

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for increase in water and wastewater rates in Alachua, Brevard, DeSoto, Highlands, Lake, Lee, Marion, Orange, Palm Beach, Pasco, Polk, Putnam, Seminole, Sumter, Volusia, and Washington Counties by Aqua Utilities Florida, Inc.

DOCKET NO. 080121-WS

FILED: OCTOBER 27, 2008

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the Direct Testimony of Paul W. Stallcup, on behalf of the Florida Public Service Commission, has been furnished by electronic mail and hand delivery, on this 27<sup>th</sup> day of October, 2008, to the following:

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FPSC-COMMISSION CLERK

DOCKET NO.: 080121-WS - Application for increase in water and wastewater rates in Alachua, Brevard, Highlands, Lake, Lee, Marion, Orange, Palm Beach, Pasco, Polk, Putnam, Seminole, Sumter, Volusia and Washington Counties by Aqua Utilities Florida, Inc.

WITNESS: Direct Testimony of Paul W. Stallcup,  
Appearing on Behalf of the Staff of the Florida Public Service Commission.

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FPSC-COMMISSION CLERK

1 Q. Would you please state your name and business address?

2 A. My name is Paul W. Stallcup. My business address is 2540 Shumard Oak Boulevard,  
3 Tallahassee, Florida, 32399.

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

5 A. I am employed by the Florida Public Service Commission as the Supervisor of the  
6 Economics and Tariffs Section of the Division of Economic Regulation.

7 Q. Would you please summarize your educational and professional experience?

8 A. I graduated from Florida State University in 1977 with a Bachelor of Science degree in  
9 Economics with minors in Mathematics and Statistics. I received my Masters of Science  
10 Degree in Economics from Florida State University in 1979 and, as a Ph.D. candidate,  
11 completed the course work and doctoral examinations required for that degree in 1980.

12 In 1981, I was employed by Florida Power & Light Company as a Load Forecast  
13 Analyst. In this capacity, I prepared short and long term forecasts of company sales, peak  
14 demand, and customer growth. In 1983, I was employed by the Florida Public Service  
15 Commission as an Economic Analyst and in 1991 was promoted to my current position. In  
16 this capacity, I have analyzed and made recommendations on a variety of issues in all of the  
17 industries regulated by the Commission.

18 Q. Have you previously testified before the Florida Public Service Commission?

19 A. Yes. In 1983, I testified on behalf of the Commission staff in the Florida Power &  
20 Light Company rate case (Docket No. 830465-EI). In 1997, I testified on behalf of the staff in  
21 Florida Power Corporation's proposed buy-out of Orlando Cogen Limited's energy contract  
22 (Docket 961184-EQ). In 2000, I provided testimony in Aloha Utilities' wastewater rate case  
23 (Docket No. 991643-SU) and in BellSouth's Permanent Performance Measures case (Docket  
24 No. 000121-TP). In 2001, I provided testimony in Aloha Utilities' water rate case (Docket  
25 No. 010503-WU), and in 2007, I filed testimony in Aqua Utilities water and wastewater

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1 systems rate case (Docket No. 060368-WS).

2 Q. What is the purpose of your testimony?

3 A. The purpose of my testimony is to discuss four issues relevant to this case. First, I will  
4 discuss whether I believe it would be appropriate to adopt the repression methodology  
5 proposed by Aqua Utilities Florida, Inc. (AUF or company) or witnesses Franceski and  
6 Smeltzer. Second, I will discuss why I believe it would be appropriate to implement a three-  
7 tiered inclining block rate structure for the utility's residential class instead of the proposed  
8 two-tiered rate structure. Third, I will discuss two potential drawbacks to the utility's proposal  
9 to consolidate rates. Finally, I will discuss the utility's proposed methodologies to consolidate  
10 rates and offer two alternative rate consolidation methodologies.

11 Repression

12 Q. Please summarize the utility's proposed repression methodology.

13 A. According to the direct testimony of utility witnesses Franceski and Smeltzer, the  
14 utility's proposal consists of two key elements. The first element is that the customer response  
15 rate to increasing prices (i.e. the price elasticity of demand for discretionary usage) should be  
16 set at a two percent reduction in discretionary usage per ten percent increase in price. The  
17 second element is that the threshold defining where discretionary water usage begins should  
18 be set at 5,000 gallons per month.

19 Q. Do you believe using a customer response rate, or price elasticity of demand, of a two  
20 percent reduction in discretionary usage per ten percent increase in price is appropriate?

21 A. Ordinarily I would say that this proposed response rate is too low. Based on staff's  
22 analysis of the customer response rates in prior rate cases, we have found that the average  
23 customer response rate is approximately a four percent reduction in discretionary usage for  
24 every ten percent increase in price. I, therefore, believe that using a price elasticity of demand  
25 of  $-.40$  would provide a better estimate of how AUF's customers will react to an increase in

1 rates. However, in this case, utility witness Smeltzer states that the company is willing to  
2 accept a lower elasticity of -.20 in order to lessen affordability concerns that could adversely  
3 affect its proposal to consolidate rates. I, therefore, see the utility's willingness to accept this  
4 lower response rate as a business decision taken to help achieve the goal of rate consolidation.  
5 Given this business decision willingly taken by the utility, I would recommend that, in this  
6 case, the Commission adopt the utility's proposed value of -.20 for the price elasticity of  
7 demand for discretionary usage.

