio

Power Companies

Animal control

Other Information Sites

**SHELTERS AND EVACUATION ROUTES FOR
New Hanover County**

Brunswick County

Pender County

APPENDIX B – DISTRICT HEADQUARTERS AND SURROUNDING COUNTIES

National Weather Service Offices:

Wilmington - <http://www.erh.noaa.gov/ilm/>

Newport /Morehead - <http://www.erh.noaa.gov/er/mhx/>

Raleigh – <http://www.erh.noaa.gov/er/rah/>

Local Radio:

NOAA Weather Band Radio, Wilmington 162.55 (MZ)

Coastal EAS Radio Broadcast Stations

97.3 WMNX (FM), 98.7 WILT (FM), 630 WMFD (AM)

Power Companies:

Progress Energy Outage Reporting: (800) 419-6356; www.progress-energy.com

Brunswick Electric Membership Corp, Outage Reporting: (800) 682-5309;
www.bemc.org

Cape Fear Public Utility: (910) 332-6565

Animal control:

New Hanover County Animal Control: (910) 798-7500

Brunswick County Animal Control: (910) 754-8204 or (910)754-9261

Pender County Animal Control: (910) 259-1349

Other Information Sites:

Wilmington Better Business Bureau (910) 341-3006.

More information is also available at <http://www.nhc.gov> (Follow the link to 'Departments' and click 'Emergency Management').

Federal Emergency Management Agency (FEMA):

<http://www.fema.gov/hazard/hurricane/index.shtm> & <http://www.fema.gov/kids/hurr.htm>

APPENDIX B - New Hanover County, N. C. Public Shelter Facilities

Check media announcements at time of impending storm for location and time of shelter openings. Locations are noted by number on the attached county map.

PRIMARY SHELTERS

Emma B. Trask Middle School (capacity 250)
2900 North College Road
Wilmington, NC 28405

Eaton Elementary School (capacity 300)
6701 Gordon Road
Wilmington, NC 28405

Noble Middle School (capacity 200 – pet friendly)
6520 Market Street
Wilmington, NC 28405

Dorothy B. Johnson Elementary School (capacity 300)
1100 McRae Street
Wilmington, NC 28401

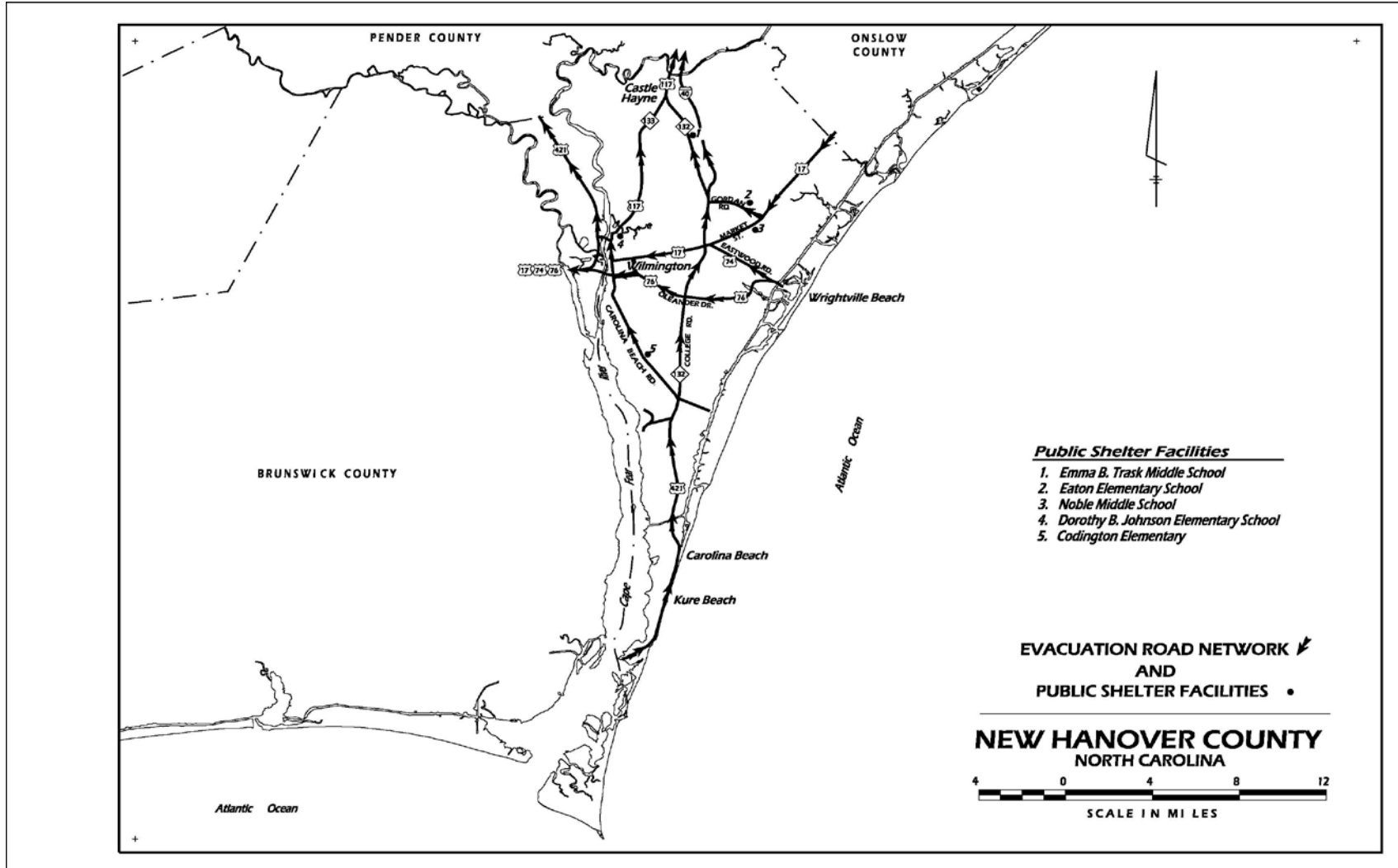
RESERVE SHELTERS (Used only when Primary Shelters are full.)

