



# Public Service Commission

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TALLAHASSEE, FLORIDA 32399-0850**-M-E-M-O-R-A-N-D-U-M-**

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**DATE:** April 24, 2017

**TO:** Carlotta S. Stauffer, Commission Clerk, Office of Commission Clerk

**FROM:** Danijela Janjic, Senior Attorney, Office of the General Counsel

**RE:** Docket No. 160101-WS - 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.

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On Monday, March 20, 2017, direct testimony of Patti B. Daniel and Exhibits PBD-1 through PBD-3 (Document 03709-17), were filed in the above-referenced docket. Due to scrivener errors, a revised Exhibit PBD-1, page 1 of 1, was filed on April 10, 2017 (Document 04128-17). There are additional corrections that need to be made to Patti B. Daniel's direct testimony. The first corrections need to be made on page 6 of her testimony, specifically lines 10-12 and line 24. The second corrections need to be made on page 16 of her testimony, specifically lines 21-22.

## Page 6 Corrections

The first corrections need to be made on page 6 of her testimony, lines 10-12. The original sentence read as follows:

Once a revenue requirement and subsidy limit have been determined, the cap on the maximum bill is determined through an iterative comparison of groups of systems relative to the subsidy limit.

With the corrections made, the sentence should read as follows (changes are highlighted):

Once a revenue requirement, cap, and subsidy limit have been determined, rates are determined through an iterative comparison of groups of systems relative to the cap and subsidy limits.

On that same page 6, the second correction is the insertion of the word some on line 24.

## Page 16 Corrections

The second change is on page 16, lines 21-22. The original sentence read as follows:

According to the utility's MFRs, Schedule E-2, the water system is approximately 25 percent contributed and the wastewater system is approximately 22 percent contributed.

With the corrections made, the sentence should read as follows (changes are highlighted):

According to the utility's MFRs, Schedule A-2, the water systems are approximately 25 percent contributed and the wastewater systems are approximately 22 percent contributed.

Attached is the Revised Direct Testimony of Patti B. Daniel in its entirety, the previously revised Exhibit PBD-1 and the unchanged Exhibits PBD-2 and PBD-3.

DJ

Docket No. 160101-WS: Petition for rate increase by Utilities, Inc. of Florida and Utilities, Inc.

**Direct Testimony of Patti B. Daniel**, Appearing on Behalf of the Staff of the Florida Public Service Commission

Date Filed: March 20, 2017  
(Corrected April 24, 2017)

1                                   **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2   **COMMISSION STAFF**

3   **DIRECT TESTIMONY OF PATTI B. DANIEL**

4   **DOCKET NO. 160101-WS**

5   **MARCH 20, 2017 – CORRECTED APRIL 24, 2017**

6   **Q.     Please state your name and business address.**

7   A.     My name is Patti Daniel. My business address is 2540 Shumard Oak Boulevard,  
8   Tallahassee, Florida 32399-0850.

9   **Q.     By whom are you employed and in what capacity?**

10   A.    I am employed by the Florida Public Service Commission (FPSC or Commission) as  
11   the Chief of the Bureau of Economic Impact & Rate Design in the Division of Economics.

12   **Q.     Please summarize your educational and professional background.**

13   A.    I received a Bachelor of Business Administration with an accounting major in 1975  
14   and a Master of Accountancy in 1976 from the University of Georgia. Following graduate  
15   school, I worked for several Certified Professional Accounting firms in Atlanta, Georgia  
16   preparing financial statements and tax returns. I was employed by the FPSC in 1984 and, after  
17   several promotions, I now serve as Chief of the Bureau of Economic Impact & Rate Design. I  
18   have analyzed and made recommendations on a variety of issues in all of the industries  
19   regulated by the Commission.

20   **Q.     What is the purpose of your testimony?**

21   A.    The purpose of my testimony is to describe the Commission's rules and practices with  
22   respect to rate design and service availability policies for water and wastewater utilities. I will  
23   discuss the utility's proposal to consolidate rates and alternatives to the utility's requested rate  
24   design. I will also describe mechanisms to address issues such as revenue stability, as well as  
25   the Utilities, Inc. of Florida (UIF) customer demographics and consumption (demand)

1 patterns. Finally, I will address Commission policies and practices with respect to issues such  
2 as guaranteed revenue and allowance for funds prudently invested charges and reuse rates.

3 **Q. Are you sponsoring any exhibits with your testimony?**

4 A. Yes, I am sponsoring Exhibits PBD-1 through PBD-3, which address UIF Residential  
5 Customer Demographics, Water Bill Comparisons Based on 7,000 Gallons per Month, and  
6 Wastewater Bill Comparisons Based on 6,000 Gallons per Month, respectively. These  
7 exhibits were prepared by me and the information in the exhibits is correct to the best of my  
8 knowledge.

9 **Q. What criteria does the Commission use in setting rates for water and wastewater**  
10 **utilities?**

11 A. Section 367.081(2)(a)1., Florida Statutes (F.S.), prescribes that the Commission set  
12 rates that are just, reasonable, compensatory, and not unfairly discriminatory, considering the  
13 value, quality, and cost of the service. These criteria are demonstrated in the manner in which  
14 the Commission evaluates each water and wastewater utility's rate structure and the resulting  
15 rates. Customer demographics and consumption patterns are identified in order to develop  
16 rates that provide revenue stability for the utility and send pricing signals to customers.  
17 Revenue stability impacts the utility's ability to attract capital and make system upgrades.  
18 Pricing signals can mitigate the cost of essential water consumption while encouraging water  
19 conservation for nonessential consumption. In addition, the Commission considers whether  
20 customer demand appears to be seasonal and the anticipated customer reaction to price changes.

