Agenda

► Seminole Tribe of Florida Overview
► Public Works Overview
► Hurricane IRMA
► Impact to Seminole Tribe
► Recovery Efforts
► Lessoned Learned
► Summary
► Questions
The Seminole Tribe of Florida is a federally recognized Indian Tribe. We are a sovereign government with our own schools, police, and court system. The tribe has five thousand Tribal members as of today and maintains over one hundred thousand acres of land across Florida. They run one of the largest cattle operations in the United States and owner of the Hard Rock International.

The Tribe provides various services to its members and residents of its reservations similar to those services provided at the municipal or county level.
**Public Works Dept. Overview**

**Direct Services:**
- Water Treatment and Distribution
- Waste Water Treatment and Collection
- On-Site Water, Sewer and Septic Installation
- Solid Waste Collection and Recycling
- Roadway Maintenance (road repairs, signs, speed bumps etc.)
- Sanitation Services for Special Events, and Funerals.
- On-Site Water Well Maintenance (Off Reservation)

<table>
<thead>
<tr>
<th>Service</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Treatment Plants</td>
<td>4</td>
</tr>
<tr>
<td>Gallons of drinking water per day</td>
<td>963,000</td>
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<tr>
<td>Wastewater Treatment Plants</td>
<td>4</td>
</tr>
<tr>
<td>Gallons of processed wastewater per day</td>
<td>471,000</td>
</tr>
<tr>
<td>On-Site Water, Sewer &amp; Septic Installation</td>
<td>112</td>
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<tr>
<td>Lift stations</td>
<td>63</td>
</tr>
<tr>
<td>Solid Waste Collection &amp; Recycling</td>
<td></td>
</tr>
<tr>
<td>Septic systems</td>
<td>411</td>
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<tr>
<td>Vendors</td>
<td>650</td>
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<tr>
<td>Roadway Maintenance</td>
<td>124</td>
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<tr>
<td>Water Connections</td>
<td>1,658</td>
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<tr>
<td>Fire hydrants</td>
<td>358</td>
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<tr>
<td>Tons of household waste per year</td>
<td>2,444</td>
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<tr>
<td>Roadways</td>
<td></td>
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<tr>
<td>Miles of water distribution piping</td>
<td>112</td>
</tr>
<tr>
<td>Solid waste service units</td>
<td>1,199</td>
</tr>
<tr>
<td>Sewer connections</td>
<td>1,391</td>
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</table>
Hurricane Irma was the strongest observed in the Atlantic in terms of maximum sustained winds since Wilma and the strongest storm on record to exist in the open Atlantic region. Irma was the first Category 5 hurricane to strike the Leeward Islands on record.

**Total fatalities:** 134  
**Dates:** Aug 30, 2017 – Sep 12, 2017  
**Date:** August 30, 2017 – September 13, 2017  
**Affected areas:** Florida, Saint Martin (Island), Puerto Rico, Cuba, MORE  
**Category:** Category 5 Hurricane  
**Did you know:** Irma is the fourth-costliest Atlantic hurricane ($77.2 billion in damage)
Impacts to Seminole Tribe

Major Storm Impacts:

► Community Flooding
► Roadway blockage with Vegetation Debris
► Extended Power Outage (14 Days)
► Loss of Communication
Our Big Cypress Reservation was out of power for 14 consecutive days.

Not all of our Lift Stations are equipped with emergency backup power (Generators).

Power Supply to Reservation is only one arterial electric feed (One Directional Feed System).
Old Lift Station Standards

- Discharge piping vault under-ground
- Discharge piping not equipped to handle bypass operations
Updated Lift Station Standards

- Discharge piping above-ground
- Easy connection utilizing by-pass pumps
By-Pass Pump Setup

- Staff was able to utilize 2, 4 and 6 inch by-pass pumps to transfer waste.

- Staff were able to rotate from station to station in maintaining low wet well levels.

- Department has contracts with pump rental companies during storm season for Emergency Response.
Lessoned Learned

► Prepare an equipment staging and operating plan to ensure staff are aware of locations, refueling methods, maintenance etc.

► Communicate plan on recurring basis to ensure staff are aware of their roles and responsibilities during and event.

► Develop operational staffing plan to ensure staff are not burned-out.

► Ensure to test generators, pumps and emergency equipment on monthly basis in operations vs. stand alone.
Summary

► We had no sewer spills or backups in the system.

► Operational Plans now includes the human resources element.

► When our support staff were able to maintain low wet levels with continuous monitoring our staff were able to assist other areas of Public Works response.
Thank you – Questions?