# Hurricane Harvey 2017
# 9/3/2017 – 1700 CDT Update

**NEWS RELEASES**

EPA issued two Harvey related news releases on September 3, 2017. The first news release announced the status of water systems in areas affected by Harvey and updates of EPA/TCEQ response activities addressing National Priority List (NPL) sites, air quality monitoring, and 24-hour watch at the Arkema facility. The second EPA news release responded to the Associated Press September 2, 2017 story which erroneously reported that EPA was not actively involved in the assessment of NPL sites impacted by Harvey.

In another EPA news release issued on September 2, 2017 the agency announced the status of NPL Superfund sites, identifying numerous sites that have been evaluated or will be evaluated as soon as it is safe to inspect. A Field Public Information Officer (PIO) is mobilizing to Houston on September 3, 2017 to liaison with the Houston Mayor.

**ARKEMA**

Emergency response monitoring at the Arkema facility evacuation perimeter is being conducted. We will make those data available as we are able. So far, nothing of immediate health concern has been detected.

The Arkema plant continues to be under close observation. Overnight, smoke and ash were observed as well as a strong sweet, detergent-like odor. The organic peroxides in the trailers are known to have a strong odor associated with them. Each of the trailers contain approximately 38,000 lbs and is venting. There are small fires and vaporization occurring which may explain reports of an orange glow.

Complaints were called in from outside the perimeter and these were consistent with the wind direction at the time of the complaint. EPA dispatched a team to conduct air monitoring. No elevated readings were detected and no adverse effects were reported, only odor.
The list of decomposing products is not considered toxic, however, they have a low odor threshold resulting in the complaints.



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The temperature of the contents is critical to estimating the moment of ignition. Because this information is not considered accurate and verifiable, specific information is not being disseminated. Results from EPA's aerial reconnaissance fly-over confirmed smoke and evaluated a chemical release sweep directly over the trailers. Many chemical detections were consistent with light hydrocarbons caused by the heated constituents emitted from the trailers. These hydrocarbons were all measured slightly above the limit of detection (about 5 parts per million) Other downwind passes did not show chemical detections above the detection limits.

Recent flyover photos indicate that flood waters within the facility have receded almost completely. Access to the facility remains unsafe and therefore, the 1.5-mile radius evacuation is still in effect. EPA will continue to maintain a rotational 24-hrs presence and air monitoring capabilities at the incident command operations center.

EPA/TCEQ statement on controlled ignition of trailers at Arkema facility in Crosby

The U.S. Environmental Protection Agency and the Texas Commission on Environmental Quality released the following statement along with Unified Command regarding the decision to conduct a controlled ignition of remaining trailers at Arkema's facility in Crosby:

It is the understanding of personnel on the ground that the remaining trailers are at risk of catching fire over the next few days. Rather than risk additional damage to the facility or spreading into the surrounding area, the Crosby Volunteer Fire Department and the Harris County Fire Marshal's Office will perform a controlled burn of the material.

First responders are outside the evacuation zone, but remain in the area, for quick response to ensure the safety of the community around the facility.

We continue to monitor smoke and air quality, the potential for additional fires in the area, and have aerial assets ready to be deployed, as needed. Everyone in the area should follow the safety instruction of local authorities, specifically staying out of the evacuation zone, avoiding smoke and flood waters.

Additional Background:

As with all smoke, people can limit the potential for adverse health effects by limiting their exposure. This includes staying indoors with doors and windows closed and running the air conditioning (if possible) with the fresh intake closed. If it is absolutely necessary to be outdoors, try to move out of the plume of smoke and minimize heavy work, exercise, or children's playtime.

As of Sunday, Sept. 3, multiple trailers of organic peroxide caught fire following the refrigeration units being compromised by catastrophic flood waters. EPA has been sending aerial surveillance aircraft to test resulting smoke and continues to do ground-level air quality monitoring. EPA's plane instrumentation is capable of measuring 78 different chemicals, including peroxides. Neither testing methods found toxic concentration levels in areas away from the evacuated facility.



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Local officials are maintaining a 1.5-mile area of evacuation to assure that the public is protected. Air monitoring has confirmed that this is sufficient based on current conditions and anticipated events.

The EPA and the TCEQ are providing direct support to incident commander Michael Sims of the Crosby Volunteer Fire Department and Chief Bob Royall of the Harris County Fire Marshal's Office, who are leading a coordinated local, state, and federal effort as part of the Unified Command to control the fire at the Arkema facility in Crosby.

**BEAUMONT/PORT ARTHUR**

Beaumont's wastewater treatment plant (WWTP) is fully operational and running. All units are being powered by generator and are fully functional. The collection system has been effectively shut off due to power loss. The WWTP lost two pumps earlier, but they have been restored. The city is focusing the majority of its resources on the drinking water issues currently being experienced and then will begin assessing and working on the wastewater side.

**DEBRIS RECOVERY**

According to U.S Army Corps of Engineers (USACE) many impacted counties are reporting that they will handle their own debris removal. Aransas Pass has eight trucks and are currently conducting debris removal in their area.

**AIR MONITORING**

Monitors are showing that air quality at this time is not concerning and local residents should not be concerned about air quality issues related to the effects of the storm. Due to quick action and proper preparation by state authorities, all the ambient air quality monitors in the network from south of Corpus Christi to Beaumont were protected before the storm. Since then, state authorities are working to get the systems up and running again. As of Saturday, September 2, over 88 percent of monitors are up and working again in Corpus Christi, 85 percent in Houston, and 36 percent in Beaumont. Of the available air monitoring data collected from August 24-September 2, 2017, all measured concentrations were well below levels of health concern. Monitors are showing that air quality at this time is not concerning, and local residents should not be concerned about air quality issues related to the effects of the storm.
EPA's mobile air-monitoring unit will be in Houston to assist with air monitoring. Also, EPA's mobile air monitoring Trace Atmospheric Gas Analyzer bus is on the way to Houston to assist with air monitoring as well. The TAGA is a self-contained mobile laboratory capable of real-time sampling and of outdoor air or emissions. The instrumentation refers both to the analytical instrument and the mobile laboratory built around it.