21 **Q. Have you performed an analysis of the UIF request to consolidate the rate**  
22 **structures and rates for its 12 water and 15 wastewater systems?**

23 A. Yes. In preparation of my analysis, I reviewed the utility's MFRs and testimony, as  
24 well as prior Commission orders. I also reviewed utility witness Guastella's Exhibits JFG-4,  
25 Schedule W-B and JFG-5, Schedule S-B, which contain comparisons of bills at the average

1 residential consumption for each water and wastewater system using the stand alone and  
2 consolidated rates calculated by the utility.

3 I prepared Exhibit PBD-1, which contains a comparison of the geographic and  
4 demographic characteristics of the UIF residential customers by system. The data used to prepare  
5 this exhibit was collected from the utility's MFRs, Schedules E-3 and E-14 (residential customers,  
6 average residential consumption, and seasonality) and the U. S. Census Bureau FactFinder website  
7 ([https://factfinder.census.gov/faces/nav/jsf/pages/community\\_facts.xhtml](https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml)).

8 Exhibits PBD-2 and PBD-3 contain comparisons of monthly residential bills at 7,000  
9 gallons for water and 6,000 gallons for wastewater using the stand alone and requested  
10 consolidated rates calculated by the utility. The stand alone and consolidated rates were based  
11 on the utility's requested revenue requirements. These comparisons are consistent with the  
12 comparisons used in prior Commission orders (Order No. PSC-09-0385-FOF-WS, in Docket  
13 No. 080121-WS; and Order Nos. PSC-11-0256-PAA-WS and PSC-12-0102-FOF-WS, in  
14 Docket No. 100330-WS) in which consolidated rates and the resulting subsidy levels were  
15 considered.

16 **UIF Service Areas and Customers**

17 **Q. Please provide a brief description of the UIF service areas and customers.**

18 A. The UIF service areas include ten counties; some of the systems within those counties  
19 provide both water and wastewater service, while others provide only one service. The  
20 households include retirement communities, RV parks, single and multi-family homes, and  
21 apartment and condominium complexes in both rural and urban areas. Each system currently  
22 has unique rate structures and rates that reflect the characteristics of those customers and each  
23 system's costs.

24 **Q. What conclusions can be drawn from the comparisons in Exhibit PBD-1 addressing**  
25 **the geographic and demographic characteristics of each UIF system's customers?**

1 A. Exhibit PBD-1 demonstrates the diversity in the utility's residential customer base.  
2 The household size ranges from an average of approximately two to two and a half people per  
3 household. Some service areas include as few as 100 customers, while others include in excess  
4 of 10,000 customers. Average monthly customer consumption ranges from 1,290 gallons to  
5 over 15,000 gallons per month, and many of the service areas have a seasonal customer base.

6 **Stand Alone and Consolidated Rate Designs**

7 **Q. Has the Commission addressed requests to consolidate rate structures and rates**  
8 **in the past?**

9 A. Yes. The Commission has approved consolidated rates for water and wastewater  
10 systems in the past (Order Nos. PSC-97-0531-FOF-WU and PSC-99-0635-FOF-WU, in  
11 Docket No. 960444-WU; and Order No. PSC-03-1440-FOF-WS, in Docket No. 020071-WS)  
12 based on criteria unique to those systems. However, in most of those cases, the service areas  
13 were smaller and the customers were far less diverse than those of UIF.

14 In addition, the Commission has considered consolidated rates for several large water  
15 and wastewater utilities. Cap band rates were approved for Southern States Utilities, Inc. in  
16 1999 following a series of proceedings (Order Nos. PSC-93-0423-FOF-WS and PSC-95-1292-  
17 FOF-WS in Docket No. 920199-WS; Order No. PSC-94-1123-FOF-WS in Docket No.  
18 930880-WS; and Order Nos. PSC-96-0125-FOF-WS and PSC-96-1320-FOF-WS in Docket  
19 No. 950495-WS). Approximately 90 water systems were grouped into eight bands and 37  
20 wastewater systems were grouped into six bands. The Commission found that the cap band  
21 rates represented a significant move toward a long-term goal of uniform rates and minimized  
22 the amount of subsidies paid by customers. Subsidies were determined based on the difference  
23 between bills at proposed stand alone rates and bills at the proposed consolidated rate for each  
24 system.

25 The most recent example of this type of request is found in rate increase applications

1 by Aqua Utilities Florida, Inc. in 2008 and 2010 (Order No. PSC-09-0385-FOF-WS in Docket  
2 No. 080121-WS; and Order Nos. PSC-11-0256-PAA-WS and PSC-12-0102-FOF-WS in  
3 Docket No. 100330-WS). In those cases, the Commission ultimately approved cap band rates  
4 for approximately 57 water and 25 wastewater systems.

