



Fort Bend County Levee Improvement District No. 2

HURRICANE HARVEY

Hurricane Harvey impacted communities up and down the Texas Gulf Coast, including Fort Bend County Levee Improvement District No. 2 (FBC LID 2) in Sugar Land. Over 5 days, between Friday, August 25 and Tuesday, August 29, Harvey dropped over 35 inches of rainfall within FBC LID 2. For some perspective, the average annual rainfall for Sugar Land is 49 inches, so in 5 days the District received the same amount of water it would normally accumulate over 8 months. By the end of the storm, Hurricane Harvey would set a new rainfall record for the continental United States.

Heavy rains from Hurricane Harvey also fell upstream from FBC LID 2 in the Brazos River watershed which caused the Brazos River to set a new flood record at the Richmond, TX gage of 55.19 feet (the previous record of 54.74 feet occurred on June 2, 2016). The FBC LID 2 levee system is designed to protect over 5,000 acres in First Colony from these Brazos River flood waters, and throughout Harvey and the subsequent river flooding, no flood waters from the Brazos River entered the District. When the Brazos River crested, water was only 2 feet up the FBC LID 2 levee, leaving 7.7 feet of freeboard for additional protection.

At the height of the storm, the Brazos River was forecasted to reach an even higher crest of 59 feet at the Richmond gage, which still would leave 3+ feet of freeboard for flood protection.

However, while the District was completely protected from Brazos River flood waters, intense local rainfall caused major inundation within FBC LID 2, including structural flooding in over 200 homes. On a typical day, when the Brazos River is at normal levels, rainfall within the District drains through City streets and storm sewers, into FBC LID 2 ditches, and out of the District through large flood gates in the levee. As water rises to flood levels in the Brazos River, these flood gates are sealed closed by water pressure when the water level outside the levee is higher than the internal water level. After the flood gates close the levee system can be compared to a bathtub with the drain plugged that will be filled up by any local rainfall. At this stage, gravity will no longer move rainfall runoff out of FBC LID 2, so all water inside the levee must be pumped out. The District operates two pump stations that

combined can remove over 325,000 gallons of water per minute from the drainage system. During Hurricane Harvey, FBC LID 2 pumped more than 1.2 billion gallons of water out of the District. In the past 5 years, major construction projects at both pump stations replaced outdated equipment with modern pumps, controls, and generators that drastically increase their resiliency during emergency events like Hurricane Harvey.

The combination of Brazos River flooding outside the levee and heavy local rainfall inside the levee that was experienced during Hurricane Harvey is referred to as a coincidental event. The FBC LID 2 internal drainage system was designed to store and pump approximately 5 ½” of water over 24 hours during a coincidental event. This design also assumes that the entire drainage *(cont'd inside)*

Fort Bend County Levee Improvement District No. 2 Hurricane Harvey Public Forum

St. Laurence Catholic Church – Parish Hall
3100 Austin Parkway, Sugar Land, TX

FBC LID 2 Residents with Flooded Homes
Wednesday, November 8 - 6:00 p.m.

All FBC LID 2 Residents
Tuesday, November 14 - 6:00 p.m.