**EMERGENCY RESPONSE**

We have established a Unified Command with other state and federal partners, and are in the



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field conducting rapid needs assessments. The TCEQ will use the available technology that will best support the field activities being conducted, which may include the use of hand held air monitoring equipment. Continue to monitor the TCEQ's Hurricane Response website for updates.

## WATER SYSTEMS ASSESSMENT

Half (2300) of the 4500 drinking water systems potentially affected by Harvey have been contacted. Of those: 1514 systems are fully operational, 166 have boil-water notices, and 50 are shut down. The agencies are contacting remaining systems to gather updated information of their status. Assistance Teams are in the field working directly with system operators to expedite bringing systems back to operational status. Additional drinking water assessments should be up and running within the next day.

Currently, 1656 of approximately 2469 wastewater treatment plants are fully operational in the affected counties. The agencies are aware that releases of wastewater from sanitary sewers that is occurring, due to the historic flooding and are actively working to monitor facilities that have reported spills, conduct outreach and provide technical guidance to all other wastewater facilities in flood-impacted areas. EPA and TCEQ are working closely with the U.S. Coast Guard, the Texas Military Department, and other local and state agencies to continuously monitor wastewater systems. Houston's unified command will be up and running shortly to support water testing. Assistance Teams will be deployed to work directly with system operators to expedite bringing systems back to operational status.

EPA is developing a plan for sampling residential wells, and is coordinating with TCEQ to establish several locations where residents can bring water samples from their wells to be tested.

## SUPERFUND INSPECTIONS PLANNED

The following Phase 2 inspections will be conducted on Monday, September 4, 2017.

**Status/Schedule for NPL Inspection**

- Phase 1 – 41 Sites completed 9/01/17
- Phase 2 – Eleven sites require inspection.
    - Planned
        - San Jacinto – 9/3/17 Miller
        - Highlands Acid Pit - 9/3/17 Miller
        - French Ltd. – 9/4/17 Sullivan
        - Gulfco Marine – 9/3/17 Abshire
        - Malone Services- 9/3/17 Miller
        - Patrick Bayou – 9/4/17 Abshire
        - Petro-Chemical Systems 9/4/17 Abshire
        - Triangle Chemical – 9/4/17 Sullivan
        - US Oil Recovery – 9/4/17 Miller
        - Bailey Waste – 9/4/17 Sullivan
        - Geneva – **complete 9/3/17**



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## FIELD RESPONSE ACTIVITIES

On September 3, 2017, the agencies under Unified Command conducted operations in both the Corpus Christi Branch and Houston Branch.

The Oil Discharge Assessment Group utilized by Corpus Christi Branch during the previous operational period was replaced with an Emergency Response/Recovery Group. Additionally, an Oil Recovery Group consisting of two teams was added to the Corpus Christi to begin closing out oil discharges discovered by the assessment teams. The National Response Center Investigation Group utilized by Houston during the previous operational period was replaced with a Container Recovery Group.
Geographic areas focused on by Corpus Christi Branch during the previous operational period including Port Aransas and Mustang Island are largely complete except orphan containers being carried in from the tide. These containers will be addressed as they are discovered. Projected Corpus Christi Branch geographic areas for this operational period include Rock Port, Aransas Bay and Victoria.
In addition, an Aerial Operations Team will be located in Houston. Plans are being implemented regarding Beaumont have started and when feasible, several EPA personnel and a Data Unit will be deployed.

- The oil discharge assessment branch visited 13 facilities and queried seven throughout the Houston area of responsibility. Of those targets, we have two of particular concern, were referred for response teams and five to follow-up on in the next week.

- The Magellan facility along the Houston Ship Channel reported approximately 25,000 barrels of a gas/stock blend released within their facility and currently contained in secondary containment. An oil spill response organization (OSRO) has been hired and they drafted a transfer plan to conduct an over the top transfer from secondary containment back into a facility tank.

- The San Jacinto River and Rail Facility reported an approximately 15,000 gallons of waste oil discharged within their facility to include 12 mystery drums scattered across the facility. Damage Assessment teams confirmed that vegetation and residual ponds are coated with an oil. The responsible party is in the process of hiring an OSRO to commence clean-up operations. No mobile oil visible in the waterway; oil has coated to vegetation.

- Helicopter operations was airborne throughout the day and reported no major pollution concerns, but noted small targets to investigate along the shoreline. They did note that the Lake Houston area was still heavily flooded, but waters were residing quickly. Fly-overs were conducted patrolled from Galveston to Matagorda, they canvassed the Houston harbor and conducted an assessment overhead Lake Houston.

- Our hazard evaluation is 100% complete on shoreline assessments. A team was routed to investigate a report of adrift containers at an intersection in Dickens, TX.

Responders confirmed containers were not on the road and marked them for further investigation.

