




PLANNING FOR
HURRICANE AND TROPICAL
STORMS FOR THE DIOCESE OF
CORPUS CHRISTI

SECTION ONE

Hurricanes and Tropical Storms

SECTION KEY	
	<u>Disaster Definitions</u>
	<u>Planning for a Hurricane</u>
	<u>Levels of Activation Checklists</u>

Hurricanes and Tropical Storms are common occurrences in Southeast Texas. Each year the region braces itself as storms develop in the Gulf. A recent event was Hurricane Rita on September 24, 2005. This storm caused widespread damage in Southeast Texas and Southwestern Louisiana. Many parishes and families were significantly affected.



Hurricane Definitions

A **Tropical Depression** is a storm consisting of an organized cluster of thunderclouds over tropical seas with a center of low pressure detectable at the storm's surface. The highest wind speed of a tropical depression is 38 miles per hour.

A **Tropical Storm** is a tropical depression that has developed wind speeds of 39 to 73 miles per hour. When a storm reaches Tropical Storm strength, it is assigned a name. Severe flooding may occur with a tropical storm.

A **Hurricane** is a tropical storm that has developed wind speeds of 74 miles per hour or more. Hurricanes are rated on a scale called the Saffir-Simpson scale. Ratings are based on wind speeds and the expected height of the storm surge.

A **Storm Surge** is a rise in tide caused by a hurricane as it moves over or near the coastline. The rise in tides along with the devastating waves can cause catastrophic damage to entire buildings. Millions of fish are killed by the crash of the storm surge against the coastline and many people drown in the strong current produced by the surge.

A **Hurricane Watch** is issued when hurricane conditions pose a potential threat to an area within 36 hours. Landfall is possible.

A **Hurricane Warning** is issued when a hurricane is expected to strike within 24 hours. Landfall is imminent.

The **Hurricane Belt** is described as the area along the Atlantic Coast from Virginia to Key West Florida and along the Gulf of Mexico from Key West to Texas.

Hurricane Season is the time of year from June 1 – November 30 when ocean temperatures are favorable to the formation of hurricanes. It is possible for hurricanes can form earlier or later than these dates.

Rating Hurricanes

Hurricanes vary in power and speed. The Saffir-Simpson scale breaks them into the following categories according to wind speeds:

- Category 1: 74-95 mph
- Category 2: 96-110 mph
- Category 3: 111-130 mph
- Category 4: 131-155 mph
- Category 5: 156+ mph

Categories 1 & 2 – Minor damage to stable structures, major damage to mobile homes, vegetation and piers. Some coastal flooding.

Category 3 – Structural damage to small residences and utility buildings. Mobile homes are destroyed. Terrain continuously lower than 5 feet above sea level may be flooded inland 8 miles or more.

Categories 4 & 5 – Most deadly and destructive. Can create result in roof failure and building collapse. Massive beach erosion is caused by the storm surge. Flooding occurs in areas 15 feet above sea level and along the coastline, requiring evacuation of residential areas for up to 10 miles inland.

Tornadoes often accompany hurricanes.

Hurricanes spiral counterclockwise around a relatively calm center known as the **eye of the storm**. Hurricane-force winds and torrential rains border this calm. Additional winds, rains, etc. will follow the calming down of the storm (eye of the storm). **Remain indoors until experts advise that the storm has passed.**

Hurricane winds do much damage, but huge waves can raise tides 15 feet or more. These waves often come rapidly and produce flooding and flash floods. **Drowning is the greatest cause of hurricane deaths.**

Vertical evacuation (moving to second or third floor) is not safe. Storm surges can wipe out the foundation and/or the first floor, destroying the upper floors in the process.

Board windows up instead of taping them. Broken windows can allow hurricane winds to enter a building and blow off the roof. Boarding up windows where strong winds are expected is a safer method to protect the roof, the interior, and the overall structure of the property and prevent flying glass.

Officials may advise that all utilities be shut off to homes and other property. **Locate shut off valve(s) in advance and know how to use them safely.** Write down step-by-step instructions and make sure more than one person knows how to use them.