Codington Elementary School (capacity 250)
4321 Carolina Beach Road
Wilmington, NC 28401

New Hanover County's Emergency Management Hot Line

(910) 798-6900 ext. 7. More information is also available at <http://www.nhcgov.com>

(Follow the link to 'Departments' and click 'Emergency Management').



APPENDIX B - Brunswick County, N. C., Public Shelter Facilities

Check media announcements at time of impending storm for location and time of shelter openings. Locations are noted by number on the attached county map.

PRIMARY SHELTERS

North Brunswick High School (capacity 820)
1395 Scorpion Drive
(Highway 17 Near Woodburn Community)
Leland, NC 28451

South Brunswick High School (capacity 425)
280 Cougar Drive, BSL
(Boiling Spring Lakes, Highway 87)
Southport, NC 28461

West Brunswick High School (capacity 854)
550 Whiteville Road, NW
(Highway 130 West)
Shalotte, NC 28470

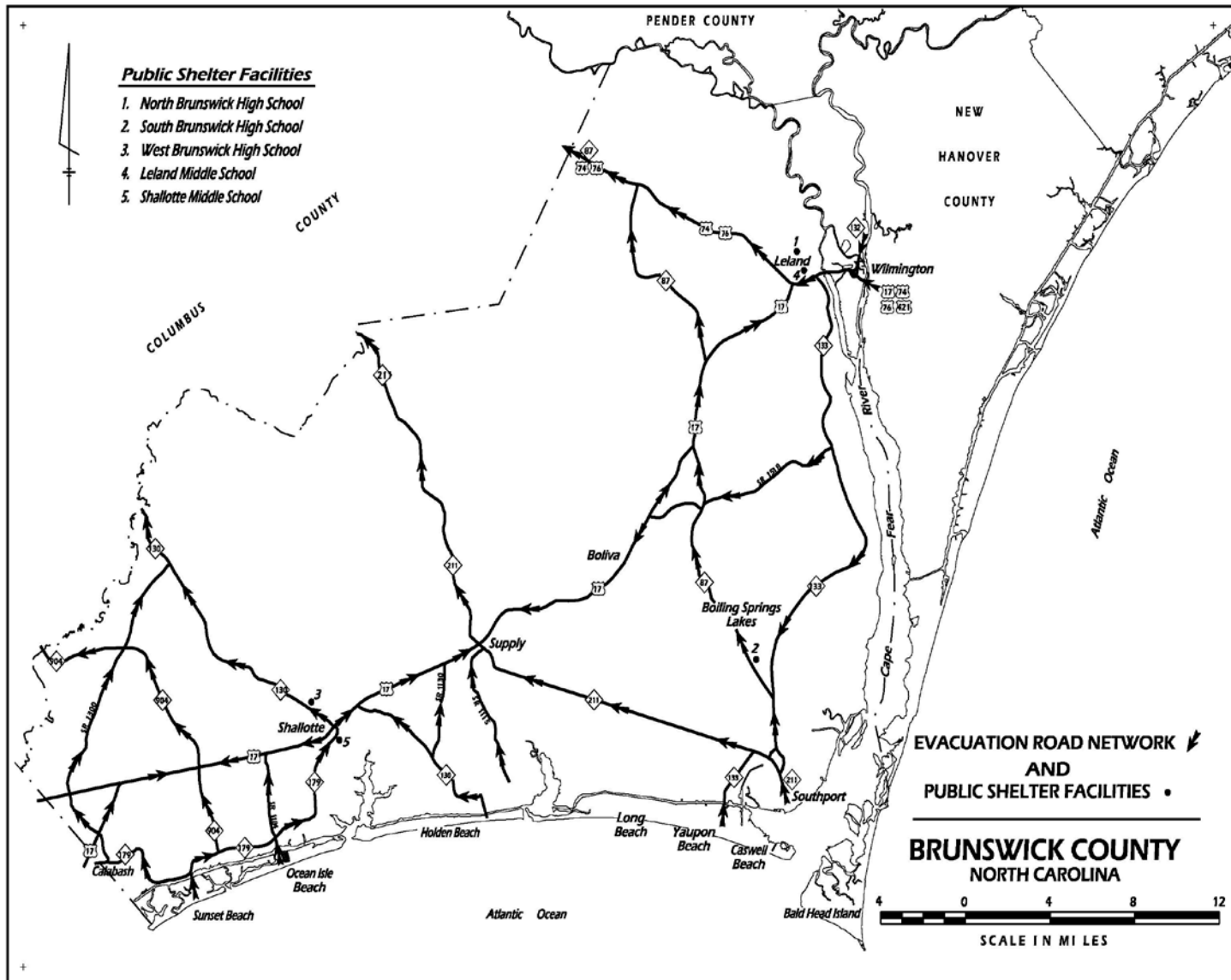
RESERVE SHELTERS (Opened as needed after High Schools are full)

Leland Middle School (capacity 862)
927 Old Fayetteville Road, NE
(Highway 17 Near Woodburn Community)
Leland, NC 28451

Shalotte Middle School (capacity 500)
225 Village Road (Highway 179)
Shalotte, NC 28459

South Brunswick Middle School (capacity 425)
100 Cougar Drive, BSL
(Boiling Spring Lakes, Highway 87)
Southport, NC 28461

Brunswick County's Emergency Management Hot Line
Is (910) 253-5383, and updates are also available at <http://www.brunswickes.com/>.



APPENDIX B - Pender County, N. C., **Public Shelter Facilities**

Check media announcements at time of impending storm for location and time of shelter openings. Locations are noted by number on the attached county map.

PRIMARY SHELTERS

Topsail Middle School (capacity 971)
17385 US Highway 17 North
Hampstead, NC 28443

Malpass Corner Elementary School (capacity 1,000)
4992 Malpass Corner Road
Burgaw, NC 28425

Burgaw Middle School (1st alternate to Pender High) (capacity 505)
500 S. Wright Street
Burgaw, NC 28425

