First In, Last Out: St. Johns County’s Public Works Department Hurricane Response

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01 Fast Facts About St. Johns County
Fast Facts
St. Johns County, Florida

- County population: 245,000
- 608 square miles of land area
- 3 incorporated cities
- Bordered by 42 miles of Atlantic coastline (East) and St. Johns River (West)
- Approximately 44% of local roads are not maintained by the SJC
Fast Facts

Solid waste infrastructure

- 2 franchise solid waste haulers
- 2 county-owned transfer stations
- 1 county-owned landfill (not active)
- 2 private C&D and yard waste landfills in county
02 Debris Management Planning
Debris Management Planning

- FEMA approved Debris Management Plan
- Pre-position contractors
  - Debris removal – AshBritt, Phillips and Jordan, D&J Enterprises
  - Debris monitoring – Tetra Tech
- Debris management sites (DMS) pre-identified
- ROE agreements for private Home Owners Associations
- Ordinance providing legal authority to enter onto private property for debris removal
- Solid waste infrastructure
  - 2 franchise solid waste haulers
  - 2 county-owned transfer stations
  - 1 county-owned landfill (not active)
  - 2 private C&D and yard waste landfills in county
03 Damage Assessment
Damage Assessment

- Minimal hard infrastructure damage
- Storm surge flooding adjacent to Intracoastal waterway
- Beaches littered with debris from destroyed dune walkovers

Debris Estimate (cu. Yd.)

- Initial Est
- USACE Est
- Actual
Debris Management Sites
Debris Management Sites

- TPC — Vegetation only
- CR16 — Vegetation only
- 9 Mile Road Landfill — Vegetation only
- Simms Pit — Vegetation only & staging area
- Tillman Solid Waste Landfill — Class III only
- Butler Park West — Class III only
- Fairgrounds — Vegetation only
DMS Site Lessons Learned

- Pre-position DMS sites are essential – the more the better
- With scarce resources, efficiency is essential
- DMS sites in close proximity to generation rapidly reduces recovery period
- Given no active landfills in the County allowed to accept Class III debris – identifying a DMS site adjacent to the beaches is a planning period priority
- Land owner partners can provide high value (e.g. TPC golf course parking lot)
Super-Moon Flooding

- Unusually high lunar tide
- Sunday, November 13 at 2pm began haul out from Butler DMS to Tillman DMS
- Removal of debris was tracked using ADMS
- Worked through the night to clear out Butler DMS
  - All trucks stopped collecting debris to assist
  - Took 36 hours
ROW Debris Removal
ROW Program Highlights

- Contractor established 18 debris management zones
- Truck volume peaked at 42 (primarily high capacity tandem units)
- Skid steers required for cul-de-sacs and tight areas
- Traffic control was essential
- ADMS system was vital in verifying equipment location and daily progress
- Free citizen drop-off sites were well received but not overly effective
- 708,322 CY of debris collected
Public Education Campaign

- Call center staffed by SW department
  - Consider staff augmentation
- Website
- Newspaper
- Social Media

Hurricane Matthew Debris Removal Concluding

St. Johns County would like to thank residents and businesses for their patience and resilience during the Hurricane Matthew Storm Debris Removal Program. Since beginning October 8, the debris removal program has collected more than 643,000 cubic yards of vegetative, demolition, and construction debris, and is now scheduled to be complete on Friday, December 16. If additional services are required to complete the cleanup effort, please contact St. Johns County at 904.827.6980 or matthewcleanup@sjcfl.us.

Post-Matthew Clean-Up Overview

Impact

When Hurricane Matthew impacted St. Johns County on October 7, 2016 as a category three storm, it left a trail of destruction in its wake that was felt county-wide. Its physical impacts are evident in many forms including fallen limbs and trees, home fragments, fences, and new construction debris. As the area has now transitioned to a complete recovery effort and rebuilding efforts have begun, debris management and restoring our community to its natural beauty is a high priority for St. Johns County.

Almost without exception, every area of the county suffered some damage and is experiencing an accumulation of debris including limbs, trees, household items, and construction materials. Private properties, roads, bridges, and beaches have all been impacted. The County’s emergency response debris management contractor placed trucks on the streets as soon as first responders declared the community safe for reentry. Once homeowners and businesses began clearing properties and cleaning out flooded homes, the initial debris estimates increased exponentially.
Beach Debris Removal
Beaches are vital to SJC economy

DOH issued letter on hazardous beach conditions

Threat to public health and safety as well as economic recovery prompted County to take quick action

Over 27 miles of beach clean-up

Dune walkovers littered the beach with pressure treated (PT) wood

Beach access points were limited and resulted in long haul

Staging areas created to stockpile debris
Private Property Debris Removal
Private Property Debris Removal Program

- Approximately 44% of local roads are not maintained by the SJC
- FEMA requirements (major elements)
  - Public Interest Determination (DOH Letter)
  - Legal Authority and Responsibility (Ordinance)
  - ROE forms for private communities
- Package prepared by SJC Legal Department
- FEMA site visits of most impacted areas
- Three zones initially approved
- Additional zones under FEMA consideration
Lessons Learned
Lessons Learned

- Strategic location of debris management sites is critical to rapid and efficient recovery

- Review contract for comprehensive services (e.g. hazardous trees)

- Important to plan for potential for PPDR program (ordinance, ROEs, etc.)
Lessons Learned

- ADMS technology is valuable tool

- Plan for high call volume – may need outside resources to assist

- Expect the unexpected! Adapt, improvise, and overcome.
KEYS TO SUCCESS
Respect, Communication, & Teamwork

- Debris removal contractor
- Monitoring firm
- Residents
- County departments
- Administration
- State and FEMA