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## FACT SHEET

**Fact: Floods and flash floods kill more people across the nation than any other weather disaster!!**

### What are different types of floods?

- **Flash Floods** - Flash floods are short-fuse weather events, typically lasting on the order of 6 hours or less. Usually, flash floods occur within a few minutes or hours following an excessive rainfall event. They can also be caused by a man-made event, such as a dam or levee failure. Flash floods cause most of the fatalities associated with flooding events. Usually, less warning is available for flash flooding, which requires quick action on the part of the public.
- **Urban Floods** - Flash flooding is most severe in urban areas like the Houston metropolitan area. Urbanization increases runoff by 2 to 6 times over what would occur in natural terrain. Flood waters can fill streets, freeway underpasses, and parking lots and can sweep away cars.
- **River/Bayou Floods** - Heavy rainfall over a widespread area (such as a large portion of a watershed) over a prolonged period (like several days) can cause river and/or bayou flooding. Typically, river flooding begins as a high crest on the upper part of a watershed that takes several days to move downstream. Due to the slow nature of river flooding, ample advance warning is provided to evacuate people or property in the path of the flooding. Bayous typically also have a crest pattern, which may move faster than a river's, in addition to flooding when they become full and overtop their banks.

### What are some different Flood Advisory terms I might hear in a flood situation?

- **Flood Watch** - A Flood Watch will be issued for situations related to widespread general flooding.
- **Flood Warning** - A Flood Warning will be issued when inundation of a normally dry area near a stream or other watercourse is expected, OR unusually severe ponding of water expected.



- **Flash Flood Watch** - Indicates that flash flooding is a possibility in or close to the watch area. Those in the affected area are urged to be ready to take action if a flash flood warning is issued or flooding is observed. These watches are issued for flooding that is **expected to occur** within 6 hours after the heavy rains have ended.
- **Flash Flood Warning** - A flood warning issued for life/property threatening flooding that **will occur** within 6 hours. It could be issued for rural or urban areas as well as for areas along the major rivers. Very heavy rain in a short period of time can lead to flash flooding, depending on local terrain, ground cover, degree of urbanization, amount of man-made changes to the natural river banks, and initial ground or river conditions. Dam breaks or ice jams can also create flash flooding.
- **Flash Flood Statement** - A Flash Flood Statement is issued to inform the public about current flash flood conditions. These statements **usually contain river stage information** if major streams or rivers are involved.
- **Coastal Flood Watch** - A Coastal Flood Watch is issued when moderate to severe coastal flooding is possible.
- **Coastal Flood Warning** - A Coastal Flood Warning is issued when moderate to severe coastal flooding is occurring or is imminent.
- **Urban/Small Stream Flood Advisory** - Alerts the public to flooding which is generally only an inconvenience (not life-threatening) to those living in the affected area. Issued when heavy rain will cause flooding of streets and low-lying places in urban areas. Also used if small rural or urban streams are expected to reach or exceed bank full. Some damage to homes or roads could occur.

### **What should I do when a Flood Watch or Flash Flood Watch is issued?**

- Move your furniture and valuables to higher floors of your home.
- Fill your car's gas tank, in case an evacuation notice is issued.
- Be alert to signs of flash flooding and be ready to evacuate on a moment's notice.



### What should I do when a Flood Warning or Flash Flood Warning is issued?

- Listen to local radio and TV stations for information and advice.
- If advised to evacuate, do so immediately!!
- Move to a safe area...not cut off by floodwaters.
- **DO NOT** attempt to drive over a flooded roadway. Do not drive into barricaded areas; **the barricades are there for a reason!**
- Children should **never** play around storm drains, creeks, streams, or rivers, or in flooded streets. Avoid areas you know are subject to flooding.

### What should I do if I am caught in a flash flood situation?

The worst place to be in a flash flood is traveling by car.

- **Six inches** of water will reach the bottom of most passenger cars, causing loss of control and possible stalling.
- **A foot** of water will float many vehicles.
- **Two feet** of rushing water can carry away most vehicles, including sport utility vehicles (SUV's) and pick-ups.

**Do not cross water flowing over a roadway if you do not know its depth.**



**If your car stalls in high water, leave it and seek higher ground!**

### What can I do ahead of time to prepare for major floods?

- Know the flood risk at your home or place of business and its elevation above flood stage.
- Store drinking water in clean bathtubs or containers. This is very important, as flood waters will contaminate the drinking water supply in your area.
- Stock non-perishable food items requiring little or no cooking and no refrigeration, along with a manual can opener.
- Keep first aid supplies on hand.



- Keep NOAA Weather radio, battery-powered portable radio, emergency cooking equipment, and flashlights in working order.
- Install check valves in sewer traps to prevent flood waters from backing into your home.

### **What items should I have in a flood disaster supply kit?**

- First aid kit and essential medications
- Canned or other non-perishable food
- Manual can opener
- Bottled water (or 1 gallon per person per day)
- Rubber boots/gloves, other protective clothing, rainwear
- NOAA weather radio
- Battery-powered radio/batteries
- Flashlight/extra batteries
- Bedding or sleeping bags
- Special items for infants, elderly, or disabled family members (diapers, formula, medical devices, etc.)
- Written instructions for how to turn off electricity, gas and water if authorities advise you to do so. (Remember, you'll need a professional to turn them back on.)
- Car keys (extra set) and maps
- Documents, including driver's license, Social Security card, proof of residence, insurance policies, wills, deeds, birth and marriage certificates, tax records, etc.
- A list of places where you could go if told to evacuate. Choose several places, such as a friend's home in another town, a motel, or a shelter.
- Cash and credit card (ATM's may not be working)
- Cleaning supplies (bleach, disinfectant, etc.)
- Personal hygiene supplies, such as baby wipes, toilet paper, etc.

For more items to consider placing in your disaster supplies kit, see the American Red Cross's suggestions at <http://www.redcross.org/services/disaster/>

### **What should I do after the flood has passed?**

- Check with local authorities before using any water, as the water could be contaminated. Pump out wells and have the water tested by authorities before drinking. Do not flush toilets until you know that sewage lines are intact.
  - If a "boil water" advisory is in effect, do not drink tap water or use it to brush your teeth unless water has come to a rolling boil for at



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least 1 minute or is treated with unscented household chlorine bleach (add  $\frac{1}{4}$  teaspoon bleach to 1 gallon of cloudy water;  $\frac{1}{8}$  teaspoon bleach to 1 gallon of clear water). [For more information, See "Purifying Household Water."](#)

- Throw out all food and other supplies that you suspect may have become contaminated or come into contact with floodwater. Do not eat food that smells bad or looks bad. When in doubt, throw food out.
- Seek necessary medical care at the nearest hospital. Clothing, food, and shelter are available at the nearest Red Cross. The Houston Area Red Cross website is <http://www.houstonredcross.org/>.
- **DO NOT** visit disaster areas. You may hamper rescue and emergency operations.
- **DO NOT** play or walk in floodwaters! Floodwaters may carry bacteria or toxic substances. The current can be strong or manhole covers could have floated off, creating a drowning hazard. **Six inches** of moving water can make you fall. If you have to walk in water, walk where the water is not moving. Use a stick to check the firmness of the ground in front of you.
- Electrical equipment should be checked or dried before being returned to service. Be sure to wear rubber gloves and rubber boots when working with electrical equipment. If you have **any questions** at all, contact a qualified electrician.
- Report broken or downed utility lines to the proper authorities.
- Be wary of wild animals and watch out for snakes even in urban areas...and watch out for the fire ants!