#### BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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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

Dated: November 19, 2008

#### **REBUTTAL TESTIMONY**

OF

#### JOHN F. GUASTELLA

#### on behalf of

### Aqua Utilities Florida, Inc.

DOCUMENT NUMBER-DATE 10803 NOV 19 S FPSC-COMMISSION CLERK

### **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

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### AQUA UTILITIES FLORIDA, INC.

### **REBUTTAL TESTIMONY OF JOHN F. GUASTELLA**

#### **DOCKET No. 080121-WS**

1	Q.	Please state your name and business address.
2	A.	My name is John F. Guastella. My business address is Guastella & Associates,
3		Inc., 6 Beacon Street, Suite 410, Boston, Massachusetts 02108.
4	Q.	Have you previously testified in this docket?
5	А.	Yes. The primary purpose of my testimony was to determine the used and
6		useful percentages of various plant components, which were then used to
7		establish the rate base for each of the Company's utility systems.
8	Q.	Are you sponsoring any exhibits to your rebuttal testimony?
9	A.	Yes, I'm sponsoring Exhibit JFG-1.
10	Q.	Have you examined the testimony and exhibits of Mr. Andrew T.
11		Woodcock that he submitted on behalf of the Office of Public Counsel?
11 12	A.	Woodcock that he submitted on behalf of the Office of Public Counsel? Yes.
11 12 13	А. <b>Q.</b>	Woodcock that he submitted on behalf of the Office of Public Counsel?Yes.Do you have any comments with respect to Mr. Woodcock's testimony?
11 12 13 14	А. <b>Q.</b> А.	Woodcock that he submitted on behalf of the Office of Public Counsel?Yes.Do you have any comments with respect to Mr. Woodcock's testimony?Yes. The primary purpose of Mr. Woodcock's testimony is to address the issue
11 12 13 14 15	А. <b>Q.</b> А.	Woodcock that he submitted on behalf of the Office of Public Counsel?Yes.Do you have any comments with respect to Mr. Woodcock's testimony?Yes. The primary purpose of Mr. Woodcock's testimony is to address the issueof used and useful investment in utility plant in service. Mr. Woodcock's
11 12 13 14 15 16	А. <b>Q.</b> А.	Woodcock that he submitted on behalf of the Office of Public Counsel?Yes.Do you have any comments with respect to Mr. Woodcock's testimony?Yes. The primary purpose of Mr. Woodcock's testimony is to address the issueof used and useful investment in utility plant in service. Mr. Woodcock'stestimony and exhibits reflect both agreement and disagreement with the used
11 12 13 14 15 16 17	А. <b>Q.</b> А.	Woodcock that he submitted on behalf of the Office of Public Counsel?Yes.Do you have any comments with respect to Mr. Woodcock's testimony?Yes. The primary purpose of Mr. Woodcock's testimony is to address the issueof used and useful investment in utility plant in service. Mr. Woodcock'stestimony and exhibits reflect both agreement and disagreement with the usedand useful percentages that I provided, as revised in some instances.
11 12 13 14 15 16 17 18	А. <b>Q.</b> А.	Woodcock that he submitted on behalf of the Office of Public Counsel?Yes.Do you have any comments with respect to Mr. Woodcock's testimony?Yes. The primary purpose of Mr. Woodcock's testimony is to address the issueof used and useful investment in utility plant in service. Mr. Woodcock'stestimony and exhibits reflect both agreement and disagreement with the usedand useful percentages that I provided, as revised in some instances.Am I correct that the revisions to which you refer were made as a result of
<ol> <li>11</li> <li>12</li> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> </ol>	А. <b>Q.</b> А.	Woodcock that he submitted on behalf of the Office of Public Counsel?Yes.Do you have any comments with respect to Mr. Woodcock's testimony?Yes. The primary purpose of Mr. Woodcock's testimony is to address the issueof used and useful investment in utility plant in service. Mr. Woodcock'stestimony and exhibits reflect both agreement and disagreement with the usedand useful percentages that I provided, as revised in some instances.Am I correct that the revisions to which you refer were made as a result ofdiscovery, and were submitted in response to discovery?

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## Q. Have you prepared a comparison of Woodcock's and your used and useful percentages, by system?

Yes. I have attached Exhibit JFG-1 containing four schedules: Schedule 1 3 A. compares Mr. Woodcock's used and useful percentages for water treatment 4 plants with mine; Schedule 2 compares our respective used and useful 5 percentages for wastewater plants; Schedule 3 is a similar comparison with 6 respect to water transmission and distribution systems; and Schedule 4 compares 7 8 collection system percentages. I do not provide a similar schedule for water storage facilities because Mr. Woodcock and I agree that all such facilities are 9 100% used and useful. 10

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### Q. How have you organized your schedules?

