

RECEIVED-FPSC Aqua Utilities Florida, Inc. 2228 Capital Circle NE, Ste. 2A 101100620L 3448||: 57

> COMMISSION CLERK

November 24, 2010

Katherine E. Fleming Office of General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850

# Re: Docket No. 100330-WS - Application for increase in water/wastewater rates in Alachua, Brevard, DeSoto, Hardee, Highlands, Lake, Lee, Marion, Orange, Palm Beach, Pasco, Polk, Putnam, Seminole, Sumter, Volusia, and Washington Counties by Aqua Utilities Florida, Inc.

Dear Ms. Fleming:

By this letter, Aqua Utilities Florida, Inc. (AUF or Company) provides its response to the Staff's First Data Request.

# For question nos. 1 and 2, please refer to Volume 1 – Appendix 2, Schedule F-5 Appendix for the Lake Josephine/Sebring Lakes systems.

1. In the water treatment plant used and useful calculation, there was no indication for multiple wells; however, records show that the Lake Josephine/Sebring Lakes water treatment plants have a total of four wells. Please explain whether there is an error or oversight in this filing.

#### **RESPONSE:**

The Company agrees that there are multiple wells in the Lake Josephine and Sebring Lakes systems. See response to Data Request No. 2 for modified calculations.

2. The total well capacity of 800 gpm indicated in the calculation does not appear to include the well capacities of both plants combined. Records show total well capacity to be 2,460 gpm. Please review the total well capacities and revise the Lake Josephine/Sebring Lakes water treatment plant used and useful calculation, if needed.

DOCUMENT NUMBER-DATE 0 9585 NOV 21 2 FPSC-COMMISSION CLEAN

COM APA ECR 3 GCL 1 RAD 3 SSC 3 ADM 0 OPC 1 CLK

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# **RESPONSE:**

Due to reliability considerations, the Lake Josephine and Sebring Lakes Systems continue to be managed and operated separately. All records and data are also separately maintained. Therefore, the Company believes that the used and useful percentage should be determined using stand alone calculations as shown in the attached file (Staff First Data Request - Number 2).

3. Please explain the various types of water uses that make up <u>Gallons of Other Uses</u> as shown in Volume 1 - Appendix 2, Schedule F-1 Appendix, and how the amounts are determined (metered or estimated) and recorded.

# **RESPONSE:**

Other uses of water are divided into five categories, which are described below. Water use for each of the categories below is monitored and recorded by field personnel each month and entered into the Water Loss report in their respective categories.

The five water use categories are as follows:

<u>On Site Use:</u> This is water utilized for Company purposes at the Water plant, wastewater plant, and Wastewater lift stations. Where applicable, there are meters that are read at these locations and accounted for each month. Where meters do not exist, flows are estimated based on typical daily use for analyzers, sampling, and wash down purposes.

**Flushing Estimates:** Flushing Estimates are based on AWWA Standards for determining water used through a given discharge nozzle size. The Flushing guide is used based on size, pressure, and duration to determine the amount which is flushed for cleaning and chlorine residual control purposes. Where there are flow meters on smaller flush points, these readings are recorded monthly for actual instead of estimated data.

**Line Breaks:** Line breaks are determined by known length of time that the leak occurred. These volumes are estimated because direct associated meters are not available during line break situations. AWWA Standards are applied when determining the estimates.

**<u>Fire Use:</u>** When and where a Fire occurs, staff is informed of the duration and approximate use by the local fire department or from first hand observation. Where an exercise is being performed, this is planned and gallons are tracked through duration of use.

**Other:** This category covers instances that are out of the normal use pattern as defined in the previous categories. Reviewing the records, it is rarely used and should be accompanied by a description on the monthly information submitted by the field personnel.

4. For the following twenty water systems with over 10% of the water pumped/purchased considered as <u>Gallons of Other Uses</u> as displayed in Volume 1 - Appendix 2, Schedule F-1 Appendix, please provide records verifying the amounts and detailed explanations as to why these relatively high amounts are necessary for each system. For those systems where the

majority of the other uses water is for flushing, please explain the particular water quality goals the flushing is expected to achieve, and why the installation of additional treatment would not be more appropriate (water conservation wise) to help reduce excessive water lost due to the flushing events.