5 **Q. Please provide a brief description of the cap band methodology.**

6 A. Under the cap band methodology, service areas with similar costs are grouped together  
7 to minimize subsidies within groups, and a cap is set on the maximum bill a customer will pay  
8 in each group. The revenues not recovered from customers in the highest cost systems, as a  
9 result of the cap, are spread to the remaining lower cost systems. Once a revenue requirement,  
10 cap, and subsidy limit have been determined, rates are determined through an iterative  
11 comparison of groups of systems relative to the cap and subsidy limits.

12 Subsidies are inherent in any rate structure design because there are unique costs  
13 associated with serving disparate customer groups. Limiting the subsidy level among systems  
14 reduces the number of systems that can be grouped together for purposes of setting rates,  
15 while increasing the subsidy level will allow more systems to be grouped together and result  
16 in fewer rate groups.

17 **Q. How do stand alone and modified stand alone rates differ from cap band rates?**

18 A. Stand alone rates result in the closest approximation of the true cost of service of each  
19 system. Modified stand alone rates and cap band rates address subsidy limits among  
20 customers. Modified stand alone rates are based on individual system costs with a benchmark  
21 or maximum bill at a particular level of consumption. Revenue deficiencies resulting from the  
22 caps are recovered from customers in the lower cost systems. While no customers below the  
23 cap receive a subsidy under the modified stand alone approach, some customers below the cap  
24 receive a subsidy under a cap band rate structure.

25



1 **Q. What conclusions can be drawn from the comparisons in Exhibits PBD-2 and PBD-3?**

2 A. The comparisons in Exhibits PBD-2 and PBD-3 are based on bills at 7,000 gallons per  
3 month for residential water customers and 6,000 gallons for residential wastewater customers,  
4 respectively, consistent with prior Commission orders addressing subsidies (Order No. PSC-  
5 09-0385-FOF-WS in Docket No. 080121-WS; and Order Nos. PSC-11-0256-PAA-WS and  
6 PSC-12-0102-FOF-WS in Docket No. 100330-WS). Witness Guastella's exhibits relied on the  
7 average consumption for each system, rather than a specific price point for all systems.

8 Exhibit PBD-2 reflects a subsidy of \$13.74 per month from the Sanlando water  
9 customers, with all other customers receiving a subsidy. In prior rate cases for Sanlando  
10 (Order No. PSC-13-0085-PAA-WS, in Docket No. 110257-WS; and Order No. PSC-15-0233-  
11 PAA-WS, in Docket No. 140060-WS), the Commission included an allocation of revenue  
12 from wastewater to water in order to mitigate the impact of the rate increase to the wastewater  
13 customers and to encourage water conservation because of the customers' high average water  
14 consumption. This allocation is not included in the utility's calculation of stand alone or  
15 consolidated rates.

16 The greatest subsidy shown on Exhibit PBD-3 is \$14.99 per month for the Pennbrooke  
17 wastewater system; two other systems, Sanlando and Mid-County, would also pay subsidies of  
18 \$12.83 and \$9.14 per month, respectively. These three systems represent about 30 percent of  
19 UIF's residential wastewater customers.

20 **Q. Has the Commission taken steps to address rate impacts to customers in prior**  
21 **water and wastewater decisions?**

22 A. The Commission has addressed rate impacts such as rate shock and disparate impacts  
23 among customers in several past rate cases. In Docket No. 100330-WU, the monthly rates  
24 approved by the Commission were capped at bills of \$68.30 for 7,000 gallons of water and  
25 \$87.55 at 6,000 gallons for wastewater (Order Nos. PSC-11-0256-PAA-WS and PSC-12-0102-

1 FOF-WS in Docket No. 100330-WU). UIF's proposed consolidated rates result in monthly bills of  
2 \$25.33 at 7,000 gallons and \$54.93 at 6,000 gallons for water and wastewater, respectively.

3 **Q. What are primary benefits associated with UIF's request for consolidated rates?**

4 A. The most important benefit of consolidated rates for customers is that the cost of  
5 system upgrades can be spread over a larger number of customers, mitigating the impact of  
6 those costs on customers. Given the age of many of the UIF systems, the potential costs  
7 associated with repairing or replacing aging infrastructure, and the desire of many customers  
8 to see improvements in the quality of the water they receive, consolidated or cap band rates  
9 would help to minimize rate shock for those systems that would otherwise bear all of those  
10 costs. The primary benefit of consolidated rates for UIF is the ease of administration for  
11 billing and accounting purposes and mitigation of the associated costs.

12 **Q. What are primary concerns associated with UIF's request for consolidated rates?**

13 A. For customers in lower cost systems, consolidated rates will result in a  
14 disproportionate share of the revenue requirements being included in their rates in the short  
15 term, although as previously mentioned, this may be offset in the future if significant capital  
16 improvements are needed in the lower cost systems.

17 **Additional Rate Design Considerations**

18 **Q. Are there changes you would recommend with respect to the utility's proposed**  
19 **inclining block rate structure?**

20 A. Yes. The utility's proposed rates for water service include a base facility charge and a  
21 three-tier gallonage charge, or inclining block rate structure. Although the utility's proposed  
22 rate structure reflects similarities with those of the various existing individual systems, some  
23 of those rates have not been reviewed in more than five years. The utility's MFRs reflect that  
24 the average consumption for most of the systems has declined in the past five years. (Schedule  
25 Nos. F-9 and F-10 of the MFRs) Given those changes, modifications to several aspects of the

1 | proposed rate design may better reflect the UIF residential customer demographics.