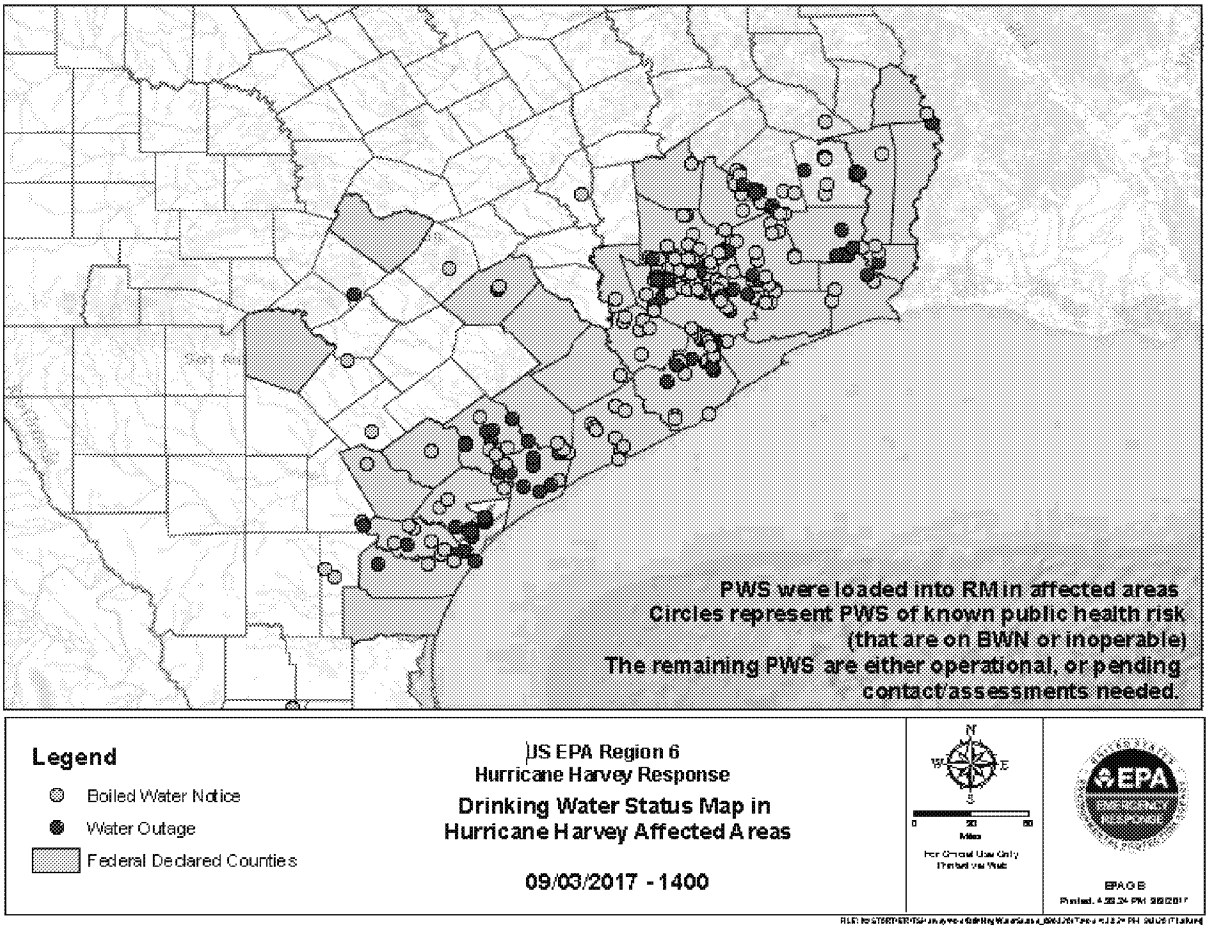
- The system has also been assigned targets in Zone 6 (Crosby down to Baytown) consisting of 49 targets. ASPECT is preparing for flight 9 with a follow-on flight 10 consisting of Arkema and zones east of Crosby. Rapids Needs Assessment (RNA) targets include Remedial Management Plan (RMP) locations, wastewater facilities, water treatment facilities, and National Priority List (NPL) sites. ASPECT flights collected aerial images over several hundred target sites. These targets have been categorized by the ASPECT team into geographic area designated by chronological zone numbers