When storm conditions arrive, **secure all outside items** such as lawn furniture, children's toys, etc. so they do not become airborne.

Important records such as tax documents, insurance policies, social security cards, birth certificates, passports, bonds, stocks, wills, and medical information **should be placed in a waterproof container and stored in a safe place.**

If sheltering at home, **stay in the room or area most central to the home,** preferably without windows.

Take pictures of your home and property before a storm hits. If your property is damaged, take more photos after the storm. Develop 2 sets and give one set to your insurance company. Keep one set and the negatives in a safe location. Do not begin clean up until an insurance agent has inspected the damage.

When flooding accompanies a hurricane, snakes and rodents can become a hazard. Stray dogs and cats can cause problems also. Pets can become hostile once they have endured the effects of a serious storm.

Disruption of garbage and trash pickup can pose a problem. Food that cannot be used or saved after a storm should be buried rather than left outside to attract animals.

To **avoid accidents** in the home after a storm, clean up a room where small children can stay safely.

Looting can also be a problem after a storm. Work with your neighbors and friends and consider taking turns standing watch if looting becomes a problem.

Check with local civil defense or emergency management authorities before using any water after a flood. **Water sources may have been contaminated.**

Planning For A Hurricane

This section provides guidelines for the disaster planning committee and parish staff to enable them to carry out pre-determined roles and responsibilities for preparing for a hurricane landfall. This section outlines the step-by-step approach staff can take to simplify disaster preparedness. This plan takes into consideration that people may be using the parish as a shelter during a disaster or that staff have to be present during the disaster at a center such as a women’s shelter or a nursing home.

For the purposes of this exercise, the step-by-step approach is referred to as “Levels of Activation”. The Levels of Activation refer to or correspond with the various stages of weather alerts issued as a Tropical Storm or Hurricane approaches. In conjunction with the Levels of Activation, this section also provides timelines for disaster decision-making.

Levels of Activation	
Level I	Consists of non-threat period in which normal disaster planning takes place. Make sure to keep informed of developing tropical systems.
Level II	A Tropical Storm/Hurricane Watch has been issued for the area. Normally a strike is predicted within 36-48 hours. Use volunteers to call vulnerable parishioners to see if they need assistance in evacuating.
Level III	A Tropical Storm/Hurricane Warning has been issued for the area. A strike is predicted within 24-36 hours.
Level IV	Landfall is imminent with impact to the surrounding area within 12-24 hours.
Level V	Recovery period after the storm’s passage and winds have diminished.

Make sure that the committee has determined if the parish is located in a pre-designated Hurricane Evacuation Zone for storm surge. Will the parish normally be required to evacuate in the event of a hurricane projected to impact?

IS THE PARISH IN A PRE-DESIGNATED HURRICANE EVACUATION ZONE?

WOULD THE PARISH BE REQUIRED TO EVACUATE IN THE EVENT OF A PROJECTED IMPACT?

Obtaining Official Storm Notification

When a hurricane threat is imminent, notification of tropical storms and/or hurricanes can be received through the news media and the National Oceanic and Atmospheric Administration (NOAA) Radio.

Media usually gets their reports through NOAA. However, it would be best to confirm the threat by going to the National Weather Service Forecast Office for Southeast Texas (<http://www.srh.noaa.gov/crp>).

A Levels of Activation Checklist is provided below.



Levels of Activation Checklists

HURRICANE

Level 1

Consists of non-threat period in which normal disaster planning takes place. Be sure to keep informed of developing tropical systems.

- _____ Review the Routine Maintenance Checklist.
- _____ Conduct meeting to review Hurricane Plan with key staff members. Schedule drill of plan prior to Hurricane Season.
- _____ Make sure that videotape or photographs of interior/exterior of facility are up to date in order to verify insurance claims. (Store Safely)
- _____ Verify all emergency services and contact phone numbers and they are up to date.
- _____ Review all vendor/supplier agreements (for water delivery) and make sure they are still current.
- _____ Review all agreements for sheltering and transportation.
- _____ Review emergency supply lists to make sure all necessary supplies are on hand.
- _____ Review staff rosters and telephone trees to ensure accuracy.
- _____ Ensure that the office is equipped with a Weather Band AM radio for weather reports.