8 Q. What is the discretionary usage threshold and why is it important?

9 A. The discretionary usage threshold is a level of monthly water usage that differentiates  
10 between essential, or non-discretionary, water consumption (i.e. indoor uses such as cooking,  
11 drinking, washing, etc.) and non-essential, or discretionary, usage (i.e. outdoor irrigation).  
12 This differentiation between essential and non-essential consumption is important because  
13 customers will reduce their non-essential consumption in response to an increase in price,  
14 while essential consumption is relatively unresponsive to changes in price. When a repression  
15 adjustment is made to account for the reduction in consumption resulting from a price  
16 increase, only those gallons sold that are above the discretionary threshold are adjusted  
17 downwards.

18 Q. Do you believe that the utility's proposal of using 5,000 gallons per month as a  
19 threshold for defining discretionary usage is appropriate in this case?

20 A. Yes, I believe that 5,000 gallons per month is appropriate, but for reasons other than  
21 those presented in utility witness Smeltzer's testimony.

22 Q. Why do you believe that 5,000 gallons per month is an appropriate value for  
23 differentiating between non-discretionary and discretionary usage?

24 A. The appropriate value for the discretionary usage threshold depends upon the  
25 demographics of the service territory in question. For example, in a retirement community

1 with an average of only two people per household, I would recommend that the appropriate  
2 threshold be set at 3,000 gallons per month (two people x 50 gallons per day per person x 30  
3 days). In a suburban area populated by families with children, I would recommend that the  
4 threshold be set at a higher level of usage of 7,000 gallons per month (4 people x 50 gallons  
5 per day per person x 30 days plus an additional 1,000 gallons per month to account for the  
6 extra cooking and washing required when children are in the home). In the case of AUF, the  
7 individual systems served by AUF include both small retirement communities and suburban  
8 systems. I believe that setting the discretionary usage threshold at 5,000 gallons per month  
9 represents a reasonable 'middle ground' between the smaller retirement communities and the  
10 larger suburban areas served by AUF. Furthermore, as I will discuss in the 'Rate Structure'  
11 portion of my testimony, any adverse effects that may be felt by suburban customers with a  
12 discretionary usage threshold greater than 5,000 gallons per month can be mitigated by an  
13 appropriate selection of an inclining block rate structure. Therefore, I recommend that the  
14 Commission adopt a discretionary usage threshold of 5,000 gallons per month.

15 Q. How does your support for the use of 5,000 gallons per month as the appropriate value  
16 for the discretionary usage threshold differ from AUF's proposal.

17 A. According to the direct testimony of utility witness Smeltzer, the utility proposed using  
18 5,000 gallons per month because the utility claims AUF's average statewide residential usage  
19 is approximately 5,000 gallons per month. While I don't necessarily agree that this is a  
20 sufficient rationale for selecting the discretionary usage threshold, I do not agree that 5,000  
21 gallons per month is the correct value for average statewide residential usage.

22 To calculate average residential water consumption, all that is required is to simply add  
23 up residential water usage for the 57 systems and divide by the total number of corresponding  
24 residential bills. Using this methodology and the billing data contained in the utility's  
25 Minimum Filing Requirements (MFRs), I calculate that the average statewide residential

1 water usage for the AUF systems is approximately 7,000 gallons per month. These  
2 calculations, along with other system statistics, are shown in Exhibit PWS-1.

3 Q. Why is it important to correctly calculate average statewide residential usage?

4 A. Average statewide residential usage is used in the calculation of the subsidies that can  
5 result from rate consolidation. In order to correctly measure these subsidies and determine the  
6 extent to which rate consolidation is appropriate, it is necessary to utilize the correct level of  
7 average statewide residential usage.

8 Rate Structure

9 Q. Please summarize the utility's proposed water system rate structure.

10 A. The utility has proposed a two-tiered inclining block rate structure that would be  
11 applied to its consolidated water system's residential rate class. The rate in the first block  
12 would apply to usage between 0 and 5,000 gallons per month and the rate in the second block  
13 would apply to all usage above 5,000 gallons per month. The utility also proposes that the rate  
14 factor for the second block be set at 1.25, meaning that the rate in the second block would be  
15 only 25 percent higher than the rate in the first block.

16 Q. Do you believe that the utility's proposed rate structure is appropriate?

17 A. No. Based on the aggregated billing analysis data derived from the utility's MFRs, as  
18 well as the testimony of the witnesses from the Water Management Districts, I would  
19 recommend a three-tiered inclining block rate structure with usage blocks for monthly  
20 consumption of 0 to 5,000 gallons, 5,001 to 10,000 gallons, and all usage above 10,000  
21 gallons. I would also recommend more aggressive rate factors of 1.0, 1.25, and 3.0,  
22 respectively.

23 Q. Why do you believe that a three-tiered rate structure is more appropriate than the  
24 utility's proposed two-tiered rate structure?

25 A. I believe that a three-tiered rate structure is better suited to address the demographic

1 diversity of the individual systems served by AUF. As I mentioned earlier in my testimony,  
2 the individual systems served by AUF include very small retirement communities with modest  
3 levels of consumptions, as well as relatively large suburban areas with more extravagant levels  
4 of consumption. When a rate structure is being designed, one goal is to insulate, to the extent  
5 possible, those consumers who are already conserving from higher rates designed to promote  
6 conservation. Another goal is to focus price-induced conservation only on those consumers  
7 who have high levels of discretionary usage. If AUF's individual systems were all smaller  
8 retirement communities, or all suburban areas, then it would be possible to design a two-tiered  
9 rate structure capable of addressing these two goals. However, with the diversity of the  
10 service areas discussed above, I believe that a three-tiered rate structure provides the needed  
11 flexibility to design rates capable of achieving the two desired goals for both the small systems  
12 serving the retirement communities as well as the larger suburban systems.

