



# **ANNEX A**

## **Natural Disasters**

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## THUNDERSTORMS AND LIGHTNING

Thunderstorms are a frequent occurrence in Texas. They are often accompanied by lightning, damaging winds in excess of 50 mph, and hail. A severe thunderstorm may be a prelude to a tornado.

The National Weather Service issues the following alerts related to severe thunderstorms:

Special Weather Statement	NWS Issues a Special Weather Statement when storms are occurring that fall below the normal “Severe” threshold, but may cause non-life threatening impacts, such as heavy rain and strong winds.
Severe Thunderstorm Watch	Issued when there is a possibility of a storm developing, which would be greater in intensity than the severe storm indicated by the severe thunderstorm bulletin above.
Severe Thunderstorm Warning	Issued when a severe thunderstorm has developed and will probably affect those areas stated in the bulletin.

### 1. Preparation

- Remove dead or rotting trees and branches that could fall and cause injury or damage during a severe thunderstorm.
- Remember the 30/30 lightning safety rule: Go indoors if, after seeing lightning, you cannot count to 30 before hearing thunder. Stay indoors for 30 minutes after hearing the last clap of thunder.

### 2. Response

- The [*house of worship leadership team*] will monitor the weather reports by the National Weather Service.
- Suspend all outdoor activities during a Severe Thunderstorm Warning, or if audible thunder exists.
- Direct all personnel, congregants and volunteers to shelter in an interior space away from windows.
- The Emergency Management Team shall be activated to assist in contacting parents and releasing congregants, if safe to do so.

## TORNADOES

In Texas, tornadoes are very possible. Houston has a history of dangerous tornadoes accompanying severe thunderstorm systems. While our tornadoes aren't as severe as those in other parts of the country, they are nonetheless very dangerous.

These storms are generally small and short-lived, yet the most violent of all atmospheric phenomena. The National Weather Service issues three types of tornado products:

<b>Tornado Watch</b>	Issued when weather conditions are such that a tornado may develop and listen for further updates.
<b>Tornado Warning</b>	Issued when a tornado has been sighted either in person or on radar, and protective measures should be taken immediately.
<b>Tornado Emergency</b>	Issued when a series of tornadoes is impacting the metro area. This means that residents throughout the area should immediately seek shelter and stay there until deemed safe.

### 1. Preparation

- Determine in advance where you will take shelter in case of a tornado warning. Storm cellars or basements provide the best protection.
- If underground shelter is not available, go into an interior room or hallway on the lowest floor possible.
- Stay away from windows, doors, and outside walls. Go to the center of the room. Stay away from corners because they attract debris.

### 2. Response

- Tune into the local TV/radio station or weather alert radio for updated information when notified of a tornado watch.
- During a watch, close all windows and doors.
- During a warning, leave all doors and windows closed.
- Move congregation into the designated emergency shelter areas if the watch becomes a warning.
- Follow emergency procedures at once when a tornado warning occurs. The signal will be an announcement over the PA system.
- Move quickly to a temporary shelter area if there is sufficient time to take shelter.
- Take personal belongings only to provide extra protection (i.e., large books, notebooks or coats may be held over head and shoulders).
- Take position for greatest safety by sitting down, head down with hands locked at the back of the neck.

- Document damage and report it to non-emergency City/County services for proper documentation.

## **FLOODS AND FLASH FLOODS**

Floods are the second most common and widespread of all natural disasters, after fire. They are the most deadly type of severe weather in the nation. In Texas, many communities experience some kind of flooding after spring rains or heavy thunderstorms. Floods can be slow or fast rising but generally develop over a period of days.

Flash floods usually result from intense storms dropping large amounts of rain within a brief period. They occur with little or no warning and can reach full peak in only a few minutes. Communities particularly at risk are those located in low-lying areas, near water, or downstream from a dam.

### **1. Preparation**

- Know your area's flood risk – if you're unsure, call your local emergency management agency.
- Property insurance does not typically cover flood damage! Talk to your insurance provider about your policy and consider if you need additional coverage. The National Flood Insurance Program is designed to provide reasonable flood insurance in exchange for the careful management of flood-prone areas by local communities. The program, administered by FEMA, is available in hundreds of participating Texas communities. Visit FEMA Business NFIP for more information.
- Reduce potential flood damage by raising your furnace, water heater, and electric panel if they are in areas of your house of worship that may be flooded.

### **2. Response**

- Designate someone to turn off utilities at main switches. This person should unplug appliances, and do not touch electrical equipment.
- Staff will not stack sandbags against the outside facility walls, this increases the amount of pressure placed on the structure which can cause damage.
- If water is standing in the facility, staff should let it flow freely through the facility to help avoid further structural damage.
- Staff and/or designated persons will take care to avoid downed power lines.
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- Staff and/or designated persons will ensure that no one drinks tap water due to contamination.
- Staff and/or designated persons will monitor weather radios during periods of torrential rain.
- Staff and/or designated persons will keep all congregants indoors, and encourage them not to leave in cars when flash flood warnings have been issued until the community has been deemed safe.
- [*House of Worship Leadership Team*] will consult with public safety officials to determine course of action.
- Entire house of worship community will be notified if the facility must be evacuated to a safe area of higher ground.
- Entire house of worship community will be notified if its activities are cancelled, opened late, or closed early because the facility is being used as an emergency shelter for the community.
- [*House of Worship Leadership Team*] and staff will work to provide support to any families affected by flooding. ‘
- Document damage and report it to non-emergency City/County services for proper documentation.