The systems that are listed first (i.e., the top of the list) are those that both Mr. A. 12 Woodcock and I find are 100% used and useful. The rest of the systems are 13 14 those for which we differ, and show both Mr. Woodcock's and my used and useful percentages along with the percentage differences. I would note, however, 15 that there is an exception on Schedule 1, Water Treatment Plants, for the systems 16 that are interconnected with systems that are not owned by the Company and do 17 not have their own treatment or supply facilities. Mr. Woodcock characterizes 18 them 0% used and useful, while I characterize them 100% used and useful. 19 20 Setting those different characterizations aside, we apparently both agree that no used and useful adjustment should be made to the utility plant in service for 21 these systems with respect to "water treatment plant," even though the 22 differences are shown on Schedule 1 as a negative 100%. 23

# Q. Are you and Mr. Woodcock in agreement with respect to adjustments related to unaccounted for water?

A. No. I have made exceptions for 10 systems where the unaccounted for water exceeded 10% but was less than 13%; Mr. Woodcock used the 10% limit without exception.

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4 Q. Would you please describe your findings and treatment with respect to 5 unaccounted for water?

I found that unaccounted for water was less than 10% for 31 out of the 57 6 A. water systems. There are 16 systems for which the unaccounted for water 7 exceeded 13%, in which case the excess over 10% was used as an adjustment 8 in the used and useful calculations. (Jasmine Lakes, Welaka/Saratoga 9 Harbour, Oakwood, Tomoka/Twin Rivers, Palms MHP, Harmony Homes, 10 Arredondo Estates/Farms, Zephyr Shores, Leisure Lakes, Beecher's Point, 11 Sebring Lakes, Holiday Haven, Wootens, Village Water, Interlachen 12 Lake/Park Manor and Summit Chase.) Accordingly, for the most part my 13 used and useful calculations did adjust for unaccounted for water in excess of 14 10%. 15

I did, however, find 10 exceptions where the excess over the 10% limit 16 17 (an additional 0.8% to 2.9%) produced an obvious circumstance in which the cost of identifying the cause of the water losses only slightly in excess of 10% 18 and taking the steps necessary to implement a solution outweigh the benefits. 19 This is the very kind of exception discussed by the FPSC in its March 27, 20 2008 memorandum in In re: Proposed Adoption of Rule 25-30.4325, F.A.C., 21 Water Treatment Plant Used and Useful Calculations, Docket No. 070183-22 WS, Issue 14, Analysis and Conclusion, page 37, 23

24 "Excessive unaccounted for water is both an economic and an 25 environmental issue. Water utilities are expected to operate their 26 systems in the most cost effective manner possible, while striving to 27 preserve and protect Florida's water resources. However, there are

circumstances in which the cost of identifying the cause of water losses 1 and taking the steps necessary to implement a solution outweigh the 2 3 benefits. This provision of the proposed rule identifies the types of mitigating circumstances the Commission will consider in determining 4 whether adjustments to plant and operating expenses should be made for 5 excessive unaccounted for water. This is not an alternative calculation 6 for the utility, but rather provides flexibility to the Commission in 7 deciding whether those adjustments should be made." 8 9 Staff testimony in that docket also noted that, 10 11 "For systems that have slightly over 10% unaccounted for water the adjustments on such small amounts would be immaterial." 12 For all 10 systems, the estimates of water used for flushing and line breaks 13 14 were more than the differences between 10% and 13% unaccounted for water. and in most cases the quantity of water losses in excess of 10% was only a 15 16 small fraction of the estimates of losses due to flushing and breaks. In other words, the water represented by the excess over 10% may very well be 17 18 attributable to an underestimate of the water used for flushing and main Even assuming that the estimates for flushing and main breaks 19 breaks. were perfectly accurate, the average loss in gallons per minute per system is 20 only about 2.3 gpm, which is probably not detectable considering that it could 21 represent very small seepage at a number of the many main joints and service 22 23 lateral connections scattered throughout the systems. From a cost perspective, the average cost of power and chemicals, per 24 system, attributable to the unaccounted for water in excess of 10%, is only 25 about \$430 annually; the highest is about \$2,200 and the remaining less than 26 27 \$700, with half of the systems less than \$100. These immaterial and highly doubtful cost savings simply do not justify spending thousands of dollars per 28 system to reduce the estimate to 10% or less, or to make an adjustment for rate 29 30 setting purposes, because it would not be economically feasible to do so. See

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Rule 25-30.4325(10), F.A.C.

Q. On pages 6 and 7 of his testimony, Mr. Woodcock lists, except for Ocala Oaks, the systems in Marion County (Ocala Oaks systems) as well as Gibsonia Estates and Zephyr Shores, along with the capacities of their respective wells. Do you agree with the well capacities he shows for those systems?

