

**Testimony of Texas Commission on Environmental Quality
Chairman Bryan W. Shaw, Ph.D., P.E. Delivered to the United States House of
Representatives, Committee on Energy & Commerce, Sub-Committee on Environment**

November 14, 2017

Summary

- Hurricane response efforts ongoing: The TCEQ continues to coordinate with local, state, and federal officials to address the human health and environmental impacts of Hurricane Harvey and its aftermath.
 - The TCEQ continues to be involved in multiple response efforts, including efforts related to debris management, air quality monitoring, drinking water, wastewater and sewage, Superfund sites, hazmat operations, critical water infrastructure, flood water, and fuel waivers.
- Cooperative Federalism 2.0: The cooperation between agencies during the hurricane response highlighted how well the EPA and the states can work together. The hurricane response and recovery efforts provided a direct opportunity to put into practice key elements of the Environmental Council of the States' Cooperative Federalism 2.0 effort.

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Testimony

Mr. Chairman, Ranking Member Tonko, and members of the committee:

Good morning, and thank you for the opportunity to visit with you about the Texas Commission on Environmental Quality's (TCEQ) response to Hurricane Harvey.

My name is Bryan Shaw, and I am the Chairman of the TCEQ. My agency's mission is to protect our state's public health and natural resources by ensuring that the air and water are clean and that waste is disposed of safely. Fulfilling this mission is critical during the aftermath of a natural disaster.

I want to communicate that my agency and I recognize the challenges we face as a state and as an agency. The TCEQ continues to coordinate with local, state, and federal officials to address the human health and environmental impacts of Hurricane Harvey and its aftermath. At the height of our response efforts, the TCEQ had approximately 500 people assisting in response to Hurricane Harvey.

As part of this coordination, a Unified Command was established between the TCEQ, the Environmental Protection Agency (EPA), the Texas General Land Office, and the U.S. Coast Guard to oversee all emergency response efforts. This Unified Command was supported by three (3) operational branches in Corpus Christi, Houston, and Port Arthur. Branch personnel worked to continuously monitor water and wastewater systems, as well as assess spills or discharges as a result of the storm.

The cooperation between agencies during the hurricane response highlighted how well the EPA and the states can work together. The hurricane response and recovery efforts provided a

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direct opportunity to put into practice key elements of the Environmental Council of the States' Cooperative Federalism 2.0 effort.

The TCEQ continues to be involved in multiple response efforts, including efforts related to debris management, air quality monitoring, drinking water, wastewater and sewage, Superfund sites, hazmat operations, critical water infrastructure, flood water, and fuel waivers. I am going to run through these efforts and give you the current numbers as of this morning.

Debris Management

Construction debris presents a potential health risk as it can harbor mold, bacteria, viruses, mice, and mosquitoes. Construction debris can also contain household hazardous wastes, such as pesticides or cleaners. Proper manage of construction debris is imperative to reduce exposure to these infectious agents and wastes.

The first step is to rapidly move construction debris out of houses, especially if the debris is wet from flood waters, because flood waters are contaminated with microorganisms. This will prevent the growth and spread of mold, bacteria, and viruses indoors. Once out of the house, it is important to quickly move the construction debris from curbs to Temporary Debris Management Sites (TDMS) to reduce habitats for mice, mosquitoes, snakes, etc., and to reduce the potential for exposure to household hazardous wastes. Once at a TDMS, it is crucial to dispose of materials and hazardous wastes properly and as soon as possible through recycling or disposal in a lined landfill. Proper disposal will prevent environmental contamination of the temporary site and reduce the potential of exposure to nearby residents.

