

INTRODUCTION

The City of Conroe is dedicated to minimizing the loss of life and property that is associated with flooding events, and to provide residents with a safe environment in which to live, work and play. Education and prevention are valuable and proven tools that help communities become resistant to natural disasters. Now is the perfect time to make sure you are knowledgeable on how to protect yourself and your property for the next major storm.

NATURAL AND BENEFICIAL FUNCTIONS

A floodplain is the normally dry and usually lowland area adjacent to a watercourse that is inundated with flood waters on a periodic basis. Floodplains are natural features that serve to detain the storm water from invading urbanized areas due to overwhelmed drainage systems. The flood zones within the City of Conroe primarily trail along the West Fork of the San Jacinto River and its tributaries. These bodies of water include, but are not limited to, Lake Conroe, The San Jacinto River, White Oak Creek, Live Oak Branch, Alligator Creek, Grand Lake Creek, Silverdale Creek, Stewart's Creek, Little Caney Creek, Crystal Creek and their tributaries. The City also has numerous secondary watersheds and other drainage features that carry water across the city's 58.5 square miles.

Floodplains improve water quality by filtering nutrients and impurities from runoff. They also provide conveyance which reduces flood velocities and flood peaks, as well as providing open space and areas for active and passive uses.

FLOOD HAZARD

Conroe is located in southeast Texas, which is susceptible to tropical storms and severe thunderstorms. The main flooding sources are the West Fork San Jacinto River watershed and all its tributaries within the city limits. The City is susceptible to riverine flooding and urban flooding to low lying areas. All storms are capable of causing street flooding and flash flooding.

In recent years, two major events have severely affected flooding in Conroe:

1. The Flood of 1994 which was a result of localized heavy rainfall from Hurricane Rosa that merged with a cold front. The system then stalled over the area and some areas received 30" of rain in 24 hours. The west fork of the San Jacinto River at I-45 reached 12 feet above flood stage. It claimed 22 lives and caused \$2 billion in damage.
2. In June of 2001, Tropical Storm Allison hovered over Southeast Texas for several days and dropped as much as 36" of rain in some locations. The damage from Allison cost our nation \$5 billion in damages and 50 lives. Allison

was a weak, slow storm but proved to be very destructive and deadly.

Please keep informed of possible flooding which can happen even to those not in the floodplain. One way is to monitor real time river gauge information at the following website and web page:

http://waterdata.usgs.gov/tx/nwis/uv?site_no=08068000
and <http://waterwatch.usgs.gov/index.php?m=real&r=tx&w=map>

FLOOD INSURANCE

Basic homeowner's insurance does not cover damage from floods. Conroe participates in the National Flood Insurance Program which means that federally subsidized flood insurance is available to everyone in the city, regardless of location and past damage. Some people have purchased flood insurance because it was required by the bank or loan company when they obtained a mortgage or home improvement loan. Usually these policies just cover the building's structure and not the contents; however, you may purchase both contents and building coverage. Renters may purchase a policy for contents only. Remember, there is a **30-day** waiting period before a policy becomes effective, and that the policy must be renewed annually.

The City of Conroe also participates in the Community Rating System, a voluntary federal program that rewards Communities that implement higher standards by providing discounts on flood insurance policies. Conroe's efforts enable property owners in the floodplain to get a 15% discount and some property owners outside the floodplain may be eligible for a 5% discount. For more information about flood insurance, contact the National Flood Insurance Program at www.floodsmart.gov or by calling your insurance agent.

DEVELOPMENT REQUIREMENTS

All development in the City of Conroe floodplain requires a permit per Chapters 14, 78 & 94 in the City of Conroe Code of Ordinances. Development includes, but is not limited to, all new construction, filling, grading and paving. Substantially damaged or improved structures, where the cost of repair (regardless of the cause of damage) or improvements to a structure equals or exceeds 50% of the building's market value. Those repairs and improvements also require building permits and elevation certificates, and are held to the same standards as new construction.

One basic standard the City of Conroe adheres to in its floodplain ordinance is the requirement that all new construction and substantially improved structure's finished floor elevation is built at a minimum of 12-inches above the base flood elevation. This standard provides added protection to structures, but does not eliminate the flooding threat. Contact the City of Conroe Permits/Inspections or Engineering Divisions before you construct anything in the floodplain to ensure that the proper

regulations are followed. Without these provisions, subsidized flood insurance through the National Flood Insurance Program would not be available to property owners in the City of Conroe. Any development within the floodplain without a permit is illegal and such activity should be reported to the City of Conroe Permits-Inspections Division at 936-522-3110.

More information is available at the Permits/ Inspections Division, located on the ground floor of the Conroe Tower, at 300 West Davis, in downtown Conroe or www.cityofconroe.org.