7 Α. Yes. Except for Gibsonia Estates and Zephyr Shores, eleven of the systems Mr. Woodcock lists are the "Ocala Oaks" systems in Marion County that the 8 Company treats as one system, including the Ocala Oaks system, for 9 accounting, rate base and rate setting purposes. Although I agree with the 10 well capacities, I disagree with the ultimate conclusion Mr. Woodcock reaches 11 regarding the combined used and useful percentage of 99.0% for the Ocala 12 Oaks systems. As shown on page 9 and 10 of his testimony, Mr. Woodcock 13 calculates that Fairfax Hills is 84.85% and "Ridgeview" (Ridge Meadows) is 14 84.14% used and useful, and the remaining 10 systems are 100% used and 15 useful. Because Fairfax Hills is fully developed, I consider that system to be 16 100% used and useful, instead of Mr. Woodcock's 84.85%, which is 17 consistent with the FPSC's recently adopted Rule 25-30.4325(4), F.A.C., for 18 19 water treatment plant used and useful calculations. That change would bring Mr. Woodcock's combined used and useful percentages even closer to 100%. 20 In my opinion, when used and useful percentages, strictly based on 21 demand/capacity ratios, are calculated as 90%, the system(s) should be 22 23 considered 100% used and useful for rate setting purposes.

Q. On page 15 of his testimony, Mr. Woodcock disagrees with your 90%
 threshold, stating that, "this rounding over estimates the actual used and

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## usefulness of a system at the expense of the customers." Would you explain vour position?

As I stated in my pre-filed direct testimony, used and useful is a regulatory rate 3 A. setting term that provides for the recovery of all or a portion of costs as 4 allowances in the determining of revenue requirements. The used and useful 5 allowances must, as the FPSC recognizes in its recently adopted Rule 25-6 7 30.4325(2), take into account prudency of investment, economies of scale and other relevant factors. When strict application of the ratio of demand to capacity 8 fails to even consider let alone account for those evaluations, the result may be 9 10 unreasonable. Considering a system to be 100% used and useful when the applicable formula produces a ratio of 90% is not merely an arithmetic rounding, 11 as Mr. Woodcock opines, but an evaluation of the costs that should be 12 recognized as necessary to provide service to existing customers, taking into 13 account prudency of investment, economies of scale and other factors, which 14 Mr. Woodcock has ignored. 15

Utilities incur capital costs on the basis of the design of their water or 16 wastewater systems. Those designs typically and intentionally assume greater 17 demands than are ultimately realized, so that adequate and reliable service is 18 assured. The used and useful calculations are based on actual demands 19 projected for margin reserve (growth), not on designed criteria. 20 When systems are reasonably designed they should have 10% to 20% unused 21 capacity even when fully developed, if they were prudently designed. 22

From another perspective, intentionally designing a water system with 10% -24 20% more capacity that will actually be reached not only assures adequate 25 service, but the cost is not significantly higher than for a system with slightly

1 less capacity. This economy of scale is especially apparent for small systems. For example, although the capacity of a well could vary significantly between 2 any given well diameter and the next diameter, or the next step up in the pump 3 horsepower, the incremental cost differences are not proportional to the 4 capacity differences. And, there is no difference in the other components of 5 the water source and treatment, such as the land, well and pump structures, 6 chemical feed equipment and structures, well housing, piping, electrical 7 supply and controls, and fencing. With respect to all construction there is no 8 difference in such costs as design, permitting, construction mobilization, 9 construction supervision and administration, etc. Moreover, in the longer 10 term, both the existing and future customers benefit from lower rates because 11 the larger capacity wells represent prudence of investment and economically 12 efficient expenditures as compared to installation of multiple wells and pump 13 components that have smaller capacities and will ultimately cost more. 14

# Q. Does the FPSC establish rates for new water utilities on the basis of less than a full compliment of customers?

A. Yes. Applications for initial rates of newly established water and wastewater utilities are based on operations at 80% of build out, as well as 80% of each phase of the development. I believe this is a clear recognition that the design capacities of utility systems typically exceed expected actual demands.



25 100% used and useful, considering prudence of investment, economies of

1 scale and related factors, as well as ratios of demand to capacity, then the resultant rates reflect the cost of serving existing customers as best as the rate 2 setting process is able to estimate it. Just as there is no concern after a rate 3 determination that the actual return might be less than the allowed return, 4 similarly there should be no concern that on a prospective basis the actual 5 return might exceed the allowed return. In my opinion, it would be improper 6 to deny a portion of a full rate increase that is based on proper used and useful 7 determinations because of uncertainty about whether future earnings may 8 exceed allowed returns. In any event, it has been my experience that in almost 9 every instance, future earnings do not exceed allowed returns. The difference 10 in the impact of revenue requirements related to a used and useful 11 determination of 100% compared to 90% is invariably less than future 12 inflationary increases in operating expenses and the installation of plant 13 replacements that are considerably more costly than the historical cost of the 14 plant being replaced. 15

Q. Mr. Guastella, returning to the systems Mr. Woodcock lists on pages 6 and 7, in addition to Ocala Oaks (Marion County) systems, he shows Gibsonia Estates with two wells having a capacity of 305 gpm and 180 gpm, and also Zephyr Shores with an additional 500 gpm well. Do you agree with those capacities?

