

Hurricane IRMA

PUBLIC WORKS
SEMINOLE TRIBE OF FLORIDA



Agenda

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Seminole Tribe of Florida Overview

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)

4 Water Treatment Plants	4 Wastewater Treatment Plants	Solid Waste
963,000 Gallons of drinking water per day	471,000 Gallons of processed wastewater per day	1,199 Solid waste service units
112 Miles of water distribution piping	63 Lift stations	2,444 Tons of household waste per year
358 Fire hydrants	1,391 Sewer connections	124 Miles of service routes
1,658 Water Connections	411 Septic systems	
650 Vendors		

Hurricane IRMA

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

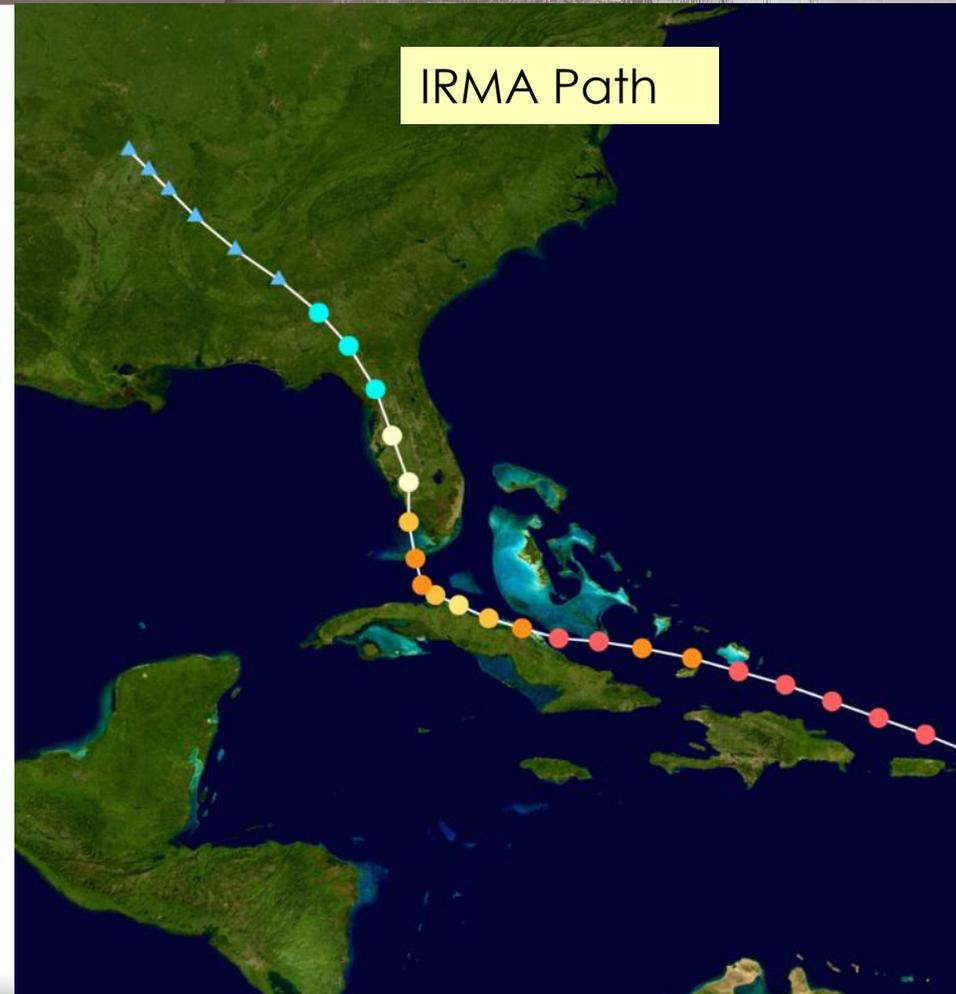
Dates: Aug 30, 2017 – Sep 12, 2017

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



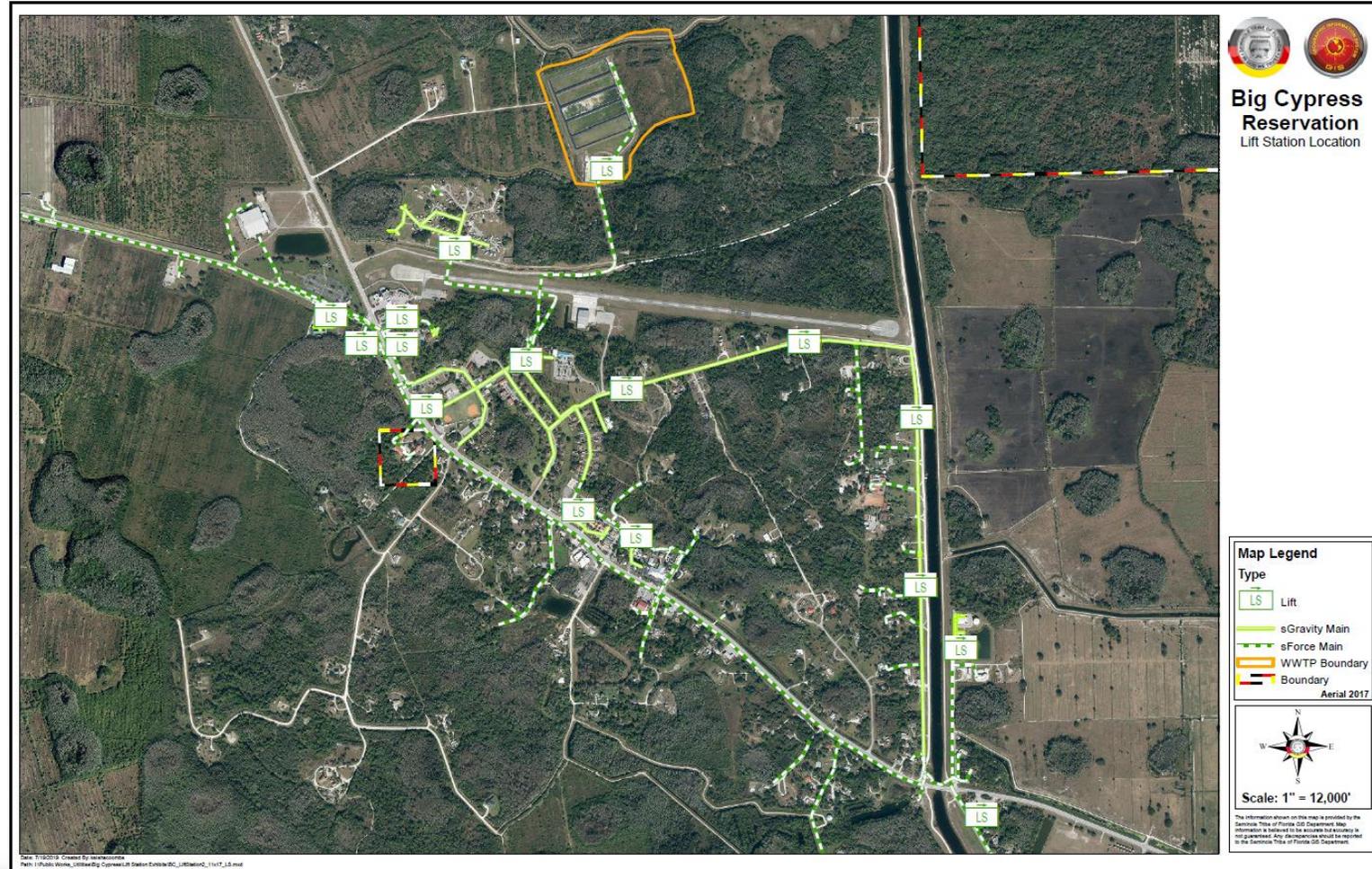
Major Storm Impacts:

- ▶ Community Flooding
- ▶ Roadway blockage with Vegetation Debris
- ▶ **Extended Power Outage (14 Days)**
- ▶ Loss of Communication



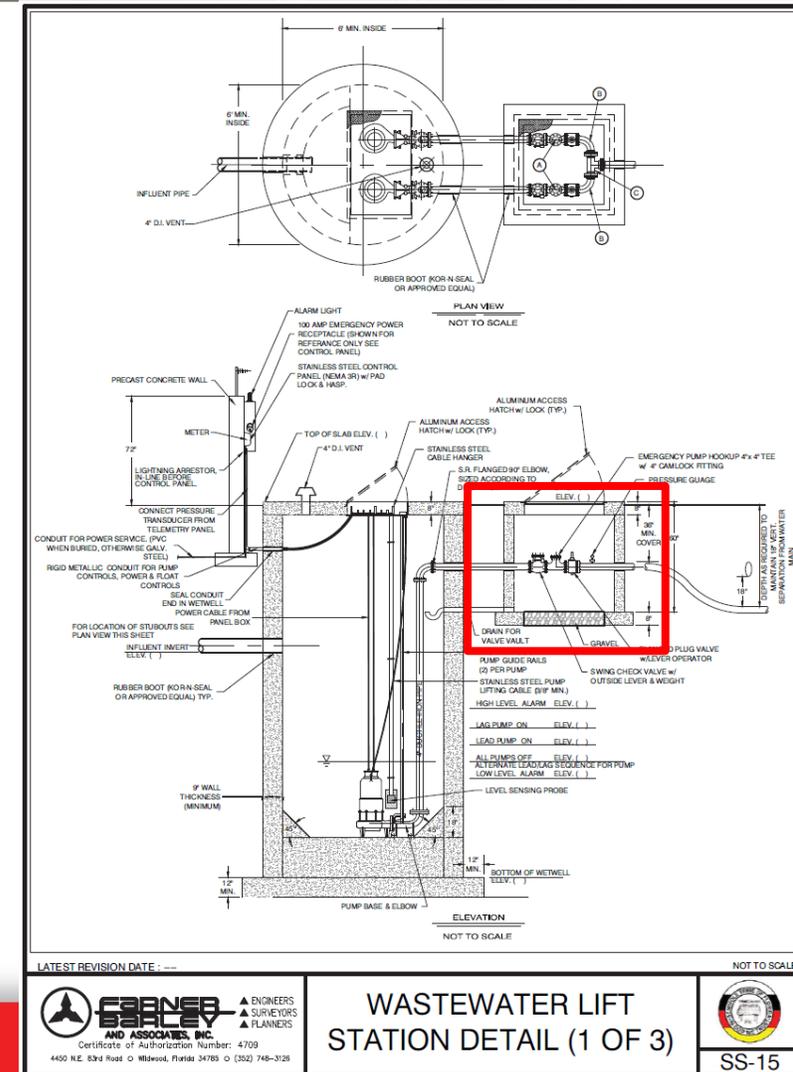
Big Cypress Collections System

- ▶ 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



By-Pass Pump Setup

- ▶ Staff was able to utilized 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.

I just need
the main ideas



Thank you – Questions?

