

# Hurricane Preparedness and Recovery for Owners of Historic Properties

Hurricane season lasts from June 1<sup>st</sup>-November 30<sup>th</sup>. Every year in May the National Oceanic and Atmospheric Association (NOAA) publishes a forecast of the upcoming hurricane season. It, along with other information, can be found on their website <http://www.noaanews.noaa.gov>. There are 5 categories of Hurricanes. To be called a hurricane, a storm must have "sustained" winds of at least 74 miles per hour. The 5 categories are as follows:

Category 1: Wind Speed of 74 to 95 mph

Category 2: Wind Speed of 96 to 110 mph

Category 3: Wind Speed of 111 to 130 mph

Category 4: Wind Speed of 131 to 155 mph

Category 5: Wind Speed over 156 mph

The following is a checklist of items that should be taken into consideration before and after a hurricane. The list defines key terms such as "hurricane watch" and "hurricane warning." It helps to illustrate the various ways in which a group of people can actively initiate measures to prevent a total loss of historically significant items following a hurricane.

## Pre-Hurricane

Things to Do Now:

- Contact your insurance provider to verify terms of your coverage.
- Insurance companies will not issue new homeowner policies or increase coverage once an area has been placed under a hurricane watch or warning by the National Weather Service.
- Flood insurance, which is issued by the National Flood Insurance Program, has an automatic 30-day waiting period.
- Flood insurance policies do not automatically provide contents coverage nor do they automatically provide coverage for outbuildings.
- Flood policies for primary residences do not have a co-insurance clause but depreciation will be taken into consideration at the time of a loss if your residence is not insured to within 80% of its replacement clause. However, flood policies covering condominium regimes do have an 80% co-insurance clause.
- Before a hurricane threatens, seek expert professional advice for proper storm preparation of your valuable objects using correct procedures and materials needed for packing and moving. For suggestions, contact the [HCF Curator](#).
- Make a list of phone numbers of contractors, painters, plumbers, carpenters, roofers and suppliers. Also keep contact numbers for city offices such as the staff for the Board of Architectural Review.
- Know the elevation of your property above sea level to assess flood-stage information. Ask your insurance agent or consult your flood insurance policy for this information.
- Plan your evacuation route in advance with special awareness of low points and the flooding history of local streets.
- Purchase adequate tarps and fastening devices to cover any roof damage or areas exposed to the elements. By the time you can purchase it after the storm, the damage will already have been done!
- Have a professional verify the master shut-off points for water, gas and electricity.

#### A Hurricane Watch:

- The declaration of a hurricane watch means hurricane conditions are possible and may threaten an area within 24 hours. It does not mean that a hurricane is imminent. Listen to what local officials are advising on radio or TV bulletins.
- Check batteries on radios and flashlights.
- Secure loose items in yards.
- Secure all shutters. Tremendous damage was caused by flying shutters during Hurricane Hugo.
- Make sure any access hatch to the roof is secured properly.
- Assemble candles, matches, a lantern and any fuel.

#### A Hurricane Warning:

- A hurricane warning means hurricane conditions are expected within 24 hours or less. Prepare to take further action.
- Follow instructions from your local officials as provided via radio and TV.
- Leave low areas most susceptible to storm surge flooding.
- Fill containers (i.e. bathtubs) with water.
- Unplug small appliances.
- Secure small boats; fill with water to make them heavy.
- Be alert for tornadoes (often accompanying hurricanes).

#### If You Evacuate:

- Close all interior doors.
- Lock windows and doors.
- If you live in an area prone to flooding, take what you can upstairs and put what you must downstairs on cinder blocks, brackets, etc.
- Cover all valuables with tarps.
- Keep important documents with you at all times (i.e. drivers license, insurance policies, household inventories, photos of the interior and exterior of your property, etc.).

### **EMERGENCY PREPAREDNESS CHECKLIST**

#### A. Construction Materials

- Plywood for covering or replacing windows.
- Nails, screws.
- Tapes (masking, duct, electrical).
- Adequate plastic tarps for protection against leaks.

#### B. Emergency Equipment

- Emergency gasoline powered electrical generator.
- Portable lights (to be powered by the generator if possible).
- Emergency lights and flash lights with extra batteries.
- Fire extinguishers (ABC type recommended).
- Battery operated AM/FM radios with extra batteries.
- Extension cords.
- First Aid kit.

### C. Documents

These important documents should be kept in more than one location (i.e. office, safety deposit box, home.)