A. Yes. With respect to Gibsonia Estates, upon review the Company found that the well capacities of 305 gpm and 180 gpm are correct and the use of 55 gpm instead of 305 gpm was probably a typo. Correcting the used and useful calculation produces a percentage of 60.6% instead of 100% as filed. With respect to Zephyr Shores, although I agree that a 500 gpm well was added, it

was not added until April 2008 after the test year, and its cost is not included
 in the revenue requirement and rates. Accordingly, as a single well system
 during the test year, Zephyr Shores should be considered 100% used and
 useful, as filed.

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Q. On page 8 of his testimony, Mr. Woodcock discusses his calculations of growth. Do you agree with his method?

I agree with the use of a 5 year growth period. Mr. Woodcock uses MFR 7 A. Schedules F-9 and F-10, or average consumption ERCs. My growth or 8 margin reserve for treatment plants, however, is based on MFR Schedule F-8 9 or growth in ERCs based on meter equivalents (relative meter capacity ratios). 10 Because the meter capacity ratios are based on the relative maximum flow 11 through various size meters, and the design of treatment plants are also based 12 on maximum demands, it is more consistent to use the growth in ERCs from 13 Schedule F-8. 14

## Q. On page 8 Mr. Woodcock also discusses systems that he treats as interconnected. Would you address each of these?

Mr. Woodcock treats the East Lake Harris Estates and "Friendly Estates" 17 A. (Friendly Center) as one interconnected system. Because each system was 18 originally designed developed individually 19 and and subsequently interconnected for reliability, it is not appropriate to use a combined used and 20 useful calculation. The cost of those systems reflects separate systems, not a 21 combined system. Moreover, used and useful determinations should not be 22 geared to simply finding the lowest ratio of demand and capacity, particularly 23 if such used and useful determinations have the effect of discouraging utilities 24 from finding after-the-fact opportunities to improve reliability. This falls 25

within one of the "other relevant factors" that Rule 25-30.4325(2) specifies that the Commission will consider in its used and useful evaluation.

In addition to disagreeing with Mr. Woodcock's approach with respect 3 to East Lake Harris Estates and Friendly Center, it appears that while he 4 includes the capacity of both wells in these systems, his calculation of used 5 and useful only includes the 49.03 gpm peak hour demand of East Lake Harris 6 Estates but not the peak hour demand at Friendly Center, adjusted for margin 7 reserve, or 45.58 gpm. Had he done so, his used and useful calculation would 8 be 94.6% (which I would consider 100%) instead of his 49.03%. In any 9 event, these systems should be treated as single well systems and 100% used 10 and useful. 11

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With respect to Hermits Cove and St. John's Highlands, I agree with Mr. Woodcock that these systems should be treated as one interconnected system, but the reason is that St. John's Highlands has no source of supply.

With respect to Sebring Lakes and Lake Josephine, those systems were originally developed as separate systems and, moreover, the interconnection is only for emergencies. The Company reports that DEP requires the interconnection to remain closed except for emergencies. Accordingly, these systems should not be treated for used and useful purposes as one integrated system, as Mr. Woodcock proposes.

With respect to Welaka and Saratoga Harbour, while I do not disagree with treating these systems as one system, I do differ with Mr. Woodcock regarding the capacity and number of wells. He shows three wells at 188 gpm, 110gpm and 110 gpm, which is not the case. There are only two wells at 110 and 76 gpm.

1 **Q**. Although the Company treats Arredondo Estates and Arredondo Farms, as well as Tomoka and Twin Rivers, as single water systems, Mr. 2 Woodcock treats all four of these systems as individual systems. In each 3 case his used and useful calculations produce less than 100%. Do you 4 agree? 5 Α. No. These systems are fully developed and, according to the new used and 6 7 useful Rule 25-30.4325(4), should be treated as 100% used and useful. On page 11 and 12 Mr. Woodcock proposes to eliminate fire flows from 0. 8 9 the used and useful calculations with respect to Chuluota, Hobby Hills, Imperial Mobile Terrace, Silver Lake Estates/Western Shores, Skycrest, 10 Sunny Hills and Tangerine. Do you agree? 11 I disagree with Mr. Woodcock with respect to Chuluota, Silver Lake 12 A. 13 Estates/Western Shores, Sunny Hills and Skycrest. Mr. Woodcock's objection is based on his claim that "hydrants are not located throughout the 14 service area." On the basis of a review of the system maps and responses to 15 data requests previously submitted, those systems do have hydrants and 16 provide fire protection. Accordingly, fire flows should be considered. If Mr. 17 Woodcock believes that a system does not have a sufficient number of 18 hydrants or that the spacing of hydrants is inadequate, adjusting used and 19 useful calculations is not an appropriate recommendation. Instead, if he 20 believes it is worthwhile, he should recommend that the Company install 21 additional hydrants and also propose that additional investment be included in 22 the revenue requirement, resulting in higher rates related to the new hydrants. 23 With respect to Imperial Mobile Terrace and Tangerine, Mr. Woodcock has 24 determined that those systems are 100% used and useful, so that fire flow is 25

immaterial.

