N.C. Department of Environmental Quality

Overview

- 7 Regional Offices across the State with 2 Divisions headquartered at the coast
- Staff located from the Mountains to the Coast
- Along with typical environmental protection Divisions (i.e. Waste Management, Air Quality, and Water Resources) DEQ also includes Divisions of Marine Fisheries, Coastal Management, and Mineral & Land Resources.
# Major Storms Affecting N.C. in Past 30 Years

<table>
<thead>
<tr>
<th>Name</th>
<th>Year</th>
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<tbody>
<tr>
<td>Hurricanes Michael and Florence</td>
<td>2018</td>
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<tr>
<td>Hurricane Matthew, Tropical Storms Julia and Hermine</td>
<td>2016</td>
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<tr>
<td>Hurricane Joaquin</td>
<td>2015</td>
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<td>Hurricane Irene</td>
<td>2011</td>
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<td>Hurricane Earl</td>
<td>2010</td>
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<td>Tropical Storms Fay, Hanna and Ernesto</td>
<td>2008</td>
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<td>Tropical Storm Ernesto</td>
<td>2006</td>
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<td>Hurricane Ophelia and Tropical Storm Tammy</td>
<td>2005</td>
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<tbody>
<tr>
<td>Hurricane Alex, Tropical Storms Bonnie, Charley, Ivan and Jeanne, and Tropical Depression Frances</td>
<td>2004</td>
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<tr>
<td>Hurricane Isabel</td>
<td>2003</td>
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<tr>
<td>Hurricanes Dennis, Floyd and Irene</td>
<td>1999</td>
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<tr>
<td>Hurricane Bonnie and Tropical Depression Earl</td>
<td>1998</td>
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<tr>
<td>Tropical Storm Arthur, Hurricanes Bertha and Fran</td>
<td>1996</td>
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<tr>
<td>Hurricane Hugo</td>
<td>1989</td>
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Types of Incidents from Storms

Starnes Cove
Debris Flows

Jonas Ridge
Debris Flow

Buncombe County
Hurricane Ivan

Land Slides

Hurricane
Frances
Burke County
Types of Incidents from Storms

Petroleum and Hazardous Materials
Types of Incidents from Storms

Landfill Breaches
Types of Incidents from Storms

Animal Lagoon Breaches
During major storm events like Hurricane Florence, DEQ is responsible for managing a wide variety of environmental incidents. With staff located all over the state, sharing information about the incidents can be complicated by power outages, timing and distance. Therefore, it is critical to have a centralized tracking system that is capable of storing, sharing and summarizing information about the environmental incidents that DEQ handles.

In preparation for Hurricane Florence, staff from divisions of Waste Management and Water Resources built such a system.

The basic requirements were:

- Accessible and easy to use by all DEQ staff,
- Information and tools in the cloud,
- Geo-Referenced for display in a map format, and
- Report/Summary capable for Upper Management Reporting
Incident Response System

Components of the System:

- Survey 123 Data Entry Form
- Incident Editing Application
- Incident Tracking Dashboard
- DEQ Storm Tracker
Usage details for the period:
September 11, 2018 - October 11, 2018

Requests this Period: 5,581,739
Avg Requests Per Day: 186,057.97
Pros, Cons and Lessons Learned

Pros
• Easy to use by wide variety of staff
• Upper Management able to quickly access information for reports to Governor and media
• Easy to share data and data entry with outside Agencies (EPA, Coast Guard and WRC)

Cons
• Did not meet all needs for all divisions/programs
• Not all Divisions/Programs were able to implement use to due lack of preparation time
• Existing legacy databases could not import incident data

Lessons Learned
• Need input from all Divisions/Programs to build better system for the future
• Have system built and training conducted BEFORE next storm event
• Require login to enter and edit data for safeguarding data and sensitive information
Questions?

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