Cape Fear Middle School (capacity 825)
1886 NC Highway 133
Rocky Point, NC 28457

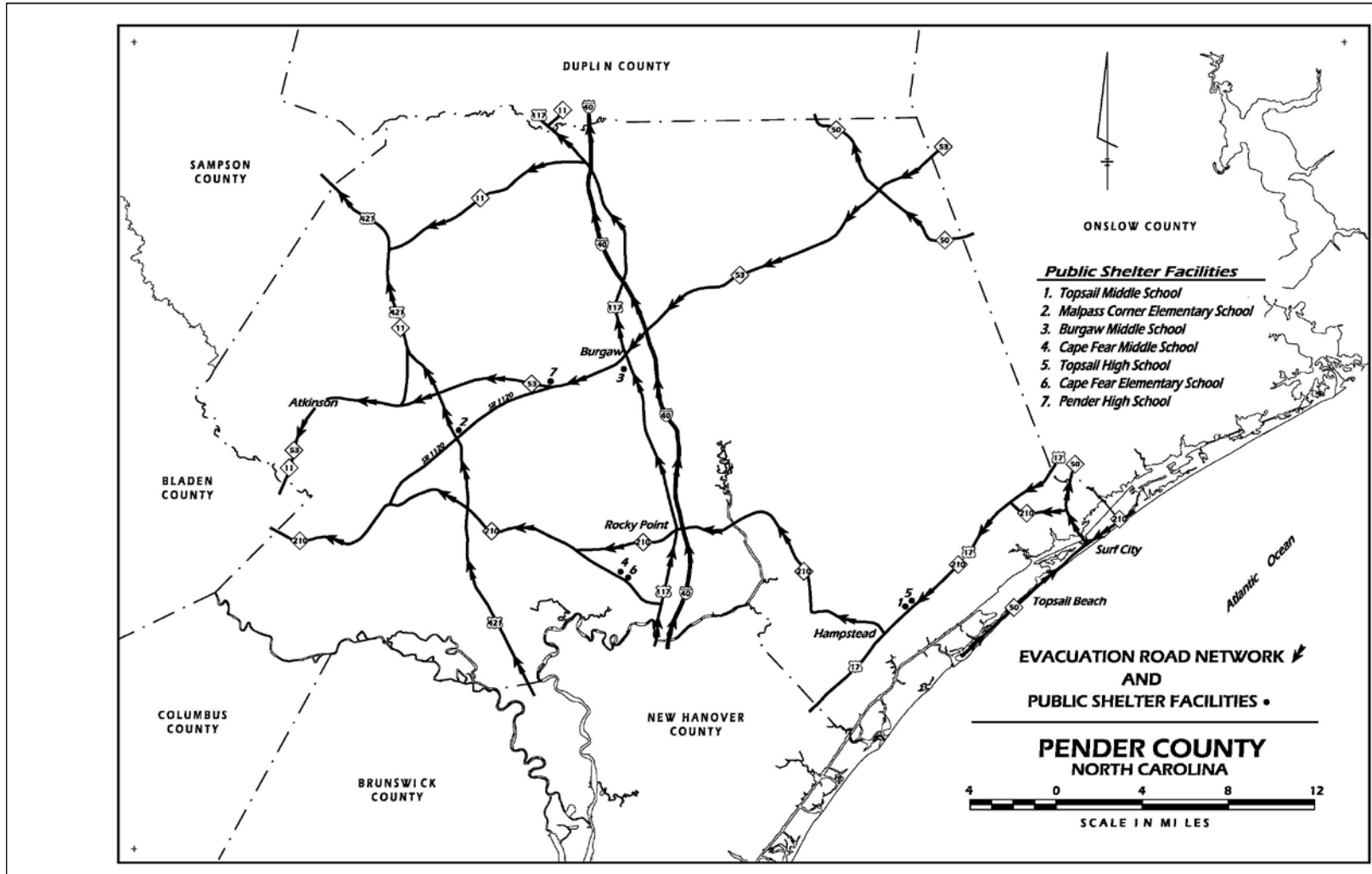
SECONDARY SHELTERS (Used only when Primary Shelters are full.)

Topsail High School (1st alternate to Topsail Elementary)
(capacity 570)
17445 US Highway 17 North
Hampstead, NC 28443

Cape Fear Elementary School (capacity 605)
1882 NC Highway 133
Rocky Point, NC 28457

Pender High School (capacity 695)
5380 NC Highway 53
Burgaw, NC 28425

Pender County's Emergency Management Hot Line
Is (910) 259-1210, and updates are also available at www.penderem.com.



APPENDIX C - PROJECT SPECIFIC INFORMATION

Washington Regulatory Field Office
Asheville Regulatory Field Office
Raleigh Regulatory Field Office
Falls – Jordan
John H. Kerr
W. Kerr Scott
Philpott
Lock & Dam 1 & 2
SOCOM Resident Eng Section, Fort Bragg
Morehead Survey Office
Wanchese Survey Office

APPENDIX C - Project Specific Emergency Information - Washington Regulatory Field Office

Staff should use routine supervisory channels for information on office status and reporting to work during emergencies and or inclement weather situations. The following is provided as supplemental information only.

NWS Morehead/Newport - <http://www.erh.noaa.gov/er/mhx/>

Beaufort County, NC <http://www.co.beaufort.nc.us/dept.html>
Emergency Management 252-946-2046

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WDLX 93.3 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 252-946-7111

Pitt County, NC
Emergency Management 252-902-3950

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WNCT 107.9 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 252-830-4195

Craven County, NC <http://www.cravencounty.com/emergency/index.cfm>
Emergency Management 252-636-6608

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcaster: WMGV 103.3 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 252-636-6620

APPENDIX C Project Specific Emergency Information - Asheville Regulatory Field Office

Staff should use routine supervisory channels for information on office status and reporting to work during emergencies and or inclement weather situations. The following is provided as supplemental information only.

