The Harris County Flood Control District’s **Flood Warning System** measures rainfall and monitors water levels along bayous and major tributaries within Harris County on a near real-time basis in order to help inform area residents of potentially dangerous weather conditions. The **Flood Warning System** also provides historical rainfall data and information about past flooding events.

Harris County Flood Control District began collecting rainfall and water level gage data in 1962. Since then, the Flood Control District has expanded its gage network to help better serve the community. The **Flood Warning System** relies on this network of gage stations strategically placed throughout Harris County’s major bayous and their tributaries. The individual stations contain sensors that transmit valuable data during rain events. Some gages also measure wind direction and speed, barometric pressure, air temperature, humidity, roadway flooding potential, road temperature, and soil conditions.

The purpose of the **Flood Warning System** is to provide residents and emergency personnel with access to timely information collected by the gages in both a technical and non-technical format. Harris County Flood Control District and Harris County Office of Homeland Security and Emergency Management heavily rely upon **Flood Warning System** gage data in order to help inform residents of imminent and current flooding conditions along Harris County’s bayous and tributaries. Data also are used by the National Weather Service to assist in the issuance of flood advisories and warnings.

*Some gages are located outside of Harris County at partner sites where rainfall could impact our region.*

Gages, such as this one, are typically located near roadway crossings on many of Harris County’s bayous and tributaries. These gages measure rainfall amounts, water levels and other types of weather-related conditions.
Implementing Technology to Monitor a Network of Gages

As it begins to rain, data-collecting sensors at each gage station transmit incremental rainfall amounts via radio frequency every time 0.04 inches of rain is measured by a rainfall sensor. Sensors that transmit water level report on every 0.01 foot change.

The sensors transmit information to four primary repeaters located in the Huffman, Clodine, Tomball, and League City areas. The repeaters relay the data to primary and back-up base stations located at Houston TranStar (which is also a receive tower) and at the Harris County Appraisal District. The information is monitored by Harris County Flood Control District Flood Watch staff that are also responsible for gage installation, maintenance, and data collection.

Expanding our Reach with Valuable Partnerships

Harris County Flood Control District has partnered with Fort Bend Drainage District, Galveston County Drainage District #1, Waller County, the City of Mont Belvieu, Harris County, Brazoria Drainage District #4, the City of Sugar Land, the Woodlands, the Texas Department of Transportation, the Trinity River Authority, and the San Jacinto River Authority to display rainfall and water level data on the Flood Warning System and to maintain field equipment for certain partners.

Alert Notification System

As part of Harris County Flood Control District’s commitment to implement new tools to better predict flood risk, the Flood Warning System offers an alert feature that allows residents to subscribe to receive email and/or text alerts that report near real-time rainfall and water levels.

Residents are able to customize alerts and notifications for bayous and tributaries in their particular areas of interest.

Learn more about the Alert Notification System at www.FWSalerts.org.

Inundation Mapping

The inundation mapping feature of the Flood Warning System provides current channel inundation information transmitted by water level gage locations.

The technology behind the inundation mapping tool runs continuously to provide live inundation extents during a flood event.

While the gages are transmitting in real-time, actual display results may be delayed due to the time required to interpret the data and render the new extents. New inundation rendering also only occurs when the gage detects a change of .5 of a foot. The inundation mapping layer is optimally viewed at a base map zoom level of 500 feet. The inundation layer is intended to depict the current flood extent (with a 6 inch buffer) and does not include water depth nor flooding from street ponding. Inundation mapping techniques have also been used to produce estimated inundation extents for a number of recent and historical flood events.

Learn more about inundation mapping at www.HarrisCountyFWS.org.

Clear Creek Gate Status

Check the status of the Clear Creek gates at any time by following these steps:

1. Zoom in to the Clear Lake area by double-clicking on the map or using the magnification slider in the upper left corner.
2. Mouse over the gage at 3146 and select “More Information”.
3. On the gage detail page, the “Gate Status” is shown in the upper right corner.

GAGE SELECTIONS

Gages by Agency

- Harris County Flood Control District
- Brazoria Drainage District No. 4
- City of Mont Belvieu
- City of Sugar Land
- Fort Bend County
- Harris County Flood Control District
- San Jacinto River Authority
- Trinity River Authority
Monitor Harris County rainfall amounts and water levels now.

www.HarrisCountyFWS.org

Reliable rainfall amounts and water level data can help emergency management officials make critical decisions that ultimately aid in reducing the risk of property damage, injuries and loss of life.

Sign up now to start receiving real-time rainfall amounts and water levels.

www.FWSalerts.org

Just eighteen inches of flowing water can carry away most vehicles, including SUVs. It is never safe to drive or walk through flood waters.

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