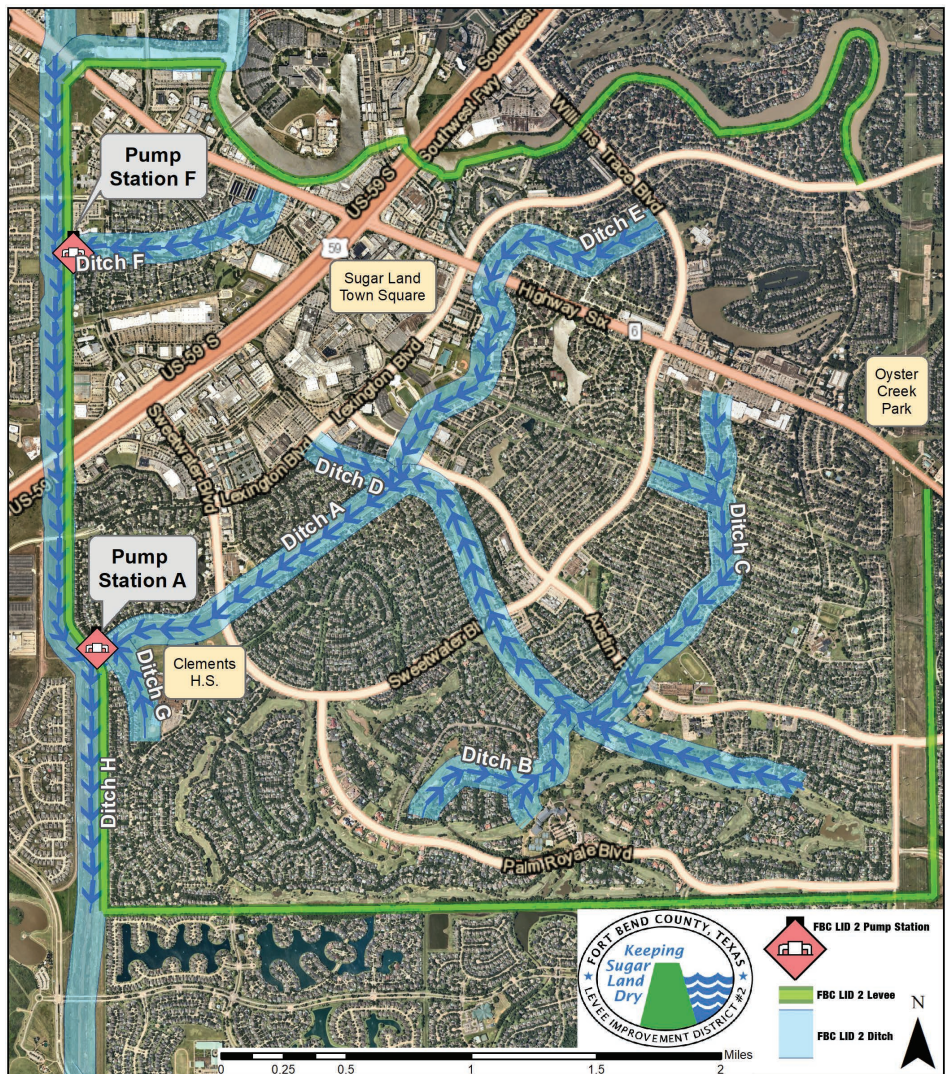
Hurricane Harvey

(cont'd from front)

system is dry and empty the day before and after the 5 ½ inches of rainfall. During Harvey, the FBC LID 2 drainage system, which was already full, received an additional 10 inches of rain over 2 days after the flood gates closed. Unfortunately, this caused water levels inside FBC LID 2 to also reach record levels during the overnight hours between Monday, August 28 and Tuesday, August 29. Over 200 homes and families in FBC LID 2 were directly damaged by this record rainfall event, and thousands of others were seriously impacted.

In November, FBC LID 2 will host two public forums related to Hurricane Harvey. Topics will include the District's emergency operations during Hurricane Harvey and the ongoing engineering analysis of how the drainage system functioned during the storm. Based on that study FBC LID 2 will discuss improvements that can feasibly be made to the drainage system that would help prevent future damage to homes and property. The first forum on Wednesday, November 8 will only be for residents that experienced home flooding. The second forum will be for all community residents of FBC LID 2 on Tuesday, November 14. Both events will be held at St. Lawrence Catholic Church in the Parish Hall starting at 6:00 pm. Residents are also welcome to contact the District Board and Management at any time using the following email address: board@fbclid2.com or GM1@fbclid2.com.

