

# DISASTER PREPAREDNESS GUIDE



Mayor's Office | Office of Emergency Management | [houstonoem.org](http://houstonoem.org)



# CITY OF HOUSTON

## OFFICE OF EMERGENCY MANAGEMENT

### Mission Statement

The City of Houston Office of Emergency Management (OEM) is responsible for coordinating emergency response for the nation's fourth-largest city. OEM also provides information and services to residents, businesses and city departments, and coordinates Houston's emergency response during times of disaster. With the support of our residents and community partners, OEM works to see that Houston prepares for, responds to and recovers from large emergencies and disasters.

### Emergency Preparedness

Houston residents are no strangers to emergencies. Our location along the Gulf Coast, in combination with our status as one of the nation's industrial centers leaves us vulnerable to many natural and human-caused hazards. When emergencies occur, our daily lives can be disrupted, having serious effects on our families, friends and neighbors. This is why preparedness is so important. Having the knowledge, skills and abilities to respond to a disaster is everyone's job. As a Houstonian, you can do this by following a four-step preparedness process: making an emergency plan, having an emergency kit, being informed about disasters and helping members of your community prepare themselves.

OEM works to help residents prepare, but also serves as the coordinator of the city's disaster response. Working with the resources of the city, OEM ensures city departments collaborate to manage the emergency, and through a variety of plans and agreements, brings in outside help to restore basic services and help Houston get back to business. Working together, Houston residents, businesses, and community organizations play a key role in how quickly we recover from disasters. This Disaster Preparedness Guide will help you be better prepared for the next big disaster. Thank you for taking the first step.

**CITY OF  
HOUSTON**  
Office of Emergency Management

713.884.4500

[houstonoem.org](http://houstonoem.org)



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## PREPAREDNESS CHECKLIST

# 4 STEPS

Knowing what to do protects you and your family. On the following pages, you can learn about potential hazards and how to deal with them.

## MAKE AND PRACTICE YOUR FAMILY EMERGENCY PLAN

Every family is unique. As you make your plan, be sure to consider everyone's needs. Sit down together and decide how you will get in contact with each other, where you will go, and what you will do in an emergency.



- Make sure everyone knows important phone numbers and that children know their parents' full names.
- Keep a list of contacts by the phone and in your emergency kit. Be sure to have a charger for your mobile phone.
- Make sure you identify a safe room in your home to ride out a storm.
- Determine the best escape routes from your home and find two ways out of each room.
- Decide on a meeting place outside of your home, and one just outside of your neighborhood, in case you cannot return to your home.
- Pick a friend or family member both inside the city, and one who lives out of the Houston area for your family to contact in case they become separated.
- Make a plan about what you will do if you need to evacuate with your pets.
- Keep a copy of your family emergency plan in your supply kit or another safe, waterproof place where you can access it in the event of a disaster.
- If you live in an evacuation Zip-Zone (see pages 26-27), plan an evacuation route ahead of time.



- For people with access or functional needs, please see pages 13-14 for additional tips.
- Know where to go to get information on shelters and services following an emergency. Visit [houstonomieergency.org](http://houstonomieergency.org) or call 3-1-1 to find the nearest shelter.
- Remember that all emergency shelters are accessible to people with disabilities, and that service animals and pets are always welcome. Please note that pets may be housed nearby, but not necessarily with someone in a shelter.
- Remember that ATMs require power, and may not be available after a disaster. It's always a good idea to keep some cash on hand in a safe place.
- If you live or work in a high-rise building, remember to check with your building management on what to do in an emergency such as fire.

### Prepare your home for an emergency:

- Install safety equipment such as smoke detectors, carbon monoxide detectors, and fire extinguishers. Also test them regularly.  
Residents of the City of Houston can request a free smoke detector (including detectors for people who are deaf or hard-of-hearing) by visiting [houstonfire.org](http://houstonfire.org) and click "Smoke Alarms".
- Learn basic safety skills such as CPR, first aid, and use of the fire extinguishers.
- Know how and when to turn off water and electricity at the primary connections.
- Post emergency phone numbers by all home telephones. Teach children how and when to dial 9-1-1 for fire, police, or an ambulance.
- Keep a list of your possessions. Keep important papers in a safe deposit box or another safe and dry location.

Be sure to practice your plan on a regular basis so that you know what to do in an emergency. Practicing your plan also allows you to find problems with the plan in a safe environment. Then, be sure to update your plan so it's as good as it can be if a disaster strikes.

- Conduct fire and emergency evacuation drills annually at your home and business.
- Replace stored water every three months and food every six months.
- Service and/or replace your fire extinguishers according to manufacturer's instructions.
- Test your smoke detector once a month. Replace the batteries in March and November (or as suggested by the manufacturer), and replace the smoke detector after 10 years.
- Practice with your child so that he or she knows important phone numbers.
- Periodically visit your meeting place and remind family members what to do during an emergency, so that everyone is familiar.

# BUILD AN EMERGENCY KIT

Building a family emergency kit is crucial. During emergencies, you may need to be on your own for a period of time.

You may want to consider three types of kits: A Go-Bag, a Shelter-in-Place Kit, and a Pet Disaster Supply Kit.



## Go-Bag

A Go-Bag is one that you would take with you in case of an evacuation. Go-Bags should be easily portable like a backpack or suitcase on wheels. Store it somewhere you can easily get to it.

### Recommended items to consider including in your Go-Bag:

- Copies of your important papers in a waterproof bag.
- Extra set of car and house keys.
- External mobile phone battery pack or solar charger. Some hand-crank flashlights will also include a phone charger.
- Bottled water and snacks such as energy or granola bars.
- First-aid supplies, flashlight, and whistle.
- Battery-powered or hand-crank radio (with extra batteries, if needed).
- A list of the medications each member of your family needs and at least a 14-day supply of each medication.
- Toothpaste, toothbrushes, wet cleansing wipes, and other items needed for personal sanitation.
- Contact and meeting place information for your family and a map of your local area.
- A stuffed animal or toy for your child and something to help occupy their time, like books or coloring books. If this includes a hand-held video game, make sure you have extra batteries.
- Rain ponchos.
- Escape Tool for your car.

List any other items for your family's particular needs. For suggestions on planning for people with disabilities or those with access and functional needs, see pages 13-14.

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## Shelter-in-Place Kit

Keep a Shelter-in-Place Kit for when you need to shelter at home for an extended period.

### Recommended items to consider including in your Shelter-in-Place Kit:

- Water (one gallon per person per day, for drinking and sanitation—up to a 7-day supply).
- Non-perishable food (up to a 7-day supply per person).
- Battery-powered radio (with extra batteries) or hand-crank radio/NOAA radio.
- Weather radio with tone alert and extra batteries.
- Flashlight and extra batteries.
- First-aid supplies.
- Whistle to signal for help.
- Filter mask or cotton t-shirt, to help filter the air.
- Moist towelettes, garbage bags, soap, disinfectant, and plastic ties for personal sanitation.
- Wrench or pliers to turn off utilities (water and electric).
- Manual can opener if your kit contains canned food.
- Plastic sheeting and duct tape to shelter-in-place (see pages 35-36).
- Plastic tarps for emergency roof repair.
- Items for unique family needs, such as daily prescription medications, infant formula, or diapers.
- Mess kits, paper cups, plates, and plastic utensils.
- Cash and change. (ATMs may not be available after an emergency, especially if power goes out.)
- Paper towels.
- Fire extinguisher.
- Matches in a waterproof container.
- Rain gear, sturdy shoes, long pants, and gloves.
- Important family documents such as copies of insurance policies, identification, birth certificates, passports, and bank account records in a waterproof, portable container.
- A stuffed animal or toy for your child and something to help occupy their time, like books or coloring books. If this includes a hand-held video game, make sure you have extra batteries.

List any other items for your family's particular needs. For suggestions on planning for people with access and functional needs, see pages 13-14.

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## Pet Disaster Supply Kit

Overlooking pets during a disaster can result in them being lost, injured, or worse. Ensure your pet has proper identification and consider having them micro-chipped. This will make it much easier to reunite them with you if you are separated during an emergency. If a family is going to evacuate, the family's pet should be evacuated too. You should identify ahead of time a place you can evacuate with your pet. Consider boarding facilities or veterinarians in Houston or your designated evacuation location who shelter pets during emergencies. Also, designate a pet buddy, a friend or neighbor that can take care of your pet if you are unable to get to your house. As part of your pet plan, have a Pet Disaster Supply Kit.

### Recommended items to consider including in your Pet Disaster Supply Kit:

- Pet medications
- Important documents, including vaccination records
- Pet-friendly soap
- First-aid supplies
- Strong leashes and collar/harness with ID tags
- Carriers to transport pets safely
- Current photos of pets (in case pets get lost)
- Pet food
- Drinking water (one gallon per pet per day, for up to seven days)
- Bowls
- Litter/pan
- Muzzle
- Manual can opener
- Toys

List any other items for your pet's particular needs.

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# STAY INFORMED

Staying informed in an emergency situation may be different than normal. In the Houston area, we often have warning of upcoming weather emergencies. However, there are other emergencies which may happen with little-to-no notice. It's important to keep informed about anything that may come our way.



## AlertHouston

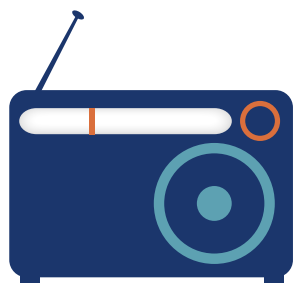
The City of Houston offers emergency alerts through the AlertHouston emergency notification system. People who live or work in Houston can receive emergency notifications via email, text message and through a mobile app. To find out more information on AlertHouston, and to sign up for alerts, visit [houstonemergency.org](http://houstonemergency.org).

