

TXDOT PLANS FOR STORM RESPONSE

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Agenda: Here are some of the topics that I will present and hopefully give you an overview of how we handle the various stages of operations during planning, preparation, storm landfall, storm recovery and resiliency.

As many of you may be aware, the Houston District plans, designs, builds, operates, and maintains the state transportation system in Brazoria, Fort Bend, Galveston, Harris, Montgomery, and Waller.

- Encompasses 5,856 square miles.
- Serves approximately 7 million people.
- Approximately 5.1 million registered vehicles.
- Current FTE count is appropriately 1,100.
- Seven area offices and nine maintenance sections.
- Operation of the **Galveston/Port Bolivar Ferry Service**
- Manage and coordinate emergency and disaster operations to maintain a safe and reliable transportation system.

Planning: Interagency coordination efforts is key to a successful emergency management, that is before, during and after an emergency. TxDOT collaborates with local officials, government agencies, law enforcement, contractors, and relief organizations to minimize impacts and restore and maintain safety for the traveling public. That along with TxDOT's strengths with skilled workforce, specialized equipment, material resources, engineering capabilities and boots on the ground at very county are also key components during these events.

So, what we do? We stay informed, we communicate, and we work together. The District Maintenance Office and Maintenance Sections have assigned responsibilities:

1. Monitor the weather conditions with the National Weather Service and disseminate information to the maintenance sections.
2. Coordinate with sections on staffing, materials, and equipment.
3. Sections within area areas to be evacuated will not be staff during a hurricane event.
4. Depending on the event predictions, we coordinate relocations of equipment from our coastal areas to higher grounds in other maintenance sections at least 72 hours before landfall.
5. We cancel lane closures on construction and maintenance projects at least 96 hours before landfall and ensure all traffic control barricades are secured.

6. Coordinate with District Disaster Committee Chair (DDC) before and after the event for recovery efforts. Local governments can request assistance through the DDC.
7. We have our maintenance sections check evacuation routes to ensure they are clear of obstructions and make sure there is proper signage.
8. Top-off fuel tanks on equipment.
9. Test emergency generators for building and pump stations.
10. Test radios.
11. Check needed supplies including food and sleeping arrangements for everyone.
12. Secure buildings, equipment and materials that can blow away.

Contraflow:

We have a website for the whole state indicating the Hurricane Evacuation Routes which you can google, and it can e found on the TxDOT website:

<https://ftp.dot.state.tx.us/pub/txdot-info/trv/evacuation/houston.pdf>

The contraflow on IH 45 starts just outside our District and on IH 10 is just inside the District.

Hurricane Re-entry plan:

After a hurricane, emergency first responders will need access to impacted areas so TxDOT will assist by assessing the road conditions, clearing debris, and making emergency repairs as conditions allow. TxDOT will also facilitate assistance to local governments through the proper emergency management channel at the TxDOT EOC.

Depending on the nature and magnitude of the disaster personnel and equipment from other non-impacted districts will be deployed to assist. They will be pre-staged areas in Bryan and San Antonio.

Water-filled barriers:

Determine the locations by taking into consideration the water velocity, water elevation, roadway cross slope, vertical profile, and potential impacts from vehicles. Mostly flat roadways with standing water.

Preparation:

As storms approach, TxDOT maintenance and construction teams clear the shoulders of un-needed traffic control, remove any brush or debris from the inlets and drains, as well as help clear the ROW of stalled or abandoned vehicles

Monitoring the storms:

We use the National Weather Service and Harris County Flood Control websites to help us monitor forecasts and gain a better understanding of what storm impacts are likely (wind, flood, surge and tides)

Harris County Flood Warning Systems allows us to forecast flooded roadways and potential road closures needed.

Traffic monitoring systems like HoustonTranstar.org, DriveTexas.org and our internal TxERA websites give us tools to monitor and react to roadway issues.

Storm Landfall:

COVID has changed the way we react to the storms, we have some personal at TranStar, but others are in a “socially distant” setting in our EOC at the HQ.

Event responses:

Typical examples of roadway flooding on BW8 (near IH10 West), inundation on SH6 (near IH10 West), rural Brazoria County aqua dam and high tides on SH87 on Galveston Island

Local request during Harvey at BW8 just south of IH10 West. TxDOT pumped water out with rented pumps and TxDOT pump mechanic repaired the pump station for the County

Storm Recovery efforts:

TxDOT District Maintenance map of damage during Harvey, this was a way to crowd source damage locations and photos