NWS Greenville-Spartanburg (SC) - <http://www.erh.noaa.gov/er/gsp/>

Buncombe County, NC <http://www.buncombecounty.org/governing/depts/ES/>

Emergency Management 828-255-5638

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WWNC 570AM

American Red Cross: 866-GET-INFO

Sheriff's Office: 828-250-4477

APPENDIX C - Project Specific Emergency Information - Raleigh Regulatory Field Office

Staff should use routine supervisory channels for information on office status and reporting to work during emergencies and or inclement weather situations. The following is provided as supplemental information only.

NWS Raleigh – <http://www.erh.noaa.gov/er/rah/>

Wake County, NC <http://www.wakegov.com/general/emergency/em.htm>

Emergency Management 919-856-6480

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WRAL 101.5 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 919-856-6900

APPENDIX C - Project Specific Emergency Information - Falls / Jordan

Staff should use routine supervisory channels for information on office status and reporting to work during emergencies and or inclement weather situations. The following is provided as supplemental information only.

NWS Raleigh - <http://www.erh.noaa.gov/er/rah/>

Wake County, NC <http://www.wakegov.com/general/emergency/em.htm>
Emergency Management 919-856-6480

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WRAL 101.5 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 919-856-6900

Lee County, NC <http://www.leecountync.gov/departments/oes/default.html>
Emergency Management 919-718-4670

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WRAL 101.5 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 919-775-5531

Chatham County, NC
Emergency Management 919-542-2811

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WRAL 101.5 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 919-542-2811 x224

**APPENDIX C - Project Specific Emergency Information - Falls / Jordan
(Continued)**

Orange County, NC <http://www.co.orange.nc.us/ems/index.htm>

Emergency Management 919-732-5063

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WTVD –TV; WRAL 101.5FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 919-942-6300

Durham County, NC <http://www.co.durham.nc.us/departments/emgt/>

Emergency Management 919-560-0660

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

Primary EAS Broadcasters: WTVD –TV; WQDR 94.7 FM; WRAL 101.5 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 919-560-0900

Franklin County, NC <http://www.co.franklin.nc.us/>

Emergency Management 919-496-5005

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

Primary EAS Broadcasters: WTVD –TV and WRAL 101.5 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 919-496-3332

APPENDIX C - Project Specific Emergency Information - John H. Kerr

Official work schedules, delays, or cancellations will be obtained by phoning the Powerhouse Operator (434-738-6633 ex. 200). The following is provided as supplemental information only.

NWS Raleigh - <http://www.erh.noaa.gov/er/rah/>

Granville County, NC <http://www.granvillecounty.org/gcem.htm>
Emergency Management 919-603-1310

Primary Shelter: Northern Granville Middle School, Oxford; Toler Oak Hill Elementary School, Oxford; Mount Energy Elementary School. Listen to media (radio/television) outlets for openings.

EAS Broadcasters: WQDR 94.7 FM / WIZE 98.3 FM / WCBQ 1340 AM

American Red Cross: 866-GET-INFO

Sheriff's Office: 919-693-3213

Vance County, NC <http://www.vancecounty.com/emergency%20operations.htm>
Emergency Management 252-438-8264

Shelter Information: Primary shelter – Southern Vance School, Henderson, NC. Listen to media (radio/television) outlets for openings and additional locations.

EAS Broadcasters: WIZS 1450 AM
WKSK 98.9 FM WICE 98.3 FM
American Red Cross: 866-GET-INFO

Sheriff's Office: 252-738-2200

Warren County, NC <http://www.warrencountync.com/emergencySvc.aspx>
Emergency Management: 252-257-2666

Primary Shelter: Warren County High School, Warrenton, NC. Listen to media (radio/television) outlets for openings.

EAS Broadcasters: WARR 1520 AM / WRAL-TV

American Red Cross: 866-GET-INFO

Sheriff's Office: 252-257-3364

**APPENDIX C - Project Specific Emergency Information - John H. Kerr
(Continued)**

NWS Blacksburg (VA) - <http://www.erh.noaa.gov/er/rnk/>

Brunswick County, VA

Emergency Management: 434-848-3133

Primary Shelter: Listen to media (radio/television) outlets for openings.