FBC LID 2 District Map

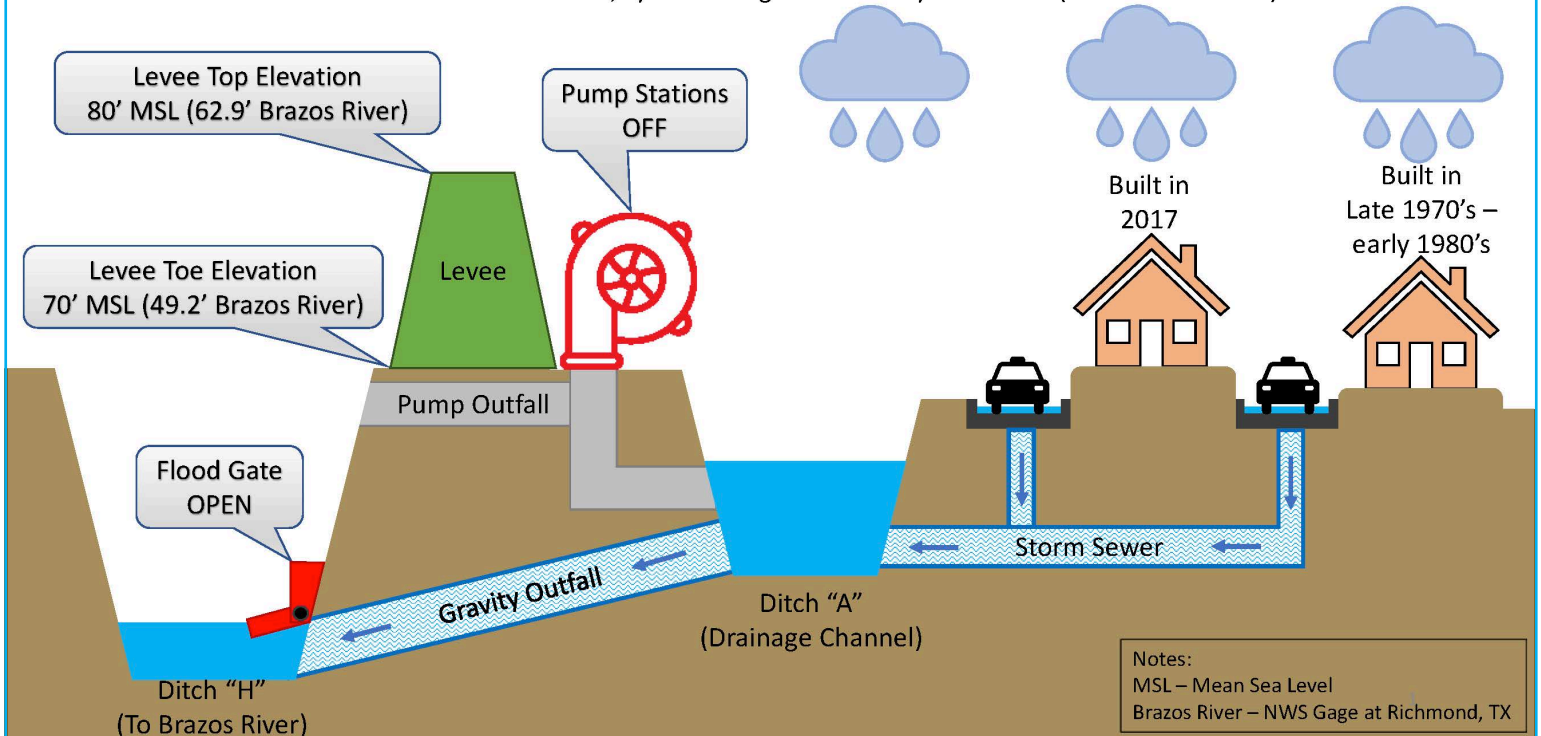


FBC LID 2 Storm Water Pumps

HOW DOES THE LEVEE AND DRAINAGE SYSTEM WORK?