13 Q. Please explain why you believe that your particular recommended rate design of a  
14 three-tiered rate structure with tiers from 0 to 5,000 gallons, 5,001 to 10,000 gallons, and all  
15 gallons above 10,000, and with the associated rate factors of 1.0, 1.25, and 3.0, is appropriate  
16 for AUF's combined service areas.

17 A. I believe that my recommended rate structure satisfies the two goals of minimizing the  
18 rate impact on all residential customers who are already conserving while focusing price  
19 increases on those customers who are using greater quantities of water. As I discussed earlier  
20 in my testimony, the individual systems served by AUF include both small retirement  
21 communities and suburban systems. The first tier of my recommended rate structure (0 to  
22 5,000 gallons) is designed to target the smaller retirement communities with essential usage of  
23 around 3,000 gallons per month. The second tier of my recommended rate structure (5,001 to  
24 10,000 gallons) is designed to target family oriented suburban systems with essential usage  
25 around 7,000 gallons per month. The third tier (all usage above 10,000 gallons) is designed to



1 include only non-essential usage. The rate factors of 1.0 for the first tier, 1.25 for the second  
2 tier, and 3.0 for the third tier were selected to help insulate customers with usage in the first  
3 and second tiers from higher prices, while concentrating higher prices in the third tier. The  
4 bill impact on customers at various levels of usage for both my recommended rate structure  
5 and the utility's proposed rate structure are shown graphically in Exhibit PWS-2.

6 Q. How does your recommended rate structure compare to AUF's proposed rate structure  
7 given the two goals of lower rate impacts on customers who are already conserving while  
8 focusing higher rates on customers who use greater quantities of water?

9 A. As can be seen in Exhibit PWS-2, my recommended rate structure results in lower bills  
10 for all customers in the first and second tiers. At the level of average residential usage of  
11 7,000 gallons per month, the customer bill resulting from my recommended rate structure is  
12 approximately 15 percent lower than the bill that would result from the utility's proposed rate  
13 structure. At 10,000 gallons per month, the differential increases to nearly 18 percent. As  
14 usage increases, the differential declines until at approximately 13,000 gallons per month the  
15 two rate structures generate bills of equal size. Beyond 13,000 gallons, my recommended rate  
16 structure results in bills that are progressively higher than the utility's proposal. At 20,000  
17 gallons per month, my rate structure results in bills that are 26 percent greater than the bills  
18 resulting from the utility's proposal.

19 Q. What information did you use to calculate the bill amounts shown on Exhibit PWS-2?

20 A. The information I used to calculate the bill amounts shown in Exhibit PWS-2 was  
21 taken from the utility's MFRs. The total residential revenue the bills are designed to generate  
22 was calculated by adding together the utility's requested revenues contained in MFR Schedule  
23 E-2 for the 57 water systems. The billing determinants (i.e. bills and gallons) were generated  
24 by summing the billing data contained in the MFR Schedule E-14 for the same 57 water  
25 systems. Both rate structures use a Base Facility Charge (BFC) allocation factor of 40

1 percent, which means that 40 percent of the total residential revenues are generated through  
2 the BFC while the remaining 60 percent is generated through the gallonage charge. A  
3 repression adjustment was made to both sets of rates using the utility's proposed repression  
4 methodology.

5 Q. Do you believe that the bill differentials shown in Exhibit PWS-2 are good  
6 approximations of what the final rates will generate?

7 A. Yes. I believe that these differentials, expressed as percentages, are a good  
8 approximation of how final customer bills would differ under the two competing rate  
9 structures. Even if the Commission approves a revenue requirement substantially less than the  
10 utility's proposed revenue requirement, the customer bills under both rate structures would  
11 decline by roughly the same proportion. This would result in the differentials, expressed as a  
12 percentage, remaining essentially unchanged. Therefore, I believe that the differentials  
13 presented in Exhibit PWS-2 are a good approximation of how the two competing rate  
14 structures would ultimately affect customers' bills.

15 Q. Did you evaluate any other rate structures before selecting your recommended rate  
16 structure?

17 A. Yes. In addition to my recommended rate structure, I evaluated two other alternative  
18 three-tiered rate structures. Both alternative rate structures use the same 0 to 5,000 gallons,  
19 5,001 to 10,000 gallons, and over 10,001 gallons usage blocks, but differ in the rate factor  
20 used in the third block. The first rate structure uses a relatively "mild" rate factor of 2.00 for  
21 the third tier (meaning the price in the third tier is twice as large as the price in the first tier).  
22 The other rate structure uses a relatively "hot" rate factor of 4.00 for the third tier (meaning  
23 that the price in the third tier is four times as large as the price in the first tier). This compares  
24 to the relatively "medium" rate factor of 3.00 used in my recommended rate structure. The  
25 effect of these three rate structures on customer bills is shown graphically in Exhibit PWS-3.

1 Q. Please summarize AUF's proposed wastewater system rate structure.

2 A. AUF has proposed consolidating the 25 stand-alone wastewater systems into a single  
3 state-wide consolidated rate with a BFC/uniform gallonage rate structure.

4 Q. Do you believe that AUF's proposal to consolidate rates for its wastewater systems is  
5 appropriate?

6 A. In general, I believe that rate consolidation for the wastewater systems will provide the  
7 same customer benefits that I described earlier for the water systems. However, I would  
8 recommend that the same caveats regarding cross-subsidies and affordability be applied to the  
9 wastewater systems as well.