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2		With respect to Hobby Hills, this system is built out and, according to
3		the recently adopted Rule 25-30.4325(4), is 100% used and useful.
4	Q.	On page 14, Mr. Woodcock is asked whether he believes that it is
5		appropriate, "as permitted by (3) of the Commission's Rule No. 25-
6		30.4325, to provide an alternate calculation for certain water system
7		calculations." He responds in the affirmation and goes on to propose
8		using a demand/capacity formula for single well systems. Do you agree
9		that the cited section provides for alternative determinations for single
10		well systems, or with Mr. Woodcock's proposed alternative?
11	A.	No. As a participant in Docket 070183-WS in which the new used and useful
12		rule was established, it is my understanding that after many years of trying to
13		limit controversy and cost associated with used and useful determinations, this
14		rule would simplify such determinations for water treatment and storage
15		facilities. While Rule 25-30.4325(3) provides for alternative calculations
16		under certain conditions that would affect the formulas set forth in the rule,
17		subsection (4) of that Rule identifies two conditions, a built out system and
18		single well systems, for which the treatment would be considered 100% used
19		and useful, without calculation. This provision eliminates the need for a
20		calculation and controversy for obviously small systems (single well) or built
21		out systems that clearly should be considering 100% used and useful. In my
22		opinion, proposing alternative calculations for a single well system tends to
23		reverse the efficiencies and cost-savings for which the new rule is designed to
24		accomplish. That said, the relatively minor cost of down-sizing a well or well
25		pump is simply not consistent with prudence of investment or economy of

scale considerations.

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# Q. Do you have any other remaining issues with Mr. Woodcock's used and useful determinations regarding water treatment plants?

A. Yes. I found what appears to be an inadvertent error in his calculation of the
water treatment plant of Piney Woods. He apparently subtracted the lowest
not the highest yield well from the total well capacity. Correcting this error
would bring his U&U from 52.06% to 100%.

8Q.With respect to water distribution and wastewater collection systems Mr.9Woodcock states on page 15 that your use of ERCs to lots served by lines10"does not provide an accurate representation of the usage of the system11and seeks to achieve the highest U&U for the system." Would you please12respond to that statement?

A. It seems from that statement that Mr. Woodcock does not have a complete understanding of the rate setting principles that should govern such concepts as used and useful. The entire water transmission system and the entire wastewater collection system are used to meet the actual maximum demands of existing customers. Thus, if "usage of the system" were the used and useful standard, it would rarely if ever drop below 100%.

19 The ultimate purpose of used and useful calculations is to establish the 20 cost of providing service, not to simplistically achieve the highest U&U -- or 21 the lowest in order to keep rates low. The importance of establishing the cost 22 of providing service is to assure that a utility will be able to maintain financial 23 viability and attract capital -- so that it will be able to continue to provide safe 24 and adequate service.

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### Q. Why did you use the ratio of ERCs to lots on lines in calculating the used

and useful percentage of mains?

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2 A. That ratio recognizes that when there is a mix of customer classes and customers with varying demands, the ratios of lots to lots or ERCs to ERCs do 3 not provide sufficient costs for mains that are designed to meet demands as 4 5 well as cover distances. While the ratio of ERCs to lots on lines appropriately recognizes costs that better represent the design of systems, even that ratio 6 does not add anything for fire demands, or for example distribution grids 7 where mains at intersection require more footage than captured by any of the 8 ratios. 9

10Q. Has the FPSC recognized the use of the ratio of ERCs to lots, and in fact11rejected the use of lots to lots with respect to water and wastewater12mains?

