

# SUMMARY REPORT

## Hurricane Harvey Forum: Lessons Learned



March 5, 2018 | Houston, TX

The American Chemistry Council and the Texas Chemical Council hosted leaders from the Texas chemical industry, local, state and federal officials, and over 200 attendees for a day-long forum at the Houston Area Safety Council. The group discussed how the unique lessons from Hurricane Harvey can help guide planning for, and response to, future weather events.



The event stressed the importance of protecting the Gulf Coast from future storms, as the region continues to be the premier location for chemical manufacturing and a major source of the materials that are vital to the economy. This fact was underscored by the keynote speaker, U.S. Senator Ted Cruz, who stressed the vital role the U.S. business of chemistry plays in supporting the nation. Cruz and others also remarked on the strong sense of community in the Houston area and how that resilient spirit brought the industry and its neighbors together to help communities recover from the storm.

### Panel Discussions

Panel discussions explored how the chemical industry performed before, during and after Harvey. Discussion topics and participants included:

- **Hurricane Response from the CEO's Perspective** – Senior executives from LyondellBasell, The Dow Chemical Company, Covestro LLC, BASF and ACC discussed the industry's ties and commitment to the region and their priorities and decision-making process during a hurricane for keeping employees and neighbors safe.
- **Hurricane Response on Site** – Panel discussions focused on how advanced planning and a culture of readiness and industry initiatives such as Responsible Care supported their response to Harvey. Panelists included EH&S and Texas site managers from OxyChem, LyondellBasell, Dow Chemical, BASF, and ExxonMobil.
- **Lessons Learned: Environmental Protection** – The panel highlighted ways that industry and regulators worked together to protect the environment during and after the storm. The audience heard from representatives from U.S. Environmental Protection Agency, Texas Commission of Environmental Quality, and a senior member of the Texas House of Representatives.
- **Looking Ahead: Infrastructure** - Panelists examined how Harvey's impact could be used to identify areas of improvement for the region's infrastructure, including support for the Coastal Spine Project. Participants included representatives from the Port of Houston, the U.S. Coast Guard and several Texas state senators.
- **Looking Ahead: Information Sharing and Coordination** - This panel explored ways information sharing and coordination could be improved between industry, emergency operations personnel and first responders. Panelists included a representatives from Huntsman Corporation, the U.S. Department of Home Land Security, and Harris County Emergency Management.



## Lessons Learned

The day's extensive dialogue identified many lessons learned and insights that could be used to help the region prepare for future hurricanes and severe weather. The participants also identified important potential action items in the following key areas:



**Planning:** *Many of the panelists remarked on two unique aspects of Hurricane Harvey – the long duration of the storm and the record amount of rain that came with it. With that in mind, it was recommended that hurricane plans should be updated to cover events that could involve a variety of weather conditions and longer timeframes. Steps should be taken to further harden facilities, especially when it comes to flooding, increase the amount of supplies kept on hand and ensure facility managers have the flexibility to make onsite decisions in real time to respond to rapidly changing conditions.*



**Response:** *Harvey also demonstrated that information gathering and sharing are critical to keeping people safe during and after a storm. Panelists agreed that there are several opportunities to make better use of new technologies and bolster IT systems when it comes to managing information. Specifically, it was recommended that emergency managers should increase the use of electronic and digital “apps” to locate and communicate with employees and the use of drones to access and assess facilities.*



**Coordination:** *Like previous storms, Harvey highlighted the strong connection between the chemical industry and the Houston area especially when it comes to pooling resources to restore operations and help communities. While coordination efforts around Harvey worked well, it was noted that existing networks for obtaining & sharing resources can be further enhanced. This could be accomplished by holding pre-planning meetings with emergency planners, hospitals, service providers, etc. to identify potential needs and establish a shared plan to coordinate support in advance of a storm.*



**Government Support:** *Harvey pushed everyone in its path to the limit and outside support was critical in helping to minimize the impact of the storm. Participants from the private and public sector agreed they should work together to streamline access to government assistance and preposition government resources. Systems should be put in place well ahead of a weather event for rapid deployment of government assets (e.g. air monitoring) and emergency actions (e.g. fuel waivers).*



**Infrastructure:** *There was broad agreement the infrastructure in the Houston area was in serious need of updating before Harvey hit. The extensive damage caused by the storm only increased everyone's resolve to secure federal resources to improve the Ship Channel and Port of Houston and advance the Coastal Spine Project.*