During emergencies, listen to KUHF 88.7 FM or KTRH 740 AM, our region's designated Emergency Alert System (EAS) stations, for up-to-the-minute information from local public officials. Houston residents can also stay informed about emergencies by signing up for emergency notifications from the City of Houston at [houstonemergency.org](http://houstonemergency.org). Follow instructions and recommendations — and be ready to adjust your disaster plans and supply kits as situations change.

In an emergency, many people turn to the Internet and social media for information. While this is often a way to quickly access updates about an incident, not all information posted on websites or social media is accurate. The best source of accurate information is from official government websites or social media accounts. In the City of Houston, those can be found at [houstonemergency.org](http://houstonemergency.org).

To help prevent the spread of inaccurate, misleading, or dangerous information, please do not re-tweet or re-post incident updates that are not coming from official sources. If you come across inaccurate, misleading, or dangerous emergency-related information on social media, politely direct the poster back to [houstonemergency.org](http://houstonemergency.org).

If you live outside the City of Houston, visit [readyhoustontx.gov](http://readyhoustontx.gov) to find contact information for your local Office of Emergency Management.



**EMERGENCY ALERT  
SYSTEM**  
KUHF 88.7 FM or KTRH 740 AM



## WIRELESS EMERGENCY ALERTS

Authorized government agencies can send short text alerts directly to your phone based on your current location. These alerts happen automatically and do not require you to sign up. To manage these alerts, check your phone's messenger settings. Though most new phones receive these alerts, they are not yet available on all devices. Learn more at [ready.gov/alerts](http://ready.gov/alerts).

## ALERTHOUSTON

Staying informed through emergency notifications helps make sure you know what to expect in an emergency, and what to do to stay safe. AlertHouston offers emergency alerts through email, text message, a mobile app, and social media. Sign up at [houstonemergency.org](http://houstonemergency.org).

## CITIZENSNET

Want to know more about disaster preparedness and receive news and information from city departments that are of interest to you? Sign up for CitizensNet at [houstontx.gov/citizensnet](http://houstontx.gov/citizensnet).

## TEXT MESSAGING

It's important that everyone in your family know how to use text messages, because when phone networks are busy after a disaster, text messages may still get through. Text messages are limited in size, so keep them short and to the point. Also, remember that text messages can only be sent between mobile phones (not to a landline) and that additional charges may apply.



## SOCIAL MEDIA

Social media is a great way to get quick updates on emergencies from your local government. Facebook is usually used for medium-length posts and pictures. Twitter is great for short messages, and those messages (called Tweets) can be sent to you via text message if you subscribe to them. Blogs are used for longer messages and updates. For links to official social media channels, visit [houstonemergency.org](http://houstonemergency.org).

## APPS

### American Red Cross Shelter App

Contains emergency shelter information. Updated only when shelters are opened.

### The Ready App

Emergency preparedness information for the Houston region.

### Houston 3-1-1 App

Report non-emergency situations to Houston 3-1-1 from your phone.

Find these apps and more at [houstonemergency.org](http://houstonemergency.org).



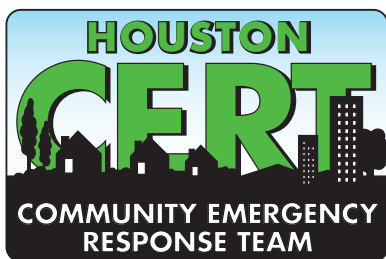


## GET INVOLVED

Communities that plan together, and work together before a disaster, are better prepared to help each other during a disaster. Get involved in your community throughout the year, meet your neighbors, and make connections. There are some great ways to do this, including joining your Civic Club or Superneighborhood meeting ([houstontx.gov/superneighborhoods](http://houstontx.gov/superneighborhoods)), or attending a Positive Interaction Program (PIP) meeting, hosted by the Houston Police Department ([houstonpolicecommunityevents.com](http://houstonpolicecommunityevents.com)). You can also engage in your community online using social media groups, and through [Nextdoor.com](http://Nextdoor.com).

### CERT (Community Emergency Response Team)

Have you ever wanted to learn more about how to respond in your community after a disaster? Then you should consider a Community Emergency Response Team (CERT) class.



- CERT trains people in neighborhoods, the workplace, and schools in basic disaster response skills, like fire suppression, urban search and rescue, and medical operations.
  - This awareness-level course helps residents take a more active role in emergency preparedness by providing skills that allow neighbors to come together and assist one another until local agencies can step in.
- CERT volunteers are called upon to provide assistance with the BP MS 150 bike ride; various City of Houston special events; and community education events put on by the Houston Fire Department, Houston Police Department, and Houston Office of Emergency Management.
  - CERT training and materials are available in English and Spanish, and accommodations can be made for American Sign Language and other languages.

All are welcome to participate at the level they are comfortable with. For more information on the training program (a series of eight three-hour sessions) and scheduled classes, visit [houstoncert.org](http://houstoncert.org). People living outside of the City of Houston can find their local CERT coordinator's contact information on [houstoncert.org](http://houstoncert.org).

### MRC (Medical Reserve Corps)

Do you have medical training or expertise and want to help treat survivors following a disaster? MRC volunteers receive training in emergency response, and are placed on teams with other medical professionals to work in disasters and assist with community events throughout the year. Even if you do not have specific medical training, but still want to be part of an MRC team, there are non-medical positions available as well. For more information or to sign up, visit [harristxmrc.samariteam.com](http://harristxmrc.samariteam.com).



## Neighborhood Ready

If an eight-week CERT class isn't possible, the Ready Houston program offers a 90-minute training class called "Neighborhood Ready," which is facilitated by you or a member of your community. The course covers topics such as determining if you and your neighbors are ready, understanding what disasters could affect your neighborhood, making a plan, building a kit, knowing your neighbors and staying informed. The host/facilitator helps the neighbors get to know each other and gives you the foundation you need to be prepared and ready.

### The Neighborhood Ready Meeting Kit

If you are willing to host a neighborhood preparedness meeting and you are located in the greater Houston region, we will send you a meeting kit free of charge that includes a facilitator guide providing tips and suggestions to help make the presentation unique to you and your group. The kit also includes a number of items to help you effectively conduct your training session including a DVD, discussion guides, notepads, pens and safety lights. At the end of the session, the participants can keep their workbook, which also serves as a template for creating their own family emergency plan and building preparedness kits.

To obtain your kit, please visit [readyhouston.tx.gov/neighborhood-ready/training-and-resources](http://readyhouston.tx.gov/neighborhood-ready/training-and-resources).

# NATIONAL NIGHT OUT



Throughout Texas, the first Tuesday in October is when neighbors come together to introduce themselves to one another, get to know the local law enforcement officers and emergency responders who patrol their area, and help make their communities safer. To learn more about National Night Out in your community, visit [houstonpolice.org](http://houstonpolice.org), contact your local law enforcement agency, or check your neighborhood's page on [Nextdoor.com](http://Nextdoor.com) in late September.

## Emergency Preparedness for People with Disabilities or Access & Functional Needs

In addition to the preparedness steps that have already been mentioned, if you have an access or functional need, you should develop a support system made up of individuals who can help you during a disaster. These should be people you trust, who know the type of support you need in an emergency. This system can involve paid caregivers, family members, loved ones, friends, or neighbors. Support system members should know your capabilities and needs, and be able to help quickly.

Some professional caregivers and assisted living facilities are required to have emergency plans, so ask them what these plans are and what to expect in a disaster. If a plan is not required or does not exist, work with facility managers, family members, loved ones, and neighbors to develop one. Go through all the tasks involved in a normal day. Make a list of

any accommodations, specialized equipment, or other necessities that you rely on. Also make note of the things you do every day that you need help with. This list might include:

- adaptive equipment for dressing, showering, or eating
- equipment that you have that runs on electricity
- special vehicle or transportation requirements
- prescription and non-prescription medications that you take on a regular basis

This list will be the backbone of your emergency plan. For each action item on your list, identify what you would do if your normal routine were disrupted. Part of the planning process may include adding items to your emergency kit based on the list, while for other items on the list (such as specialized transportation), assistance from someone else may be necessary. Of course, you will need to tailor the contents of the kits to your specific needs and abilities. Ideally, you will need to plan for up to two weeks and include every item that you must use on a daily and weekly basis – such as: medication, syringes, ostomy bags, catheters, or padding. By law, emergency shelters and transportation providers must make reasonable accommodations for you. This may include ramps for wheelchairs or people with difficulty using stairs, interpreters or alternate ways to communicate for people who are deaf or hard of hearing, and access for a service animal for people that use one. However, staff at shelters or on buses may not be familiar with your particular needs. Please be sure to ask the staff if you need an accommodation that is not present (such as a power outlet for a medical device). People who may need extra assistance in a disaster should register with the State of Texas Emergency Assistance Registry (STEAR) by visiting [texasstear.org](https://texasstear.org) or dialing 2-1-1.

## PRE-REGISTER FOR ASSISTANCE TEXASSTEAR.ORG

STEAR may be used by those who require transportation assistance in an evacuation, as well as by individuals who may require other assistance during a disaster. Information in the STEAR system is kept confidential. In the event your area is subject to an evacuation order or other disaster, your local Office of Emergency Management may contact you to schedule transportation or other services. **Registration is not a guarantee of assistance**, however, so please continue to include transportation in your personal emergency plan.

For additional information on hurricane preparedness for people with disabilities or those with access and functional needs, visit [togetheragainsttheweather.org](https://togetheragainsttheweather.org).

IMPORTANT SUPPORT SERVICES	
City of Houston Office of Emergency Management	<a href="https://houstonoem.org">houstonoem.org</a>
State of Texas Emergency Assistance Registry (STEAR)	<a href="https://texasstear.org">texasstear.org</a>
United Way Texas 2-1-1 Support Line	<a href="https://texas211.org">texas211.org</a>

# NATURAL HAZARDS

## HURRICANE IMPACTS

### Before a Hurricane

Part of knowing what to do for a hurricane includes understanding the terms and phrases used by officials when a hurricane is expected to impact your area.