10 Q. Please explain the methodology typically used by the Commission when designing  
11 wastewater rates.

12 A. The Commission typically attempts to achieve two rate design goals when designing  
13 wastewater rates. One goal, in recognition of the capital intensive nature of wastewater plants,  
14 is to set the BFC cost recovery percentage to 50 percent or greater. The other goal is to set the  
15 residential wastewater gallonage cap at a consumption level equal to 80 percent of the total  
16 number of residential gallons sold. This latter goal is based upon the presumption that 80  
17 percent of all water sold to customers is returned to the wastewater system, with the remaining  
18 20 percent being used for outdoor purposes like irrigation.

19 Q. Do you believe that using the 80 percent criteria for setting the wastewater gallonage  
20 cap is appropriate in this case?

21 A. No. Using the 80 percent criteria in this case would result in a wastewater gallonage  
22 cap of 12,000 gallons per month. This would imply that, on average, AUF's customers would  
23 use 12,000 gallons per month just for indoor purposes such as cooking, washing, etc., and only  
24 those gallons sold above 12,000 gallons per month would be used for outdoor purposes. As I  
25 described earlier in my testimony, I believe that the appropriate threshold for distinguishing

1 between indoor and outdoor uses ranges from 3,000 gallons per month for retirement  
2 communities up to 7,000 gallons per month for suburban communities. Averaging these  
3 together led to my recommended discretionary usage threshold for the water systems of 5,000  
4 gallons per month. Ordinarily, given this 5,000 gallon per month threshold, I would  
5 recommend that the wastewater gallonage cap be set at 5,000 gallons as well (implying that  
6 roughly 60 percent of all water sold is used for indoor purposes and 40 percent used for  
7 outdoor purposes). However, given the extraordinarily high stand-alone wastewater rates that  
8 customers may face, I recommend that the wastewater gallonage cap be set at 6,000 gallons  
9 per month. This will allow the gallonage portion of the wastewater cost-recovery to be spread  
10 over more gallons thereby reducing the gallonage rate. In turn, the lower gallonage rate will  
11 help address affordability concerns by reducing wastewater bills for those customers  
12 consuming less than 6,000 gallons per month.

13 Potential Drawbacks to Rate Consolidation

14 Q. Have you read the direct testimony of utility witness Smeltzer and his representation of  
15 the benefits of rate consolidation?

16 A. Yes.

17 Q. Do you agree with Witness Smeltzer's assessment that consolidating the stand-alone  
18 system rates into a single tariff applicable to all systems is beneficial to customers?

19 A. As a general proposition, I agree with Witness Smeltzer that combining smaller stand-  
20 alone systems into a larger single entity can be beneficial to customers. The most important  
21 benefit that I see in this case is that the cost of system upgrades can be spread over a larger  
22 number of customers thereby mitigating the dramatic increases in rates that can impact  
23 customers of smaller stand-alone systems.

24 Q. Are there any potential drawbacks for customers resulting from rate consolidation?

25 A. Yes, there are two potential drawbacks. The first drawback concerns the

1 Commission's ability to target conservation initiatives on an individual system after rate  
2 consolidation has occurred, and the second involves the possible creation of excessive cross-  
3 subsidies between customer groups.

4 Q. Please explain how rate consolidation could inhibit the Commission's ability to target  
5 conservation initiatives on individual systems.

6 A. The Commission's Memorandum of Understanding (MOU) with the state's five water  
7 management districts pledges that the Commission will cooperate with the districts in  
8 implementing water conservation programs. In the MOU, the districts are recognized as  
9 having the necessary expertise to identify systems for which water conservation programs are  
10 appropriate, and the Commission is recognized as having the expertise to ensure cost recovery  
11 of any mandated programs and/or to implement water conserving rate structures. Under a  
12 strict interpretation of rate consolidation, it could be possible to argue that the imposition of  
13 additional conservation expenses and/or more aggressive rate structures intended to impact a  
14 particular system should be spread over all systems whose rates have been consolidated. If  
15 this argument were to hold, then the impact of the conservation efforts intended for a  
16 particular system would be diluted across multiple systems and not have the intended impact.

17 Q. How can this potential drawback to rate consolidation be avoided?

18 A. I believe that if the Commission decides to implement a rate consolidation plan for  
19 AUF's individual systems, it should include as part of the final order an acknowledgement that  
20 the Commission may, at its discretion, impose a water conservation program or rate structure  
21 on an individual system basis as the Commission deems appropriate. This will insure that the  
22 Commission can continue to work effectively with the water management districts in  
23 protecting the state's water resources.

24 Q. Please explain how rate consolidation can result in excessive cross-subsidies between  
25 customer groups.

1 A. Cross-subsidies are created when systems with low average costs are combined with  
2 systems with high average costs. For the customers of the lower cost systems, the rates of the  
3 combined systems will be necessarily higher than their original stand-alone rates. When the  
4 differential between the stand-alone rates for the low cost systems and the combined rates  
5 becomes sufficiently large, customers of these low cost systems will be paying an excessive  
6 premium, or subsidy, resulting solely from the imposition of rate consolidation.