2 | **Q. Please summarize the Commission’s past practices with respect to the amount of**  
3 | **revenue allocated to the base facility charges for water and wastewater systems.**

4 | A. Revenue stability is the primary ratemaking goal generally considered in developing  
5 | the portions of the revenue requirement that are allocated to the base facility charges for water  
6 | and wastewater systems. The Commission typically allocates approximately 40 percent of the  
7 | revenue requirement of a water system to the base facility charge. This target was developed  
8 | as a result of a 1991 Memorandum of Understanding the Commission entered into with the  
9 | state’s five water management districts to promote water conservation through rate design. In  
10 | recognition of the capital intensive nature of wastewater utilities, the allocation of revenue to  
11 | the base facility charge is often 50 percent or greater. These allocations are reflected in many  
12 | prior Commission orders (Order No. PSC-15-0282-PAA-WS, in Docket No. 140158-WS; and  
13 | Order No. PSC-16-0525-PAA-WS, in Docket No. 160030-WS).

14 | The base facility charge revenue generally reflects recovery of fixed operating costs,  
15 | including depreciation, property taxes, and operating expenses such as salaries that do not vary  
16 | based on customer consumption. Minimizing increases in the base facility charge can help  
17 | mitigate the impact of a rate increase on customers using minimal amounts of water. In  
18 | addition, the greater the portion of the revenue requirement allocated to the usage or gallonage  
19 | charge, the greater the flexibility in developing multiple tiers and significant price differentials  
20 | among the tiers in order to promote water conservation. However, if a customer base appears  
21 | to be highly seasonal, a higher allocation to the base facility charge can be used to create  
22 | greater revenue stability (Order No. PSC-14-0335-PAA-WS, in Docket No. 130243-WS; and  
23 | Order No. PSC-15-0282-PAA-WS, in Docket No. 140158-WS). Exhibit PBD-1 identifies the  
24 | UIF systems whose customers appear to be seasonal.

25 | UIF’s proposed rates would generate approximately 35 percent and 52 percent of the

1 water and wastewater revenues, respectively, from the consolidated base facility charges.  
2 These allocations are consistent with those approved in prior cases for both UIF systems, as  
3 well as other Florida utilities.

4 **Q. How is a discretionary consumption threshold used in ratemaking?**

5 A. Another ratemaking goal is to minimize, to the extent possible, price increases at lower  
6 monthly consumption levels that reflect non-discretionary consumption. A discretionary  
7 consumption threshold differentiates the amount of water customers might use for essential or  
8 non-discretionary uses, such as cooking, drinking, or washing, as opposed to non-essential or  
9 discretionary uses, such as outdoor irrigation. The estimated non-discretionary consumption  
10 can be used to determine the first tier of an inclining block rate structure. When the  
11 Commission makes a repression adjustment to account for the reduction in consumption  
12 resulting from a price increase, only those gallons sold that are above the discretionary  
13 consumption threshold are adjusted downwards (Order No. PSC-03-1440-FOF-WS, in Docket  
14 No. 020071-WS; and Order Nos. PSC-11-0256-PAA-WS and PSC-12-0102-FOF-WS, in  
15 Docket No. 100330-WS).

16 **Q. How is a discretionary consumption threshold for residential customers typically**  
17 **determined?**

18 A. Discretionary consumption is estimated based on local demographic characteristics.  
19 The number of gallons included in a discretionary consumption threshold for residential  
20 customers is typically estimated based on 50 gallons per person per day for each person in the  
21 household (Order No. PSC-15-0282-PAA-WS, in Docket No. 140158-WS; and Order No.  
22 PSC-16-0256-PAA-WU, in Docket No. 150199-WU). For a household of two, the estimated  
23 non-discretionary consumption would be about 3,000 gallons per month (50 x 2 x 30 days).  
24 Exhibit PBD-1 reflects the estimated household size and average monthly residential  
25 consumption for each of the UIF systems.

1           The discretionary consumption threshold reflected in the final rates should be  
2 evaluated to help mitigate the impact of any increase in revenues on non-discretionary  
3 consumption. The demographics shown on Exhibit PBD-1 indicate that, based on the  
4 household sizes and average consumption of the UIF residential water customers, the  
5 discretionary consumption threshold should be approximately 4,000 to 5,000 gallons per  
6 month.

7 **Q.     How are the number of tiers included in residential water rates and the factors**  
8 **associated with each tier typically determined?**

9 A.     The number of tiers included in residential water rates reflect the usage characteristics  
10 of the customers, although the diversity of the UIF customers presents a challenge. While a  
11 single or uniform gallonage charge will provide a greater pricing signal than a flat water rate  
12 that does not vary based on consumption, multiple tiers (inclining block rates) provide greater  
13 incentives to encourage water conservation.

14           The number of gallons included in each tier can be used to address the varying  
15 household sizes and levels of discretionary consumption that those households appear to be  
16 using. The factors used to develop the relationship in prices among the tiers can provide  
17 pricing signals to customers that are designed to encourage water conservation at higher levels  
18 of consumption. A rate structure with three tiers of gallonage charges recognizes non-  
19 discretionary consumption, as well as discretionary consumption for which a modest pricing  
20 signal can be provided and higher levels of discretionary consumption for which a more  
21 significant pricing signal is desired.