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As of November 9, 2017 the TCEQ has approved 205 TDMSs in areas under the Federal or State Disaster Declaration designations. There is an estimated 1,579,652 cubic yards (CY) of debris at TCEQ-approved TDMSs. I can provide you a link to a map of all the TDMS locations.¹

TCEQ regional offices and local authorities are actively overseeing the siting and implementation of debris and waste management plans in the affected area. The TCEQ continues to visit staging areas and landfills to ensure compliance with guidelines. As of November 9, 2017, the TCEQ has conducted approximately 1,273 routine TDMS inspections and granted twenty-nine (29) temporary authorizations upon request to allow regulatory flexibility for permitted Municipal Solid Waste facilities to manage debris expeditiously in the affected areas. In addition, TCEQ staff called landfill operators to let them know that they can request temporary authorizations to operate twenty-four (24) hours per day, seven (7) days per week.

The TCEQ and the EPA also released fact sheets in English, Spanish, and Vietnamese on best practices when dealing with debris in damaged or destroyed homes. Guidance for debris management is available on the TCEQ website.² In addition, the TCEQ has provided information to the TDMSs regarding the potential to receive reimbursement for proper debris management.

Air Monitoring

In responding to the impacts of Hurricane Harvey, the TCEQ used every appropriate means of air monitoring available to support our mission to protect human health and the environment. One of the many preparations for Hurricane Harvey included the TCEQ, the EPA, and other monitoring entities temporarily shutting down several air monitoring stations from the greater Houston, Corpus Christi, and Beaumont areas to protect valuable equipment from storm damage.

¹ <https://www.tceq.texas.gov/goto/tdms>

² <https://www.tceq.texas.gov/home-page/response/hurricanes#waste>

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In Section 4.5.1.2 of the TCEQ's Continuity of Operations Plan (COOP), required by Texas Labor Code § 412, there is a list of hurricane pre-landfall actions for securing capital physical assets including air monitoring equipment. In addition, each TCEQ regional office has a specific hurricane plan. The Houston Region Hurricane Plan describes responsibilities to ensure equipment is appropriately secured prior to an event. Section 2.1.4.2 specifically points to ensuring the safe removal or protection of TCEQ air monitoring assets. These actions are taken as a coordinating effort between the Houston Regional staff and the Monitoring Division staff. After the storm passed, state and local authorities worked together to get the systems up and running again as soon as possible.

Both TCEQ and EPA investigators have spent numerous hours, both day and night, monitoring neighborhoods and industrial fence lines. Between the TCEQ and the EPA, multiple air monitoring assets have been used in the impacted areas. These assets include: EPA Airborne Spectral Photometric Environmental Collection Technology (ASPECT) flights, EPA Trace Atmospheric Gas Analyzer (TAGA) mobile monitoring bus, TCEQ hand-held air monitoring instruments, TCEQ continuous air monitoring network, and TCEQ's contractor, Leak Surveys, Inc., helicopter flyovers using optical gas imaging cameras (OGIC).

As of September 29, 2017, the TCEQ's air monitoring network was 100% operational in Corpus Christi, Houston, and Beaumont. All 48 sites that were shut down in preparation of Hurricane Harvey have been restored. Of the available air monitoring data collected from August 24, 2017 through October 6, 2017, all measured concentrations were well below levels of health concern.

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Drinking Water

Approximately 2,238 drinking water systems were affected by Hurricane Harvey. As of November 3, 2017, two (2) of those systems are inoperable, compared to 61 systems being inoperable post-landfall. Currently, 25 have boil-water notices, compared to 203 systems being under a boil-water notice after the storm. The TCEQ is in contact with the remaining systems to gather updated information on their status. Assistance teams have been in the field working directly with system operators to expedite getting systems back to operational status.

Wastewater and Sewage

The TCEQ made contact with 1,743 wastewater treatment plants in the 58 counties within the Governor's Disaster Declaration. As of November 3, 2017, three (3) of those systems are inoperable, compared to the 40 systems that were inoperable following the storm. Releases of wastewater from sanitary sewers occurred as a result of the historic flooding, and the agency is actively working to monitor facilities that reported spills. Additionally, the agency has been conducting outreach and providing technical guidance to all other wastewater facilities in flood-impacted areas. Assistance teams will continue to be deployed to work directly with system operators to expedite getting systems back to operational status.