Level II

A Tropical Storm/Hurricane Watch has been issued for the area. Normally a strike is predicted within 36-48 hours.

- _____ Initiate staff phone tree to inform staff and volunteers that an evacuation is possible.
- _____ If the parish functions as a Red Cross Emergency Shelter, please review agreements in preparation of opening the shelter.
- _____ Track and Monitor Location of the Storm.
- _____ Conduct briefing of staff and volunteers to review hurricane procedures and provide update on the storm.
- _____ Designate a contact to communicate with the Diocesan Office if a closure is imminent.
- _____ Test the cellular communications system. Landline available?
- _____ Make sure that emergency supplies are up to date. Procure additional supplies if necessary.
- _____ Collect and set up all battery chargers for cell phones.
- _____ Insure all staff members top off fuel tanks and check fluid levels in their vehicles.
- _____ Obtain boxes/cartons to pack the Blessed Sacrament, Census Data, Sacramental Records, food, and supplies should evacuation be necessary¹. If the Blessed Sacrament is unable to be moved it must be consumed.

¹In situations in which a very intense hurricane (Category 4 or 5) is projected to impact the parish, it may be necessary to evacuate the Blessed Sacrament to a safe area.

Level II (continued)

- _____ Review Staff List/ Assign 24 hour staffing if necessary.
- _____ Establish a storage area for food and water brought in by staff and volunteers.
- _____ Ensure that all office/service locations have prepared a pre-recorded message on answering machines and voicemail that can be activated if offices close in the future.
- _____ If parish has a Day Care/Pre-K program, inform parents/caregivers that they will be contacted by telephone if a decision is made to close the facility.
- _____ If parish has a food pantry or provides assistance, case managers should work with individuals to make sure that they are prepared for the disaster. Encourage them to evacuate to a designated shelter or to stay with family or friends if they live in a vulnerable area.
- _____ Notify Diocesan contact of parish/school/entity status.
- _____ Have a volunteer call “at risk parishioners”. Make a list of parishioners who need transportation to a shelter.
- _____ Review Hurricane Level III Checklist.

Level III

A Tropical Storm/Hurricane Warning has been issued for the area. A strike is predicted within 24-36 hours.

- _____ Set up and move to a central location for disaster planning. This will be the “Emergency Operations Center” for the parish.
- _____ Obtain sufficient travelers checks/cash for 7 days of operations.
- _____ Call the County Emergency Operations Center and seek advice on whether or not evacuation plan should be activated.
- _____ Track and Monitor Location of the Storm (storm tracking form provided).
- _____ Call key staff together to discuss whether or not Evacuation Plan should be implemented.
- _____ Decide if Parish offices are closing.
- _____ If office is closing during non-working hours, initiate phone tree. Inform staff who will be needed to help secure the building.
- _____ If decision is made to close parish during working hours, send all non-essential staff home.
- _____ Notify Diocese about closings.
- _____ Notify callers of plans to close office.
- _____ Review Evacuation Procedures.
- _____ Contact County Emergency Operations Center every 4 hours to receive updates. Brief staff on updates.

Level III (continued)

- _____ Review emergency and disaster supplies, making sure they are all accessible.
- _____ Make sure bleach is readily accessible.
- _____ Make sure ice chests are accessible.
- _____ Install plywood over doors and windows.
- _____ Disconnect all electrical appliances and equipment.
- _____ Establish damage assessment teams from staff volunteers.
- _____ Secure, brace, or remove antennas and loose objects.
- _____ Bring in all signs, lawn furniture, or other loose objects that are normally left outside.
- _____ Secure all items that cannot be brought inside. Fill all available storage containers with water.
- _____ Secure at least six, 3-5 gallon buckets, which can be filled with water and used to flush toilets.
- _____ Borrow or rent a gasoline-powered chain saw.
- _____ Start recruiting drivers who can transport special needs parishioners to shelters.
- _____ Change message on answering machine.
- _____ Review level IV Checklist

Level IV

Landfall is imminent with impact to the surrounding area within 12-24 hours.