48 Estates – 18.2%	Carlton Village – 11.0%	Fern Terrace – 17.2%
Haines Creek – 16.4%	Hobby Hill –12.3%	Jasmine Lakes – 12.2%
Lake Josephine – 49.5%	Leisure Lakes – 60.7%	Morningview – 12.2%
Palms MHP – 43.8%	Rosalie Oaks – 10.8%	Skycrest – 14.7%
Stone Mountain – 23.9%	Summit Chase – 11.7%	Sunny Hills – 44%
Tangerine – 10.8%	The Woods – 53.0%	Twin Rivers – 16.7%
Village Water – 17.9%	Wootens – 11.6%	

# **RESPONSE:**

Detailed explanations for each of the listed systems are set forth below. Please note that supporting documentation is also available for review; however, it is estimated to be well over 2,900 separate pieces of information. If the Staff requests these documents be submitted, AUF respectfully requests that one or two copies be supplied, and also additional time be provided to print out and copy this voluminous information.

# 48 Estates:

During the Test period months of August thru November, 2009, there were two leaks which occurred on the facility's pressure tank which continued until the pressure tank was replaced on May 27, 2010. The line breaks, including the pressure tank issue, accounted for 11.1% of the water pumped. In review of the records, the amount of flushing has decreased back to normal levels. If an adjustment is made, it should be noted that it would also affect the amount of water produced from the wells.

# **Carlton Village:**

This area has experienced multiple service line leaks due to the fact that the original lines were constructed from thin wall PVC material by the previous owner. These failures that have occurred account for 8.7% of all water not sold. As each service fails, it is rebuilt and replaced with durable poly tubing. Flushing only accounts for approximately 2.2% of all use. If an adjustment is made, it should be noted that it would also affect the amount of water produced from the wells.

#### **Fern Terrace:**

This area has experienced multiple service line leaks due to the fact the original lines were constructed by the previous owner from thin wall PVC material. These failures that have occurred account for 7.1% of all water not sold. As each service fails, it is rebuilt and replaced with durable poly tubing. The largest break occurred due to a service line originally installed that was not on AUF plans and did not serve anyone. This has been removed. Flushing only accounts for about 4.2% of all use. If an adjustment is made, it should be noted that it would also affect the amount of water produced from the wells.

## Haines Creek:

In July of 2009, the Hydropnuematic tank developed a hole and an emergency order was placed to install a new tank. In order to keep the system in water, AUF had to bypass the tank, keep the well pump in hand operation, and bleed excess pressure out constantly. This resulted in a higher than normal amount of flushing for a 3 week period. This accounted for over 485,000 gallons of water that was flushed. The system is back to normal operation and has minimal flushing requirements of approximately 2% instead of the 9.5% reported for this period of time. If an adjustment is made, it should be noted that it would also affect the amount of water produced from the wells.

# **Hobby Hills:**

This area has multiple 2 inch Distribution and service line leaks due to the fact that the original lines were constructed by the previous owner from thin wall PVC material. These failures that have occurred account for 6.8% of all water not sold. As failures occur, they are replaced with a Schedule 40 - 2 inch main or rebuilt and replaced with durable poly tubing. Flushing only accounts for about 4.5% of all use.

## Jasmine Lakes:

Jasmine Lakes is flushed monthly in order to retain a good clean distribution system. A review of the records shows that usage at the Wastewater treatment plant was included with the Flushing record portion of the records for December, 2009 thru April 2010 which totaled 1,728,510 gallons. Steps are being undertaken in order to utilize more Plant Effluent water in order to decrease the amount of water used for wash down within the wastewater plant. If an adjustment is made, it should be noted that it would also affect the amount of water produced from the wells.