7 For example, consider two stand-alone systems that are identical in all respects except  
8 that the first system has half the revenue requirement of the second system. The stand-alone  
9 rates for the first system would therefore be half the rates of the second system with typical  
10 monthly bills of, say, \$20 and \$40, respectively. On a stand-alone basis, the bills that the  
11 customers of each system would pay would cover the costs of providing service to its  
12 respective service territories. If the two systems were to be combined under a single rate  
13 structure, however, the typical bill that customers of both systems would pay would be \$30 per  
14 month. For the customers of the lower cost system, the combined rates would include a \$10  
15 per month subsidy that they must pay over and above its actual cost of service, while  
16 customers of the higher cost system would receive a \$10 per month subsidy.

17 Q. Why do you believe that it is important that the Commission consider cross-subsidies  
18 between customer groups in this case?

19 A. Section 367.081(2)(a)1., Florida Statutes (F.S.), states that in setting rates for water  
20 and wastewater systems, "the commission shall, either upon request or upon its own motion,  
21 fix rates which are just, reasonable, compensatory, and not unfairly discriminatory." In order  
22 to be sure that rates are not unfairly discriminatory across customer groups, I believe that the  
23 Commission must evaluate the subsidies resulting from rate consolidation and determine  
24 whether or not the rates resulting from rate consolidation satisfy the requirements of the  
25 statute.

1 Q. Has the Commission considered cross-subsidies between customers resulting from rate  
2 consolidation in prior cases?

3 A. Yes. In the Southern States rate case (Docket 950495-WS), the utility proposed  
4 consolidating the rates of over 150 separate water and wastewater systems in 25 counties.  
5 Although the Commission reaffirmed consolidated state-wide rates as an appropriate long  
6 term goal, it instead adopted a capband rate structure that emphasized affordability and the  
7 avoidance of excessive cross-subsidies. Under the capband rate structure, systems with very  
8 high stand-alone rates were capped at a level deemed to be affordable (\$52 per month for 10  
9 kgal for water and \$65 per month for 6 kgal for wastewater). The revenue shortfall created by  
10 the cap was then allocated to the remaining systems with lower stand-alone rates. The  
11 remaining water systems were separated into eight groups and the wastewater systems into six  
12 groups, each of which were given its own consolidated rate structure. Each group contained  
13 systems with similar cost characteristics so that the resulting stand-alone and combined rates  
14 were also similar. This scheme minimized the cross-subsidies between customers of the  
15 systems contained within each group. Of the customers who paid a subsidy under the capband  
16 rate structure, only 5 percent of those customers paid a subsidy greater than \$2.00, with a  
17 maximum subsidy of \$3.64 per month.

18 In the Utilities, Inc. of Florida rate case (Docket 020071-WS), the utility proposed  
19 consolidating the water rates for its systems in Pasco and Seminole counties. In evaluating the  
20 subsidies resulting from consolidation in Seminole County, the Commission noted in order  
21 PSC-03-1440-FOF-WS, issued on December 22, 2003 In Re: Application for rate increase in  
22 Marion, Orange, Pasco, Pinellas, and Seminole Counties by Utilities, Inc. of Florida, that the  
23 \$2.00 per month subsidy “benchmark” employed in the Southern States case, when adjusted  
24 for the effects of inflation from 1996 to 2003, would equal \$2.35. Given this inflation  
25 adjusted benchmark, the Commission found that consolidating rates in Seminole County,

1 which resulted in customers of the Oakland Shores subdivision paying a subsidy of \$2.35 per  
2 month, was consistent with prior Commission decisions. The Commission also found that the  
3 subsidies resulting from the combined rates were not excessive or unduly discriminatory and  
4 therefore approved a consolidated rate structure.

5 In this same Utilities, Inc. rate case, the Commission considered whether it was  
6 appropriate to consolidate the rates for the two wastewater systems in Pasco County. The  
7 Commission found that a subsidy of \$4.89 per month in 2003 was not consistent with the  
8 requirements of Section 367.081(2)(a)1. F.S., requiring that rates not be unduly  
9 discriminatory. Given the magnitude of this subsidy, the Commission found it appropriate to  
10 reject consolidated rates for the wastewater systems and to calculate rates on a stand-alone  
11 basis.

12 Q. Given the Commission's prior decisions regarding subsidies and affordability, do you  
13 have any recommendations on how to evaluate subsidies and affordability in this case?

14 A. Yes. Based upon the Commission's decisions in the Southern States and Utilities Inc.  
15 of Florida cases cited above, and adjusting the dollar amounts in these cases for inflation  
16 through 2009 (the first year the new rates will be in effect), I would recommend:

- 17 1. Subsidies paid by customers equal to or less than \$2.83 per month are not  
18 excessive and are therefore not unduly discriminatory. This amount is derived by  
19 adjusting the \$2.35 used in the Utilities, Inc. of Florida case for the effects of  
20 inflation from 2003 to 2009.
- 21 2. Subsidies paid by customers greater than or equal to \$5.90 per month are excessive  
22 and are not consistent with the requirements of Section 367.081(2)(a)1, F.S.. This  
23 amount is derived by adjusting the \$4.89 used in the Utilities, Inc. of Florida case  
24 for the effects of inflation from 2003 to 2009.
- 25 3. Subsidies paid by customers greater than \$2.35 per month and less than \$5.90 per



1 month have not been previously decided upon by the Commission. The  
2 Commission could select any dollar amount within this range as a threshold for  
3 determining when subsidies become excessively large and therefore inconsistent  
4 with Florida Statutes.

5 4. Water bills of \$73.52 per month and wastewater bills of \$91.90 per month can be  
6 considered as appropriate maximum amounts for the purposes of defining  
7 affordability. These amounts are derived by adjusting the \$52.00 per month for  
8 water and \$65.00 per month for wastewater bill amounts used in the Southern  
9 States rate case for the effects of inflation from 1996 to 2009.