Superfund Sites

The TCEQ partnered with the EPA to assess Superfund sites in Texas. There are 17 state Superfund sites and 34 federal Superfund sites in the affected areas in Texas. The TCEQ completed assessments of all the state Superfund sites, and the sites were cleared. Subsequent to the assessments a sheen was observed downgradient of the International Creosoting site in Brakes Bayou, which has been contained. TCEQ will continue to oversee these activities.

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The EPA completed assessments of all the federal Superfund sites in the affected area. Follow up is needed on the San Jacinto Waste Pits site and the EPA is working with potential responsible parties in that regard. The Record of Decision for San Jacinto Waste Pits was signed on October 11, 2017, and the EPA's selected remedy of removal of the contaminated material is described in that document.

Hazmat Operations

The TCEQ continues to lead hazmat operations and are monitoring facilities that have reported spills. Orphan containers, which include drums and tanks, found floating in or washed up near waterways continue to be gathered, sorted, and grouped by type prior to shipping them off for safe, proper treatment and disposal. Reconnaissance and assessment of facilities and vessels are being conducted to identify any leaks or spills and responded to accordingly. The Unified Command worked to ensure the disposal of oil and hazardous materials was conducted properly. As of November 3, 2017, 1,155 hazmat orphan drums and containers have been recovered, and the 266 spills or discharges that were reported or observed have been responded to appropriately.

Critical Water Infrastructure

The TCEQ made contact with the owners of the 340 dams in the impacted areas. Twenty (20) dams reported some type of damage. There were no reports of downstream damage or loss of life. TCEQ staff also met with affected dam owners.

Flood Water

The TCEQ focused flood water quality sampling on industrial facilities and hazardous waste sites. The agency also informed the public of the hazards associated with flood water and precautions that should be taken by anyone involved in cleanup activities or any others who may be exposed to flood waters.

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Fuel Waivers

The EPA approved the request from the State of Texas to continue to waive requirements for fuels in Texas through the end of September to help address the emergency circumstances in Texas from Hurricanes Harvey and Irma. These waivers are no longer needed due to the end of ozone season in Texas combined with refineries coming back online.

Conclusion

The TCEQ has a vast amount regulatory guidance, support material, and useful information posted on the Hurricane Harvey Response link³ available on our main web page.⁴ I do want to thank you for the opportunity to visit with you today. I am available to answer questions you may have.

³ <https://www.tceq.texas.gov/home-page/response/hurricanes>

⁴ <https://www.tceq.texas.gov>

Hurricane Harvey By the Numbers

As of November 9, 2017

DISASTER DECLARATION/RULE SUSPENSION

Governor Abbott has issued a renewed disaster proclamation for Harvey dated October 20, 2017, which extends the TCEQ's request for rule suspensions until **November 20, 2017**.

TEMPORARY DEBRIS MANAGEMENT SITES AND APPROVALS

Debris Sites: Currently, there are **205 approved temporary debris management sites** (TDMS).

Total Application Status Count by TCEQ Region:

Region	Approved	Pending	Inactive	Withdrawn	Denied Sites	Total Sites
10	18	2	0	1	1	22
11	1	0	0	0	3	4
12	100	3	0	14	1	118
13	2	0	0	0	0	2
14	84	0	0	6	0	90
TOTAL	205	5	0	21	5	236

Count at Existing Facilities:

- TDMS at Landfills: 15
- TDMS at Transfer Stations: 9

Estimated Amount of Debris at TCEQ-Approved TDMSs: 1,579,652 CY (as of 11/9/17).

TCEQ Region	Total Volume (CY)
9	1,152
10	244,131
11	0
12	457,806
13	0
14	876,563
Total	1,579,652

Routine inspections conducted by the TCEQ at TDMSs: Approximately 1,273 (as of 11/9/17).

TCEQ AIR MONITORING NETWORK

As of September 29, 2017, the TCEQ's air monitoring network is **100% operational**. All 48 sites that were shut down in preparation of Hurricane Harvey have been restored.

- From the **available air monitoring data collected from Aug. 24 through Oct. 6**, all measured air toxics concentrations were well below levels of health concern.