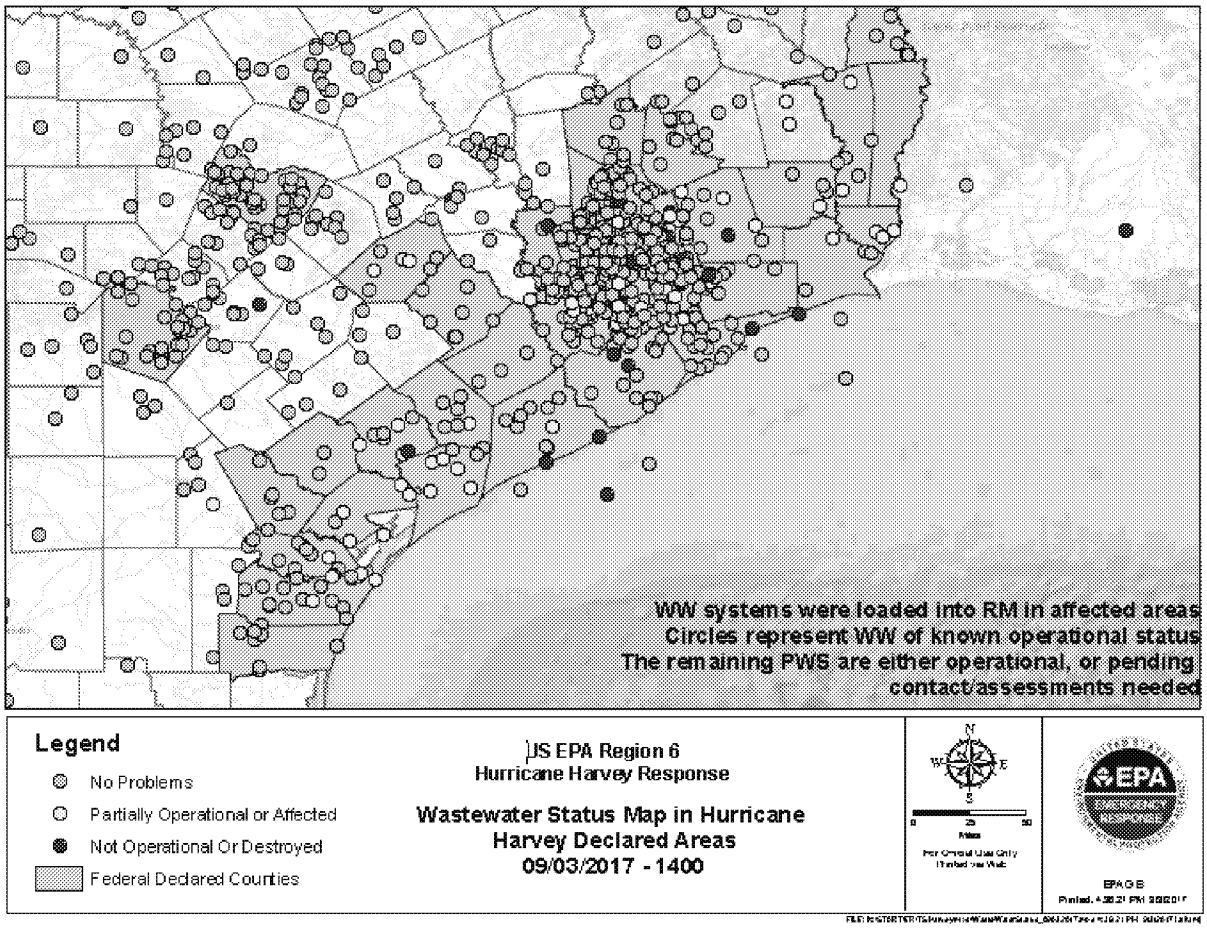
## SPILL/RELEASE RESPONSE

| Hotline Calls as of September 3, 2017 | |
|---|---|
| **Number of Harvey Related Calls Received During Reporting Period 0100-1300** | 7 |
| **Total Number of Harvey Related Calls to Date** | 136 |
| *** EPA is assessing each call to determine appropriate response and forwarding reports to field personnel to conduct further assessments and response as needed.** | |

## DRINKING WATER / WASTEWATER ASSESSMENTS

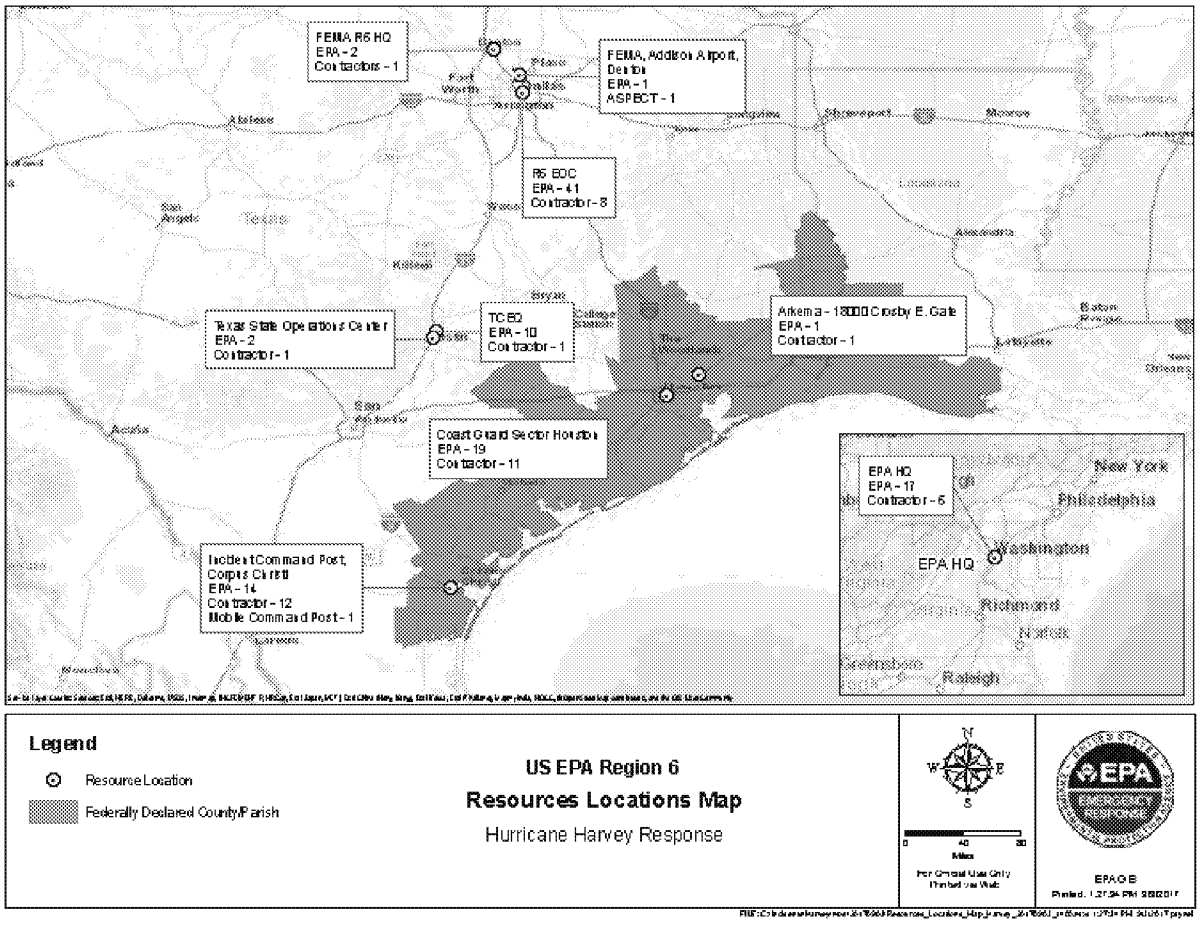
EPA continues to support TCEQ in contacting drinking water and waste water systems with 10 personnel manning TCEQ's Drinking Water and Waste Water Phone Bank located in Austin.






