

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: **Application for increase in water and wastewater rates in Charlotte, Highlands, Lake, Lee, Marion, Orange, Pasco, Pinellas, Polk, and Seminole Counties by Utilities, Inc. of Florida**

DOCKET NO. 20160101-WS

UTILITIES, INC OF FLORIDA STATUS REPORT
COMPLIANCE WITH DEP REQUIREMENTS IN SYSTEMS
WITH MARGINAL QUALITY OF SERVICE

On September 25, 2017, the Florida Public Service Commission issued Order No. PSC-2017-0360-FOF-WS that directs Utilities, Inc. of Florida (Utility) to submit a status of its compliance with DEP requirements to the Division of Engineering. The report is to describe the Utility's conformance with DEP rules and regulations with respect to each water or wastewater system that was deemed to have provided marginal quality of service. This status report, submitted within six months of the issuance date of the Order, addresses quality of service issues associated with the following systems: Cypress Lakes, Labrador, LUSI, Mid-County, Pennbrooke, and UIF-Seminole.

In addition, the Summertree water system in Pasco County was deemed to have unsatisfactory quality of service resulting in the Commission imposing a 100-basis points penalty per Order No. PSC-14-0025-PAA-WS. This report includes the status of the Utility's efforts to address this issue.

CYPRESS LAKES

The Commission imposed a 50-basis points penalty on the Utility due to marginal quality of service despite the number of complaints trending downward since 2011. Customer complaints about discolored water, taste, odor, or water quality in general that have been made directly to the Utility are infrequent. Over the last 27 months, the Utility received a total of 35 of these types of

complaints or one every three weeks or so. Field staff are responsive to these complaints and are working diligently to maintain an improved level of service.

On an annual basis, the Utility conducts a “burn” whereby field staff revert to standard chlorine disinfection for a few weeks followed by a system wide flush. This process removes a buildup of nitrogen compounds in the piping network reflecting the addition of ammonia in the chloramination disinfection process. This “burn” also reduces the volume of water used for flushing on a daily basis thereafter. The HOA has acknowledged the progress that has been made over the last few years as evidenced by the few customers who attended the service hearing at the Cypress Lakes clubhouse in the instant docket and the testimony of the HOA representative at the ninth customer service hearing in Tallahassee. In each prior rate case, the clubhouse was filled by customers with many complaining about water quality.

The Utility is fully compliant with all DEP rules and regulations including all secondary drinking water quality parameters. There have been no water quality complaints submitted to DEP since the end of the Test Year. Low pressure complaints are rare and typically correlate with water system maintenance activities near the customer’s location.

LABRADOR

The Utility continues to maximize the use of Labrador Well #1, which produces water that is somewhat superior in quality to the water generated from Well #2. The Utility continues to add a sequestrant to the water supply that is designed to keep iron in solution. The Utility continues to flush hydrants at select locations with the mobile home community on the first Monday of each month which acts to reduce water age and thus minimize the precipitation of iron out of solution.

The Utility is fully compliant with all DEP rules and regulations including all secondary drinking water quality parameters. There have been no water quality complaints submitted to DEP since the end of the Test Year. Low water pressure has not been an issue.

LUSI

The Order references the currently open Consent Order (CO) issued by DEP in September 2016. The issuance of the CO reflects the fact that quarterly measurement of disinfection byproducts occurred in excess of the Maximum Contaminant Level (MCL) for Total Trihalomethane (TTHM) compounds at two specific sample locations, one in the LUSI South water system and one in the LUSI North water system. The CO is limited to the LUSI South water system, which is supplied by water drawn primarily from Lake Groves Well #3, a Lower Floridan Aquifer well) before being treated at the Lake Groves WTP.

The LUSI South and LUSI North water systems are interconnected and are supplied by a total of nine water plants where treated water enters the interconnected distribution system. Groundwater quality parameters that impact TTHM formation vary in time, location and concentration. Additionally, TTHM values vary significantly due to a host of factors such as water age, chemical feed rates, chlorine concentration, and seasonality of demand. The schedule of tasks noted in the CO reflects the complexity of reducing disinfection byproduct formation at all times and at every location.