10 The calculations used to derive these amounts are shown in Exhibit PWS-3.

11 Q. Do you have any additional thoughts on setting the subsidy and affordability criteria?

12 A. Yes. Clearly, there is no single right or wrong answer for determining what an  
13 appropriate value is for limiting cross-subsides or for defining what is affordable. My  
14 recommendations are based solely on prior Commission decisions and how those decisions,  
15 when carried forward to 2009, could be used to resolve issues in this case.

16 If the Commission decides to adopt different values for the cross-subsidy and  
17 affordability criteria, I would note that:

- 18 • Decreasing the excessive cross-subsidy threshold will reduce the number of  
19 systems that can be grouped together for rate consolidation purposes resulting  
20 in more rate groups. Increasing the excessive cross-subsidy threshold will  
21 allow more systems to be grouped together and result in fewer rate groups.
- 22 • Decreasing the definition of what is affordable will result in more systems  
23 having their rates capped. This causes more cost recovery dollars to be  
24 reallocated to the lower cost systems thereby increasing the subsidies paid by  
25 customers of the lower cost systems. Increasing the definition of affordability

1 reduces the number of systems whose rates would be capped. This causes  
2 fewer cost recovery dollars to be reallocated to the lower cost systems thereby  
3 decreasing the subsidies paid by customers of the lower cost systems.

- 4 • With respect to the affordability criteria and the 25 wastewater systems, I  
5 would note that the consolidated requested revenue requirement per customer is  
6 \$88.27. This means that if the Commission approves an affordability definition  
7 less than \$88.27, then the utility would not be able to recover its revenue  
8 requirement.

9 Rate Consolidation Methodologies

10 Q. Has the company proposed any methodologies to implement consolidated rates?

11 A. Yes, the company has included two rate consolidation methodologies in its filing. One  
12 methodology is described in Mr. Smeltzer's testimony and the other is described in Mr.  
13 Franceski's testimony.

14 Q. Please describe the rate consolidation methodology described by Mr. Smeltzer.

15 A. Mr. Smeltzer describes the rate consolidation methodology used to calculate the  
16 proposed rates contained in the company's MFRs. This methodology is a simple state-wide  
17 rate consolidation plan in which all the individual water systems (and wastewater systems) are  
18 combined without regard to potential cross-subsidy issues. The result of this methodology is a  
19 state-wide uniform rate structure in which the customers of all the individual water (and  
20 wastewater) systems pay the same rates.

21 Q. Do you believe that the state-wide uniform rate structure methodology proposed by  
22 Mr. Smeltzer is appropriate?

23 A. No. While Mr. Smeltzer's methodology does appear to adequately address the issue of  
24 affordability for the utility's water systems, it ignores any consideration of the adverse effects  
25 of excessive cross-subsidies. Using the data contained in the utility's MFRs, I estimate that

1 Mr. Smeltzer's proposed rate consolidation methodology would result in customer bills at  
2 7,000 gallons per month of \$43.20 (based on my recommended 3-tiered rate structure).  
3 However, it would also result in the customers of 9 systems paying excessive subsidies. This  
4 would include the 2,000 customers of the King's Cove and Silver Lakes Estates systems  
5 paying subsidies of over twenty dollars per month, the 1,500 customers of the Jasmine Lakes  
6 and Picciola Island systems paying subsidies between ten and twenty dollars per month, and  
7 the roughly 3,000 customers of the Fern Terrace, Lake Gibson Estates, Ocala Oaks,  
8 Tangerine, and Valencia Terrace systems paying subsidies greater than my recommended  
9 amount of \$5.90 but less than \$10.00 per month. Taken together, these 6,500 customers,  
10 representing over 40 percent of AUF's residential customer base, would be paying monthly  
11 subsidies that I believe to be an excessive. Given the statutory requirement that the rates set  
12 by the Commission not be unfairly discriminatory, I cannot recommend the rate consolidation  
13 methodology described by Mr. Smeltzer.

14 Q. Please describe the rate consolidation methodology described by Mr. Franceski.

15 A. Mr. Franceski's methodology begins by calculating stand-alone rates on a system-by-  
16 system basis, then compares the resulting customer bills to the customer bills that would result  
17 from Mr. Smeltzer's state-wide uniform rates. For those systems with subsidies exceeding the  
18 maximum amount of \$5.90 (i.e. the 9 systems I identified above), Mr. Franceski's  
19 methodology would cap their rates so that the resulting customer bills would be equal to the  
20 bill produced by the stand-alone rates plus the maximum subsidy amount. For example, in the  
21 case of the King's Cove system, the capped bill at 7,000 gallons per month would be  
22 calculated by adding \$5.90 to the stand-alone bill of \$20.02 per month, resulting in a capped  
23 bill of \$25.92. This results in the bills for the customers of the 9 systems no longer exceeding  
24 the maximum subsidy criteria. However, it also results in these 9 systems under-recovering  
25 their revenue requirements because their rates have been artificially capped. To address this

1 under-recovery, Mr. Franceski spreads the under-recovery over the bills of the remaining  
2 systems. But because the amount of the under-recovery is so large, adding these dollars to  
3 bills of the remaining systems causes many of these systems to exceed the subsidy cap as well.  
4 It appears that Mr. Franceski would again cap many of these remaining bills, thereby causing  
5 additional under-recovery, and in turn causing more systems to exceed the subsidy cap.