PROPERTY PROTECTION

Rather than wait for a flood to occur, you should act now to protect your property from flood damage. If your property is located in the floodplain, there is a 26% chance it will experience damage from flooding during the life of a 30-year mortgage, whether it has ever flooded before or not. Various retrofitting techniques are available to help minimize flooding, such as elevating the building, constructing barriers out of fill or concrete, and flood-proofing to make the building watertight. Because of Conroe's susceptibility to hurricanes and other tropical storms, measures that protect against high winds such as storm shutters and reinforced garage doors should also be considered. The City of Conroe will make site visits to provide one-on-one advice to a property owner regarding flooding and drainage issues on private property. For more information, contact: Permits/Inspections Division at 936-522-3110.

FLOOD PROTECTION

Citizens may obtain flood information, such as flood zone determinations, copies of map changes, mandatory flood insurance purchase requirements, floodplain development regulations and Standard Operating Procedures from the City of Conroe Engineering Division. Upon request, the Engineering Division at 936-522-3100, will make free flood zone determinations for properties within the City limits. Some elevation certificates of structures built in the floodplain may also be available at the City of Conroe Permits/Inspections Division. Copies are available upon request.

The State of Texas administers several mitigation grants that may help property owners protect their flood prone structures. The funds could be used for acquisition, elevation, retrofitting, or other forms of property protection. More information can be obtained by visiting the Texas Water Development Board at

<http://www.twdb.state.tx.us/flood/grant/fma.asp>

DRAINAGE SYSTEM MAINTENANCE

It is illegal to dump any type of debris into any stream or drainage ditch in the City of Conroe (Sec. 54-2). Debris may become entangled in culverts and streambeds,

impeding drainage. Citizens should do their part to keep ditches free of debris and to keep grass clippings, oil, and other contaminants from entering storm sewer inlets. Please report any illegal dumping to the City of Conroe Code Enforcement Department at 936-522-3613.

The Public Works Department is constantly maintaining our drainage system and could use your help. Please report any drainage problems to Public Works Administration at 936-522-3885.

FLOOD SAFETY

The main priority is to keep you and your family safe. The following are basic guidelines for flood safety that will help you develop your own safety program:

- Learn the safest route from your property to higher, safer ground before an emergency occurs and stay tuned to reports of changing flood conditions during a storm.
- If emergency officials tell you to evacuate or leave your home, leave immediately for a safe shelter, hotel, or relative's house.
- Turn off your house gas and electricity at the main valve or switch.
- Never walk through flowing water. Drowning is the number one cause of flood-related deaths. Currents can be deceptive: It only takes six inches of moving water to knock you off your feet. **“Turn Around, Don't Drown”**
- Never drive through a flooded area. The majority of vehicle-related deaths are caused by drivers trying to navigate flooded roadways. It takes 12 inches of rushing water to carry away a small car and 24 inches of rushing water can carry away most vehicles.
- Do not drive around any road barrier; the submerged road or bridge may be washed out. **The barricades are there for a reason!**
- Never let children play in flood water. Flood water may be contaminated with raw sewage and toxic chemicals. Small children can be swept away or forced down a storm sewer by flood water with devastating results.
- Be aware of dangerous insects and wild animals seeking refuge from the flood.

http://www.ready.gov/sites/default/files/FamEmePlan_2013.pdf

If you have any questions, please contact the City of Conroe Public Works/Engineering Division

KNOW THE WARNINGS

In case of a flooding emergency, the City may use different means to alert you to the situation and possible evacuation routes.

- Montgomery County CodeRED Emergency Notification. CodeRED is a high-speed telephone notification system that can dial up to 60,000 phones an hour and deliver a

recorded message. The alerting agencies can use a digital map online to define an area that requires a message, and CodeRED will automatically target all phone numbers in that defined area for the emergency message.

<http://www.mc911.org/>

<http://www.mctxoem.org>

- If you receive a CodeRED message, listen carefully. The message will be brief and not repeated. Follow the instructions given. You may be directed to a commercial TV or radio station for further information. **Do not hang up until you have heard the entire message.** You may miss important information. Do not call 9-1-1 for further information unless directed to do so. You will only tie up the emergency lines
- Listen for sirens. In the case of an emergency, police and fire officials will use their sirens and loud speakers to alert you to necessary information about the emergency. Listen to **KTRH 740 AM** or **KUHF 88.7 FM.**
- Turn on TV or Radio. During large storm events turn on a television set or radio and tune to a local station to find out information about the emergency and evacuation routes. The emergency broadcast station for Conroe is **K-Star Radio/KVST 99.7 FM.** The local NOAA Weather Radio is **Tomball, KGG68, 162.400 Mhz.** Listen for Warning Bulletins and any corresponding emergency instructions.
- Evacuation Route. **The designated hurricane evacuation route for Conroe is I-45 N.** and is a potential Contraflow Route where all lanes opened to north bound traffic. For more information go to <http://www.txdot.gov/inside-txdot/division/traffic/safety/weather/hurricane.html>

Public Works/Engineering
PO Box 3066, Conroe, TX 77305
936-522-3100 936-522-3125 fax
engineering@cityofconroe.org



CITY OF CONROE
ENGINEERING

“To protect and serve the citizens of Conroe and exceed their expectations”

FLOOD SAFETY INFORMATION FOR RESIDENTS OF CONROE



CITY OF CONROE