To minimize TTHM formation in the near term, the Utility's staff adjusted its operating strategy beginning in 2015 to maximize the use of those water supply wells that contain the least amount of TTHM formation precursors, primarily total organic carbon, while also maintaining adequate pressure in the distribution system and meeting customer demand. This strategy has been enhanced by using SCADA equipment deployed in 2016 at the nine LUSI treatment plants, by executing a water main flushing protocol to reduce water age in the piping system, and by optimizing the disinfection process to minimize the use of chlorine while also maintaining compliance with DEP's disinfection rules and regulations. Currently, the Utility is providing water

to the LUSI South customers that is compliant with DEP's rules on a continuous basis and at all locations.

As agreed to in the CO, the Utility selected an engineering firm in 2016 who conducted an analysis of alternative treatment technologies, conducted a pilot test of membrane treatment equipment in 2017, and completed a second pilot test in February 2018 using chlorine dioxide as an alternative treatment method. Engineering design is under way with the Utility on schedule to apply for a construction permit for Lake Groves WTP modifications in May 2018. The Utility will have one year to complete construction once DEP issues the construction permit. In addition, each quarter, the Utility provides DEP with a status update that identifies the activities completed during each 90-day period. The Utility has met each deadline identified in the CO and remains on target to complete modifications to the Lake Groves WTP by the end of 2019 or sooner.

In summary, the Utility is fully compliant with DEP regulations regarding the quality of water provided to its LUSI South customers, primarily by using Lake Groves Wells 1 and 2, Upper Floridan Aquifer wells, as the primary water source to the Lake Groves WTP and as allowed by the St. Johns River Water Management District on a temporary basis. The Utility has met each deadline identified in the CO's schedule and is moving expeditiously to construct and place into service the facilities needed to maintain compliance with DEP rules on a going forward basis.

There have been no water quality complaints submitted to DEP since the end of the Test Year.

MID-COUNTY

The Order specifies that the 50-basis point penalty was imposed due to "the large number of sewer spills and odor complaints". During July and August 2015, the Utility's service area was inundated with 30 inches of rain in seven weeks that caused localized flooding and elevated the

groundwater table. This caused sanitary sewer overflows to occur at various locations due to the abnormal flows that were occurring.

After recovering from the wet weather impacts, the Utility initiated a collection system investigation in October 2015 to locate points of entry of excess inflow and infiltration using open channel metering equipment to monitor and record wet and dry weather flow as well as digitally recording rainfall data. The analysis of that data was then used to target sub-basins where wastewater volume increased significantly with video inspections and smoke testing.

In 2016 the Utility's contractors excavated and replaced sections of pipe that were found to be deficient. Some pipe deficiencies were addressed by cost effectively installing cured-in-place pipe. The Utility also installed dozens of manhole inserts under manhole lids that now provide a barrier against runoff entering the system. As a result, the number and duration of sanitary sewer overflows decreased substantially. The effect of Hurricane Irma's rainfall on the collection system in September 2017 was minimal with no reported sanitary sewer overflows and only a modest increase in plant flow. The Utility continues to be committed to reporting all spills or overflows to DEP, whatever the estimated volume.

Also in 2017, the Utility resolved a hydraulic bottleneck by rehabilitating a pipe segment located under the 12-lane US Highway 19 and rerouting a force main. As a result, there have been no manhole overflows near the highway.

In 2017, the Utility participated in the work of the Pinellas County Wastewater/Stormwater Task Force that included representatives of all municipal and PSC-regulated wastewater system owners. An outcome of the Task Force was the formation of a collaborative team of technical and political leaders that have enhanced the management and functionality of the 24 sewer systems situated within Pinellas County including Mid-County.