EAS Broadcasters: WKSK 98.9 FM
WTVR 6 TV (Richmond)

American Red Cross: 866-GET-INFO

Sheriff's Office: 434-848-3133

Charlotte County, VA

Emergency Management: 434-542-5117

Primary Shelter: Listen to media (radio/television) outlets for openings.

EAS Broadcasters: WHLF 95.3 FM
WDBJ 7 TV (Roanoke)

American Red Cross: 866-GET-INFO

Sheriff's Office: 434-542-5141

Dinwiddie County, VA

Emergency Management: 804-469-5388

Primary Shelter: Listen to media (radio/television) outlets for openings.

EAS Broadcasters: WKSK 98.9 FM
WRIC 8 TV (Richmond)

American Red Cross: 866-GET-INFO

Sheriff's Office: 804-469-4550

**APPENDIX C - Project Specific Emergency Information - John H. Kerr
(Continued)**

Lunenburg County, VA

Emergency Management: 434-696-2142

Primary Shelter: Listen to media (radio/television) outlets for openings.

EAS Broadcasters: WKSK 98.9 FM; WTVR 6 TV (Richmond)

American Red Cross: 866-GET-INFO

Sheriff's Office: 434-696-4452

Mecklenburg County, VA

Emergency Management: 434-738-6191 ext. 4202

Primary Shelter: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WSHV 1370 AM

WKSK 98.9 FM

WWBT 12 TV (Richmond)

American Red Cross: 866-GET-INFO

Sheriff's Office: 434-738-6171

APPENDIX C - Project Specific Emergency Information – W. Kerr Scott

Staff should use routine supervisory channels for information on office status and reporting to work during emergencies and or inclement weather situations. The following is provided as supplemental information only.

NWS Blacksburg - <http://www.erh.noaa.gov/er/rnk/>

Wilkes County, NC http://www.wilkescounty.net/emergency_management.php?nid=6
Emergency Management: 336-651-7305

Primary Shelter: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters:	WKBC 97.3 FM WWWC 1240 AM
TV12 Winston- Salem American Red Cross:	866-GET-INFO
Sheriff's Office:	336-903-7600

APPENDIX C - Project Specific Emergency Information - Philpott

Staff should use routine supervisory channels for information on office status and reporting to work during emergencies and or inclement weather situations. The following is provided as supplemental information only.

NWS Raleigh - <http://www.erh.noaa.gov/er/rah/>

NWS Blacksburg (VA) - <http://www.erh.noaa.gov/er/rnk/>

Guilford County, NC <http://www.guilford-es.com/>

Emergency Management: 336-641-2278

Primary Shelter: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: All available

American Red Cross: 866-GET-INFO

Sheriff's Office: 336-641-3694

Franklin County, VA

Emergency Management: 540-483-3091

Primary Shelter: Franklin Middle School, Rocky Mount. Listen to media (radio/television) outlets for openings.

EAS Broadcasters: WFIR 9600 FM

K 92 FM RQK 96 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 540-483-3000

Henry County, VA

Emergency Management: 276-634-4660

Primary Shelter: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WFIR 9600 FM

Cable Interrupt Crawl

American Red Cross: 276-632-5127

Sheriff's Office: 276-656-4200

**APPENDIX C - Project Specific Emergency Information - Philpott
(Continued)**

Patrick County, VA

Emergency Management: 276-694-4940/6094

Primary Shelter: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: 1270 AM

American Red Cross: 866-GET-INFO

Sheriff's Office: 276-694-3161

APPENDIX C - Project Specific Emergency Information - Lock and Dams 1, 2 and 3

Staff should use routine supervisory channels for information on office status and reporting to work during emergencies and or inclement weather situations. The following is provided as supplemental information only.

NWS Wilmington - <http://www.erh.noaa.gov/ilm/>

Bladen County, NC

Emergency Management: 910-862-6760

Primary Shelter: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WECT-TV 6
87.7 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 910-862-3750

**APPENDIX C - Project Specific Emergency Information – SOCOM Resident
Engineering Office – Ft. Bragg**

NWS Raleigh – <http://www.erh.noaa.gov/er/rah/>

Cumberland County, NC

Emergency Management: 910-321-6737
www.co.cumberland.nc.us/emergency_mgmt

Primary Shelter: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WQSM (FM 98.1) WKML (FM 95.7)

American Red Cross: 866-GET-INFO

Sheriff's Office: 910- 323-1500

Harnett County, NC

Emergency Management: 910-893-7580
www.harnett.org/fire/emergencymanagement-links.asp