Hurricane Harvey By the Numbers

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DRINKING WATER AND WASTEWATER

Public Water System (PWS) Community Water Systems Tracking (58 Counties within the Governor's Disaster Declaration):

- 2,238 PWS community water systems that serve a population of approximately 11 million people are being tracked.
- **At the Peak, 61 PWS community water systems were inoperable** on 8/31/17 and 9/4/17, serving a population of 222,821 people.
- **Currently, 2 of the PWS community water systems are inoperable**, serving a population of 1,473 people.
- **At the Peak, 203 of the PWS community water systems had issued a boil water notice (BWN)** on 9/1/17, serving a population of 376,245 people.
- **Currently, 25 of the PWS community water systems are operational, but with an active BWN**, serving a population of 9,376 people.

Inoperable Wastewater Facility Tracking (58 Counties within the Governor's Disaster Declaration):

- 1,743 Domestic & Industrial Wastewater Facilities are being tracked that serve a population of approximately 10 million people.
- **At the Peak, 40 Wastewater Facilities were non-operational** on 9/7/17, serving a population of 168,816 people.
- **Currently, 3 Wastewater Facilities are non-operational**, serving a population of 500 people.
- Of the operating facilities, 14 have issues that are being worked to resolve.

COSTS

- **Anticipated costs for response efforts: \$700,000.**
 - The TCEQ will seek reimbursement from FEMA's public assistance program for these costs.
 - Breakdown:
 - Overtime – \$377,748
 - Professional Services – \$245,748
 - Supplies – \$1,586
 - Travel – \$61,043
 - Phone and Utilities – \$17
 - Other Expenses – \$15,575
- FEMA authorized TCEQ to receive assistance from EPA, totaling \$15 million, to conduct field operations.

Hurricane Harvey By the Numbers

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LANDFILL CAPACITY

Estimated Hurricane Harvey Debris Total: Estimates range from 30 million to 60 million cubic yards (cyd) plus recycling.

Region 10 Declared Disaster Counties, Population 644,653

- Total Capacity: 95,929,116 cyd
- 7 Type I Landfills 95,929,116 cyd
- 6 Transfer Stations

Region 12 Declared Disaster Counties, Population 6,087,133

- Total Capacity: 473,509,501 cyd
- 12 Type I Landfills 367,641,791 cyd
- 15 Type IV Landfills 105,867,710 cyd
- 22 Transfer Stations

Region 14 Declared Disaster Counties, Population 740,485

- Total Capacity: 160,780,534 cyd
- 5 Type I Landfills 149,597,902 cyd
- 1 Type IV Landfill 11,182,632 cyd
- 6 Transfer Stations

HAZARDOUS MATERIALS

Hazmat orphan drum and container recovery operations conducted under Emergency Support Function (ESF) #10 within Natural Disaster Operational Workgroup (NDOW) Unified Command:

- **Initial hazmat orphan drum and container recovery operations have been completed.**
- To date, **1,155 hazmat orphan drums and containers have been recovered.**
- To date, **266 spills or discharges reported or observed have been responded to appropriately.**

Hurricane Harvey By the Numbers

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SUPERFUND

17 State Superfund Sites in the Impacted Area:

- **TCEQ completed assessments at all 17 state Superfund sites in the affected areas.**
- **Based on the assessment and sampling, all sites have been cleared.**
- Subsequent to the assessments a sheen was observed downgradient of the International Creosoting site in Brakes Bayou, which has been contained. TCEQ will continue to oversee these activities.

34 Federal Superfund Sites in the Impacted Area:

- **EPA completed site assessments at all 34 Superfund sites in the affected areas.**
- **Based on the assessment and sampling, 33 have been cleared.**
- The San Jacinto Waste Pits site (Site) required additional follow up.
 - On 9/28/16 the EPA published the Proposed Plan for the Site. The Proposed Plan presented the EPA's preferred clean-up remedy for the Site, which is removal of the contaminated material. The EPA's selected remedy is detailed in the Record of Decision, which was signed on 10/11/17.