

City of Sanibel



DONAX WRF & COLLECTION SYSTEM UPDATE



Tetra Tech
12. 06. 2022



Damage Assessment - Initial

- Gain safe access/clearing of debris and damaged equipment
- Overall condition & visible damage to structures including operations building
- Power supply & process control equipment
- Treatment process equipment
- Collection system lift stations
- Reclaimed distribution & deep injection disposal

Recovery Efforts - Initial

- **Sanibel Staff**
 - Restored limited treatment capability at Donax WRF using existing Generator 2
 - Maintained & restored operation of major collection system lift stations
- **FlaWARN Mutual Aid**
 - Jacksonville Electric Authority (JEA), South Walton Utility Company, Regional Utilities of Walton County
 - Significant efforts and aid to complete temporary repairs at Donax WRF and throughout the wastewater collection system
 - Furnished generators and bypass pumps for collection system
- **Army Corps of Engineers**
 - Performed assessments, furnished generators and bypass pumps for collection system
- **Hole Montes Staff**
 - Provided coordination & documentation of mutual aid contractors
- **Tetra Tech Staff**
 - Under FDEM contract, assisted with procuring Donax WRF standby generator through FDEM



Damage Assessment - Detailed

- **Sanibel Staff**
 - Donax WRF and lift station assessments are ongoing and in early stages
 - Detailed assessments to be completed in the coming months
- **Donax WRF Process Improvements Project Contractor/Subcontractors**
 - PWC LLC – assessing treatment facility assisted by Wood for instrumentation and Cogburn for electrical systems
- **Tetra Tech Staff**
 - Under FDEM contract, supporting the City's Donax WRF and lift stations assessment process



Ongoing Recovery Efforts

- Donax WRF & Collection System
 - Materials acquisition for temporary repairs needed to become functionally operational
 - Materials value of approximately \$1M has been submitted for FDEM direct reimbursement
 - City has issued additional purchase orders that will be submitted for FEMA direct reimbursement
 - Material includes wire, actuator positioners, flowmeter transmitters, VFDs, surge suppressors, motors, pumps, hardware
 - SUEZ assisting with onsite evaluation and testing of MBR process equipment



Where We Are Today

- Donax WRF
 - Plant is treating 0.75 to 1.0 mgd
 - Raw wastewater entering plant has very low strength which poses challenges
 - Meeting all effluent permit parameter limits
 - Have resumed reuse distribution to Sanctuary, Beachview and Dunes but not to individual meters, with remainder to deep injection well
- Collection System
 - 165 total lift stations controlled from 135 control panels
 - 132 lift stations have LCEC power
 - All lift stations operating in automatic mode

Donax WRF Process Improvements Project- Remaining Work to Achieve Substantial Completion

- Completing instrumentation monitoring & control loop testing for overall project on hold.
- Process performance testing on hold.
- Fine-tuning of operational parameters (oxygen concentrations, internal recycle & return activated sludge flow rates) on hold.
- Owner/Engineer preparing updated of Substantial Completion punch list items for Contractor to complete .
- Substantial Completion anticipated in Spring 2023.

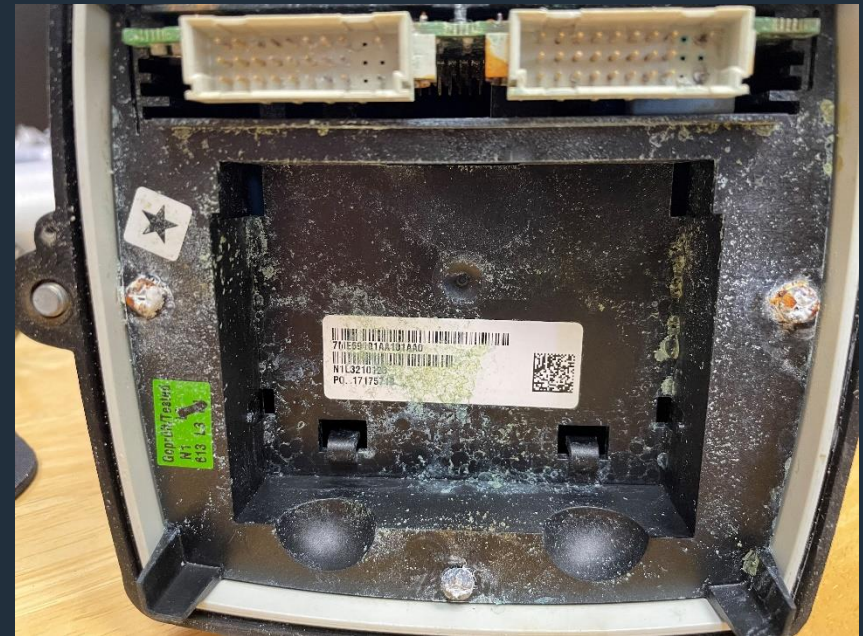
Electrical Wiring Damage

- Storm surge measured to be about 63-inches which damaged electrical wiring due to submergence at wire terminations.
- Electrical wiring will need to be removed and replaced, with overall extend yet to be determined.



Instrumentation Damage

- Numerous flow metering, valve actuator, and other process control instruments require removal and replacement.



Plant 1 Flow EQ Basin Odorous Air Piping Damage

- This structure is part of the Donax Process Improvements Project.
- Pipe supports will need to be replaced.



Rotary Drum Thickener Roof Damage

- This 20-year-old structure sustained roof damage and will need to be demolished and replaced.



Operations & Chemical Feed Buildings Roof Damage

- These 20-year-old structures sustained roof and HVAC damage and that will require replacement.



New Generator Facility

- Replacing 650 kW Generator 1 with new 2,000 kW generator.
- New generator delivered and installed on September 21, 2022.
- New generator wire was submerged by storm surge and replacement wire has been ordered through FDEM.
- New generator appears undamaged and anticipated to be placed into service after new generator wire is delivered.



New Structures Have Minimal Damage



Discussion