## EPA RESOURCES

| Personnel | EPA Dallas, TX | FEMA Denton, TX | Texas SOC Austin, TX | TCEQ Austin, TX | Houston, TX | Corpus Christi, TX | HQ EOC Wash DC | Totals |
|---|---|---|---|---|---|---|---|---|
| **EPA** | 41 | 1 | 2 | 10 | 19 | 14 | 17 | 104 |
| **START** | 7 | | 1 | 1 | 11 | 6 | | 26 |
| **ERRS** | | | | | | 6 | | 6 |
| **Other Contractors** | 1 | | | | | | 6 | 7 |
| **TOTAL** | 49 | 1 | 3 | 11 | 30 | 26 | 23 | 143 |




## FUNDING
## SEPTEMBER 3, 2017

| Funding Sources | Funding Ceiling | Funding Ceiling Less Indirect | Spent to Date | Remaining Balance | Daily Burn Rate | Days Remaining |
|---|---|---|---|---|---|---|
| Non Mission Assignment | N/A | | $64,200.00 | $0.00 | | 25.15 |
| MA 4332DR-TX-EPA-01 | $20,000.00 | $17,654.00 | $0.00 | $17,654.00 | | |
| MA 4332DR-TX-EPA-03 | $8,592,000.00 | $7,584,077.00 | $2,628,702.00 | $4,955,375.00 | $197,752.84 | |
| Totals: | $8,612,000.00 | $7,601,731.00 | $2,692,902.00 | $4,973,029.00 | | |

** Indirect costs represent the money the Cincinnati Shared Service Center takes off the top to manage the Mission Assignments

*Burn rate does not include daily ERRS amounts, not yet received. The burn does include START & ASPECT.

## REFINERIES/FUEL WAIVERS

No New Information

The Department of Energy authorized the Strategic Petroleum Reserve (SPR) to negotiate and execute an emergency exchange agreement with the Phillips 66 Lake Charles Refinery. This decision will authorize 200,000 barrels of sweet crude oil and 300,000 barrels of sour crude oil to be drawn down from SPR's West Hackberry, Louisiana (LA) site and delivered via pipeline to the Phillips 66 refinery.

Four No Action Assurance (NAA) letters were signed by EPA on September 1, 2017, to help address fuel shortages. NAAs will help expedite the distribution of existing gasoline supplies in both Texas and Louisiana while the refineries work to re-start and resume normal operations. For each NAA, EPA will exercise discretion not to pursue enforcement for violations of the regulations identified in the NAAs. Each NAA is effective for two weeks, or until September 15. It is anticipated that these NAAs will allow for the immediate distribution in Texas of 10 million or more gallons of gasoline to consumers.

**Texas NAA for Vapor Recovery Systems**: Several federal regulations and the Texas State Implementation Plan (SIP) require that bulk gasoline, marine, and rail loading terminals operate a vapor control system to collect the fuel vapors displaced from tank trucks during product loading. This NAA allows the loading and unloading of fuel at terminals that have damaged or inoperable vapor recovery devices or that are otherwise not equipped with such devices.

**Texas NAA for Truck Loading at Petroleum Distribution Terminals**: Several federal regulations and the Texas SIP require that gasoline tank trucks obtain testing and certification that the tank trucks are vapor tight. This NAA allows tank trucks to load and unload fuel at terminals even though the trucks may not be registered with the terminals as having completed all the testing for tank tightness or have the documentation on hand to prove it.

**Texas NAA for Roof Landings at Gasoline Storage Vessels:** This relates to several federal regulations and the Texas SIP covering storage vessels with external floating roofs. Specifically, when the operator removes product from the vessel such that the roof lands on the vessel's legs, such action must be a continuous motion, i.e. the process of re-filling the vessel must begin immediately after roof landing. This NAA will allow roof landings without requiring immediate re-filling of the vessel.

**Louisiana NAA for Truck Loading at Petroleum Distribution Terminals**: Several federal regulations and the Louisiana SIP require that gasoline tank trucks obtain testing and certification that the tank trucks are vapor tight. This NAA allows tank trucks to load and unload fuel at terminals even though the trucks may not be registered with the terminals as having completed all the testing for tank tightness or have the documentation on hand to prove it.