- _____ Clean and store all cooking and eating utensils.
- _____ Start eating perishable food.
- _____ Fill ice chests with ice.
- _____ Fill gallon buckets with water that can later be used for flushing toilets.
- _____ If staff, volunteers, and family are using parish as shelter, make sure all stay indoors until winds have diminished below Tropical Storm Force Level.
- _____ Monitor TV stations for the latest storm updates.
- _____ Drive special needs parishioners to emergency shelters.
- _____ Start using disposable serving and eating containers and utensils.
- _____ Box all dry and canned goods.
- _____ Box all needed cooking utensils, disposable plates, silverware, and cups in case of evacuation.
- _____ Follow the National Weather Service Office or the County Emergency Operations Center to determine when you are to anticipate the first hurricane force winds, top winds expected, the duration of the hurricane force winds, and the expected amount of rainfall.
- _____ Move everyone possible into the interior of the facility at least 30 minutes prior to the expected arrival of tropical storm force winds.
- _____ Turn off circuit breaker for all electricity except lights in the rooms where people are housed and refrigeration.
- _____ If power goes off, turn off main breaker.
- _____ Review Level V Checklist.

Level V

Recovery Period after the storm's passage and winds have diminished.

- _____ Call key staff and discuss preliminary needs and damage assessment. Damage needs assessment to be complete within the first 24 hours.
- _____ If the facility has sustained substantial damage, implement evacuation procedures, and move to an alternate location (partner parish?).
- _____ Contact the County Operations Center and obtain information on road closures and flooding. This will enable the committee to inform staff wishing to survey their homes what roads are dangerous.
- _____ Remove plywood from all windows and doors.
- _____ Inspect all rooms for damage and/or water leaks. Call 911 if lines are downed or if there is the smell of fire, gas, or smoke.
- _____ Inspect exterior of building for damage.
- _____ Check cable TV and antennae TV to determine if operational.
- _____ Disconnect all electrical equipment if there is any power fluctuation.
- _____ Assign family member and/or volunteers to monitor portable radio(s) to determine which stations are operational.
- _____ Take detailed documentation (photos, video) for claim support.
- _____ Prepare list of initial needs as well as damage assessment and give to the Pastor or his designee.
- _____ Pastor/Principal/Administrator submit Incident Report to Diocesan Dept. of Financial Services.

CHAPTER III: PLANNING FOR SPECIFIC NATURAL DISASTERS

Level V (continued)

-
- Work with staff to determine if there are any injuries or personnel requiring medical attention.
-
- Conduct a head count to ensure that all residents, staff, and family members are accounted for.
-
- Ensure that all archival records are safe.
-
- Inspect supplies for damage.
-
- Call parish staff if office is to remain closed.
-
- If parish is to remain closed, activate alternative site for liturgy services and parish operations.
-
- If facility is designated as a disaster relief site, activate plans for operation.
-
- Begin organizing volunteers to help the community after the disaster.
-

CHAPTER III: PLANNING FOR SPECIFIC NATURAL DISASTERS

After the Storm... Important Hurricane Related Warnings and Cautions

- 1) Vertical Evacuation (moving to a second or third floor) during strong hurricanes is not safe. Storm surges can wipe out foundations and/or first floors destroying the upper floors in the process
- 2) Tornados can be spawned by hurricanes, causing additional high winds and damage.
- 3) Do not touch dangling or loose wires.
- 4) If area is flooded, **do not turn on** lights or appliances until an electrician checks them out.
- 5) When flooding accompanies a hurricane, snakes, and rodents can become a hazard.**
- 6) Disruption of garbage and trash pickup can pose a problem. Food that cannot be used or saved after a storm should be buried rather than left out to attract animals.
- 7) Looting can also be a problem after a storm. Work with authorities and remember that at all times personal safety is of the utmost importance.
- 8) Check with local civil defense or emergency management agencies before using any water after a flood. Water sources may be contaminated. If your facility is serviced by a well, water must be tested before use.**