UNDERSTANDING HURRICANE WATCH AND WARNING TERMS	
<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 Warning</b>	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.

When a **WATCH OR WARNING** is issued for your area, do the following:

- Continue to monitor local TV or radio stations for instructions.
- Check supplies, especially water (at least one gallon per person/pet per day for up to seven days).
- Fuel vehicles and generators.
- Cover windows with plywood. The Federal Alliance for Safe Homes (FLASH) recommends buying sheets that are at least 5/8 inch thick.
- Bring in all outdoor furniture, toys, and tools.
- Moor any boats securely or move boats to a safe place.
- Move out of evacuation zones early if told to do so by officials (see pages 26-27).
- Check tie-downs if you live in a mobile home. Find a sturdy shelter to ride out the storm.
- If you're not in the evacuation zone, review and verify that your emergency plan checklist(s) are completed.
- Clean and fill bathtubs and all available containers with extra water.
- Turn off utilities, if requested.
- Stay away from windows, doors, and openings.
- For more information on evacuation, see page 24.

Hurricanes produce three major threats: wind, storm surge, and flooding. Hurricane wind speed is used to determine a hurricane's category, and stronger winds have a greater potential to damage trees, houses, and trailers. Storm surge refers to water from the Gulf, bay, or its tributaries that is pushed onto land by the hurricane. The risk of storm surge determines whether or not an area is subject to evacuation during a hurricane. In addition, hurricanes bring rain, which can cause flooding inland, even in areas not subject to storm surge evacuations.

Houston is also at risk for **tropical storms**. While tropical storms have lower wind speeds than hurricanes, they can still bring dangerous storm surges, heavy rain, and high winds. Residents should heed tropical storm watches and warnings and follow advice given by local officials.

### During a Hurricane

- Remain indoors in an interior hallway, bathroom, or closet on the lowest level of your house well away from windows as long as it remains safe to do so.
- Seek shelter under something sturdy, such as a well-constructed dining room table, which could protect you from possible debris.
- Stay informed of changing conditions from local officials.
- Have a secondary plan in the event your residence begins to flood. For example moving to a second floor. It is not recommended to go to an attic unless you identify another way out, i.e. a window or way to break open the roof.

## SEVERE WEATHER

### Thunderstorms

A thunderstorm is a storm containing lightning caused by unstable atmospheric conditions. When cold upper air sinks and warm, moist air rises, storm clouds, or "thunderheads," develop. Thunderstorms may occur by themselves, in clusters, or in lines. So, it is possible for several thunderstorms to affect one location in the course of a few hours. Some of the most severe weather occurs when a single thunderstorm affects one location for an extended period of time.

Severe thunderstorms can bring heavy rains (which can cause flash flooding), strong winds, hail, lightning, and tornadoes. To protect yourself in a severe thunderstorm, get inside a sturdy building away from windows and stay tuned to a battery-operated radio for weather information.

#### UNDERSTANDING SEVERE THUNDERSTORM WATCH AND WARNING TERMS

<b>Severe Thunderstorm Watch</b>	Severe thunderstorms are possible.
<b>Severe Thunderstorm Warning</b>	Severe thunderstorms are imminent or occurring.

## Lightning

Lightning is an electrical discharge resulting from the build-up of static electricity within clouds, or between clouds and the ground. It always accompanies a thunderstorm. When the build-up is strong enough, lightning appears as a “bolt.” This flash of light can remain within the clouds, occur between them, or strike toward the ground several miles from the parent cloud.

Lightning is a major threat during a thunderstorm. In the United States, between 75 and 100 people are hit and killed each year by lightning. If you are caught outdoors, avoid tall, isolated trees in an open area and metal objects such as wire fences, golf clubs, light poles, and metal tools.

It is a myth that lightning never strikes twice in the same place. The safest place to go during a thunderstorm is inside a building. Remember, **when thunder roars, go indoors.**

## Flooding

The most common type of all natural hazards is flooding. This is especially true for Houston. Our recent history with flooding has made us all aware of how dangerous and damaging flooding can be. Before flooding occurs, it’s important for Houston residents to know their risk, ensure they are covered, and make sure they know what to do if they encounter flood water.

There are two types of flooding that can occur: flash flooding and flooding. Flash flooding occurs when a large amount of water rushes down a creek bed or bayou, creating a dangerous, fast-moving rush of water. Other floods happen over time, and occur when heavy rain fills channels and creeks slowly. The National Weather Service may advise of flooding for a region (“Areal Flooding”) or specific areas (“Forecast Point Flooding”).

### UNDERSTANDING FLOOD WATCH AND WARNING TERMS

<b>Flash Flood Watch</b>	During heavy rain, flash flooding can develop quickly.
<b>Flash Flood Warning</b>	Flash flooding is imminent or occurring.
<b>Flood Watch (Areal or Forecast Point)</b>	Significant rainfall has occurred and may cause flooding (region or specific area).
<b>Flood Warning (Areal or Forecast Point)</b>	Regional or specific area flooding is imminent or occurring.

## Know Your Risk

While flooding generally occurs in low-lying areas and along the sides of creeks, streams, and bays, it can happen anywhere at any time of the year. Everyone in Houston is at risk of encountering flooding at some point. You should know whether or not you live in a mapped flood plain or a flood prone area. The Harris County Flood Control District's Flood Education Mapping Tool ([harriscountyfemt.org](http://harriscountyfemt.org)) helps residents better understand their risk from floodplains, as well as help them identify which watershed they live in.



# KNOW YOUR FLOOD RISK

## Get Covered

Did you know that homeowner's and renter's insurance doesn't cover damage from flooding? Also, federal disaster assistance may not be available for every flood, and it generally does not cover a majority of the damage. This type of plan, which is relatively inexpensive, is the only way to cover damage that is caused by a flood. More information about flood insurance, or to find out what a policy would cost, can be found online at the National Flood Insurance Program (NFIP) website at [floodsmart.gov](http://floodsmart.gov).

## Know What To Do

There are two types of flooding that can occur: flash flooding and area flooding:

### Flash flooding

Occurs when a large amount of water rushes down a creek bed or bayou, creating a dangerous, fast-moving rush of water.

### Area flooding

Happens when rainfall causes rivers, streams, creeks or bayous to gradually fill up with water.



In both situations, it's important to avoid flooded areas. This may mean delaying travel until flood waters recede. Heavy rainfall can keep you from clearly seeing the road in front of you, which may lead to unknowingly drive into high, or fast-moving water. If you find yourself in a life-threatening flood situation in your vehicle, **immediately get out of the car and seek higher ground.** When safe, if you need emergency assistance, call 9-1-1. Make sure you have a safety hammer, which has a steel tip

and a seat-belt cutter to help you more easily get out of the vehicle, and break windows if necessary.

If you find yourself driving through dangerous heavy rainfall conditions and encounter high water, stop your vehicle, and if possible, turn around. **DO NOT** attempt to cross any areas of high water. Remember, it only takes 6 inches of water to float or stall out a vehicle. Turn Around, Don't Drown.®

If officials expect severe weather, they may pre-stage barricades throughout the region to help law enforcement and streets officials close off dangerous areas. Pay attention to flood markers and always respect barricades. Under **NO** circumstances, should you move, or go around a barricade.





## Tornadoes

Tornadoes strike with little or no warning. You should develop a tornado plan and designate a place in your home, school and office to go in the event a Tornado Warning is issued for your area.

### If a Tornado Warning is issued for your area:

**Get In** - Seek shelter inside a sturdy building immediately, go to an interior room on the lowest floor possible. If you can, find a room with few doors and no windows.

**Get Low** - Get low to the ground, and if possible, put on a bicycle helmet to protect you from any debris that might be kicked up by a storm.

**Hold On** - Hold onto something sturdy, like a heavy piece of furniture, and wait for the tornado to pass.



Be sure to stay in your shelter location until the Tornado Warning has expired, or has been canceled. Be sure to have a battery-powered NOAA Weather Radio nearby to be able to hear the latest information from the National Weather Service.

## UNDERSTANDING TORNADO WATCH AND WARNING TERMS

<b>Tornado Watch</b>	Due to weather conditions, tornado formation is possible.
<b>Tornado Warning</b>	A tornado has been sighted or detected on radar.

## Before Severe Weather

- Purchase flood insurance (visit [floodsmart.gov](http://floodsmart.gov) for information).
- Determine if your property is in a designated flood prone area (visit [harriscountyfemt.org](http://harriscountyfemt.org) for information).
- Purchase a tone-alert weather radio.
- Assemble a disaster supply kit.

## During Severe Weather

- Listen to local radio and TV stations for the most current information, follow official social media accounts, or visit official emergency information web sites.
- For flooding:
  - Know what areas near your home are prone to flooding.



- Do not drive into or go near flooded streets or areas if water depth and condition of the roadway are not certain. Remember, **Turn Around—Don't Drown.**<sup>®</sup>
- Carry an escape tool in your car to break glass and/or cut seat belts.
- For tornadoes:
  - Move indoors, seeking shelter in a windowless room on the lowest floor (often a closet or bathroom)
  - In a mobile home, trailer, or vehicle, get out immediately and go to a substantial structure. A ditch, ravine, or culvert could be used if no structure is available.
  - Do not attempt to out-drive a tornado.
  - In a school, nursing home, hospital, shopping center, or other public building, go to pre-designated shelter areas or interior halls on lowest level.
  - In a high-rise building, go to a small, interior room, or hallway on the lowest floor possible.
- Prepare to relocate from your immediate area, if required.
- If advised to evacuate, do so immediately.
- Call 9-1-1 for life-threatening emergencies. Call 3-1-1 to report street flooding, downed trees, and other severe weather damage (see page 47).
- When traffic signals are out or flashing red, treat the intersection as a four-way stop.