Yes. The FPSC has accepted the ratio of ERCs to lots instead of lots to lots in A. 13 a number of cases including those involving Marco Island Utilities [Docket 14 No. 850151-WS], Southern States Utilities [Docket No. 950495-WS] and 15 Palm Coast Utility Corp. [Docket No. 951056-WS]. Furthermore, Florida's 16 First District Court of Appeal in Southern States Utilities v. Florida Public 17 Service Commission, 714 So. 2d 1046 (Fla. 1st DCA 1998), as well as in Palm 18 Coast Util. Corp. v. State of Florida, Public Service Commission, 742 So. 2d 19 482 (Fla. 1st DCA 1999), rejected attempts by the FPSC to change its policy 20 of using ratios of ERCs to lots and convert to using ratios of lots to lots or 21 ERCs to ERCs, because there has been no basis for such a change. 22

I would add that Mr. Woodcock's "apples-to-apples" argument does not support the use of lots to lots or ERCs to ERCs, because such ratios are not adequate for establishing costs that reflect the designed and installation of

- varying size mains to meet demands as well as cover all distances in a grid system.
- Q. Do you have any other observations regarding Mr. Woodcock's
  allowances for water distribution systems?
- 5 A. Yes. I would note that with respect to Beecher's Point, Mr. Woodcock 6 apparently used the wrong map for his lot count for the water system.

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## Q. What is the major difference between Mr. Woodcock and you with respect to wastewater treatment plants?

It appears that Mr. Woodcock did not give consideration to the systems that 9 A. are fully built out. In his testimony he states that only four water systems 10 have no potential "for expansion of the service territory." We consider a 11 system to be built out if there is no or virtually no room for growth where 12 there are mains. In most cases, there is no room for growth in the entire 13 service areas of those systems considered built out. We also consider a 14 system to be built out if all or nearly all lots are connected to existing mains. 15 We do not disqualify a system from being considered built out if there are 16 vacant areas within the service area but no mains, which is consistent with the 17 FPSC rules regarding new systems and initial rates. 18

### Q. Do you know why Mr. Woodcock's I&I figures differ from yours?

A. It seems there are two areas that cause the differences. One is that Mr. Woodcock estimates the amount of water sold to wastewater customers by applying the ratio of water ERCs to wastewater ERCs; whereas I obtained specific data from the Company as to water sales to wastewater customers. Another is that Mr. Woodcock estimates the quantity of water returned to the wastewater plant by applying 80% to all water sold to wastewater customers;

whereas I apply 80% to residential customers and 96% to commercial customers as I believe is typically used by the FPSC. In addition, with respect to the Jungle Den system, Mr. Woodcock does not seem to take into account that its wastewater customers receive an unknown amount of water from an unrelated utility, making it impossible to determine an accurate level of I&I for that system.

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## **O**. which the used and useful percentages should be applied?

Do you agree with Mr. Woodcock's analysis regarding the accounts to

No. It seems that Mr. Woodcock's determination of used and useful relies 9 A. solely on the arithmetic ratios of demand to capacity or ERCs to ERCs, 10 without any consideration of prudence of investment, economies of scale and 11 other factors, or that used and useful allowances are only one component of 12 the primary goal of rate setting, which is to establish the cost of providing 13 reliable service to existing customers in an ongoing basis. Mr. Woodcock 14 proposes that used and useful percentages of wells be applied to all accounts 15 within the general "Source of Supply and Water Treatment" that would 16 include such items as land, generators and chemical feed equipment. These 17 items of plant are entirely necessary for reliable and adequate service to the 18 existing customers, and their cost would not be any less even though the wells 19 may be less than 100% used and useful. 20

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#### Should similar considerations be applied to force mains as opposed to **Q**. gravity mains?

Yes. Unlike gravity mains, there are no individual customers connected to 23 A. force mains; they accommodate wastewater and from multiple customers as 24 well as inflow and infiltration, and are designed to enable the transfer of 25

1 wastewater to treatment plants as necessary to span natural elevation differences in the service areas, which is independent of the number of 2 customers. The related lift stations also collect wastewater from multiple 3 customers; their structures would not be any smaller in size or cost; and 4 although the lift pumps could be scaled as the flows increase, this is typically 5 not economical particularly for relatively small systems. Applying the same 6 used and useful percentages of gravity mains to force mains and lift stations 7 does not take these differences into account or recognize the actual cost of 8 serving the existing customers. 9