PENNBROOKE

The Order specified that a 50-basis point penalty was being imposed due to the number of customer complaints noted in the docket regarding discolored water, sediment in the water, and low pressure. In Pennbrooke's last rate case, the Commission directed the Utility to meet with the customers to identify the issues of highest concern. Subsequently, the Utility staff met with representatives of the Pennbrooke Fairways HOA who identified three specific issues: low pressure; staining caused by iron precipitation and water hardness.

Through a cooperative effort between the Utility and the community, low pressure complaints were alleviated by reducing peak water demand. Customers reduced their irrigation usage by reducing excessively long irrigation cycles and modifying their irrigation heads. Additionally, the parties succeeded in reducing the peaking factor caused by irrigation demand by shifting the irrigation schedule from a system of even and odd street addresses controlling watering days (meaning all irrigation was occurring on four days of the week) to a three-zone schedule across the community that distributed demand across six days of the week. By reducing competition for the output from the water plant by about 15-20% on four nights of the week, widespread low-pressure complaints have been alleviated. Low pressure complaints since 2015 are rare and are typically caused by the customer's irrigation usage patterns or issues specific to the customer's infrastructure.

Regarding water hardness, the Pennbrooke customers had no interest in supporting the cost to soften the water produced by the Pennbrooke Water Plant since many residents have already invested significantly in whole-house water softeners or reverse osmosis units. A central water softening treatment unit would obviate the customer's need for an individual water softener at their house and make their prior investment redundant. Therefore, the HOA declined to pursue the changes to the treatment process that would reduce hardness.

As noted in the order, the customers declined to support the removal of iron from the water supply due to the prospective impact on their water rate. The HOA acknowledged their position in writing, which is documented in the docket file.

The Order is currently under appeal. Assuming the consolidated water rate structure is maintained following the completion of the appeal process, the Utility is willing to refresh the estimated capital and operating costs and to solicit support for the addition of iron removal treatment equipment from the HOA.

Currently, the Utility is fully compliant with all DEP rules and regulations including all secondary drinking water quality parameters. There have been no water quality complaints submitted to DEP since the end of the Test Year.

UIF-SEMINOLE

There are now eight separate water systems in Seminole County, excluding Sanlando. These systems are Weathersfield, Oakland Shores, Little Wekiva, Park Ridge, Phillips, Ravenna Park, Bear Lake and Jansen. The Crystal Lake system, referenced in the MFR's, was interconnected with Ravenna Park in 2016 and thus is no longer a stand-alone system. The size of these systems varies between 60 and 1,200 connections.

The piping networks in these eight systems were constructed over 50 years ago and primarily contain asbestos cement and galvanized iron pipe materials. The buildup of mineral deposits inside these pipes over the 50+ years of service caused hydraulic bottlenecks that reduced pressure and degraded water quality that resulted in customer complaints.

Prior to the Test Year, the Utility completed the replacement of the piping network in the Park Ridge system and portions of the Jansen system. The instant docket includes six proforma projects that include the complete replacement of water mains, valves and service lines in the Oakland Shores, Little Wekiva, Phillips, Ravenna Park and Bear Lake systems. The Weathersfield

system has not lost its hydraulic capacity nor experienced very many pipe failures. Therefore, its piping network will be replaced at a future time. After the completion of the proforma capital projects using PVC and HDPE pipe materials, the Utility has elevated its quality of service and expects water complaints to be much less frequent in the future.

In all eight systems, the Utility is fully compliant with all DEP water quality standards including secondary drinking water parameters. There have been no water quality complaints submitted to DEP since the end of the Test Year.

UIF-PASCO – SUMMERTREE

In December 2016, the Utility interconnected its water system with Pasco County and thereafter has relied solely on Pasco County as the water supplier to the Summertree system. In May 2017, the Utility completed the decommissioning of its production facilities and the abandonment of its four water supply wells.

In advance of the change in water supply, the Utility conducted a seven-week “burn” of its distribution system using standard chlorine disinfection followed by a uni-directional high velocity flush of the piping network with the use of the new Pasco County water source. Unfortunately, Pasco was unable to provide water containing an adequate residual chlorine concentration. As a result, UIF increased its flushing protocol substantially in order to maintain at least the minimum required chlorine level but with sporadic success.