## TEMPERATURE EMERGENCIES

### Heat Emergencies

People living in southeast Texas are no stranger to high temperatures and high humidity during the summer. Residents should be aware of how to cope with these conditions.

Our natural line of defense against heat is sweating, but this method of cooling doesn't work as well during high humidity. When your body is not able to maintain proper body temperature, you can suffer heat cramps, heat exhaustion, and heat stroke. To help people better understand how these conditions will affect them, the term Heat Index was developed. The Heat Index is a combination of temperature and humidity and is used to describe "how hot it feels." The Heat Index value is calculated as if standing in a ventilated, shady place.

Prolonged exposure to Heat Indices ranging from:

- 80° to 90° F could lead to possible fatigue.
- 90° to 105° F could lead to heat cramps and heat exhaustion occurring.
- 105° to 130° F make heat cramps and heat exhaustion likely. Heat stroke is also possible.
- Greater than 130° F is when dangerously fatal conditions exist.

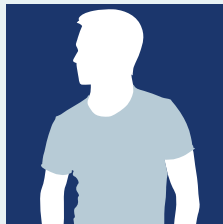
Some tips to help you cope with reducing potential health-related problems are:

- **Drink plenty of water.**
- Reduce strenuous physical activities to early morning or late afternoon.
- Wear loose-fitting and light-colored clothes.
- Spend as much time as possible in air conditioning.

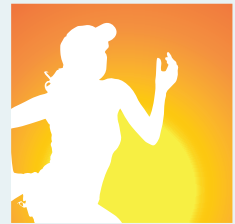
## REDUCING HEALTH-RELATED PROBLEMS



DRINK WATER



LIGHT-COLORED CLOTHES



EARLY MORNING ACTIVITY

Remember children, the elderly, and people with chronic ailments are most at risk during periods of extreme heat. Also, don't forget your pets can succumb to the effects of excessive heat. Ensure they have plenty of drinking water and a shady place to rest. And remember to never leave children or pets in a car on a hot day, even if the windows are cracked.

In the event heat indexes reach dangerous levels for a period of time, the City of Houston may open cooling centers. These are places where residents can go to be in air conditioning during the hottest part of the day. For a list of open cooling centers, or to schedule a free ride to a cooling center, visit [houstonemergency.org](http://houstonemergency.org), or call 3-1-1 (713.837.0311)

### Cold Emergencies

Houston is generally spared from dealing with winter weather. Occasionally, we experience freezing or below freezing temperatures, icy roadways, and wintery precipitation such as snow, ice, and sleet. Be prepared for these types of wintery conditions. Even if temperatures are not below freezing, bridges and overpasses may ice over in cold weather.



- If roadways are at risk of icing, avoid driving unless absolutely necessary.
- If you must go out, drive slowly, give plenty of following distance between yourself and the vehicle in front of you, and avoid braking or accelerating suddenly.
- If you have a collision or break down, remain in your vehicle. Do not stand outside your vehicle during slippery conditions.

During freezing temperatures, remember to protect the four P's:

- People should dress warmly, in layers, to avoid hypothermia (abnormally low body temperature).
- Pets should be brought indoors or provided with a warm place to sleep.
- Pipes that run outside or under a house should be wrapped in pipe insulation to avoid cracks due to water freezing in them.
- Plants may need to be covered or brought inside to avoid frost damage.

### UNDERSTANDING WINTER WATCH AND WARNING TERMS

<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 Storm Warning</b>	Severe winter weather conditions are likely or are occurring.

# EVACUATION INFORMATION

## EVACUATIONS

Regional emergency managers and the Texas Department of Transportation have developed an evacuation plan for the Houston region. It is based on several factors, and is designed to get residents out of harm's way quickly. One of the situations where an evacuation may occur is during a hurricane, but other situations may also trigger local or regional evacuations. Always follow directions from local officials on whether or not you need to evacuate.

- Should an evacuation be announced, television and radio, official social media accounts, official web sites, and freeway signs will be used to provide motorists with important evacuation information. Determine if your residence is in an evacuation Zip-Zone (see pages 26-27). Evacuation during hurricanes is not necessary for most Houston residents.
- If you live outside an evacuation Zip-Zone, you should think about whether your residence can withstand a severe storm. If you believe that your residence is not strong enough to withstand a storm, you should plan to move to a stronger structure nearby. After a storm has passed, if conditions are unsafe due to damage or uncomfortable due to loss of utilities such as power and water, you may choose to evacuate then.

## HURRICANE EVACUATION ZIP-ZONES

Hurricane evacuations are based on the damage expected from various storms, and may be local or regional. Several regions of the Texas Gulf Coast have been designated as Hurricane Evacuation Zip-Zones. The map on pages 26-27 depicts, in color, the four evacuation Zip-Zones within the City of Houston, and Brazoria, Chambers, Galveston, Harris, and Matagorda counties.

If you live in a designated evacuation Zip-Zone, have an evacuation plan ahead of time. However, not all residents of a particular Zip-Zone may be instructed to evacuate during a hurricane. Decisions on who evacuates will be based on the hurricane's strength and its predicted landfall location.



During emergencies, listen to KUHF 88.7 FM or KTRH 740 AM, our region's designated Emergency Alert System stations, visit [houstonemergency.org](http://houstonemergency.org), and follow other official sources of information, for up-to-the-minute information from local public officials. Follow instructions and recommendations — and be ready to adjust your disaster plans and supply kits accordingly.

## TRAFFIC MANAGEMENT PLANS

In the event of high vehicle traffic during an evacuation, local government officials may decide to implement traffic management plans. Possible traffic management plans are included on page 28, but these are subject to change and may not be used in all incidents. Remember to always follow directions from law enforcement, local media, and highway signs.

This section continues on page 28.



# Brazoria, Chambers, Harris, Galveston, Harris, and Matagorda Hurricane Evacuation Zip-Zones Coastal, A, B, C

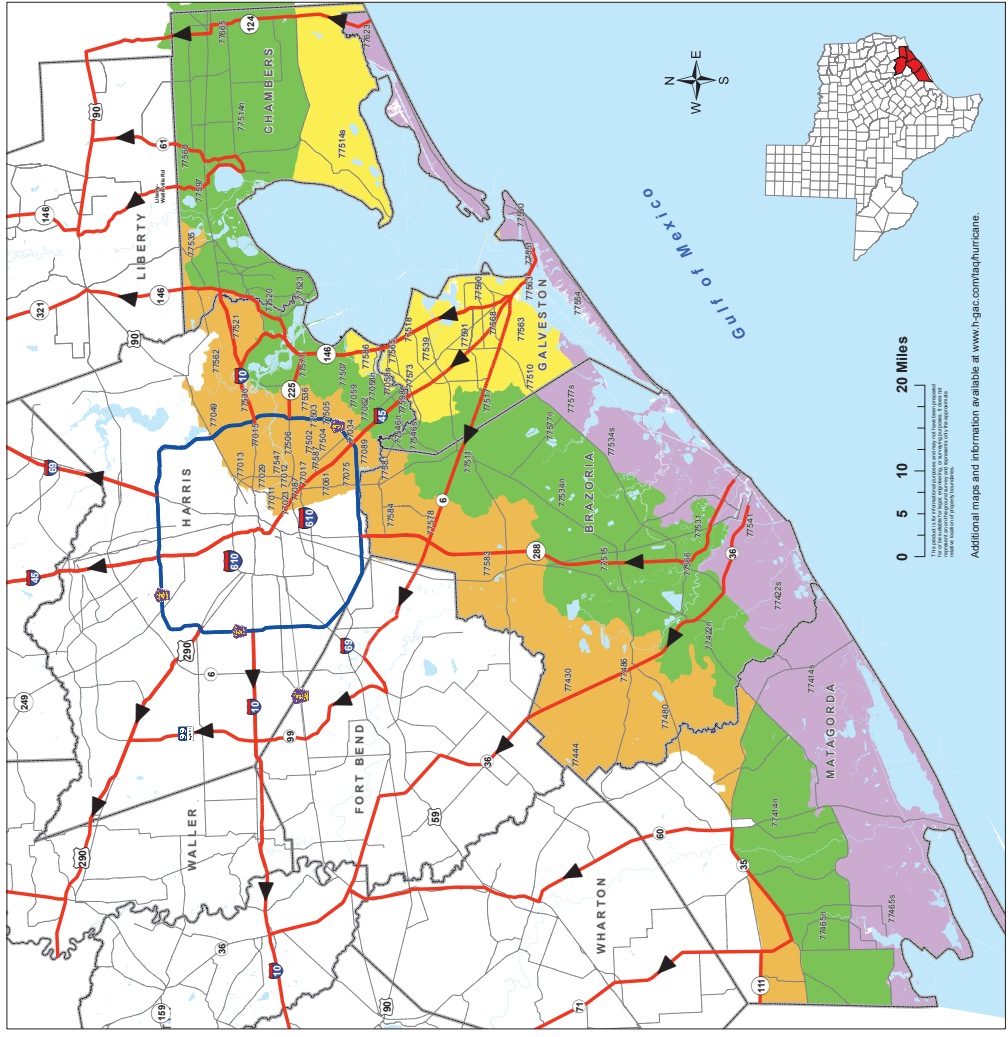
ZIP ZONE COASTAL	
774148	774223
774658	775345
77541	77541
77560	77551
77554	77563
77576	77623
ZIP ZONE A	
770588	77510
77515	77518
77559	77565
77568	77573
77586	77590
77591	
ZIP ZONE B	
770881	77059
77062	774146
774224	77451
77511	775146
77515	77515
77517	77520
77523	77531
77534	77540
77546	77548
77560	77566
77571	77574
77587	77598
77585	
ZIP ZONE C	
77011	77012
77013	77015
77017	77023
77029	77034
77049	77081
77075	77087
77089	77430
77444	77480
77486	77502
77503	77504
77505	77506
77521	77530
77535	77536
77547	77562
77578	77581
77583	77584
77587	

Some zip codes are split into north (n) and south (s) for evacuation purposes.