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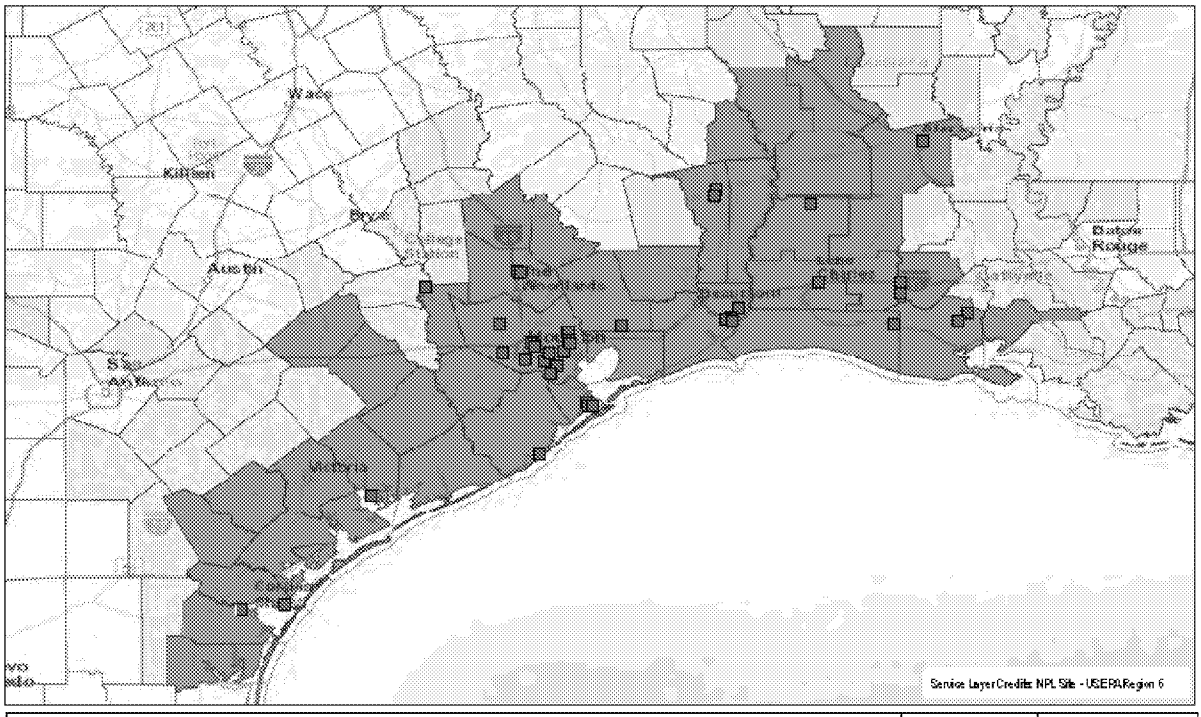
# SUPERFUND NPL SITES




**Legend**

- NPL Sites (43)
- Coast Guard Area of Responsibility
- Federally Declared
- State Declared

**US EPA Region 6**
**National Priority List (NPL) Sites**
**in Federally Declared Counties/Parishes**

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Miles

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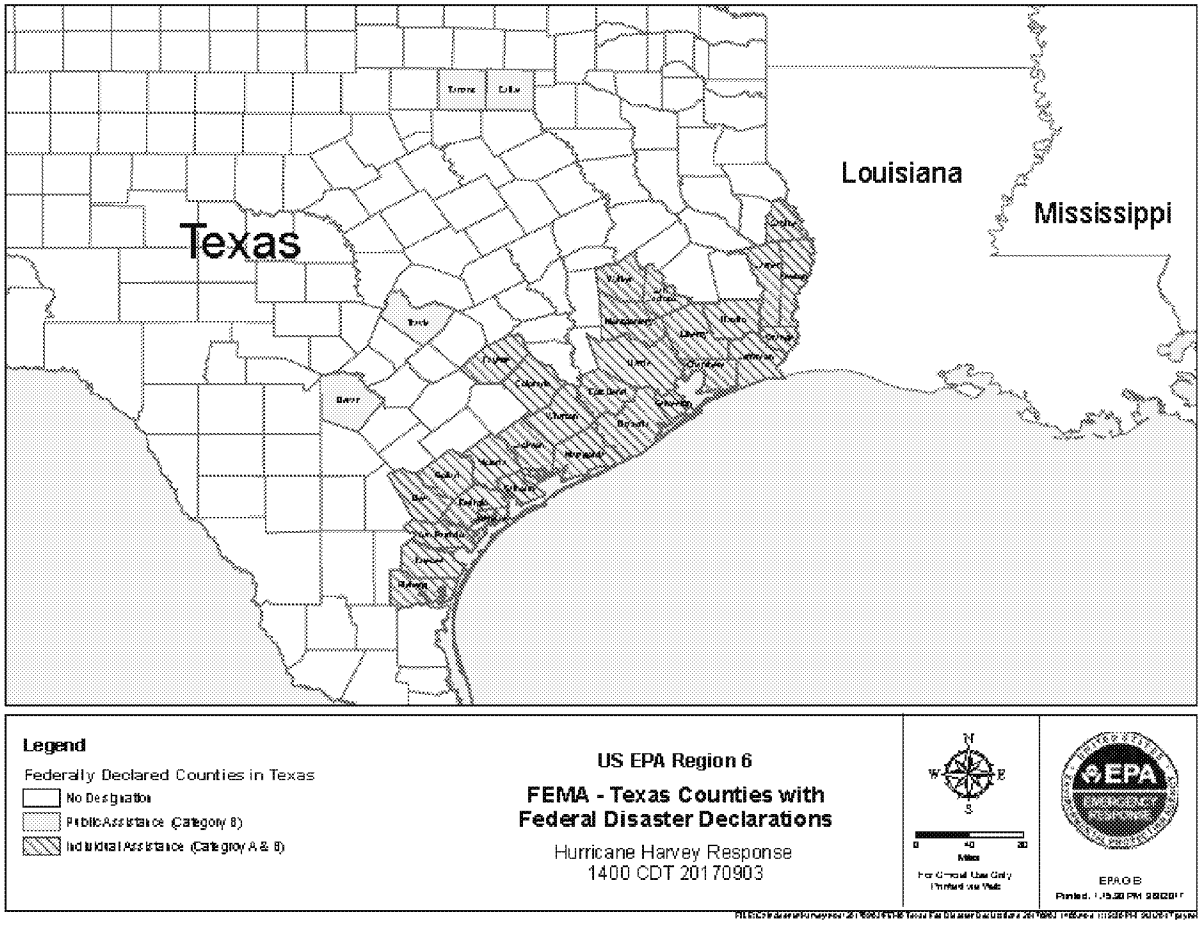
# SUPERFUND NPL SITES (Continued)