#### 10 Q. Does that conclude your rebuttal testimony at this time?

11 A. Yes.

#### Florida Public Service Commission Docket No. 080121-WS

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#### Schedule 1

#### Comparison of Used & Useful Percentages for Water Treatment Plant

Svotom Nomo	Mandanak	Cuestalla	Difference
Peochor's Point			
Holiday Haven	0.00%	100.00%	-100.00%
lungle Den	0.00%	100.00%	-100.00%
Kingswood	0.00%	100.00%	-100.00%
Lake Osborne Estates	0.00%	100.00%	-100.00%
Lake Suzy	0.00%	100.00%	-100.00%
Dakwood	0.00%	100.00%	-100.00%
Palm Terrace	0.00%	100.00%	-100.00%
Village Water	0.00%	100.00%	-100.00%
48 Estates	100.00%	100.00%	0.00%
Grand Terrace	100.00%	100.00%	0.00%
Haines Creek	100.00%	100.00%	0.00%
Harmony Homes	100.00%	100.00%	0.00%
Imperial Mobile Terrace	100.00%	100.00%	0.00%
Jasmine Lakes	100.00%	100.00%	0.00%
Kings Cove	100.00%	100.00%	0.00%
Lake Gibson Estates	100.00%	100.00%	0.00%
Leisure Lakes	100.00%	100.00%	0.00%
Morningview	100.00%	100.00%	0.00%
Orange Hill/Sugar Creek	100.00%	100.00%	0.00%
Palm Port	100.00%	100.00%	0.00%
Palms MHP	100.00%	100.00%	0.00%
Pomona Park	100.00%	100.00%	0.00%
Quail Ridge	100.00%	100.00%	0.00%
Ravenswood	100.00%	100.00%	0.00%
River Grove	100.00%	100.00%	0.00%
Silver Lake Oaks	100.00%	100.00%	0.00%
Stone Mountain	100.00%	100.00%	0.00%
Summit Chase	100.00%	100.00%	0.00%
Tangerine	100.00%	100.00%	0.00%
The Woods	100.00%	100.00%	0.00%
Valencia Terrace	100.00%	100.00%	0.00%
Wootens	100.00%	100.00%	0.00%
Rosalie Oaks	10.00%	100.00%	-90.00%
Zephyr Shores	20.32%	100.00%	-79.68%
Lake Josephine	28.17%	100.00%	-71.83%
St. John's Highlands	30.83%	100.00%	-69.17%
Hobby Hills	38.50%	100.00%	-61.50%
Tomoka/Twin Rivers	46.60%	100.00%	-53.40%
East Lake Harris Estates	49.03%	100.00%	-50.97%
Friendly Center	49.03%	100.00%	-50.97%
Piney Woods/Spring Lake	52.06%	100.00%	-47.94%
Fern Terrace	56.17%	100.00%	-43.83%
Gibsonia Estates	64.18%	100.00%	-35.82%
Skycrest	67.38%	100.00%	-32.62%
Welaka/Saratoga Harbour	53.32%	79.72%	-26.40%
Arredondo Estates/Farms	76.94%	100.00%	-23.06%
Sebring Lakes*	28.17%	47.78%	-19.61%
Sunny Hills	82.50%	100.00%	-17.50%
	86.24%	100.00%	-13.76%
Silver Lake Est/Western Shores	88.75%	100.00%	-11.25%
Cariton Village	92.58%	100.00%	-7.42%
Interiachen Lake/Park Manor	93.27%	100.00%	-6.73%
Picciola Island	/3.99%	75.18%	-2.19%
Ucaia Uaks Hermite Covo	39.00%	100.00%	-1.00%
Venetian Village	30.03% 74.010/	JU.99% 73 59%	-0.10%
venedan vindge	74.01%	13.30%	0.43%

\*revised post filing (was 51.97%)

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#### Schedule 2

System Name	Woodcock	Guastella	Difference
Beecher's Point	0.00%	100.00%	-100.00%
Lake Gibson Estates	0.00%	100.00%	-100.00%
Zephyr Shores	0.00%	100.00%	-100.00%
Jasmine Lakes	100.00%	100.00%	0.00%
Lake Suzy	100.00%	100.00%	0.00%
Palm Terrace	100.00%	100.00%	0.00%
Morningview	25.00%	100.00%	-75.00%
Park Manor/Interlachen Lake	26.44%	100.00%	-73.56%
Venetian Village	29.54%	100.00%	-70.46%
Chuluota	35.63%	100.00%	-64.37%
Summit Chase	41.55%	100.00%	-58.45%
Jungle Den	41.81%	100.00%	-58.19%
FI Central Commerce Park	44.24%	100.00%	-55.76%
South Seas	46.59%	100.00%	-53.41%
Kings Cove	55.48%	100.00%	-44.52%
Valencia Terrace	56.25%	100.00%	-43.75%
The Woods	61.34%	100.00%	-38.66%
Arredondo Farms	76.67%	100.00%	-23.33%
Rosalie Oaks	79.99%	100.00%	-20.01%
Holiday Haven	70.79%	80.76%	-9.97%
Silver Lake Oaks	41.67%	44.08%	-2.41%
Palm Port*	50.00%	51.68%	-1.68%
Leisure Lakes	38.42%	39.53%	-1.11%
Village Water	45.33%	45.03%	0.30%
Sunny Hills	57.50%	49.20%	8.30%

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#### Comparison of Used & Useful Percentages for Wastewater Treatment Plant

\*revised post filing (was 100%)

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#### Schedule 3

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#### **Comparison of Used & Useful Percentages** for Water Transmission & Distribution