#### Lake Josephine:

As previously reported this system has high sulfur content which requires continued flushing to maintain the water quality and keep the sulfur bacteria in check. As part of AUF's secondary water quality project, we have proposed pro-forma plant to install an Adage filtering system that will remove the sulfur. AUF is currently working on the design and installation of this filtering system, which when operational, will reduce the need to flush as much. However, there will be a corresponding reduction in the amount of water produced from the well. Thus, the reduction will occur in the water produced and the other company usage. After this filtering system is operational in the first quarter of 2010, AUF will still perform its annual directional flushing for maintaining water quality in the mains, as well as cleaning of the mains.

# Leisure Lakes

As previously reported this system has high sulfur content which requires continued flushing to maintain the water quality and keep the sulfur bacteria in check. As part of AUF's secondary water quality project, we have proposed pro-forma plant to install an Adage filtering system that will remove the sulfur. AUF is currently working on getting this filtering system designed and installed. This system will reduce the necessity to flush as much. However, there will be a corresponding

reduction in the amount of water produced from the well. Thus, the reduction will occur in the water produced and the other company usage. After this filtering system is operational in the first quarter of 2010, AUF will still perform its annual directional flushing for maintaining water quality in the mains, as well as cleaning of the mains.

## Morningview:

Morningview is a small system that had one service line break in January 2010 which accounted for 3.0% of water loss for the year. On site use at the Wastewater facility has recently been fully accounted for since January 2010. Flushing currently accounts for 5.3% and is flushed monthly to maintain any water quality and to minimize complaints.

# The Palms MHP:

AUF rehabilitated the filters at this facility this year and expects the backwash cycles to be greatly reduced. However, this is a "Snow Bird" community and the mains will still be required to be flushed during the summer months to maintain water quality. AUF will also perform its annual directional flushing for cleaning of the mains. If an adjustment is made, it should be noted that it would also affect the amount of water produced from the wells.

## **Rosalie Oaks:**

Rosalie Oaks customers are primarily vacation and weekend residents. Due to the low sulphur content of the water and the minimal usage during the week, it is necessary to flush the system no less than monthly and prior to holiday weekends in order to maintain adequate water quality. AWWA Standards are utilized to determine flushing amounts through the flush point size, multiplied by the duration based on system pressure.

# <u>SkyCrest</u>

This area has multiple 2 inch Distribution and service line leaks due to the fact that the original lines were constructed by the prior owner using thin wall PVC material. These failures that have occurred account for 12.7% of all water not sold. As failures occur, they are replaced with a Schedule 40 - 2 inch main or rebuilt and replaced with durable poly tubing. Flushing only accounts for about 2.7% of all use.

#### Stone Mountain

As previously reported, Stone Mountain is a very small system. Although it appears that there is a high percentage of water loss, that loss only amounted to 21,000 gallons. To put this in perspective, the on Site usage accounts for approximately 12.1% of all water pumped which equates to 5,000 gallons per month.

#### Summit Chase:

This area has thin wall 2 inch service lines that branch to one inch lines. Due to the age and the location being along a mature neighborhood with older oaks trees, the root systems are pushing and breaking the service lines. Being below the drip line, it is not feasible to relay the line at this time as it would cause damage to the tree root system and kill the trees. There were three incidents that occurred during the test year which accounted for 8.2% of the water not sold. Flushing for water quality purposes only accounts for 3.2% of all water pumped.

#### **Sunny Hills**

This system since was designed and built by a previous developer for a much denser and more populated community. The lines are very large and require considerable flushing to maintain water quality. Another challenge with this system is that it is located on a high sandy ridge with very porous ground. Thus, although AUF can surmise there is a leak by trending normal water production, it is often difficult to locate leaks because of the porosity.

#### **Tangerine**

The major cause of water not sold in this area was due aged infrastructure failures. During this past year AUF has replaced several distribution mains, service lines and looping the system. This is represented in the water loss reports. Over the last 6 months of the Test year, water loss due to line breaks is less than  $1/6^{th}$  the amount recorded during the first 6 months. Overall, line breaks accounted for 6.9% of all water loss while flushing accounted for 3.4%. If an adjustment is made, it should be noted that it would also affect the amount of water produced from the wells.