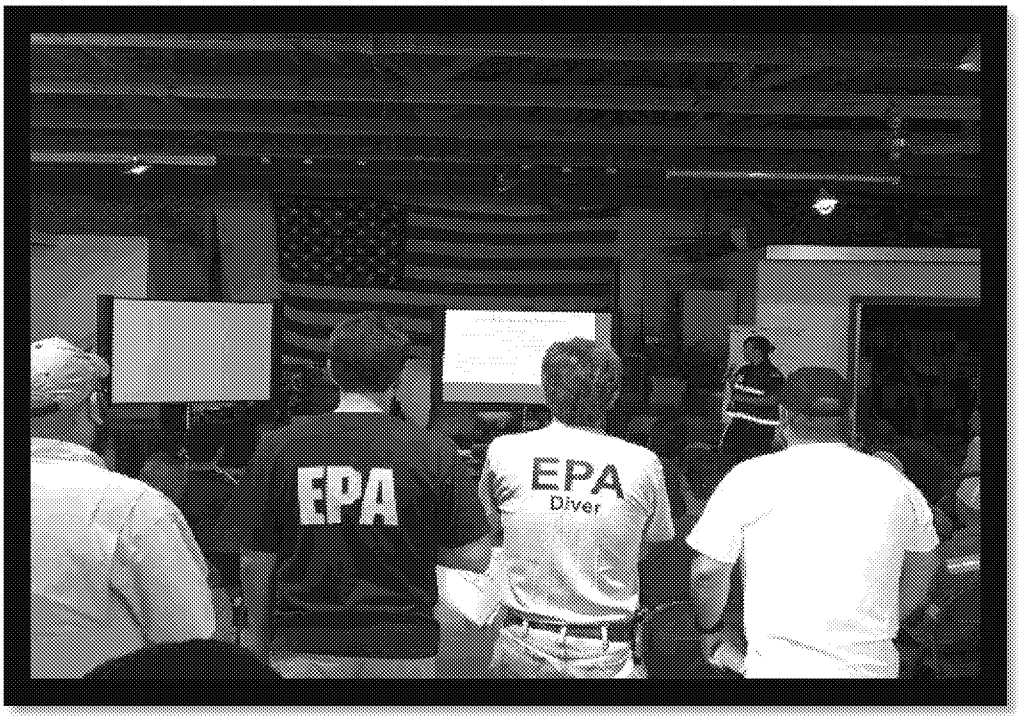
| Superfund Sites within Federally Declared Counties | | | | | 9/3/2017 |
|---|---|---|---|---|---|
| Hurricane Harvey Rapid Response Assessment | Phase 1 | Phase 2 | | Phase 3 | All Phases |
| | Rapid Response Assessment | Site Inspection Needed | Inspected | Additional Response Action | Completed |
| TEXAS | | | | | |
| SITE NAME | | | | | |
| ALCOA (Point Comfort) / LAVACA BAY | 8/29/17 | No | | | 8/29/17 |
| BAILEY WASTE DISPOSAL | 9/1/17 | Yes | 9/4/17 | | |
| BRINE SERVICE CO. | 8/30/17 | Yes | 8/30/17 | No | 8/30/17 |
| BRIO REFINING INC. | 9/1/17 | No | | | 9/1/17 |
| CONROE CREOSOTING COMPANY | 9/1/17 | No | | | 9/1/17 |
| CRYSTAL CHEMICAL CO. | 8/30/17 | No | | | 8/30/17 |
| DIXIE OIL PROCESSORS INC. | 9/1/17 | No | | | 9/1/17 |
| FALCON REFINERY | 8/31/17 | Yes | 8/30/17 | No | 8/30/17 |
| FRENCH, LTD. | 9/1/17 | Yes | 9/4/17 | | |
| GENEVA INDUSTRIES / FUHRMANN ENERGY | 9/1/17 | Yes | 9/3/17 | No | 9/3/17 |
| GULFCO MARINE MAINTENANCE | 9/1/17 | Yes | 9/3/17 | | |
| HARRIS (FARLEY STREET) | 9/1/17 | No | | | 9/1/17 |
| HART CREOSOTING | 9/1/17 | No | | | 9/1/17 |
| HIGHLANDS ACID PIT | 9/1/17 | Yes | 9/3/17 | | |
| JASPER CREOSOTING | 9/1/17 | No | | | 9/1/17 |
| JONES ROAD GROUNDWATER PLUME | 8/29/17 | No | | | 8/29/17 |
| MALONE SERVICES COMPANY | 9/1/17 | Yes | 9/3/17 | | |
| MANY DIVERSIFIED INTERESTS, INC | 9/1/17 | No | | | 9/1/17 |
| MOTCO, INC. | 8/31/17 | No | | | 8/31/17 |
| NORTH CAVALCADE STREET | 8/29/17 | No | | | 8/29/17 |
| PALMER BARGE LINE | 9/1/17 | No | | | 9/1/17 |
| PATRICK BAYOU | 9/1/17 | Yes | 9/4/17 | | |
| PETRO-CHEMICAL SYSTEMS, INC. (Turtle Bayou) | 9/1/17 | Yes | 9/4/17 | | |
| SAN JACINTO RIVER WASTE PITS | 9/1/17 | Yes | 9/3/17 | | |
| SIKES DISPOSAL PITS | 8/29/17 | No | | | 8/29/17 |
| SOL LYNN / INDUSTRIAL TRANSFORMERS | 8/29/17 | No | | | 8/29/17 |
| SOUTH CAVALCADE STREET | 8/29/17 | No | | | 8/29/17 |
| STAR LAKE CANAL | 8/30/17 | No | | | 8/30/17 |
| STATE MARINE OF PORT ARTHUR | 9/1/17 | No | | | 9/1/17 |
| TEX-TIN CORP. | 9/1/17 | No | | | 9/1/17 |
| TRIANGLE CHEMICAL COMPANY | 9/1/17 | Yes | 9/4/17 | | |
| UNITED CREOSOTING CO. | 9/1/17 | No | | | 9/1/17 |
| US OIL RECOVERY | 9/1/17 | Yes | 9/4/17 | | |
| LOUISIANA | | | | | |
| AMERICAN CREOSOTE DERIDDER | 09/01/17 | No | | | 9/1/17 |
| D.L. MUD, INC. | 08/29/17 | No | | | 8/29/17 |
| EVR-WOOD TREATING/EVANGELINE REFINING CO | 09/01/17 | No | | | 9/1/17 |
| GULF COAST VACUUM SERVICES | 08/29/17 | No | | | 8/29/17 |
| GULF STATE UTILITIES (North Ryan Street) | 08/31/17 | No | | | 8/31/17 |
| MALLARD BAY LANDING BULK PLANT | 08/29/17 | No | | | 8/29/17 |
| PAB OIL & CHEMICAL SERVICE | 08/29/17 | No | | | 8/29/17 |
| SBA SHIPYARD | 09/01/17 | No | | | 9/1/17 |
| Status Summary | | | | | |
| | | | | | |
| Rapid Response Assessment Completed | 41 | | | | |
| Sites with no further action | 28 | | | | |
| Sites in Phase 2 | 13 | | | | |
| | | | | | |