Primary Shelter: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WQDR (FM 94.7) WDCG (FM 105.1)

American Red Cross: 866-GET-INFO

Sheriff's Office: 910-893-9111

Hoke County, NC

Emergency Management: 910-875-4126
www.co.hokecounty.net/county-department

Primary Shelter: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WQSM (FM 98.1) WKML (FM 95.7)

American Red Cross: 866-GET-INFO

Sheriff's Office: 910- 875-5111

APPENDIX C - Project Specific Emergency Information – Morehead Survey Office

NWS Morehead/Newport - <http://www.erh.noaa.gov/er/mhx/>

Beaufort County, NC: Emergency Management 252-946-2046
<http://www.co.beaufort.nc.us/dept.html>

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WDLX 93.3 FM, WRNS 95.1 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 252-946-7111

Carteret County, NC: Emergency Management 252-946-2046
<http://www.co.beaufort.nc.us>

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WDLX 93.3 FM, WRNS 95.1 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 252-504-4800

Craven County, NC: Emergency Management 252-636-6608
<http://www.cravencounty.com/emergency/emergencymgt.cfm>

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WDLX 93.3 FM, WRNS 95.1 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 252-504-4800

Pamlico Coutny, NC: Emergency Management 252-745-4131
http://www.co.pamlico.nc.us/Departments_Emergencyfire.aspx

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WDLX 93.3 FM, WRNS 95.1 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 252-745-3101

Ferry Division:

Bayview-Aurora:	252- 964-4561
Cedar Island;	252-225-7411
Cherry Branch-Minnesott Breach	252-447-1055
Ocracoke	252-928-1665
Swan Quarter	252-926-6021
Hatteras	252-986-2353

APPENDIX C - Project Specific Emergency Information – Wanchese Survey Office

NWS Morehead/Newport - <http://www.erh.noaa.gov/er/mhx/>

Dare County, NC

Emergency Management 252-475-5655
<http://www.darenc.com/emgymgmt>

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WRSF 105.7 FM, WNHW 92.5 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 252-473-3481

Hyde County, NC

Emergency Management 252-926-4368
<http://www.hydecountry.org/government/emergmt.asp>

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WRSF 105.7 FM, WNHW 92.5 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 252-926-3171

Currituck County, NC: Emergency Management 252-232-2115
<http://www.co.currituck.nc.us/Emergency-Management.cfm>

Shelter Information: Listen to media (radio/television) outlets for openings and locations.

EAS Broadcasters: WRSF 105.7 FM, WNHW 92.5 FM

American Red Cross: 866-GET-INFO

Sheriff's Office: 252-232-3771

Ferry Division:

Bayview-Aurora:

252- 964-4561

Cedar Island;

252-225-7411

Cherry Branch-Minnesott Breach

252-447-1055

Ocracoke

252-928-1665

Swan Quarter

252-926-6021

Hatteras

252-986-2353

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APPENDIX D
INFORMATION MANAGEMENT OFFICE STORM PLAN
FOR PROTECTING COMPUTERS, PERIPHERALS AND INFORMATION

Preparation: The windows in this building are designed to withstand 110 mph winds. In preparation for a storm; however, close and lower blinds for increased protection. Staff should review employee checklist.

ULO.

Before Hurricane season begins (1 June), stockpile approx. 1,000 heavy-duty, extra large plastic yard bags; and/or a combination of rolls of 25'-50' sheeting of equal width and similar pliability, to be distributed to users in the event of a storm. (Rolls should be lightweight enough that they can be easily carried to the work area.)

Purchase/stock three - 50' foot rolls of sheeting 45" to 50" wide, minimum 4 mil, clear (preferable), for covering equipment in the Computer Room and Customer User Area and oversized equipment, i.e., plotters, copiers, large workstations, etc.

Purchase/stock approx. 25 flashlights and batteries for employees to access unlighted areas when necessary to secure equipment.

Purchase/stock battery operated lanterns for increased lighting in essential offices, if necessary.

Purchase adequate supply of CDs and DVDs for backing up user hard drives if necessary.

IMO. Make sure there is an adequate inventory of supplies/equipment for use during Mobilization (IM maintains a supplies/equipment list for Mobilization requirements).

Notification Process: Employees should be notified that each user is responsible for securing his/her own equipment as per guidelines to follow below (2a. and 2b). Supervisors will be responsible for assigning/ensuring that equipment for employees not in building is secured.