22           UIF's current rate structures include residential water rates with a uniform gallonage  
23 charge for several systems, as well as systems with three and four tiers, with varying relative  
24 factors among the gallonage charges. Whether the final approved rate structure for all UIF  
25 residential water customers is based on individual systems, groups of systems, or all systems

1 combined into a single rate structure, the first tier should reflect that system's or group of  
2 systems' estimated non-discretionary consumption. The gallonage charge for the first tier can  
3 be designed to help mitigate the rate impact on residential, non-discretionary consumption.

4 **Q. How are the gallonage charges typically calculated by the Commission for general**  
5 **service water customers?**

6 A. The general service gallonage charge for water systems reflects an average gallonage  
7 charge based on total customer consumption, as demonstrated in UIF's current rates. Tiered  
8 gallonage charges for general service water customers may not be effective in promoting  
9 water conservation because their consumption is typically inelastic.

10 **Q. How is the number of gallons included in the cap on residential wastewater bills**  
11 **typically determined by the Commission?**

12 A. The number of gallons included in the cap on residential wastewater bills is typically  
13 designed to capture approximately 80 percent of the residential customers' water consumption  
14 in order to recognize that not all water consumption is returned to the wastewater system  
15 (Order No. PSC-15-0282-PAA-WS, in Docket No. 140158-WS; and Order No. PSC-16-0525-  
16 PAA-WS, in Docket No. 160030-WS). The estimated level of non-discretionary water  
17 consumption may also be used as an indicator of the amount of water returned to the  
18 wastewater system. A higher gallonage cap will result in more gallons included in the  
19 calculation of the residential wastewater gallonage charge (and a lower gallonage charge) than  
20 a lower gallonage cap.

21 Currently, UIF's wastewater systems have caps on residential wastewater bills at  
22 6,000, 8,000, and 10,000 gallons per month, which are typical increments for wastewater  
23 systems. The UIF proposed cap for the consolidated wastewater rates is 8,000 gallons per  
24 month.

25

1 **Q. How are the gallonage charges calculated for wastewater customers?**

2 A. Wastewater gallonage charges are typically developed by the Commission based on all  
3 residential water consumption within the cap and all of the general service water consumption.  
4 The general service gallonage charge is typically 20 percent greater than the residential  
5 gallonage charge to reflect the higher potential strength of the wastewater typical of some  
6 general service customers (Order No. PSC-15-0282-PAA-WS, in Docket No. 140158-WS;  
7 and Order No. PSC-16-0525-PAA-WS, in Docket No. 160030-WS).

8 **Q. How should rates be designed for wastewater customers for which water**  
9 **consumption data is not available?**

10 A. Commission practice has been to develop a flat rate for wastewater customers for  
11 whom water consumption data is not available because the customer either has a private well  
12 or receives water from a utility other than the wastewater provider (Order No. PSC-15-0233-  
13 PAA-WS, in Docket No. 140060-WS; and Order No. PSC-15-0282-PAA-WS, in Docket No.  
14 140158-WS). If water consumption data is available for a portion of the customers, a flat rate  
15 is designed to reflect the metered residential wastewater rate and the average number of  
16 gallons the metered residential customers use.

17 UIF provides unmetered wastewater service to 600 homes in the Sanlando service  
18 territory, approximately 1,500 customers in the Longwood service territory in Seminole  
19 County, approximately 900 homes in the Eagle Ridge Cross Creek HOA in Lee County, 1,000  
20 customers of Mid-County and Tierra Verde in Pinellas County, and a few homes on private  
21 wells in the Lake Placid service area in Highland County and the Orangewood service area in  
22 Pasco County. The extent to which systems may be consolidated for final rates should be used  
23 as the basis to determine whether the final flat rates for those systems should be based on the  
24 average consumption for individual systems or a group of systems.

25

1 **Q. Are there other proposed wastewater rates that should be evaluated?**

2 A. Yes. The Lake Placid wastewater system in Highlands County serves a mobile home  
3 park which relies on a private well for water service to approximately 71 homes. A base  
4 facility charge was designed for that customer in prior Commission orders (Order No. PSC-  
5 11-0015-PAA-WS, in Docket No. 090531-WS; and Order No. PSC-14-0335-PAA-WS, in  
6 Docket No. 130243-WS) to reflect the estimated demand that customer places on the  
7 wastewater system with a discount to reflect cost savings associated with billing the  
8 homeowners' association instead of the individual customers. According to the utility's billing  
9 data (MFR Schedule E-2), the average demand per homeowner in the mobile home park  
10 appears to be similar to the average demand for other residential wastewater customers. In  
11 addition, a discounted general service gallonage charge was previously approved to reflect that  
12 the customer owns and maintains the lift stations. Therefore, the rates for this customer  
13 should be evaluated to determine whether they continue to reflect the criteria approved in the  
14 prior orders.