Place all documents and photographs in waterproof containers.

- Current and updated insurance policies and phone numbers.
- Photographs of the entire exterior of the building.
- Photographs of architectural detail of each room.
- Drawings or blueprints of the structure with specific locations of combustible materials indicated.
- Accurate electrical plans.
- Mortgage records and copies of contracts.
- Updated list of personal property including receipts, serial numbers, photographs and video when possible.
- Forms to fill out for advice, assistance, etc. Phone numbers of contractors, painters, plumbers, carpenters, roofers and suppliers.

### **Post-Hurricane**

- Beware of loose or dangling power lines. Report them immediately to authorities. If there is damage to your house or to the power lines to your house and the power is off, trip the main breaker so that when the power company restores service, there will be no chance of an accident with a live wire.
- If using an electric generator, do not hook power back into house circuits, as electric currents could move back out into the power grid and cause serious injury or death through electrocution to utilities workers.
- Operate chainsaws only if necessary and with extreme caution. Wear proper hand, face and eye protection. Do not operate chainsaws near electric lines or near possible gas leaks. Do not operate chainsaws from ladders or up in trees.
- Walk and drive with extreme caution. Washouts may weaken roads and bridges.
- If repairs are needed, seek expert advice, use only licensed contractors and get more than one opinion before you begin. Be sure to check with The City of Charleston for any necessary approvals before work is started. Check with the Historic Charleston Foundation post-emergency recovery center at the Capt. James Missroon House (40 East Bay St. / 843-723-1623)
- Notify your insurance representative.
- Make a rough estimate of the extent of damage and the materials affected.
- When dealing with historic structures contact architectural conservators, historic preservation agencies, FEMA, and a structural engineer prior to cleanup.
- Follow the [Secretary of Interiors Standards for Treatment of Historic Properties](#).

### A. Salvaging Historic Materials

- Make visual and written notes to accompany the salvage process.
- Once the structure has been declared safe to enter, review salvage priorities.
- Create a secure salvage area with locks, fans, tables, shelves, plastic sheeting, drying materials and clean water.
- Do not enter the structure without proper protective clothing, hardhat, gloves, protective eyewear and NIOSH-approved respiratory mask.
- Reduce temperature and relative humidity to prevent mold. Target temperature and RH are 70F and 50% RH.
- Never use commercial dehumidification systems in historic buildings.
- Cover broken or damaged windows with plastic.
- Remove standing water and empty items containing water; remove wet carpets and non-historic furnishings.
- Completely air dry valuable objects and historic building materials.
- Arrange for repairs to security systems.
- For damaged objects of historic merit, consult a conservator and do not attempt repairs on your own.

## B. Supplies and equipment for Debris Removal and Interior Clean up

- Low foaming detergents
- Sanitizers
- Fungicides
- Disinfectants
- Ample amounts of safe household cleaners; especially ammonia
- Several pairs of rubber gloves
- Brooms / Dust pans
- Mops & buckets
- Shovels
- Scrub brushes
- Sponges and rags/cloths
- Water hoses and nozzles
- Disposable containers or bags for trash
- Rakes and clippers for lawn debris removal

## C. Cleanup

- Remove standing water.
- Remove flood soaked insulation and other damage materials that are not historic.

## D. Protecting Valuable Objects

- Leave undamaged items in place if they are stable and secure.
- If there are no portions of the building that are dry, protect valuable objects with loose plastic sheeting.
- Until salvage begins leave items in the condition they were found.
- Check items on a daily basis for mold.
- If mold is found, isolate the object(s).
- DO NOT sand historic wood floors until they are completely dry.
- DO NOT remove plaster if it is wet or damp. It can be saved if allowed to completely dry.

### Resources:

-National Oceanic and Atmospheric Administration: [http://www.noaanews.noaa.gov/stories2013/20130523\\_hurricaneoutlook\\_atlantic.html](http://www.noaanews.noaa.gov/stories2013/20130523_hurricaneoutlook_atlantic.html)

-2013 Charleston County Hurricane Guide: <http://www.charlestoncounty.org/pdfs/2013%20HurricaneGuide-Color-%20Full%20Size.pdf>

-City of Charleston Citizens Info Line (During emergency operations center activation ONLY): 843-746-3900

-Secretary of Interiors Standards for Treatment of Historic Properties: <http://www.nps.gov/tps/standards.htm>

### References:

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