- ### Route Designation
- Evacuation Corridors
  - Evacuation Connections
  - Other Roads
  - County Boundary



Revision Date: April 2, 2018  
 Expiration Date: December 31, 2018  
 Map Created by:  
 Houston-Galveston Area Council

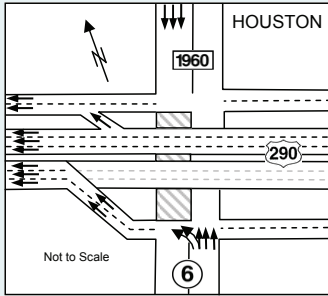


Additional maps and information available at [www.h-gac.com/aq/hurricane](http://www.h-gac.com/aq/hurricane).

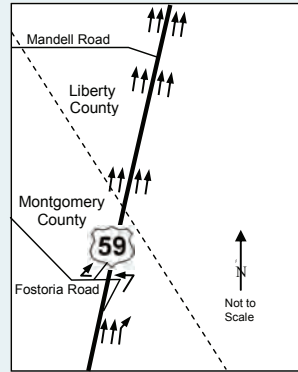


## Contraflow

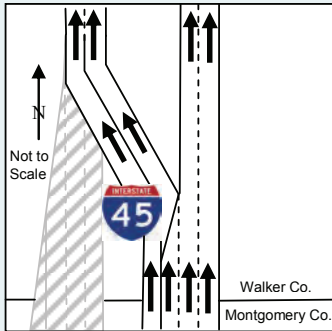
Contraflow involves reversing the flow of traffic on highways so that all traffic flows out. There are four possible locations for this to occur near Houston. During an evacuation, look for signs indicating whether or not the contraflow plans are in effect. Most evacuations will not require contraflow, and not all contraflow options may be used.



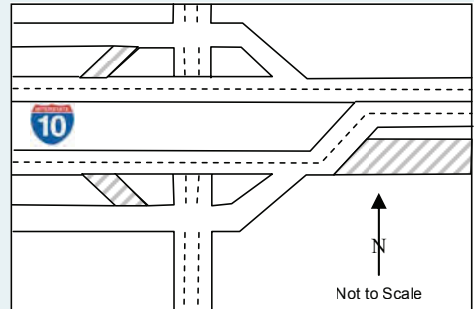
US-290 (Northwest Fwy) at Highway 6/FM 1960 W



US-59 at Mandell Road south of Cleveland in Liberty County



I-45 (North Fwy) north of Conroe between Loop 336 and FM 3083



I-10 (Katy Fwy) at FM 359 in Brookshire

Courtesy of TxDOT



## Evaculanes

Three local highways—I-10 (Katy Fwy), I-45 (North Fwy), and US-290 (Northwest Fwy)—have been designed to allow for additional traffic flow during an evacuation. These additional lanes are called “Evaculanes” and are marked with a white hurricane symbol on a blue circle as shown to the left. During an evacuation, look for information on whether these additional lanes are open to traffic.

## AFTER THE STORM

After a storm occurs, it's important to let the city know about any damage your home or business has sustained. This helps the city bring much-needed resources into the area to help get Houston back up and running. Call 3-1-1, visit [houston311.org](https://www.houston311.org) or make a report on the Houston 311 Mobile App if you experienced damage or flooding. You may also report things like debris or trees in city streets, street flooding, and drainage issues.

Following a large-scale disaster, the Federal Emergency Management Agency (FEMA) may provide assistance to disaster survivors. FEMA assistance is not automatic, and may take a few days, weeks, or months to come through. FEMA will work with the city to help people register for assistance, and may set up Disaster Recovery Centers (DRCs) throughout the area to help residents apply for help.



## RECOVERY AFTER THE DISASTER

Those residents affected by a disaster should pay close attention to the information the city, its partner agencies and nonprofits are providing. One of the best ways to stay up-to-date is to visit the city's Disaster Recovery website, [houstonrecovers.org](https://www.houstonrecovers.org). This website will be updated continually following a disaster and can point you to specific information and services you might be eligible for.

## RETURNING HOME

If you evacuated, wait for official instructions before returning home. This is done to ensure the safety of you, your neighbors, and emergency responders.

Your health and safety is the most important concern. Do not enter areas that are potentially unsafe. This includes damaged buildings, areas with downed power lines or with heavy debris.



Floodwaters can contain diseases, debris, wildlife, or chemicals. If flooding has damaged your home or property, throw out contaminated items. This includes livestock feed and hay. If your home, vehicle, or personal property has been damaged or destroyed, contact your insurance agent. If it is safe to do so, take pictures or video of the damage. Also listen to local officials for instructions. In large-scale disasters, additional assistance may be (but isn't always) available.

## UTILITIES

Utilities, such as power lines or natural gas service, may have been damaged during the disaster. If you see downed power lines or suspect a gas leak, leave the area. Once you are in a safe location, call 9-1-1 and your utility company to report the emergency.

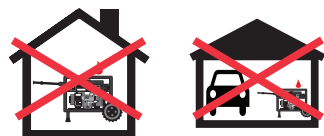
## FOOD SAFETY

Disasters can cause power outages. Even if your power is back on when you return, food that was stored in your refrigerator or freezer may no longer be safe to eat. If your power does go out, be aware that lack of refrigeration can cause food to spoil and become unsafe to eat. The FDA and USDA recommend that any refrigerated food that rose above 40° F for more than two hours be thrown out, and that any frozen food that is now thawed be thrown out as well. Learn more at [foodsafety.gov](https://www.foodsafety.gov).

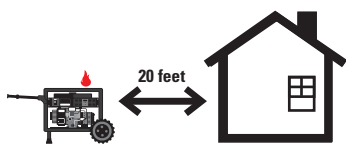
## GENERATOR SAFETY

If you choose to use a generator during or after a disaster, follow these simple safety tips to protect you and your family from dangerous carbon monoxide gas and electrocution:

- Always use generators outside, away from doors, windows, awnings, and eaves. Generators should be 20 feet away from buildings.
- Do not use chains or locks to secure a generator, because this can hamper firefighters in an emergency.
- Never connect a generator directly to your home's electrical system. Instead, use properly-rated extension cords and connect appliances directly to the generator.
- Consult an electrician before performing advanced generator tasks, like using an automatic generator or transfer switch.
- Do not store gasoline inside your home or near water heaters.
- Always have a UL-approved carbon monoxide detector when using generators.



**NEVER use a generator indoors, in garages, or carports.**



**ONLY use outdoors and far from open windows, doors, and vents.**

Courtesy of the Centers for Disease Control and Prevention (CDC)

use properly-rated extension cords and connect appliances directly to the generator.

## MANAGING DEBRIS

### Debris Collection

Following a large-scale emergency, the city may implement a program to collect debris in neighborhoods.

### Documenting Damage

Before putting debris out for collection, you should do the following:

- Contact your insurance company to file a claim
- Document your property damage(s) by taking photographs
- Contact 311 (713.837.0311) to notify the city of your damage(s). This will help the city identify areas that will need debris collection.
- If a federal disaster declaration has been issued, call FEMA (800-621-3362), or apply online at [disasterassistance.gov](https://www.disasterassistance.gov) to a Disaster Assistance Claim.

### Safely Handling Debris

Remember that debris, especially after flooding incidents, can be hazardous to your health or safety. You should always:

- Wear gloves and eye protection when removing construction materials such as drywall, wood siding, large furniture
- Wear long-pants and sturdy shoes in debris-riddled areas to prevent injury.
- For specific instructions on how to safely remove drywall and debris, go to [houstonrecovery.org](https://www.houstonrecovery.org).

**NEVER** attempt to clean and re-use cloth articles (such as furniture, bedding, etc.) that have encountered flood water. You may attempt to clean and reuse clothing items only if they can be fully washed and dried in a washing machine and dryer.

### Separating Debris

Once you are ready for your debris to be collected, be sure to separate your debris into these five categories when you put them on the street:

- **Vegetative Debris** – leaves (do not put in bags), logs, plants, tree branches.
- **Construction & Demolition Debris** – building materials, carpet, drywall, furniture, lumber, mattresses and plumbing.
- **Appliances & White Goods** – air conditioners, dishwashers, freezers, refrigerators, stoves, washers, dryers and water heaters.
- **Electronics** – computers, radios, stereos, televisions, other devices with a cord.
- **Household Hazardous Waste** – cleaning supplies, batteries, lawn chemicals, oils, oil-based paints, stains and pesticides.

## Where to put your Debris

**DO** place debris on the edge of your property before the curb, on a sidewalk, or in a ditch.

**DO NOT** place debris by trees, poles, fire hydrants, or water/electric meters.

Additionally, the City may designate additional facilities where you can take disaster debris. These locations, and their hours of operation will be posted at [houstonrecovers.org](http://houstonrecovers.org).

## WATER

While most disasters don't impact fresh water service, your drinking water can occasionally be impacted by a disaster. If fresh water service has or may have been impacted:

- Stay informed and listen to local officials for information on your local water service.
- If your water quality is impacted, listen to the directions given on what to do.
- Some water issues can be addressed by purifying water as described below, or by using the seven-day supply of water you have in your Shelter-in-Place Kit.
- Certain types of contamination make water unsafe even after purification. In this case, you **MUST** use your supply of bottled water.
- Remember that water that is unsafe for drinking should not be used to brush teeth, wash dishes, or for mixing infant formula.

Boiling is the easiest and fastest way to kill many diseases in water. However, boiling does not remove chemicals or dirt. To purify water by boiling, put water in a large pot or kettle. If the water is cloudy, filter it by pouring it through a coffee filter, cheese cloth, or paper towel first. Then bring the water to a rolling boil for at least one minute. Allow to cool before using.

