Effected 275 miles of coast line
State Weather Call:
• Weather Service projected 18 inches or rain
• State Emergency Manager said to plan for 36 inches of rain

• Estimates for Texas alone...Harvey dumped an estimated 53.4 million acre-feet of water on Texas
• Gage reports in excess of 50 inches in the Houston area
• Heavy rainfall from just east of the Austin/San Antonio area to the Texas/Louisiana border
• Numerous new flood records on area rivers
Hurricane Harvey Highlights

- **August 23rd**
  - Within 56 hours, Harvey grew from a regenerated Tropical Depression over the Gulf of Mexico to a Category 4 Hurricane.

- **August 25th**
  - Hurricane Harvey made landfall as a Category 4 with winds 130 mph at Rockport, TX

- **August 26th to 30th**
  - As a weakened Hurricane and a Tropical Storm, Harvey meandered through Texas dropping 41 to 61 inches of rain.
  - Harris County Flood Control District estimated 1 trillion gallons of rain dumped on Harris County and the City of Houston in 4 days.
Public Water Supply (PWS) Assessments

- The TCEQ Regional offices and Office of Water conducted outreach (first, by phone) to PWS facilities in impacted area to determine operational status, provide technical assistance and guidance.
- For systems not available by phone, TCEQ conducted site visits as flood waters receded.
- Determined issues and tracked Boil Water Notices (BWN)
Wastewater Treatment Plants (WWTP) Assessments

- The TCEQ Regional offices and Office of Water conducted outreach (first, by phone) to WWTP facilities in impacted area to determine operational status, provide technical assistance and guidance.
- For systems not available by phone, TCEQ conducted site visits as flood waters receded.
- Determine issues and track Sanitary Sewer Overflows (SSOs).
Water / Wastewater Stats

- 2,238 drinking water facilities serving a population of 11 million people were being tracked
- 1,743 wastewater facilities serving a population of 10 million people were being tracked
- 625 on-site drinking water assessments completed
- 441 wastewater assessments completed
Water / Wastewater Stats

- At the peak of the event,
  - 203 BWNs - population of 376,245 people
  - 61 PWS Inoperable
  - 40 WW Inoperable
- Sanitary Sewer Overflows/WW Discharges
  - 1,262 Domestic - 24 million gallons
  - 45 Industrial - 125 million gallons
Hazardous Materials

• Activities related to hazardous materials spill response:
  o Responding to, tracking and monitoring releases of hazardous materials.
  o Locating, identifying and removing “orphan drums and containers”, dislocated by the flood to protect the health and safety of citizens returning to the flood-impacted areas.
  o Overseeing the staging of household hazardous waste resulting from flooding.
  o Overseeing disposal of hazardous materials.
HAZMAT Stats

- 465 (55 gal) drums, 508 small containers (<55 gal), 36 large containers (>55 gal), and 46 cylinders
- Tracked a total of 266 spills/discharges
Refinery and Commercial/Industrial Facilities

- TCEQ verified and reported on operational status of refinery and industrial facilities.
- TCEQ conducted site visits to facilities as flood waters receded to determine the integrity of facilities which handle hazardous materials, including petrochemical production facilities, hazardous waste disposal facilities, fuel storage tanks, etc.
Refinery and Commercial/Industrial Facilities

• TCEQ continues to review reported shutdown/startup notifications and emission events.

• Reviews are conducted in accordance with current investigation protocols for emission events, Title V facilities, complaints and routine investigations.

• Case-by-Case Determinations will take into consideration Governor’s rule suspension, force majeure claims, and enforcement discretion.
Debris Management

• TCEQ provided oversight of appropriate disposal of storm waste.
• Ensured debris management sites are operated in a manner not to create a human health threat or threat to the environment.
• Ensured proper separation of Household Hazardous Waste (HHW) and white goods (i.e. refrigerators, washers & dryers) from storm debris prior to disposal.
• Ensured proper disposal of HHW and white goods.
Debris Management

- Provide authorizations for temporary debris management sites.
- Provide debris management/disposal guidance.
- Issue “burn” letters to local jurisdictions as appropriate.
- Assist with animal carcass disposal issues.
Debris Stats

- 216 Approved Debris Sites
- As of 2/23/18 - 26 active sites
- Approximately 2000 TDMS Site Inspections
- As of 2/23/18, approximately 2.4 million cubic yards or waste collected
A LOOK AT HURRICANE HARVEY
Hurricane Harvey has dumped 21 trillion gallons of rain as of midnight, according to WeatherBell Meteorologist Ryan Maue. That amount of water could...
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