

*He awoke and rebuked the wind and said to the sea, "Peace! Be Still!" and the wind ceased, and there was a great calm.*




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## 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 Harvey on August 25, 2017. This storm caused widespread damage in South Texas and is considered to be the most costly storm in history. 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.weather.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, check fluid levels in their vehicles, have a number days of medications (if applicable) and some cash on hand in case credit card services are unavailable.
- \_\_\_\_\_ Obtain boxes/cartons to pack the Blessed Sacrament, Census Data, Sacramental Records, food, and supplies should evacuation be necessary<sup>1</sup>. If the Blessed Sacrament is unable to be moved it must be consumed.

<sup>1</sup> In 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 or other prearranged notification means 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.
- \_\_\_\_\_ Watch for information from County Emergency Operations Center and seek advice on whether evacuation plan should be activated.
- \_\_\_\_\_ Track and Monitor Location of the storm
- \_\_\_\_\_ Call key staff together to discuss whether 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.
- \_\_\_\_\_ Watch for Updates from 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 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 damage Report to Diocesan Construction Department.

## CHAPTER III: PLANNING FOR SPECIFIC NATURAL DISASTERS

### Level V (continued)

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