Bleach will also kill some diseases in water, but again will not remove dirt or chemicals. Find regular household bleach (typically between 5.25% and 8.25% chlorine), not scented or "color safe" bleach alternatives. For best results, use bleach from an unopened bottle. Next, add your water to a clean container, filtering it first if it is cloudy. For each gallon of water, add 1/4 teaspoon of bleach. Stir, then wait 60 minutes.

Finally, there are commercial water filters or purification systems available. Each system has different chemicals and diseases it can or cannot remove. Please read the label or packaging for the limitations of each system, the directions for use, and the expiration date on any filters or components.

Always listen to local officials for specific directions on water safety after a disaster. Local officials will know what special precautions, if any, need to be taken for that particular emergency.

# PUBLIC HEALTH THREATS

## Pandemic Influenza

Influenza pandemic is a large outbreak of the flu. It occurs when a new flu virus emerges for which there is little or no immunity in the human population. Anyone, including healthy people, can get the flu.

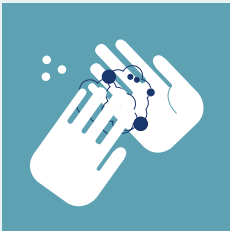
## What Are the Symptoms of the Flu?

Symptoms of the flu, which can take one to four days after the virus enters the body, include:

- Sudden fever (100.4° F or more)
- Headache
- Tiredness, sometimes extreme
- Dry cough

## Preventing the Flu by:

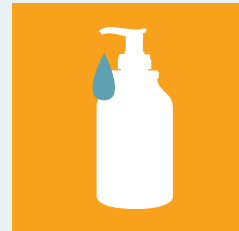
- Getting the flu vaccine every year.
- Washing your hands, covering your cough, and disinfecting surfaces or objects that have come into contact with someone who is sick.
- If you do get the flu, stay home so you don't get anyone else sick. Get rest, drink plenty of fluids, and follow directions given by your doctor.
- If you or a loved one has severe symptoms, including difficulty breathing, purple or blue discoloration of the lips, pain or pressure in the chest or stomach, confusion, severe vomiting, or convulsions/seizures, seek medical help immediately.



Wash your hands often with soap and water. If soap and water are not available, use an alcohol-based hand rub.



Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it.



Clean and disinfect surfaces and objects that may be contaminated with germs like the flu.

## Mosquito-Borne Diseases

There are a variety of dangerous diseases that can be spread by mosquitoes, including West Nile, Zika and others. Because of Houston's climate, we are an ideal place for mosquitoes to live. As a result, we should take steps to prevent contact with mosquitoes, including:

### Drain

Drain areas of standing water near your home. This includes flowerpots, trash, and debris. If there is an area of trash that is causing a nuisance, call 3-1-1 (713.837.0311) to report it to the City.

### Dress

Wear long-sleeves and pants when outside. Mosquitoes cannot easily penetrate clothing.

### DEET

Use mosquito spray that contains DEET. This is the best type of repellent for reducing bites from mosquitoes



## Emerging Diseases

There are always risks for diseases that scientists do not understand well. These diseases can remain dormant in certain parts of the world and then kick up, resulting in more infections. It's always important to be aware of changing health conditions, and keep yourself and your family healthy. The Houston Health Department's website, [houstonhealth.org](http://houstonhealth.org) has the latest information on emerging diseases, and what you can do to keep your family safe.

# HUMAN-CAUSED HAZARDS

## HAZARDOUS MATERIALS INCIDENTS

Hazardous materials are substances, which because of their chemical, physical, or biological nature, pose a potential risk to life, health, and property if they are released. Hazards can exist during production, storage, use, disposal or transportation (may include transportation by vehicle, train, or ship).

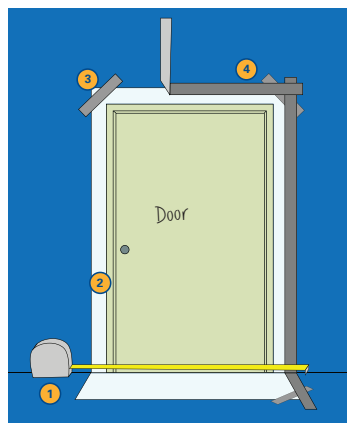
### What to Do in a Hazardous Materials Incident

- If you witness a hazardous materials incident or explosion, dial 9-1-1.
- Avoid the incident site to minimize risk of contamination or exposure.
- If you are caught outside during an incident, try to stay up-stream, uphill, and upwind.
- If you are in a car, close windows and shut off ventilation.
- For a poison emergency, call 800.222.1222.

### Sheltering in Place

Depending on the type of emergency, local officials may recommend that you take shelter inside a building. This is done if officials believe that air inside your building is safer than air outside. Orders to take shelter inside a building will be given by local officials via radio, TV, AlertHouston, or a wireless emergency alert.

When you “shelter-in-place,” you create a temporary barrier between the clean air inside your building and the bad air outside. Locate a room in your home that has a minimum number of exterior windows, such as a bathroom or closet. Once you’ve located your shelter-in-place room, follow the steps below (*illustrated in the diagram to the right*):



Steps 1 and 2 should be done now. Steps 3 and 4 are for when a shelter-in-place order is given.

1. Measure all openings to your shelter-in-place room. Examples of openings include doors, windows, vents (also check the ceiling), exhaust fans, and outlets.
2. Add 6–12 inches to your measurements, then cut sheets of 2–4 mil plastic to fit each opening you measured. Remember that the sheets must be larger than the opening to fit over them. Label each sheet with the opening it was designed to cover.
3. If a shelter-in-place order is given, take your pre-cut plastic sheets, place them over the appropriate opening, and start by taping down the corners.
4. After all four corners are secured, completely tape all four sides of the sheet. Make sure the tape overlaps at the corners.

Repeat this process for the other openings in the room.

You can build a Shelter-in-Place Kit by putting your pre-cut plastic sheets together with duct tape, food, water, and a battery-powered radio. When you shelter-in-place, use your battery-powered radio to listen for instructions. After the immediate hazard has passed, local officials may ask you to open windows and doors in your home to let fresh air back in.

## CHEMICAL RELEASE

A chemical release of a toxic gas, liquid, or solid can poison people and the environment. These can be both intentional or accidental.

### Possible Signs of Chemical Exposure

- Many people suffering from watery eyes, twitching, choking, having trouble breathing, or losing coordination.
- Many sick or dead birds, fish, or small animals are also a cause for suspicion.
- A large boom and a cloud drifting over an area around an incident sight.

### If You See Signs of Chemical Exposure

- Find clean air quickly.
- Quickly try to define the impacted area or where the chemical is coming from, if possible.
- Take immediate action to get away.
- If the chemical is inside a building where you are, get out of the building without passing through the contaminated area, if possible.
- If you can't get out of the building or find clean air without passing through the area where you see signs of a chemical release, it may be better to move as far away as possible and "shelter-in-place."
- If you are outside, quickly determine the fastest way to find clean air. Consider if you can get out of the area or if you should go inside the closest building and "shelter-in-place."

### If You Think You Have Been Exposed to a Chemical

- If your eyes are watering or your skin is stinging, or if you are having trouble breathing, you may have been exposed to a chemical.
- If you think you may have been exposed to a chemical, remove your clothes immediately.
- Look for a hose, fountain, or any source of water, and wash with soap if possible.



## RADIOLOGICAL INCIDENTS

Radiation is present all around us. Some of it comes from natural sources, like the sun. Other radiation is present in objects we may interact with regularly. And we are also exposed to radiation from artificial sources like x-rays, medical imaging devices, or cancer treatments. These sources are considered safe because the radiation levels are very small or only present for short periods of time. However, radiation is still a topic that people find disturbing, and for that reason, radiological devices may be used by terrorists.

**The potential terrorist uses of radiation fall into three categories: radiological dispersion devices, nuclear devices, and other radiological emergencies.**



### Radiological Dispersion Devices (RDD)

Radiological Dispersion Devices, also called **RDDs** or dirty bombs, are devices in which a radiological material is scattered or dispersed to create fear and environmental impact. While there is the possibility of injury or death due to the method of dispersion, such as using conventional explosives, the **RDD's** biggest threat is the panic they create. In the event of a **RDD** being deployed, people in the immediate area should remain calm and follow the directions of local officials.



### Nuclear Devices

Nuclear devices are different than dirty bombs. Rather than spreading radioactive material, a nuclear device creates a chain reaction, which leads to an explosion. Nuclear devices can be military-grade or homemade. Homemade nuclear devices are called “improvised nuclear devices,” or **INDs**. In addition to the explosive blast, nuclear devices have the potential to create radioactive fallout. This is radiation in the form of dust particles that is blown by the wind.



### Other Radiological Emergencies

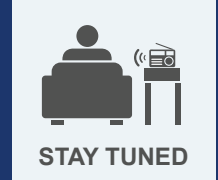
Other radiological emergencies include various radiation sources not from a dirty bomb or nuclear device. Examples include sabotage at facilities that use radioactive materials or incidents during transportation of radioactive materials. The scope and impact of these other radiological emergencies will vary based on the circumstances.



## If There is a Radiological Emergency

Protecting yourself from radiation can be summed up in three points:

# GET INSIDE, STAY INSIDE, AND STAY TUNED



Courtesy of the Centers for Disease Control and Prevention (CDC)  
[emergency.cdc.gov/radiation](https://emergency.cdc.gov/radiation)

- **Get Inside:** Walls of buildings can block many types of radiation. If a building is not available, take shelter in a vehicle (shut off ventilation), or cover exposed skin and place a cotton shirt or mask over your mouth.
- **Stay Inside:** Follow the shelter-in-place directions listed on pages 35-36. Decontaminate yourself by removing any clothing you had on while outside, then take a shower. Decontaminate pets by washing them with shampoo or soap and then rinsing them completely.
- **Stay Tuned:** Detailed directions based on the type and severity of radiation emergency will be provided by local officials. Listen to our local Emergency Alert System stations, KTRH 740 AM or KUHF 88.7 FM for instructions.