## WINTER STORMS

The major dangers of winter storms are intense cold, power outages and breakdown of transportation due to poor visibility and road conditions. Winter weather warnings are issued by the National Weather Service (NWS). When the threat of such weather exists, monitor radio and local TV. The [*house of worship name*] is closed for winter storms when all of [county name] religious organizations are closed, or when the [*house of worship leadership team*] feels that getting to the campus would endanger the lives of members, staff, and visitors.

The National Weather Service issues the following types of products for Winter Storms:

<b>Winter Storm Watch</b>	Severe winter conditions are possible in the next few days.
<b>Winter Weather Advisory</b>	Winter weather conditions are expected to cause major inconveniences, some of which may be life threatening if caution is not exercised
<b>Winter Weather Warning</b>	Severe winter weather conditions are likely or are occurring

### 1. Preparation

- Staff will contact respective families of any house of worship delays, cancellations or required early dismissal.

## 2. Response

- Winter storms are often accompanied by power outages. Always exercise caution when using alternative light and heating sources:
  1. Use flashlights during power outages instead of candles to prevent the risk of fire, and have plenty of extra batteries on hand.
  2. Never bring portable generator instead of the facility. Keep them at least 20 feet away from the building, doors and vents to prevent deadly carbon monoxide poisoning.

## HURRICANES

As a coastal state, Texas is particularly at risk for hurricanes. Storms that form in the southern Atlantic Ocean, Caribbean Sea and Gulf of Mexico have the potential to affect our state. Every congregant and house of worship should plan what to do in the event of an evacuation.

<b>Tropical Storm Watch</b>	High winds (39-73 mph) are possible within 48 hours.
<b>Tropical Storm Warning</b>	High winds (39-73 mph) are likely within 36 hours.
<b>Hurricane Watch</b>	Hurricane-force winds (74 mph or greater) are possible within 48 hours.
<b>Hurricane Wind Warning</b>	Warning Hurricane-force winds (74 mph or greater) are likely within 36 hours.
<b>Storm Surge Watch</b>	Life-threatening coastal flooding from storm surge is possible within 48 hours
<b>Storm Surge Warning</b>	Life-threatening coastal flooding from storm surge is likely within 36 hours.

### 1. Preparation

- Get a kit of emergency supplies and prepare a portable Ready kit in case you have to evacuate.
- Prepare to secure your property.

### 2. Response

- [*House of worship leadership*] and staff will listen to the advice of local officials and evacuate the area when told to do so.
- [*House of worship leadership team*] and staff will monitor weather radio and local media outlets for evacuation instructions.
- If advised not to evacuate, all occupants of building will stay indoors and away from windows.
- Staff will work to provide support to any families affected by the hurricane.
- Document damage and report it to non-emergency City/County services for proper documentation.



## EXTREME TEMPERATURES

Extreme temperatures can affect Houston and create life-threatening situations, especially for those most vulnerable, such as the homeless, elderly, children, and those with few financial resources.

The National Weather Service may issue the following products in extreme temperatures:

<b>Wind Chill Advisory</b>	NWS issues a wind chill warning when dangerously cold wind chill values are expected or occurring.
<b>Wind Chill Watch</b>	NWS issues a wind chill warning when dangerously cold wind chill values are expected or occurring.
<b>Wind Chill Warning</b>	NWS issues a wind chill warning when dangerously cold wind chill values are expected or occurring.
<b>Frost Advisory</b>	A frost advisory means areas of frost are expected or occurring, posing a threat to sensitive vegetation.
<b>Freeze Watch</b>	NWS issues a freeze watch when there is a potential for significant, widespread freezing temperatures within the next 24-36 hours
<b>Freeze Warning</b>	When temperatures are forecasted to go below 32°F for a long period of time, NWS issues a freeze warning.
<b>Hard Freeze Warning</b>	NWS issues a hard freeze warning when temperatures are expected to drop below 28°F for an extended period of time, killing most types of commercial crops and residential plants.
<b>Heat Advisory</b>	A Heat Advisory is issued within 12 hours of the onset of extremely dangerous heat conditions. The general rule of thumb for this Advisory is when the maximum heat index temperature is expected to be 100° or higher for at least 2 days,
<b>Excessive Heat Watch</b>	A Heat Advisory is issued within 12 hours of the onset of extremely dangerous heat conditions. The general rule of thumb for this Advisory is when the maximum heat index temperature is expected to be 100° or higher for at least 2 days,
<b>Excessive Heat Warning</b>	A Heat Advisory is issued within 12 hours of the onset of extremely dangerous heat conditions. The general rule of thumb for this Advisory is when the maximum heat index temperature is expected to be 100° or higher for at least 2 days,

### 1. Preparation

- Monitor severe weather conditions and prepare resources to provide direct assistance to individuals affected by extreme temperatures.
- Ensure the facility is sufficiently able to handle extreme weather, including having enough material on-site to insulate pipes.

### 2. Response

- When temperature-related severe weather warnings are issued by NWS, organizations should suspend all outside activities, including playground activities.
- Organizations should check with vulnerable congregation members and clients to ensure they are properly resourced for the severe weather.