15 **Q. Please summarize the Commission's past practices with respect to repression**  
16 **adjustments.**

17 A. The Commission typically estimates the rate at which residential customers will reduce  
18 their water consumption in response to an increase in price, elasticity of demand, at four  
19 percent of discretionary consumption for every 10 percent increase in price. In some instances,  
20 the Commission has used a lower price elasticity assumption or made no repression  
21 adjustment when little or no reduction in demand was anticipated. This practice has developed  
22 primarily through its application in staff assisted rate cases with small, homogeneous customer  
23 bases. In contrast, the UIF customer base is diverse in both demographic and geographic  
24 characteristics. Some of the systems provide both water and wastewater service, while other  
25 systems provide only one of the services.



1 A repression adjustment is typically not applied to non-discretionary residential  
2 consumption in recognition of the relative inelasticity of non-discretionary consumption  
3 (Order No. PSC-03-1440-FOF-WS, in Docket 020071-WS; and Order Nos. PSC-11-0256-  
4 PAA-WS and PSC-12-0102-FOF-WS, in Docket No. 100330-WS). In addition, a repression  
5 adjustment is typically not made for general service customer consumption because there is an  
6 expectation that those customers will pass the cost of water service on to their customers  
7 rather than reduce water usage in response to a price increase.

8 It is far more difficult to determine whether and to what extent a repression adjustment  
9 should be made for wastewater systems. A change in wastewater rates often has far less  
10 impact on a customer's reaction to pricing signals than a change in water rates. Some  
11 customers may not realize that their wastewater rates are based on water consumption, even if  
12 the water and wastewater services are provided by the same company. If the water provider  
13 does not also provide the wastewater service, there is even more of a disconnect for customers.

14 Because a repression adjustment results in an increase in the final rates, a lower  
15 elasticity of demand assumption would help to mitigate the impact of a rate increase.  
16 However, if actual repression is greater than expected, the company may not achieve its  
17 authorized revenues.

#### 18 **Service Availability Charges**

19 **Q. Should the utility's existing service availability charges be evaluated?**

20 A. Yes. The utility's existing service availability charges should be evaluated to  
21 determine whether the utility's contribution level for each of its systems is consistent with the  
22 Commission's guidelines with respect to service availability charges.

23 **Q. What is the purpose of contributions in aid of construction?**

24 A. Contributions in aid of construction (CIAC) provide a mechanism for utilities to  
25 recover a portion of their investment as customers connect to the system. The CIAC also

1 reduces the investment on which the utility may earn a return. Rule 25-30.580, F.A.C., is a  
2 guideline that provides that, at a minimum, customers should pay for the cost of the utility's  
3 distribution and collection systems. Further, the rule provides that the maximum contribution  
4 level should not exceed 75 percent of the utility's investment at design capacity.  
5 CIAC may be collected in the form of donated property or service availability charges. A  
6 main extension charge is a service availability charge designed to reflect the average cost per  
7 customer of the utility's distribution or collection systems. A few UIF systems have a  
8 customer connection charge, which is designed to recover the cost to connect a customer's  
9 property to the utility's distribution or collection system, although for most utilities, that cost  
10 is included in the main extension charge. A plant capacity charge represents a portion of the  
11 cost of the production, treatment, and disposal systems. In some instances, a system may have  
12 a system capacity charge that incorporates the main extension and plant capacity charge.  
13 However, in those instances when a developer constructs and donates lines to a utility,  
14 collection of a system capacity charge would result in an over collection of CIAC from that  
15 developer.

16 **Q. Should the UIF water and wastewater service availability charges be evaluated?**

17 A. While UIF did not request a change in its service availability policy or charges in its  
18 MFRs, staff routinely reviews utility contribution levels in rate cases to ensure that the level  
19 falls within the range indicated in the Commission's guidelines. According to the utility's  
20 MFRs, Schedule A-2, the water systems are approximately 25 percent contributed and the  
21 wastewater systems are approximately 22 percent contributed. The utility's distribution and  
22 collection systems represent about 47 percent and 30 percent of the water and wastewater  
23 systems' investments, respectively.

24 Each UIF water and wastewater system has its own unique service availability charges  
25 that were designed over many years. Some of the UIF systems are built out and, in some

1 instances, the distribution and collection lines were fully contributed to the utility when the  
2 service area was developed. However, for systems experiencing growth, additional CIAC can  
3 help mitigate the utility's investment in that system as new customers connect.

4 Policies regarding service availability should compliment rate structure policies. If the  
5 Commission approves stand alone or modified stand alone rates, service availability charges  
6 should be evaluated on an individual system basis as well. However, if the Commission moves  
7 toward consolidated or cap band rates, the utility's service availability charges could be  
8 evaluated system by system or on a consolidated basis. System specific service availability  
9 charges would allow the Commission to approve higher charges for high cost systems that are  
10 experiencing customer growth, which would, over time, reduce the relative cost per customer  
11 for those systems closer to the utility's overall average cost.

12 **Q. What is the purpose of guaranteed revenue charges?**

13 A. Guaranteed revenue charges are service availability charges that are designed to  
14 recover the utility's cost of operation, maintenance, depreciation, property taxes, and a return  
15 on investment for assets that are not used and useful. The charges, which are paid by a land  
16 owner seeking to reserve utility capacity prior to connecting to the utility's water or  
17 wastewater system, typically reflect the utility's approved base facility charge for residential  
18 customers (Order No. PSC-99-2114-PAA-SU, in Docket No. 981221-SU).

