



Utilities Department News

Fall 2016

Cocoa Utilities Department Smoothly Recovers From Hurricane Matthew

As the sun rose on Friday morning, October 7, 2016, it became clear that Brevard County avoided disaster by the narrowest of margins. Cocoa was prepared to recover from a disaster of epic proportions, but breathed a sigh of relief.

Miraculously, hurricane Matthew's super powerful winds of 135 miles per hour remained just far enough off shore to inflict relatively minor damage to the homes, businesses and infrastructure.

Hurricane Matthew brought down trees, power lines, fences, and pummeled homes and businesses. Thankfully the area didn't experience as much damage as many feared.

Power was out in sections of Cocoa ranging from Indian River Dr. to Fern Meadows off SR 520 west of I-95. The Utilities Department headquarters was open and functioning on generator power for three days.

Once the winds died down the Cocoa Utilities Department dispatched crews to assess damage and respond to service calls.

The Water Field Operations Division responded to 56 calls for service. Here is a breakdown of the calls:

14 main breaks

1 saddle break
12 misc. water calls
12 low pressure calls
2 service line calls
6 curbs stop repairs
9 emergency turn off meters

Sewer Collections dealt with the following issues:

18 lift stations lost power
2 minor spills around manholes at station (reported to FDEP)
No force main breaks
No sewer overflows

Due to the heavy inflow of stormwater into the Sellers Water Reclamation Facility the plant was forced to discharge reclaimed water to the Indian River Lagoon. The discharge was compliant with all permit conditions.



Sewer Field Operations Division's New Jet Vac Truck



2017 Mack GU813 Cab & Chassis

- 450HP MP7 Diesel engine
- 4500 RDS 6-speed Allison automatic transmission
- 60,000 GVWR
- 2017 VPD3690LHA/1000 Vacuum 4000 psi Water Jet VAC-CON System
- Total purchase price \$480,464

Sewer systems need regular cleaning, especially during storms when an abundance of debris tends to collect in sewer drains. Clogged sewer lines can quickly turn from a nuisance into a nightmare of municipal health hazards — and irate phone calls. Whatever the reason for the clog, you need someone who can respond with the right type of equipment and experienced personnel.

Sewer jet cleaning uses high-pressure water nozzles to effectively flush out dirt, litter, sludge, and any other form of garbage from pipelines. The sewer flushing process is performed by professionals who are trained to properly operate the machines and deal with any issues that may arise. Utilities' personal regularly flush sewers to ensure that the sewage system functions reliably. The combination cleaner offers straight vacuum capability and a combination of water and vacuum to clear sewers. Obstructions and

debris are removed without any damage to sewer walls whatsoever and vacuumed up directly into the Jetvac's tank.

A clean, well-functioning neighborhood sewer system is a collective effort between the residents and the Utilities Department. Residents are encouraged to learn what not to flush and to work with sewer maintenance crews to prevent the collection of debris.

Vacuum pump trucks are powered by a PTO from the vehicle's engine. The PTO is usually a splined drive shaft connected to the drivetrain of the truck. In parking mode power can be cut from the wheels and transferred to the PTO instead. The driveshaft can power several components, such as the suction pump. A PTO may also drive the pump by a belt or hydraulic system.

On trailer mounted or pickup bed mounted vacuum units, a secondary engine drives the vacuum suction pump.

According to Fleet Maintenance Manager Tony Jones, this is the fourth VAC-CON truck for the City of Cocoa in the last 30 years.

The combination sewer cleaning truck from Vac-Con has a variety of features including a hydraulically operated, front-mounted hose reel, high-capacity water pump and hydraulic boom. The boom helps to access hard to reach areas. The water suction hose is attached to the boom arm, facilitating the positioning and control of the tube over the desired work area. It's helpful when servicing a remote lift station or when obstacles prevent the truck from reaching the site.

Industrial Park Pump Station Improvements

Some Cocoa residents in the area of Peachtree Street and N. Wilson Ave. were treated to the wrenching sounds of torn steel. That was the sound of the 50 year old, five-million gallon, steel ground water storage tank being demolished and hauled away. The tank was located at Cocoa's Industrial Park Pump Station. The water storage tank helps the Cocoa Utilities Department meet peak demands and fire flows within the Cocoa city limits. It also helps to maintain system pressures in the downtown area. The existing steel tank was beyond its service life. A new, five-million gallon, concrete tank was built adjacent to the existing tank.

Demolition of the old tank began on August 22 by PAW Demolition. They used two track hoes. One with a hydraulic shear fitted to the boom. The shear operator chomped into the tank in a methodical way and then curled the shell down and folded the tank inside itself. The steel plate was then further peeled apart and rolled. Then the rolled up pieces of steel plate were loaded into a trailer for removal. The concrete block building that housed the pumps was also demolished.

The utilities portion of this project is now complete. The new equipment and facilities are online. There is still some improvements to the site that need to be completed. This project has improved the water system's level of service and reliability as a part of Cocoa Utility Department's ongoing capital improvement program.



Fire Hydrant Locations Now On Cocoa Website

Have you ever wondered how close your home is to the nearest fire hydrant? Have you ever considered buying a piece of property and wanted to know where the nearest fire hydrant is for insurance purposes? Now you can find out with one of the newest apps on the Cocoa website. Simply go to www.cocoafl.org and go to Utilities and click on "Fire Hydrants Locations App." A new window will open and you can find any fire hydrant. Simply use the Measurement tool to determine how far the fire hydrant is from any building or property.

This application uses ArcGIS to compile and plot data on a map. What is ArcGIS?

ArcGIS connects people with maps, data, and apps through geographic information systems (GIS). It is a location platform that's accessible to anyone, anywhere,



anytime. The program is hosted by Esri (Environmental Systems Research Institute), an international supplier of geographic information system (GIS) software, web GIS and geodatabase management applications.

The Fire Hydrant Locations Mapping Application depicts the location of existing fire hydrants maintained and operated by the Cocoa Utilities Department. This data is locational only and does not provide specific information about individual fire hydrants.

Uses of this mapping application vary from being able to view hydrant locations when zoomed into the map, using a measuring tool on the map, searching for address, and basic map printing functions. The hydrant data for

this application is updated on a regular weekly interval.

Understanding Our Own Water Use

An easy way to understand individual water use is to look at your water bill—not just the amount due, but how much water you used. There's much you can learn just by looking at your bill. Does your water use increase during certain times of the year? How does it compare with your neighbors?

Once you understand how much you use, you can begin your journey toward saving water and saving money by using the Water

Conservation Checklist found at www.cocoafl.org/conservation. Get the kids involved and turn it into a fun family project.

Saving water, energy, and money is as easy as 1-2-3.

1. Check your toilet for leaks.
2. Twist on a faucet aerator.
3. Replace an old showerhead with one that's WaterSense labeled.

For suggestions, comments, or questions about the Cocoa Utilities Department
Call 321-433-8705 or email ddowns@cocoafl.org