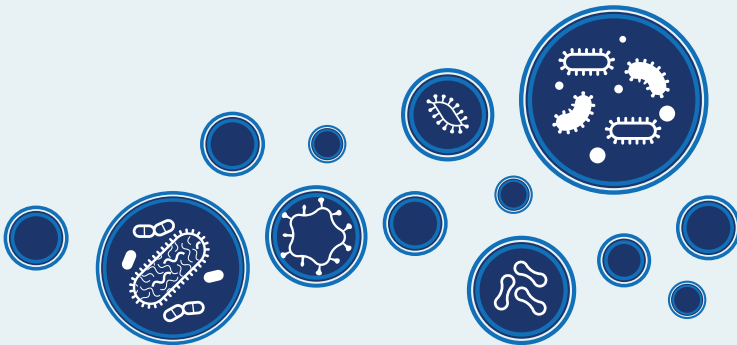
## BIOLOGICAL THREATS

A biological attack is the deliberate release of germs or other biological substances that can make you sick. Many agents must be inhaled, enter through a cut in the skin, or be eaten to make you sick. Some biological agents, such as anthrax, do not cause contagious diseases. Others, like the smallpox virus, can result in diseases you can catch from other people.

### If There is a Biological Threat

Unlike an explosion, a biological attack may or may not be immediately obvious. While it is possible that you will see signs of a biological attack, it is perhaps more likely that local health care workers will report a pattern of unusual illness or there will be a wave of sick people seeking emergency medical attention. You will probably learn of the danger through an emergency radio or TV broadcast. You might get a telephone call or emergency response workers may come to your door. In the event of a biological attack, public health officials may not immediately be able to provide information on what you should do. It will take time to determine exactly what the illness is, how it should be treated, and who is in danger. However, you should watch TV, listen to the radio, or check official Internet websites to determine the following:

- Are you in the group or area authorities consider in danger?
- What are the signs and symptoms of the disease?
- Are medications or vaccines being distributed?
- Where are they being distributed?
- Who should get them?
- Where should you seek emergency medical care if you become sick?



## BIOLOGICAL ATTACK

A deliberate release of germs or other biological substances that can make you sick.

## TERRORIST THREATS

Unfortunately, terrorism remains a threat to our nation. People with political or social causes may use extreme violence to make a statement, or to achieve some other political goal. Although terrorism remains a threat to our safety and security, we have witnessed how the vigilance of communities and pro-active law enforcement efforts have actually prevented planned terrorist attacks.

Even though the U.S. has recently experienced terrorist incidents, over time, however, people typically become less vigilant about the threat and their chance of being at the scene of an attack. Our federal, state, and local governments are working hard to keep us safe, but we all play a role in securing our public spaces. You are the first line of defense in protecting your fellow community members, public spaces and our country. Be aware of your surroundings, and what type of activity might be the beginnings of a terrorist plot.



**Report suspicious activity by calling 1.855.iWatch.4 (855.492.8244) or visit [iWatchHouston.org](http://iWatchHouston.org). If it is an emergency, dial 9-1-1 immediately.**

Everybody should be aware of the threat of terrorism and how to handle it. Such knowledge is all the more essential because we live in a major metropolitan area. Large, heavily populated urban centers all over the world have long been the favored targets of terrorists.

# IF YOU SEE SOMETHING SAY SOMETHING™

### Terrorists

One essential fact to remember is that it is not illegal for an individual to belong to any political group even if other members of that group have committed terroristic acts as long as the individual is not committing, conspiring to commit, or aiding others in committing criminal acts. It is not what you say or think, it is what you do that defines one as a terrorist.



## What to Look For

The following key points summarize some behaviors that could be suspicious.

### 1. Suspicious packages and concealed IEDs

- Improvised Explosive Devices (IEDs) are generally small and easily transportable.
- Be alert to packages left unattended.
- If you see someone leave a bag, don't touch it. Leave the area and alert the authorities.

### 2. During the planning phase, a terrorist will often conduct surveillance, such as:

- Photographing entrances, exits, or security measures.
- Asking inappropriate questions about the facility and its security.
- Trying to conceal their actions.

### 3. Unusual supplies

- Be suspicious of items like wire, batteries, altered electronics, chemicals, or various unidentifiable substances.
- Be alert for individuals purchasing large amounts of chemicals, fertilizers, or other suspicious items.





#### **4. Unseasonable or Bulky Clothing**

- Clothing that is too warm for the season or is unusually thick could be used to conceal weapons.

#### **5. Unauthorized Entrance into Restricted Areas**

- Persons sneaking into “Employees Only” areas or following others into locked buildings pose a threat to security.
- At work, never let people into secured areas without proper ID.
- If someone is accessing an area they shouldn’t, or if you aren’t sure they belong in a restricted area, notify security or the authorities.

#### **6. Suspicious Vehicles**

- Report vehicles apparently left vacant for long periods, or vehicles parked in prohibited areas.
- Report if you see someone parking a vehicle in a prohibited area and walking away from the location.

*If You See Something, Say Something™ is used with permission by the NY Metropolitan Transportation Authority.*



## ACTIVE SHOOTER INCIDENTS

An active shooter is an individual actively engaged in killing or attempting to kill people in a confined and populated area, typically through the use of firearms.

- Victims are most often selected at random.
- The event is unpredictable and evolves quickly.
- Law enforcement is usually required to end an active shooter event.

When an active shooter is in your vicinity, you must be prepared both mentally and physically to deal with the situation. You have three options:

# RUN > HIDE > FIGHT<sup>®</sup>

## SURVIVING AN ACTIVE SHOOTER EVENT

### 1. Run

- Have an escape route and plan in mind.
- Leave your belongings behind.
- Evacuate regardless of whether others agree to follow.
- Help others escape, if possible.
- Do not attempt to move wounded people.
- Prevent others from entering an area where the active shooter may be.
- Keep your hands visible.
- Call 9-1-1 when you are safe.

### 2. Hide

- Hide in an area out of the shooter's view.
- Lock the door or block the entry to your hiding place.
- Silence your cell phone (including the vibration) and remain quiet.



### 3. Fight

- Fight as a last resort and only when your life is in immediate danger.
- Attempt to incapacitate the shooter.
- Act with as much physical aggression as possible.
- Improvise weapons or throw items at the active shooter.
- Commit to your actions...your life depends on it.

### When Law Enforcement Arrives

- Remain calm and follow instructions.
- Put down any items in your hands (i.e., bags, jackets).
- Raise hands and spread fingers.
- Keep hands visible at all times.
- Avoid quick movements toward officers such as holding on to them for safety.
- Avoid pointing, screaming, or yelling.
- Do not stop to ask officers for help or direction when evacuating.

### Information to Provide to the 9-1-1 Operator

If you are able, try and remember the following information so you can provide it to the dispatcher when you call 9-1-1:

- Location of the active shooter(s).
- Number of shooter(s).
- Physical description of shooter(s).
- Number and type of weapons held by shooter(s).
- Number of potential victims at the location.



The first officers to arrive to the scene will not stop to help injured people. Expect rescue teams to follow the initial officers. These rescue teams will treat and remove the injured. Once you have reached a safe location, you will likely be held in that area by law enforcement until the situation is under control, and all witnesses have been identified and questioned. Do not leave the area until law enforcement authorities have instructed you to do so.

To watch the *Run. Hide. Fight.*® video, go to [readyhouston.tx.gov/videos](https://readyhouston.tx.gov/videos).  
*Run. Hide. Fight.*® is a registered trademark of the City of Houston.

## CYBER CRIME

Today, technology is an ever-increasing part of our lives. And while technology makes many things easier, it also comes with risks. You can protect yourself and loved ones from cyber threats by following these tips. For more suggestions, visit [stopthinkconnect.org](https://stopthinkconnect.org) and [staysafeonline.org](https://staysafeonline.org).

### Keep a Clean Machine

- Keep operating system, anti-virus, and firewall software current by turning on automatic updates.
- Be sure all internet-connected devices (including phones and video game systems) are protected.
- Scan USB drives with your anti-virus software before opening files.
- Make regular backups of your data so you're protected in case your files get lost or stolen.

### Protect Your Personal Information

- Use complex passwords that are at least eight characters long, use a mix of upper- and lower-case characters, and include numbers and symbols.
- Do not use the same password with multiple accounts or give out your password to anyone.
- Make sure you set privacy and security settings on websites you visit to keep your personal information private.
- Be careful about asking websites to remember your password, especially on shared computers.
- Report stolen finances, identity theft, and other cybercrime at [ic3.gov](https://ic3.gov).



## Be Web Wise

- If an e-mail, tweet, post, or ad seems questionable, don't click the link.
- Don't automatically connect to WiFi when it's available, and be cautious about entering personal information on websites when connected to public WiFi.
- When doing financial transactions online, make sure the website address starts with "https://", not "http://."
- Beware of online communications that ask you to act immediately, that offer something that sounds too good to be true, or that ask for personal information.

## Be a Good Online Citizen

- Your actions online affect others, so practicing good online habits benefits the global digital community.
- Talk with friends and family about ways to stay safe online, and share the latest information with one another.

*Adapted from the Stop. Think. Connect. Campaign.*

# KNOW WHO TO CONTACT



## Know when to dial 9-1-1

- When you are in immediate danger or witness a crime in progress.
- For a serious injury or medical condition.
- Any other situation needing urgent attention.
- Do not dial 9-1-1 for non-emergencies or to report a power outage (power outages may be urgent, but phone lines need to be kept open for emergency calls).
- For non-emergency situations that require the response of a police officer, call 713.884.3131.
- For power outages, call CenterPoint Energy at 800.332.7143.