19 **Q. Should the utility's guaranteed revenue charge for the Sandalhaven system be**  
20 **revised?**

21 A. The utility's guaranteed revenue charge for the Sandalhaven wastewater system was  
22 approved in Docket No. 130053-SU, following Charlotte County transferring jurisdiction over  
23 privately owned water and wastewater utilities to the Commission (Order No. PSC-13-0178-  
24 SU, in Docket No. 130053-SU); the charge was revised in a subsequent rate case (Order No.  
25 PSC-16-0013-PAA-SU, in Docket No. 150102-SU). However, while the approved guaranteed

1 revenue charge is similar to the approved base facility charge, it is not the same charge.  
2 Therefore, consistent with prior Commission practice, a final guaranteed revenue charge  
3 should be consistent with the final approved based facility charge for the Sandalhaven  
4 residential customers.

5 **Q. What is the purpose of allowance for funds prudently invested charges?**

6 A. An allowance for funds prudently invested (AFPI) charge is a service availability  
7 charge that allows a utility to recover costs associated with utility assets that have been  
8 constructed, but are not included in the utility's approved revenue requirement and, therefore,  
9 are not passed on to the general body of ratepayers. The charges are typically allowed to  
10 accrue for five years from the date they are approved. While the costs are capped at the end of  
11 the five year accrual period, Rule 25-30.434(6), F.A.C., provides that the utility can continue  
12 to collect the constant charge from future connections until all connections projected in the  
13 calculation have been added.

14 **Q. Should the utility's AFPI charges be revised?**

15 A. No, but they should be clarified. The utility's current tariff contains AFPI charges for  
16 water service for LUSI and for wastewater service for Longwood, LUSI, and Sandalhaven  
17 (Order No. 20779, in Docket No. 871059-SU; Order No. 24283 in Docket No. 900957-WS;  
18 Order Nos. PSC-97-0531-FOF-WU and PSC-99-0635-FOF-WU, in Docket 960444-WU; and  
19 Order No. PSC-13-0178-FOF-SU, in Docket No. 130053-SU). While the charges should not  
20 be changed, some of the tariffs should be clarified as to the number of future connections to  
21 which the charges apply.

22 **Reuse Rates**

23 **Q. Please summarize the Commission's past practices with respect to pricing**  
24 **reclaimed water.**

25 A. In prior Commission orders, rates for reclaimed wastewater or reuse have reflected the

1 utility's options for disposal. If the cost of effluent disposal is prohibitive, typically as a result  
2 of limited access to affordable land, providing reclaimed water for irrigation often provides a  
3 cost effective disposal alternative. UIF provides reclaimed water to golf courses and other  
4 bulk customers in several of its wastewater service areas at no charge or at a nominal charge  
5 (Order No. PSC-03-0647-PAA-WS, in Docket No. 020407-WS; and Order No. PSC-15-0233-  
6 PAA-WS, in Docket No. 140060-WS). In addition, UIF provides reuse to approximately 600  
7 residential customers in its LUSI service area and approximately 100 residential customers in  
8 its Sanlando service territory. The current residential reuse rates were approved in Docket  
9 Nos. 100426-WS and 140060-WS (Order No. PSC-11-0514-PAA-WS, in Docket No. 100426-  
10 WS; and Order No. PSC-15-0233-PAA-WS, in Docket No. 140060-WS). The utility also has  
11 an approved reuse rate for its Pennbrooke wastewater system, but no reuse revenues were  
12 generated for that system during the test year.

13           The utility proposed a uniform reuse rate for the residential customers in the LUSI and  
14 Sanlando service areas that receive that service. However, in prior Commission decisions,  
15 reuse has been priced in recognition of the rates charged by other reuse providers in the area.  
16 In Docket No. 991643-SU, the Commission identified the Department of Environmental  
17 Protection's Reuse Inventory Report (<http://www.dep.state.fl.us/water/reuse/inventory.htm>) as  
18 the source for rates charged by reuse providers in the Aloha area (Order No. PSC-01-0326-  
19 FOF-SU, in Docket 991643-SU). Reuse is also priced substantially lower than potable water  
20 to encourage the use of reclaimed water instead of potable water for irrigation. If the  
21 Commission does not approve the utility's proposed rates for reclaimed water, the 2015  
22 Department of Environmental Protection Reuse Inventory Report could be used to identify the  
23 rates for reclaimed water provided near those systems.

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1 **Conclusion**

2 **Q. Do you have any concluding remarks?**

3 A. Yes. The utility's proposed consolidated water and wastewater rates provide some  
4 benefits to both the utility and its customers. Both consolidated rates, as proposed by the  
5 utility, and cap band rates can mitigate the impact of cost increases associated with additional  
6 utility investment in response to aging infrastructure repair or replacement or other quality of  
7 service issues. However, the long-term advantages of any consolidation must be balanced  
8 against the resulting subsidies that customers would share. Ultimately, the final revenue  
9 requirements for the individual UIF water and wastewater systems should reflect the prudent  
10 costs of providing those services, and the extent to which systems may be grouped should  
11 address potential subsidies. Whether the final rates are based on stand alone, consolidated, or  
12 some other grouping of systems, the diversity of the UIF customer base should influence the  
13 ways in which revenue stability and pricing signals are developed. This concludes my  
14 testimony.