In May 2017, UIF initiated a second “burn” period lasting nearly eight weeks followed by a high velocity uni-directional flush of the system on June 20, 2017. This effort was only temporarily successful with the chlorine residual continuing to be unsatisfactory.

After much discussion with Pasco staff, Pasco modified its operating strategy to elevate and sustain its chlorine residual at the point of connection to the Summertree system. On August 15, 2017, UIF initiated a third “burn” that lasted eight weeks followed by another high-velocity

uni-directional flush of the system. Since that time, UIF has been able to maintain a nominal chlorine residual throughout the system with minimal flushing required on a daily basis.

As required by Order No. PSC-16-0505-PAA-WS, the Utility is required to sample at six sites, have them analyzed for secondary drinking water parameters and submit them to the Commission thereafter. Once the Utility demonstrates its ability to meet all of DEP's secondary drinking water limits, the Commission is to deem the quality of service as satisfactory and end the 100-basis point penalty imposed on Summertree's ROE.

The samples taken in October 2017 indicated compliance with the secondary drinking water limits except for elevated iron concentration at three of the six sites. Since Pasco's water contains very little iron and thus was not the cause of the high values, it was evident that the elevated iron values indicated the presence of mineral deposits containing iron in the pipes near those sample locations. After completing additional high-velocity flushing of those pipe segments, grab samples taken at those three locations in February indicated no iron was present. A complete sample set from all six sites will be taken in March with the lab results then forwarded to the Division of Engineering for review and acceptance.

Beginning in January 2017, low pressure complaints became more frequent. This reflected Pasco maintaining a water pressure of 55 psi, approximately 5 psi lower than the nominal pressure provided by UIF's treatment facilities, the decrease in pressure near flushing points, and the wrong type of backflow preventer installed at some residences. Those backflow preventers were replaced with ones that do not generate as much pressure loss and thus improved pressure at those taps. Because the Utility's flushing activity has decreased substantially since October, low pressure complaints have been reduced significantly.

In summary, the Utility completed the interconnection with Pasco County reflecting the preference of the Summertree community, Pasco's water quality is improved, secondary drinking

water sample results are satisfactory with the exception of three iron values, and another round of samples will be analyzed in March with the expectation that those results will be satisfactory in all locations.

Respectfully submitted this 21st day of March, 2018

FRIEDMAN & FRIEDMAN, P.A.
600 Rinehart Road, Suite 2100
Lake Mary, FL 32746
Telephone: (407) 830-6331
Fax: (407) 878-2178
mfriedman@ff-attorneys.com

/s/ Martin S. Friedman

Martin S. Friedman, Esquire
For the Firm

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by electronic mail this 21st day of March, 2018, to:

Erik L. Sayler, Esquire
Associate Public Counsel
Office of Public Counsel
c/o The Florida Legislature
111 W. Madison Street, Room 812
Tallahassee, FL 32399-1400
SAYLER.ERIK@leg.state.fl.us

Walter Trierweiler, Esquire
Office of General Counsel
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0855
trierwe@psc.state.fl.us

Brian P. Armstrong, Esquire
Law Office of Brian Armstrong, PLLC
P.O. Box 5055
Tallahassee, FL 32314-5055
brian@brianarmstronglaw.com

William S. Bilenky, Esquire
Douglas P. Manson, Esquire
Manson, Bolves, Donaldson & Varn
1101 Swann Avenue
Tampa, FL 33606
bbilenky@mansonbolves.com
dmanson@mansonbolves.com
dcantwell@mansonbolves.com

Edward de la Parte, Jr., Esquire
Nick Porter, Esquire
de la Parte & Gilbert P.A.
101 E. Kennedy, Suite 2000
Tampa, FL 33601
edelaparte@dgfirm.com
nporter@dgfirm.com

/s/Martin S. Friedman
MARTIN S. FRIEDMAN
For the Firm