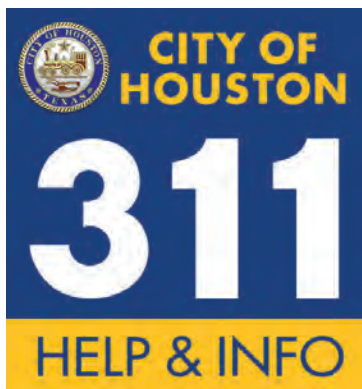


### Know when to dial 2-1-1 (877.541.7905)

- 2-1-1, a program of The United Way of Greater Houston, is a free information and referral service for anyone who needs help connecting to disaster relief services.
- Call 2-1-1 to register with the State of Texas Emergency Assistance Registry (STEAR) if you don't have access to transportation, or have an access and functional need that might keep you from quickly evacuating.
- By registering now, if an evacuation order is issued for your area, emergency management personnel can contact you to schedule your transportation.
- Be sure to renew or update your information each year.

### Know when to dial 3-1-1 (713.837.0311)

- 3-1-1 provides non-emergency help and information from the City of Houston.
- Call to report debris or flooding in a roadway, traffic signal or sign maintenance, or any other non-emergency situation that requires city assistance.
- You should also call 3-1-1 to report damage to your home or business after a disaster.
- A city representative will answer your call 24 hours a day.
- During disasters, wait times may be longer.
- Do not call to report an emergency.



**Know what's below.  
Call before you dig.**

### Know when to dial 8-1-1 (877.541.7905)

- Call 8-1-1 two business days before beginning any project that requires you to dig.
- 8-1-1 will notify the owners of underground utilities, such as gas pipelines, cable companies, and electrical companies of your plans.
- These companies may send out a crew to mark the location of underground utilities.

# EMERGENCY CONTACTS

<b>City of Houston</b>		<b>houstontx.gov</b>
<b>City of Houston Emergency Information</b>		<b>houstonemergency.org</b> <b>@alerthouston</b> <b>facebook.com/alerthouston</b>
<b>Office of Emergency Management</b>	713.884.4500	houstonoem.org @HoustonOEM facebook.com/HoustonOEM
<b>Help and Information</b>	3-1-1 or 713.837.0311	houston311.org facebook.com/houston311
<b>Mayor's Citizens Assistance Office</b>	3-1-1 or 713.837.0311	houstontx.gov/cao @neighborhou facebook.com/neighborhou
<b>Houston Police Department</b>	Emergency: 9-1-1 Non-Emergency: 713.884.3131	houstonpolice.org @houstonpolice facebook.com/houstonpolice
<b>Houston Fire Department</b>	Emergency: 9-1-1 Non-Emergency: 832.394.6700	houstonfire.org @houstonfire facebook.com/houstonfiredept
<b>Houston Health Department</b>	General Questions: 832.393.5169 24/7 Disease Reporting: 832.393.5080	houstonhealth.org @houstonhealth facebook.com/houstonhealth
<b>Harris County</b>		<b>harriscountytexas.gov</b>
<b>Harris County Emergency Information</b>		<b>readyharris.org</b>
<b>Office of Homeland Security and Emergency Management</b>	713.881.3100	www.hcoem.org @readyharris facebook.com/readyharris
<b>County Switchboard</b>	713.755.5000	harriscountytexas.gov
<b>Harris County Public Health and Environmental Services</b>	713.439.6000	hcphes.org @hcphes facebook.com/ harriscountypublichealth
<b>Harris County Sheriff's Office</b>	Emergency: 9-1-1 Non-Emergency: 713.221.6000	harriscountytexas.org @hcsotexas facebook.com/hcsotexas
<b>Motorist Assistance Program</b>	713.CALL.MAP (713.225.5627)	ridemetro.org/Services/MAP.aspx
<b>Harris County Toll Road Authority (Motorist Assistance)</b>	713.222.7328	hctra.org
<b>Harris County Flood Control District</b>	713.684.4000	hcfcd.org @hcfcd facebook.com/hcfcd

<b>Brazoria County</b>		<b>brazoria-county.com</b>
<b>Office of Emergency Management</b>	979.864.1201	brazoriacountytx.gov/departments/emergency-management @brazoriacounty facebook.com/bccommunity
<b>Help and Information</b>	979.849.5711	brazoria-county.com
<b>Brazoria County Sheriff's Office</b>	Emergency: 9-1-1 Non-Emergency: 979.864.2392	brazoria-county.com/sheriff
<b>Brazoria County Health Department</b>	979.864.1484	brazoria-county.com/health
<b>Fort Bend County</b>		<b>fortbendcountytx.gov</b>
<b>Office of Emergency Management</b>	281.342.6185	fbcoem.org @fbcoem facebook.com/fbcoem
<b>County Switchboard</b>	281.342.3411	fortbendcountytx.gov
<b>Fort Bend County Sheriff's Office</b>	Emergency: 9-1-1 Non-Emergency: 281.341.4704	fortbendcountytx.gov/sheriff @fbcso facebook.com/FortBendCountySheriffsOffice
<b>Fort Bend County Health and Human Services</b>	281.238.3233	fortbendcountyhhs.com @fortbendhealth facebook.com/fortbendhealth
<b>Galveston County</b>		<b>www.galvestoncountytx.gov</b>
<b>Office of Emergency Management</b>	888.384.2000	www.gcoem.org @galvcountyoem facebook.com/gcoem
<b>County Switchboard</b>	409.762.8621	www.galvestoncountytx.gov
<b>Galveston County Sheriff's Office</b>	Emergency: 9-1-1 Non-Emergency: 409.766.2322 or 281.534.3515	www.co.galveston.tx.us/sheriff
<b>Galveston County Health District</b>	409.938.7221	gchd.org facebook.com/gchdinfo
<b>Montgomery County</b>		<b>mctx.org</b>
<b>Office of Emergency Management</b>	936.523.3900	mctxoem.org @mcoem facebook.com/mctx.oem
<b>County Switchboard</b>	281.364.4200 or 936.756.0571	mctx.org
<b>Montgomery County Sheriff's Office</b>	Emergency: 9-1-1 Non-Emergency: 936.760.5800	www.mocosherriff.com @mocosherriff

Montgomery County Public Health	936.523.5000	mchd-tx.org/public-health facebook.com/mctxpublichealth
<b>Metropolitan Transit Authority (METRO)</b>		<b>ridemetro.org</b>
Route Information and Customer Service	713.635.4000	@metrohouston facebook.com/ridemetro
METRO Police	713.224.COPS (2677)	
METRO Lift	713.225.0119	
<b>Regional, State, and Federal Agencies</b>		
Texas Consumer Protection	800.621.0508	texasattorneygeneral.gov/cpd/ consumer-protection
Department of Aging and Disability Services (DADS)	512.438.3011 or 855.937.2372	www.dads.state.tx.us
Texas Health and Human Services (HHS)	512.424.6500	www.hhs.texas.gov
Harris County Area Agency On Aging	832.393.4301	www.houstontx.gov/health/Aging
Texas Department of Transportation - Houston District	713.881.3106	txdot.gov/travel @txdot or @txdothoustonpio facebook.com/txdot
National Weather Service Houston/Galveston	281.337.5074	weather.gov/houston @nwsHouston facebook.com/NWSHouston
FEMA Disaster Assistance	800.621.FEMA (3362)	disasterassistance.gov @fema facebook.com/fema
Centers for Disease Control and Prevention (CDC)	800.CDC.INFO (800.232.4636)	cdc.gov @CDCgov facebook.com/cdc
National Flood Insurance Program	888.379.9531	floodsmart.gov
Report Suspicious Activity	Emergency: 9-1-1 Non-Emergency: 855.i.Watch.4 (855.492.8244)	iwatchhouston.org
CenterPoint Energy	Electric: 800.332.7143 Gas: 800.752.8036	centerpointenergy.com/ outagetracker @CNPAIalerts facebook.com/centerpointenergy
Entergy	800.9.OUTAGE (800.968.8243)	www.etrviewoutage.com/external/ tx.aspx @entergytx facebook.com/EntergyTX
Texas New Mexico Power	888.866.7456	tnmp.com @tnmp facebook.com/ texasnewmexicopower

Service Agencies		
<b>American Red Cross of Greater Houston</b>	866.526.8300	redcross.org/houston @redcrosshouston facebook.com/redcrosshouston
<b>Poison Control</b>	800.222.1222	poisoncontrol.org @txpoisoncontrol facebook.com/txpcn
<b>Salvation Army Greater Houston Area Command</b>	713.752.0677	salvationarmyhouston.org @salarmyhouston facebook.com/salvationarmyhouston
<b>2-1-1 Texas/United Way Helpline</b>	2-1-1 or 877.541.7905	211texas.org
<b>Disaster Distress Helpline</b>	800.985.5990	disasterdistress.samhsa.gov @distressline facebook.com/distresshelpline
Web Resources		
<b>Ready Houston</b>	Regional Disaster Preparedness	readyhoustontx.gov @readyhouston facebook.com/readyhouston
<b>Together Against the Weather</b>	Hurricane Preparedness for Persons with Access and Functional Needs	togetheragainsttheweather.org
<b>Flood Warning System</b>	Monitor stream gauges and rainfall levels	harriscountyfws.org
<b>Flood Education Mapping Tool</b>	Find flood risk for your area	harriscountyfemt.org
<b>Houston TranStar</b>	Map of current traffic conditions	houstontranstar.org @houstontranstar facebook.com/houstontranstar.org
<b>Drive Texas</b>	Online portal from Texas Department of Transportation	drivetexas.org @txdotalert
<b>FEMA Ready</b>	National Disaster Preparedness Campaign	ready.gov @readygov facebook.com/readygov

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