6 Q. Do you believe that the capped rate consolidation methodology proposed by Mr.  
7 Franceski is appropriate?

8 A. No. I have attempted follow the methodology of Mr. Franceski but have been unable  
9 to derive a set of consolidated capped rates that satisfy the subsidy and affordability criteria I  
10 described previously. Therefore, I can not recommend that the Commission adopt Mr.  
11 Franceski's methodology.

12 Q. Are there alternative rate consolidation plans that could achieve the desirable outcomes  
13 of rate consolidation while addressing the issues of excessive subsidies and affordability?

14 A. Yes, I believe there are two possible alternatives. The first alternative plan is the  
15 capband rate structure used in the Southern States rate case. As discussed previously, this rate  
16 consolidation plan is capable of promoting the long run positive affects of rate consolidation  
17 while simultaneously addressing the issues of affordability and excessive cross-subsidies.

18 The second alternative rate consolidation plan involves grouping smaller systems with  
19 high stand-alone rates with larger systems that have lower stand-alone rates. By carefully  
20 selecting the systems to be combined, the resulting consolidated rates for each group can be  
21 much lower for customers of the smaller systems and only slightly greater for the customers of  
22 the larger systems. The idea is similar to the premise behind financial portfolio management  
23 in which securities with high risk are combined with securities with low risk to yield a  
24 moderate level of risk for the portfolio.

25 Q. Can you provide an example of how the second alternative rate consolidation plan

1 works?

2 A. Yes. Suppose there are two systems that can be consolidated. The first system is a  
3 small high cost system with 50 customers and a revenue requirement of \$60,000. The second  
4 system is a larger low cost system with 750 customers and a revenue requirement of \$180,000.  
5 The customers of both systems use 5 kgal per month. If we calculate stand-alone rates for  
6 each system using a BFC allocation of 40 percent and a uniform gallonage charge rate  
7 structure, the resulting customer bill at 5 kgal per month would be \$100 for the small system  
8 and \$20 for the large system. If we combine the two systems, there will be a total of 800  
9 customers with a combined revenue requirement of \$240,000, and the resulting customer bill  
10 for 5 kgal usage would be \$25.

11 In this example, the issue of affordability is addressed by significantly reducing the bill  
12 for customers of the smaller system from \$100 to \$25. This positive outcome is offset,  
13 however, by a relatively small increase in the bill for customers of the larger system from \$20  
14 to \$25. This increase of \$5 per month for customers of the larger system is the cross-subsidy  
15 that they pay to subsidize the reduction in the bills for the customers of the smaller system.

16 Q. Is it possible at this point to determine which rate consolidation methodology, if any, is  
17 appropriate for use in this case?

18 A. No. At this point there are too many unknowns to be able to know which of the rate  
19 consolidation methodologies will work best. The most significant set of unknowns is the final  
20 revenue requirements for each of the individual systems. Also, the Commission may wish to  
21 modify my recommended values for the subsidy cap and affordability threshold, thereby  
22 changing the parameters used to determine which systems should be grouped together under  
23 either the capband rate structure or the second alternative rate structure.

24 Q. Do you have any recommendations on how the Commission should evaluate the  
25 utility's proposal to consolidate rates?

1 A. Yes. I recommend that, once the Commission has voted on the revenue requirements,  
2 subsidy cap, affordability threshold, and rate structure issues at the first 'Revenue  
3 Requirements Agenda' on February 11, 2009, that the Commission's rate staff calculate  
4 consolidated rates based on each of the methodologies discussed above. Then at the second  
5 'Rates Agenda' on March 3, 2009 staff can present the results from each methodology for the  
6 Commission's consideration.

7 Q. Does this conclude your testimony?

8 A. Yes.

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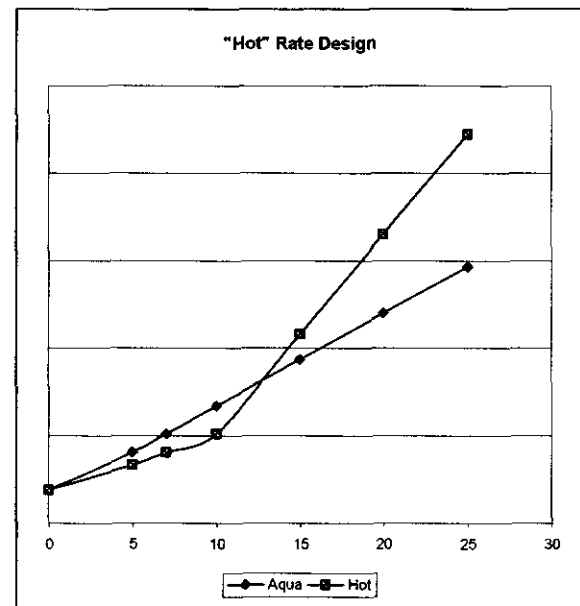
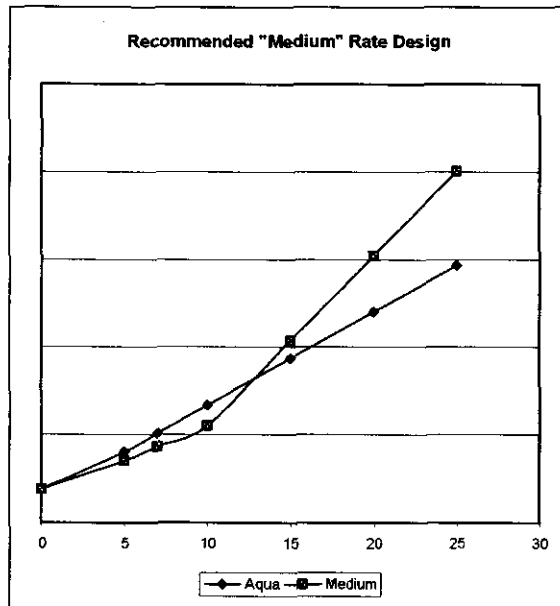
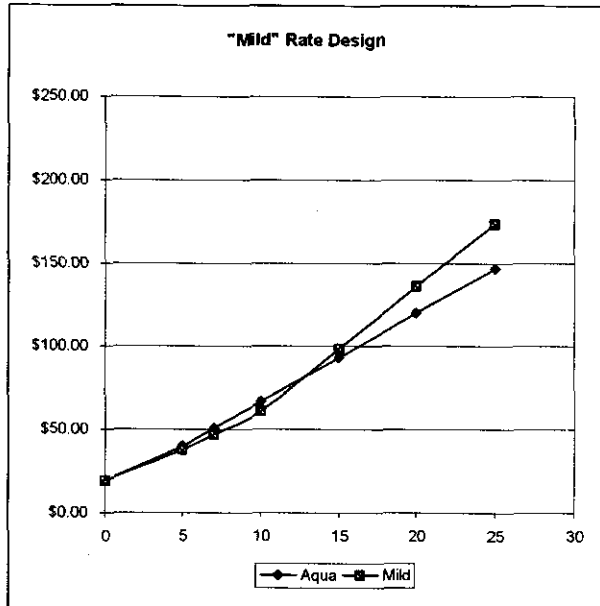
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Residential Customer System Statistics - Continued