#### The Woods

The brunt of the water loss occurred over a 2 month period at the end of the Test Year. AUF had to flush 805,000 gallons during the month of March and 967,000 gallons during the month of April in order to perform an emergency replacement of a hydropneumatic tank. In addition, this system requires considerable On-Site Use. Each month the CL-17 chlorine analyzer uses approximately 10,000 gallons, and the Company is required to backwash a filter every other day using approximately 3,500 gallons. Furthermore, AUF has auto flushers to accommodate dead end mains. One section of this system is a "snowbird" section and requires greater flushing during the summer months to maintain water quality. AUF will also need to perform our annual directional flushing for cleaning of the mains. If an adjustment is made, it should be noted that it would also affect the amount of water produced from the wells.

#### Tomoka View/Twin Rivers:

During the Test Year, it was determined that Tomoka View needed additional treatment for TTHM control and installation of valves and blow off points to provide for proper directional flushing. The installation of all the valves and the chloramination system were completed within the last two months of the Test Year. Since that period, flushing has decreased overall except during periods when it is necessary to run a Free Chlorine burn. Flush points are measured based on the GPM output of the flush point size multiplied by the minutes the valves are opened. These are primarily on an automatic

valve which can be adjusted as seasonal and water quality dictates. If an adjustment is made, it should be noted that it would also affect the amount of water produced from the wells.

## Village Water:

During the Test Year month of August, a leak was detected that that had been developing for an estimated 4 weeks, spanning both July and August. Initial field estimates projected that 1,000,000 gallons had passed through the break over that period. This estimate was made by comparing average use and the amount of water that had passed through the meter. More recent estimates based on more extensive review project that the water loss due to the break approximated 3,800,000 gallons. The Wastewater Facility on-site use was not recorded for 7 months during the Test period. This has been corrected and staff has been instructed to utilize the actual on site meter to report Actual monthly Company use.

## Sebring Lakes

As previously reported this system has high sulfur content which requires continued flushing to maintain the water quality and keep the sulfur bacteria in check. As part of AUF's secondary water quality project, we have proposed pro-forma plant to install an Adage filtering system that will remove the sulfur. AUF is currently working on the design and installation of this filtering system, which when operable will reduce the necessity to flush. However, there will be a corresponding reduction in the amount of water produced from the well. Thus, the reduction will occur in the water produced and the other company usage. After this filtering system is operational in the first quarter of 2010, AUF will still have to perform its annual directional flushing for maintaining water quality in the mains, as well as cleaning of the mains.

Some areas within in service area are sparsely populated with dead end water lines. Because of the size of the mains and the locations of the existing homes, looping the system will not provide much benefit. In fact this may create a need for additional flushing, and not less.

Please acknowledge receipt of this filing by stamping the extra copy of this letter "filed" and returning the copy to me. Thank you for your assistance.

Sincerely ny Ventel Trov/Rendell

Rates Manager

cc: Bruce may, Holland & Knight Office of Commission Clerk Charles Beck, Office of Public Counsel Kimberly A. Joyce, Aqua America, Inc.

#### Aqua Ultilities Florida Docket No. 100330-WS Responses to Staff First Data Request- Number 2

Wells Permanent			Max					
			Day	Max	Total	Firm	Firm	Wells
		Perm	Demand	Supply	Well	Capacity	Capacity	Perm
	Max Day	Growth	Storage	Well	Capacity	No Storage	Storage	U&U
	<u>GPM</u>	<u>Ratio</u>	<u>GPD</u>	<u>GPM</u>	<u>GPM</u>	<u>GPM</u>	<u>GPD</u>	<b>Calculation</b>
Lake Josephine stand alone	172.2	1.00	248,000	400	800	400	384,000	64.58%
Sebring Lakes stand alone	122.8	1.00	176,760	830	1660	830	796,800	22.18%
Combined Total	295.0		424,760				1,180,800	35.97%
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These systems do not have excess unaccounted for water or required fire flow