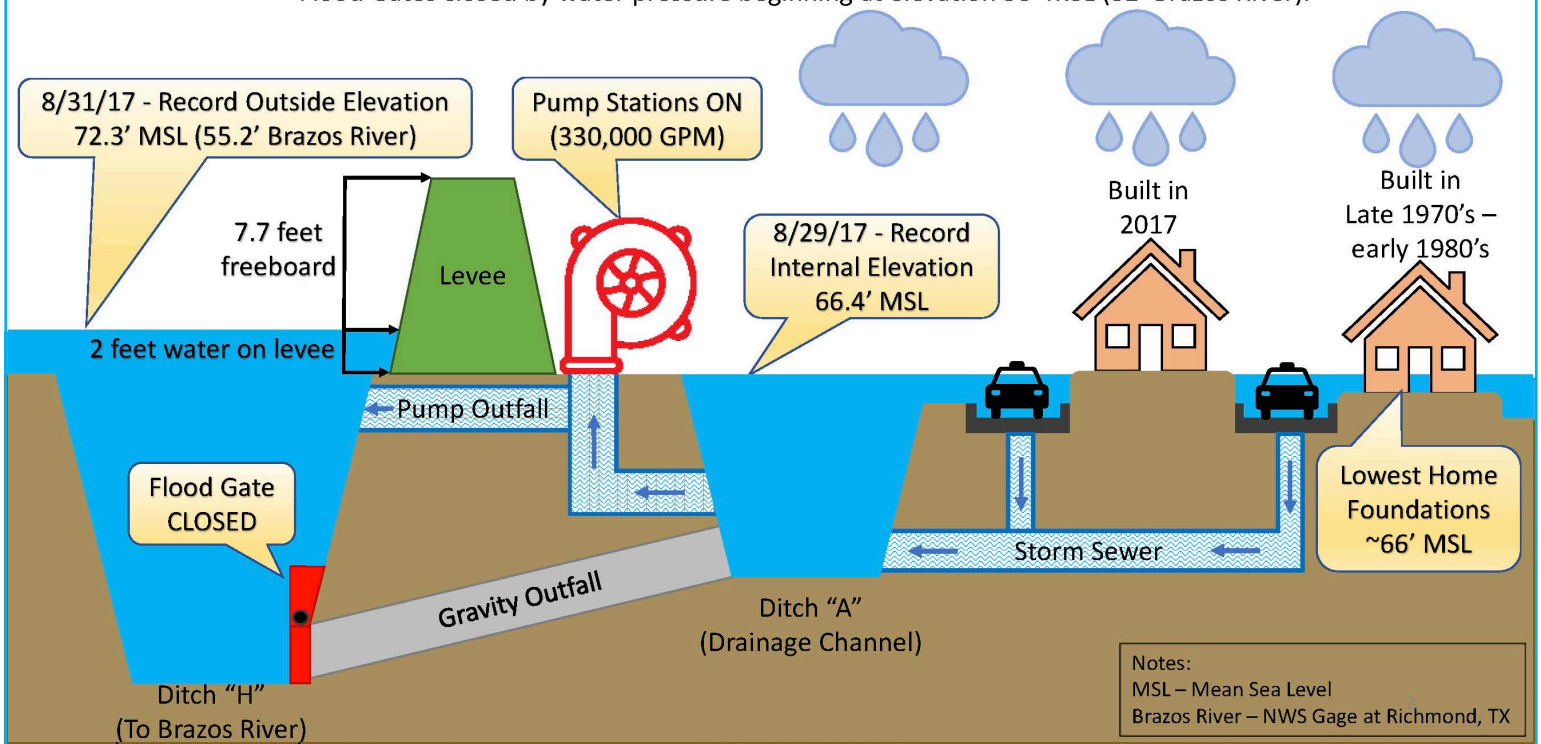
FBC LID No. 2 Normal Operations

With Flood Gates OPEN, system designed for 100-year rainfall (12 1/2" in 24 hours).



FBC LID No. 2 Emergency Operations During Hurricane Harvey

Flood Gates closed by water pressure beginning at elevation 58' MSL (32' Brazos River).





Fort Bend County Levee Improvement District No. 2
3200 Southwest Freeway, Suite 2600
Houston, TX 77027

SURVEY

Did you experience home flooding during Hurricane Harvey? FBC LID 2 would like to contact you and learn about the impacts to your home and property for the benefit of future planning efforts. Responses can be submitted electronically or mailed to:

Email: GM1@fbclid2.com
Address: Fort Bend County Levee Improvement District No. 2
3200 Southwest Freeway, Suite 2600
Houston, TX 77027

Please provide your preferred contact information:

Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

Email: _____

Preferred method of communication? _____

Would you like to receive reminders about FBC LID 2 public meetings and information? _____



For information about FBC LID 2, email board@fbclid2.com or go online to www.fbclid2.com.