Resiliency: Protecting and Leveraging the Solid Waste Disposal Infrastructure During Disaster Events

April 2019
Agenda

• Introduction to Republic Services
• The *Basics*: Resiliency Planning
• The Results: Asset utilization
• Taking it to the Next Level: Leveraging the infrastructure
Introduction to Republic Services

- **Company Information**
  - Operations in 41 states and Puerto Rico
  - 7th largest vocational fleet in the nation
    - Over 16,000 vehicles
    - 20% of our collection vehicles are Natural Gas powered
  - 36,000 Employees
  - 75 landfill gas to energy and solar projects located at our facilities

- **Lines of Business**
  - Collection - 349 locations
  - Transfer Stations - 207 facilities
  - Recycling Centers - 91 facilities
  - Composting Facilities - 10 sites
  - Emerging Business - 18 facilities
  - Landfills (190 active, 129 closed)

Republic Services operates across the nation, and becomes a key partner in many types of disaster response situations
The Basics: Planning

• Advanced planning allows us to “Run the plays, not develop the plays” when an event occurs.
• Clear definition by employee positions minimizes overlapping effort.
• Clear expectations by timing helps prioritize tasks.
• Combined local leadership with additional nationwide resources and HQ experts provides scalable support.

Our goal is to be the first solid waste company operating after a disaster.
Goals

KEY OBJECTIVES WHEN MANAGING A DISASTER

Our key objectives in responding to an emergency or disaster recovery situation are:

- Take care of our people.
- Secure and safeguard our property and assets.
- Service our customers.
- Expedite and minimize the post emergency/disaster cleanup effort.
- Minimize business downtime and restore regular operations expeditiously.
- Restore the control environment for all finance and accounting activities.
- Maintain our core values during the daily course of the recovery effort.

To quickly service our customers we need to first care for our employees and assets.
Focus on Employees

- Protect Employees
  - Verify immediate safety
  - Ensure basic necessities
    - Housing
    - Food
    - Personal care (diapers, medication, etc.)
  - Provide supplemental necessities
    - Meal support for employees and families
    - Childcare
    - Contractors for home repair
    - Paycheck (cash infrastructure)

Lack of talented employees or injuries and accidents to underprepared employees will limit our ability to serve
The Results: Execution

- Hurricane Harvey (Category 4)
  - Landfall on August 25, 2017
  - Southeastern Texas Coast
  - Stalled over Houston and other cities, dropping over 40 inches of rain in multiple locations with peak rainfall of 60 inches

- Triggered our Disaster Recovery procedures in 3 of 10 Areas of the Company

Harvey was the first major hurricane to make landfill in the Continental US since 2005
The Results: Execution

- 202 employees mobilized from SOS crews
- ___ meals provided
- ____ hotel rooms secured for families and displaced employees
- $50k donation to American Red Cross
- $1M donated by Republic employees and Board of Directors
- $4 million in direct assistance to company employees
  - Food
  - Shelter
  - Child care
  - Home repair
The Next Level: Texas Health Presbyterian Hospital Ebola Outbreak in 2014

- September 2014, a Liberian man is hospitalized, diagnosed with Ebola and dies
- Two nurses are also infected with the virus
- Hospital and patient’s apartment needed scrupulous cleaning
- DOT issued special permits for unusually large volumes of infectious waste
- Partnership with EPA was successful in finding a waste disposal solution

“The time for educating on these things is not when we’re in the midst of a crisis.” (Paul D. Roepe, Center for Infectious Disease, Georgetown U.)
The Next Level: Collaboratively Leveraging Infrastructure

• Hurricane Ike hit Texas coastline in September of 2008
• Extensive damage in Galveston
• Limited constructed airspace
• TCEQ through a series of Temporary Authorizations, allowed vertical height increase over prior filled portions of landfill
• Process was initiated quickly, but completed with full design process over the following year

Community stakeholders like regulators and industry can partner to develop creative solutions for disaster debris disposal
THANK YOU!