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<b>UIF Residential Water and Wastewater Customer Demographics</b>				
<b>Systems</b>	<b>Residential Customers</b>	<b>Average Monthly Residential Consumption<sup>1</sup></b>	<b>Average Household Size</b>	<b>Seasonality Percentage<sup>2</sup></b>
LUSI	10,118	10,343	2.54	5%
Sanlando	9,662	15,601	2.58	3%
UIF - Seminole	2,567	5,304	2.58	5%
Mid-County	2,063	10,572	2.04	4%
Orangewood	1,682	2,735	2.13	24%
Eagle Ridge	1,667	6,274	2.38	8%
Longwood	1,549	N/A	2.58	N/A
Cypress Lakes	1,497	2,293	2.23	20%
Pennbrooke	1,228	7,190	2.20	8%
Summertree	1,172	1,876	2.04	25%
Tierre Verde	943	N/A	2.25	N/A
Labrador	895	1,290	2.10	38%
Sandalhaven	793	2,116	1.86	37%
UIF - Pinellas	500	1,884	2.24	28%
UIF - Marion	491	7,031	2.37	12%
UIF - Orange	310	5,600	2.54	4%
Lake Placid	113	1,628	2.57	38%

Source: MFR Schedules E-3 and E-14 and the U. S. Census Bureau FactFinder website.

<sup>1</sup> Excludes flat rate wastewater consumption.

<sup>2</sup> Seasonality percentage is based on the number of zero gallon bills reflected in the billing analysis for each system.

<b>Residential Water Bill Comparison Based on 7,000 Gallons per Month</b>				
<b>System</b>	<b>Current Bill</b>	<b>Bill at Stand Alone Rate</b>	<b>Bill at Proposed Consolidated Rate</b>	<b>Subsidy Paid (Received)</b>
<b>Sanlando</b>	\$11.62	\$11.59	\$25.33	\$13.74
<b>LUSI</b>	\$26.87	\$27.08	\$25.33	(\$1.75)
<b>Pennbrooke</b>	\$18.82	\$27.23	\$25.33	(\$1.90)
<b>UIF - Marion</b>	\$25.20	\$33.56	\$25.33	(\$8.23)
<b>Cypress Lakes</b>	\$43.34	\$40.24	\$25.33	(\$14.91)
<b>Summertree</b>	\$52.97	\$64.98	\$25.33	(\$39.65)
<b>Orangewood</b>	\$55.90	\$68.57	\$25.33	(\$43.24)
<b>Lake Placid</b>	\$63.33	\$75.87	\$25.33	(\$50.54)
<b>UIF - Seminole</b>	\$34.78	\$90.66	\$25.33	(\$65.33)
<b>Labarador</b>	\$74.52	\$90.92	\$25.33	(\$65.59)
<b>UIF - Orange</b>	\$32.89	\$107.41	\$25.33	(\$82.08)
<b>UIF – Pinellas</b>	\$56.38	\$117.50	\$25.33	(\$92.17)

Source: Staff calculations based on current rates, as well as the stand alone rates in the utility's MFRs, Schedule E-1 for each system and proposed consolidated rates.



<b>Residential Wastewater Bill Comparison Based on 6,000 Gallons per Month</b>				
<b>System</b>	<b>Current Bill</b>	<b>Bill at Stand Alone Rate</b>	<b>Bill at Proposed Consolidated Rate</b>	<b>Subsidy Paid (Received)</b>
<b>Pennbrooke</b>	\$42.22	\$39.94	\$54.93	\$14.99
<b>Sanlando</b>	\$26.53	\$42.10	\$54.93	\$12.83
<b>Mid-County</b>	\$36.20	\$45.79	\$54.93	\$9.14
<b>Lake Placid</b>	\$45.51	\$57.36	\$54.93	(\$2.43)
<b>Longwood<sup>1</sup></b>	\$37.26	\$38.85	\$35.66	(\$3.19)
<b>UIF - Seminole</b>	\$61.75	\$59.78	\$54.93	(\$4.85)
<b>LUSI</b>	\$48.65	\$60.13	\$54.93	(\$5.20)
<b>Eagle Ridge</b>	\$56.75	\$60.81	\$54.93	(\$5.88)
<b>Orangewood</b>	\$52.98	\$66.93	\$54.93	(\$14.00)
<b>Cypress Lakes</b>	\$63.48	\$72.16	\$54.93	(\$17.23)
<b>Tierre Verde<sup>2</sup></b>	\$48.65	\$53.91	\$35.66	(\$18.25)
<b>UIF - Marion</b>	\$43.29	\$77.57	\$54.93	(\$22.64)
<b>Summertree</b>	\$77.01	\$100.19	\$54.93	(\$45.26)
<b>Labrador</b>	\$143.99	\$139.24	\$54.93	(\$84.31)
<b>Sandalhaven</b>	\$138.09	\$185.08	\$54.93	(\$130.15)

Source: Staff calculations based on current rates, as well as the stand alone rates in the utility's MFRs, Schedule E-1 for each system and the proposed consolidated rates.

<sup>1</sup> All residential wastewater customers in the Longwood system in Seminole County have flat rates.

<sup>2</sup> All residential wastewater customers in the Tierre Verde system in Pinellas County have flat rates.