System Name	Water Systems				Wastewater Systems	
	Residential Customers	Residential Kgals	Residential Kgals/Cust.	Standalone Bill @ 7 Kgals	Residential Customers	Standalone Bill @ 6 Kgals
South Seas						
St Johns Highlands	93	3,075	2.8	\$42.60		
Stone Mountain	10	568	4.7	\$168.62		
Summit Chase	203	7,105	2.9	\$74.01	202	\$63.46
Sunny Hills	505	40,945	6.8	\$37.36	158	\$108.00
Tangerine	236	27,146	9.6	\$35.21		
The Woods	54	3,729	5.8	\$142.05	50	\$135.73
Tomoka	258	21,728	7.0	\$65.12		
Valencia Terrace	308	17,982	4.9	\$35.84	306	\$52.86
Venetian Village	151	9,610	5.3	\$49.16	93	\$86.54
Village Water	113	9,909	7.3	\$60.11		
Welaka/Saratoga	139	5,945	3.6	\$79.88		
Wooten	28	814	2.4	\$225.01		
Zephyr Shores	389	7,795	1.7	\$118.38	387	\$83.28
Total Company	16,044	1,354,150	7.0	\$43.33	5,822	\$91.34

Comparison of Customer Bills Using Alternative Rate Factors



**"Mild"**  
Customer Bills with  
Rate Factors of 1.00, 1.25, 2.00

Kgals	Aqua	Mild
0	\$19.02	\$19.03
5	\$40.28	\$37.74
7	\$50.92	\$47.10
10	\$66.86	\$61.13
15	\$93.44	\$98.56
20	\$120.02	\$135.99
25	\$146.60	\$173.41

**"Medium"**  
Customer Bills with  
Rate Factors of 1.00, 1.25, 3.00

Kgals	Aqua	Medium
0	\$19.02	\$19.03
5	\$40.28	\$35.14
7	\$50.92	\$43.20
10	\$66.86	\$55.28
15	\$93.44	\$103.62
20	\$120.02	\$151.96
25	\$146.60	\$200.30

**"Hot"**  
Customer Bills with  
Rate Factors of 1.00, 1.25, 4.00

Kgals	Aqua	Hot
0	\$19.02	\$19.02
5	\$40.28	\$33.29
7	\$50.92	\$40.42
10	\$66.86	\$51.12
15	\$93.44	\$108.18
20	\$120.02	\$165.24
25	\$146.60	\$222.31



Calculation of Inflation Adjusted Subsidy and Affordability Amounts

Year	CPI	Growth Factor	SSU Subsidy Benchmark	UIF Subsidy Benchmark	Water Affordability Threshold	Wastewater Affordability Threshold
1996	156.9	1.00	\$2.00	-	\$52.00	\$65.00
1997	160.5	1.02	\$2.05	-	\$53.19	\$66.49
1998	163.0	1.04	\$2.08	-	\$54.02	\$67.53
1999	166.6	1.06	\$2.12	-	\$55.21	\$69.02
2000	172.2	1.10	\$2.20	-	\$57.07	\$71.34
2001	177.1	1.13	\$2.26	-	\$58.69	\$73.37
2002	179.9	1.15	\$2.29	-	\$59.62	\$74.53
2003	184.0	1.17	\$2.35	\$4.89	\$60.98	\$76.23
2004	188.9	1.20	\$2.41	\$5.02	\$62.61	\$78.26
2005	195.3	1.24	\$2.49	\$5.19	\$64.73	\$80.91
2006	201.6	1.28	\$2.57	\$5.36	\$66.81	\$83.52
2007	207.3	1.32	\$2.64	\$5.51	\$68.70	\$85.88
2008	216.4	1.38	\$2.76	\$5.75	\$71.73	\$89.66
2009	221.8	1.41	\$2.83	\$5.90	\$73.52	\$91.90

Notes: 2008 and 2009 CPI projections taken from October issue of Blue Chip Economic Forecasts.