Make an announcement over the intercom system when the plastic bags/sheeting is available in the center quad and users are to pick them up from there to secure automation equipment.

IM. An intercom announcement will be made and an email will be issued to users, if possible (i.e., network is still operational), when it is time to begin the process of securing equipment. The email will explicitly inform users **NOT** to cover equipment until they are finished using them (unplug equipment). Copies of this guidance will be placed on table in

center quad beside the supply of bags, with instructions for users on how to secure their equipment. The guidance is identified in 3. below.

Securing Equipment: In addition to the employees' efforts to secure their own respective areas it is necessary to secure other areas such as the Customer User Area; Computer Room; Tape Vault; Radio Room; Teletype Room, Multipurpose Room, Conference Rooms and any other common use area. IMO will attempt to secure these areas. Do this by using the same guideline, "EMPLOYEE STORM CHECKLIST FOR PROTECTION OF OFFICE EQUIPMENT / SPACE" which follows.

EMPLOYEE STORM CHECKLIST FOR PROTECTION OF OFFICE EQUIPMENT/SPACE – before the storm

Due to possible adverse weather conditions, it is imperative that government automation equipment (computers, printers, phones, fax machines, plotters, scanners, copiers, monitors, UPS, etc.) be protected from water damage as much as possible before you leave work! If you have critical DATA files (DATA files only not programs) on your HARD DRIVE (not network files as they are automatically backed up daily) be sure to back up your critical data to CD, DVD, or other media and store in a safe place. Logistics Management Office (LMO) will provide the backup media.

If you are aware of team members not present, please assist in protecting his/her equipment as well.

Equipment *can* remain on the floor!

IMO will make an attempt to quickly check the entire building to ensure all equipment is covered and turned off before IMO staff leaves the building.

When you return to the office, please refer to IMO guidance below as to the proper procedures for re-connecting and turning on your automation equipment.

Securing and Powering Down Equipment: Follow steps in order!

Properly "shut down" computer i.e. Start, Shutdown

Power off monitor (power switch on monitor)

Disconnect the LAN network cable from the back of the CPU, or from the wall outlet (LAN cable looks like a telephone cable)

Power off the UPS backup device (hold down power button for at least 5 seconds)

Disconnect UPS power cord from wall outlet. Note: if UPS keeps beeping it is not turned off i.e. turn power switch off

Make sure all power is OFF on ALL equipment i.e. printers, copiers etc. (Equipment will overheat when covered with plastic)

Cover equipment with plastic sheeting.

Move items away from windows and close all blinds.

Make sure personal items are removed or secured. (Radios, tape players, fans, pictures, etc.)

After Storm

Powering up Equipment: Follow steps in order!

Remove plastic and fold all plastic sheeting and place in boxes in center quad for LMO to store.

Re-connect UPS power cord to wall outlet

Power on the UPS device (some models vary first push the power button, if that does not work then hold down power button for at least 5 seconds)

Power on the monitor (power switch on monitor)

Connect the LAN network cable to the back of the CPU or wall outlet (LAN cable looks like a telephone cable).

Power on all equipment (CPU, printers, copiers, fax machines etc.)

Ctrl-Alt-Delete to log on computer

Return usable plastic sheeting/plastic bags and flashlights to center quad for pickup up by LMO.

Notify LMO of any building damage/repair work required

Notify IMO of any equipment problems.

Instructions for Backing up files from your Hard Drive to CD

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Hurricane Survival Kit

Assemble a Hurricane Survival Kit and store it in a convenient location known to all family members. Hurricane Survival Kits should contain at a minimum, the following items.

Food (nonperishable) and can opener

Water (1 gallon per person per day for drinking)

Eating and cooking utensils

Toilet articles

Sanitary needs

Medications

Portable radio and batteries

Flashlight and batteries

Blankets (lightweight)

Clothing (one additional change)

Special needs for young, elderly, or handicapped individuals

Extra house, car keys

Cash (ATMs may not work after the storm)

Bleach or water purification tablets

Portable ice chest

First aid supplies

Keep on hand a bag or can of lime to sterilize garbage and refuse in anticipation of reduced collection services.

Keep local vicinity and state maps in all vehicles.

Emergency Communication in case of weather or another emergency.

1. District Updates PAO with closures: (910) 251-4626
2. Emergency Information Line: (910) 251-4001
3. District Facebook Site:
<http://www.facebook.com/USACE.Wilmington>
4. Supervisor: _____

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