

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

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SWANA PRESENTATION
JULY 29, 2019



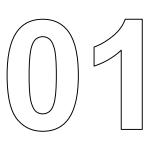
- Fast Facts About St. Johns County
- ()) Debris Management Planning

- Damage Assessment
- DMS Sites

- ROW Debris Removal
- Beach Debris Removal

- (()) // Private Property Debris Removal
- () Lessons Learned





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 FactsSolid waste infrastructure

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





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)
 - o 2 private C&D and yard waste landfills in county

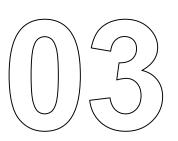
ROE Number:

RIGHT OF ENTRY AGREEMENT

St. Johns County, Florida

the subtorized representative(s) of the proporty commonly identified as the proporty property and therefore grant aid give freely and without coercion, the right of scoess and entry to said property St. Johns County, or the United States Government, it is employeed, agents, contractors, and subcontractors thereof, pursoant to all applicable laws for the purpose of removing and clearing any or all storm-generated dobris of whatever nature from the above described property.
It is fully understood that this permit is not an obligation to perform debris clearance. The undersigned agrees and warrants to hold harmless, St Johns County, State of Florida and the United States Government, their agencies, contractors, and subcontractors, for demage of any type, whatsoever, either to the above described property or persons situated thereon and hereby release, discharge and warve any action, either legal or equitable that might arise out of any activities on the above described property. The property overset(s) will mark any storm damaged sower lines, water lines and other utility lines located on the described property.
I/We (have have not (will will not receive(d) any compensation for debris removal from any other source including SBA, NRCS, private insurance, individual and family grant program or any other public assistance program. I will report any insurance settlements made to me or my family for debris removal on this property that has been performed at government expense. I am fully aware that an individual who fraudulently or willfully misstates any fact in connections with this agreement shall be subject to a fine of not more than \$10,000 or imprisoned for not more than one year or both.
For the considerations and purposes set forth herein, I hereby set my hand this / 8 day of, 20_/ (
Authorized Representative Signature: Ru Mauru Printed Name: Lek Hause
10730 QUAR RIBUG DR, PONTE VCSRA, EC 32051 904. 833-3236 Address
Witness (Signature/Printed Name): Teccus K. B.
Address: 3869 ARROW Lake Das.
Jacksonv. 11, FL 32257

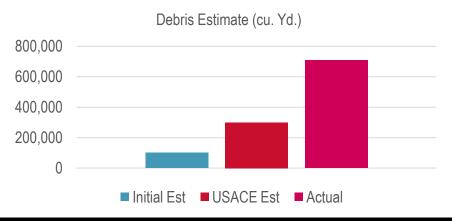




Damage Assessment

Damage Assessment

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











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



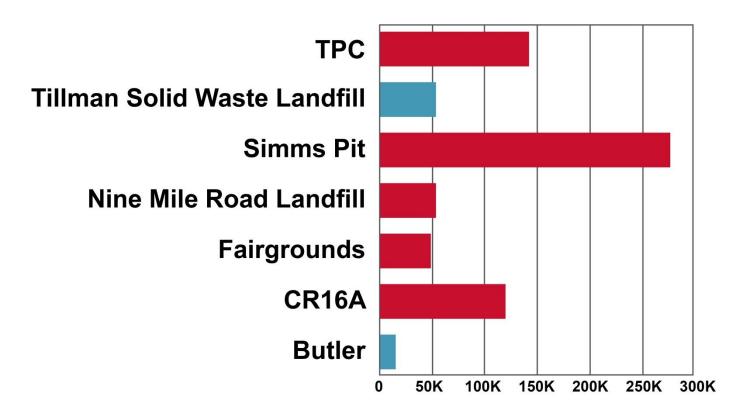
DMS Site Lessons Learned

- 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)





DMS Cubic Yards to Date





Expect the Unexpected: Butler DMS Site

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







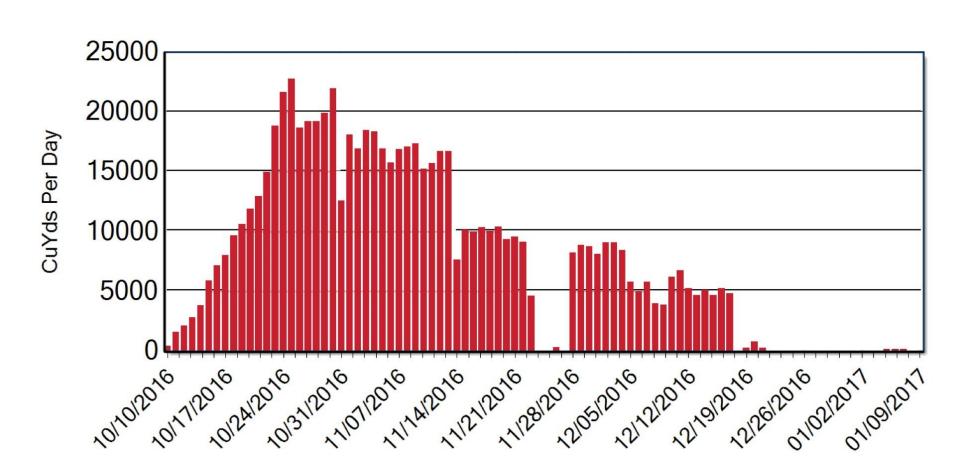
ROW Debris Removal

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



Total Cubic Yards Per Day



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 9, 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. Johnss County at 904.827.6980 or matthewcleanup@sicfl.us. Debris Removal Concluding

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 now 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

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





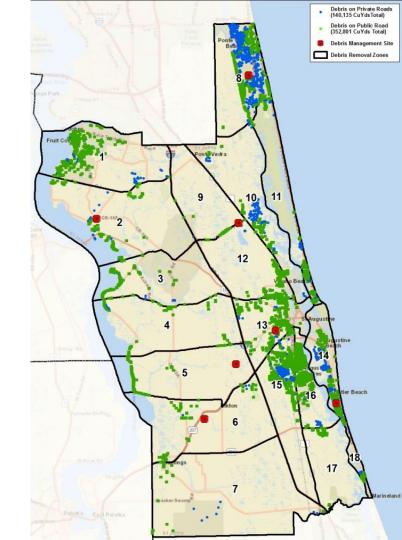




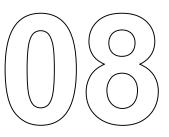
Private Property Debris Removal

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)
 - o 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