System Name	Woodcock	Guastella	Difference
Chuluota	100.00%	100.00%	0.00%
East Lake Harris Estates	100.00%	100.00%	0.00%
Fern Terrace	100.00%	100.00%	0.00%
Friendly Center	100.00%	100.00%	0.00%
Grand Terrace	100.00%	100.00%	0.00%
Harmony Homes	100.00%	100.00%	0.00%
Imperial Mobile Terrace	100.00%	100.00%	0.00%
Jasmine Lakes	100.00%	100.00%	0.00%
Jungle Den	100.00%	100.00%	0.00%
Kings Cove	100.00%	100.00%	0.00%
Kingswood	100.00%	100.00%	0.00%
Lake Gibson Estates	100.00%	100.00%	0.00%
Palm Terrace	100.00%	100.00%	0.00%
Quail Ridge	100.00%	100.00%	0.00%
Summit Chase	100.00%	100.00%	0.00%
Beecher's Point	24.38%	100.00%	-75.62%
Village Water	60.34%	100.00%	-39.66%
Lake Josephine	65.71%	100.00%	-34.29%
Skycrest	67.93%	100.00%	-32.07%
Venetian Village	74.62%	100.00%	-25.38%
Zephyr Shores	78.77%	100.00%	-21.239
Palm Port	79.56%	100.00%	-20.44%
Rosalie Oaks	81.98%	100.00%	-18.029
Palms MHP	73.49%	87.73%	-14.249
Wootens	52.17%	65.66%	-13.499
Piney Woods/Spring Lake	87.31%	100.00%	-12.699
Morningview	88.10%	100.00%	-11.909
Arredondo Estates/Farms	88.69%	100.00%	-11.319
48 Estates	73.74%	84.76%	-11.029
Valencia Terrace	90.89%	100.00%	-9.119
Silver Lake Est/Western Shores	91.09%	100.00%	-8.919
Gibsonia Estates	92.22%	100.00%	-7.789
Orange Hill/Sugar Creek	94.23%	100.00%	-5.779
River Grove	94.56%	100.00%	-5.449
Oakwood	94.61%	100.00%	-5.39%
Interlachen Lake/Park Manor	79.92%	85.20%	-5.289
Welaka/Saratoga Harbour	46.68%	51:84%	-5.16
Ravenswood	95.90%	100.00%	-4.109
Tangerine	58.51%	61.31%	-2.809
Haines Creek	97.25%	100.00%	-2.75
Stone Mountain	52.73%	55.24%	-2.519
Ocala Oaks	97.59%	100.00%	-2.419
Lake Osborne Estates	97.86%	100.00%	-2.149
Silver Lake Oaks	67.27%	69.23%	-1.969
Picciola Island	79.41%	81.33%	-1.929
Lake Suzy	98.16%	100.00%	-1.849
Tomoka/Twin Rivers	98.18%	100.00%	-1.829
Sunny Hills	11.66%	13.44%	-1.789
Holiday Haven	75.21%	76.82%	-1.619
Hobby Hills	99.77%	100.00%	-0.239
Leisure Lakes	80.99%	76.35%	4.64
St. John's Highlands	74.44%	69.16%	5.289
Hermits Cove	87.83%	80.52%	7.319
Carlton Village	56.00%	47.08%	8,929
Sebring Lakes	18.00%	7.09%	10.919
The Woods	61 75%	45 50%	16 259
Pomona Park	69.03%	51 41%	17 620

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#### Schedule 4

System Name	Woodcock	Guastella	Difference
Chuluota	100.00%	100.00%	0.00%
Jasmine Lakes	100.00%	100.00%	0.00%
Kings Cove	100.00%	100.00%	0.00%
Lake Gibson Estates	100.00%	100.00%	0.00%
Lake Suzy	100.00%	100.00%	0.00%
Palm Terrace	100.00%	100.00%	0.00%
Summit Chase	100.00%	100.00%	0.00%
Venetian Village	100.00%	100.00%	0.00%
Beecher's Point	50.76%	100.00%	-49.24%
FI Central Commerce Park	84.05%	100.00%	-15.95%
Holiday Haven	68.01%	78.88%	-10.87%
Zephyr Shores	89.93%	100.00%	-10.07%
Jungle Den	92.01%	100.00%	-7.99%
Village Water	42.70%	50.68%	-7.98%
Morningview	92.50%	100.00%	-7.50%
The Woods	56.99%	62.86%	-5.87%
Park Manor/Interlachen Lake	94.24%	100.00%	-5.76%
Rosalie Oaks	96.46%	100.00%	-3.54%
Valencia Terrace	96.53%	100.00%	-3.47%
Palm Port	86.67%	89.71%	-3.04%
South Seas	98.25%	100.00%	-1.75%
Arredondo Farms	99.72%	100.00%	-0.28%
Silver Lake Oaks	67.27%	66.04%	1.23%
Leisure Lakes	72.95%	61.79%	11.16%
Sunny Hills	41.31%	30.11%	11.20%

## Comparison of Used & Useful Percentages for Wastewater Collection System