# FEMA – TEXAS COUNTIES WITH DISASTER DECLARATIONS



# PHOTOS

Command and General Staff Meeting on September 2, 2017.




USCG and EPA Members discussing operations.

# PHOTOS

OSC in Corpus Christi Branch performing a field assessment.

EPA training for personnel from TCEQ, TGLO, USCG, and the Civil Support Team about in Corpus Christi September 2, 2017.

# PHOTOS

TCEQ/EPA/TGLO Recon flight over Rockport/Fulton on Sep 1st, 2017.

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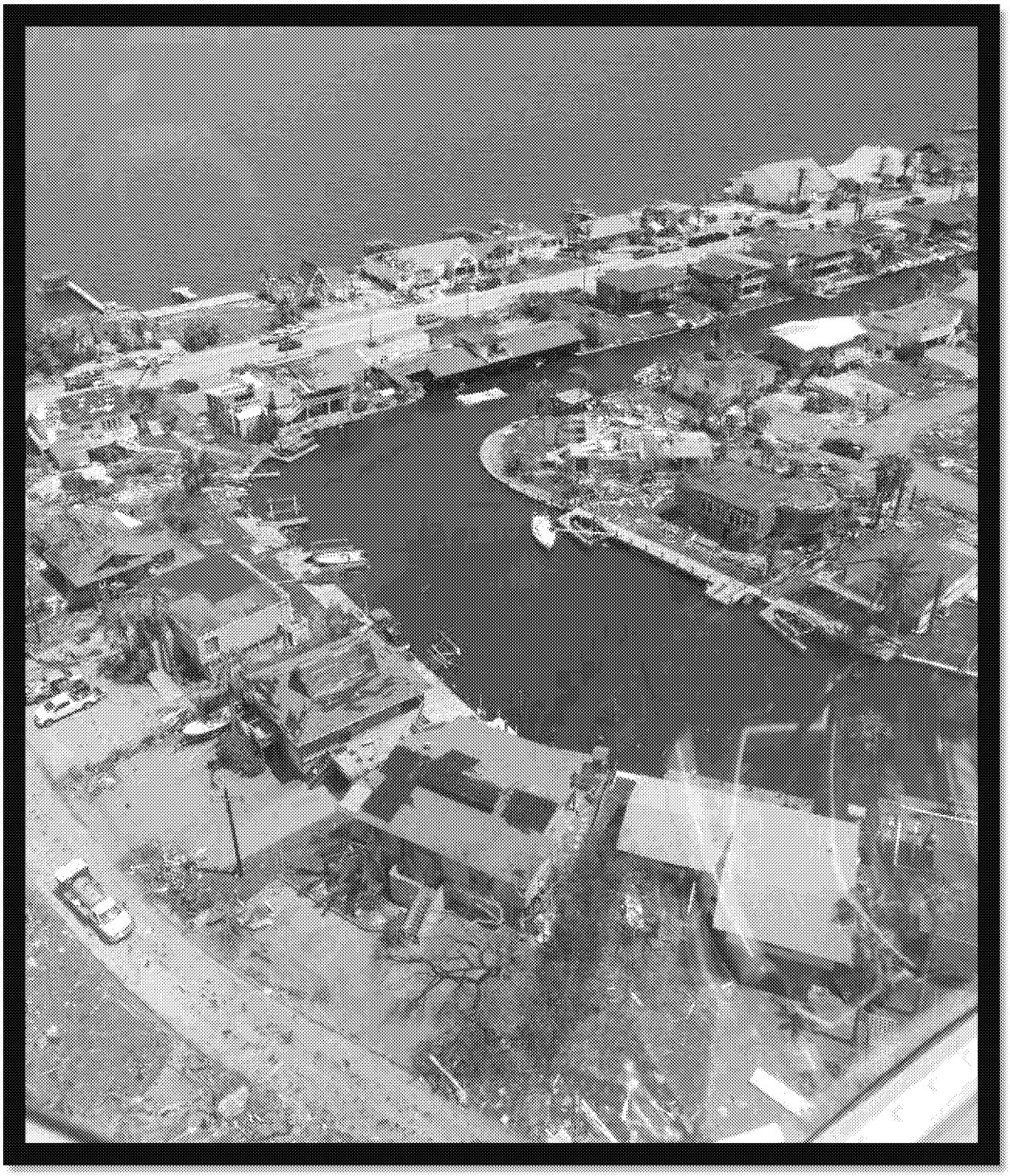
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