

## **Disaster Preparedness and Response**

Christopher Steubing, PE, CFM  
Assistant City Manager/Chief Operating Officer  
2700 Town Center Blvd. N  
Sugar Land, Texas 77479

**Introduction:** The City of Sugar Land takes disaster preparedness and training very seriously. As a local government that has adopted the National Incident Management System (NIMS) approach to disasters we train and utilize the systematic approach for the smallest of events to the largest of natural disasters. We strive to be better prepared in every facet of the five major components of NIMS: Preparedness, Communications and Information Management, Resource Management, Command and Management, and Ongoing Management and Maintenance. This is done with a holistic approach that includes everyone on staff and several major initiatives that the City has undertaken over the past decade towards preparedness.

In order to protect our community and residents the City of Sugar Land continues to utilize and develop tools that help us return our city back to normal as quickly as we can post disaster. The collaboration amongst our departments through preparing, responding, and resuming normal business is critical to everyone involved and shows the dedication of our employees and planning efforts. Continuous operations and governance during disasters is not easy but has become almost part of the norm in Sugar Land.

**Objectives:** During this presentation you will be introduced to a number of the efforts undertaken by the City to increase awareness of disasters as well as the continuous operation and governance needed in order to continue serving our residents and taking care of our staff. Major goals for our emergency management response include the following:

1. Strong resource management and development
2. Planning in advance
3. Preparation and training of staff in all key roles
4. Development of regional partnerships
5. Collaboration on lessons learned from past events

Utilizing a staff assignment in three categories helps us to identify how we can cover certain roles that are critical to supporting operations and providing governance. This effort alone has helped us rebound and get back to normal business in a much faster way without sacrificing critical services to our residents, businesses and visitors.

The use and development of tools such as collector apps like QuickCapture and Survey 123 have allowed us to track things like debris, impacted properties and impacted areas in real time which allows better deployment of assets and a more efficient means of handling and managing data that is often required by the state and FEMA during major

disasters. The continued development of our citywide Integrated Storm Water Management Model, ISWMM, has helped us promote safe traveling around the City during major rainfall events. This model has both a predictive tool for staff use as well as a public facing notification system that is directly tied to our rainfall gauge network across the City. It alerts subscribers at set intervals and provides map exhibits of the ponding areas within the City in order to provide real time information that can assist first responders and travelers.

This presentation will show examples of how we have used these assets to manage data and share this information and how the continued focus, improvement and growth in these areas helps the City get back to normal operations as quickly as possible after an event.

**Lessons Learned:**

Over time the City continuously evaluates and critiques our efforts in emergency response but also on the apps and tools that we use or have developed with our talented staff and consultants. Whether it be accuracy of the data for collections and how we identify and capture it or where our drainage models need better calibration we are constantly looking for ways to improve and share information.

We have made it normal practice to use the foundation of NIMS for even the smallest of events as well as large planned events within the City. Through this effort we have been able to identify areas of improvements that are captured, resolved and deployed the next time around. This effort also allows multiple staff members to gain added time and education in the process in varying roles.

The utilization of after action reports allows the team members the opportunity to openly discuss what went well and what needs improvements. This occurs with all impacted departments in order to gather as much feedback as possible. This process has allowed the City to harness good information and feedback and use it to update policies, procedures, and practices that better prepare us for the future events.