

State of Florida



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: July 29, 2010
TO: Ann Cole, Commission Clerk - PSC, Office of Commission Clerk
FROM: Stan Rieger, Engineering Specialist, Division of Economic Regulation
RE: Docket No. 090462-WS, Application for increase in water and wastewater rates in Marion, Orange, Pasco, Pinellas and Seminole Counties by Utilities, Inc. of Florida.

Attached is a document for inclusion in the docket file for the above referenced docket.

The document is three separate e-mails with attachments from Patrick Flynn to Stan Rieger. All three e-mails need to be placed in the docket file as one document with the same document number.

RECEIVED FPSC
10 JUL 29 PM 3:05
COMMISSION
CLERK

DOCUMENT NUMBER-DATE

6187 JUL 29 e

FPSC-COMMISSION CLERK

Lisa Ray

Subject: FW: Doc. #090462-WS -- UIF Rate Case - Information regarding UAFW

Attachments: Ravenna water audit information; Crystal Lake accuracy tests

From: Patrick Flynn [mailto:PCFlynn@uiwater.com]

Sent: Tuesday, April 13, 2010 10:56 AM

To: Stan Rieger

Subject: FW: UIF Rate Case - Information regarding UAFW

Stan,

This is a follow up to some items you mentioned during your UIF-Seminole County visit last month.

At Crystal Lake, we replaced the well flow meter that was over-registering the pumpage volume and causing UFW to be inflated.

At Phillips, through the data generated using our automated meter reading equipment, staff was able to quantify a distribution system leak. The leak was fixed and the UFW was much improved.

At Ravenna Park, Kathy Sillitoe generated data that describes UFW for the last 5 years as being below 10%.

At Little Wekiva, a water system with only 61 customers, only one meter was found to be registering low and was replaced. Because the total usage is so low, it only takes a handful of poorly performing meters or one or two small leaks to cause a significant jump in UFW. We are continuing to scout the system for signs of leaks.

Please let me know if you have any questions.

Thanks,

Patrick

(321) 972-0359

From: Bryan Gongre

Sent: Wednesday, March 31, 2010 3:29 PM

To: Patrick Flynn

Subject: UIF Rate Case - Information regarding UAFW

Patrick,

During our recent tour with Stan he questioned UAFW values for Crystal Lake, Phillips, Ravenna Park and Little Wekiva.

Crystal Lake;

I have attached the meter certifications I received from Kathy that represent the original meter accuracy and the new meter. This should resolve the matter if applied during the test year.

Phillips;

A 2" blow off leaking at an estimated rate of 950 gpm was repaired in October 2009 that brings our current UAFW number down to 3.8%. The plant meter tested within limits.

Ravenna Park;

Find the attached documentation submitted as conditioned by the C.U.P. to SJRWMD. This report shows the UAFW to be below 7%.

Little Wekiva;

A bucket test for all meters was performed. It identified only one, at 808 Little Wekiva, that was

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DOCUMENT MANAGEMENT
 6187 JUL 29 09
 FPSO-COMMISSION OFFICE

out of spec (56% low flow). It has been replaced. The vast majority were 98% or greater. This could be the problem but we are still looking at this system.

I'll let you know as things progress but this is a good start.



Bryan K. Gongre
Regional Manager

Utilities, Inc. of Florida & its affiliates
200 Weathersfield Avenue
Altamonte Springs, FL 32714
1.800.272.1919, extension 1360
407.869.6961, Fax
bkgongre@uiwater.com



Go Green: Please consider the environment before printing this e-mail.

Lisa Ray

From: Kathy Sillitoe [KASillitoe@uiwater.com]
Sent: Thursday, March 25, 2010 9:31 AM
To: Bryan Gongre
Subject: Crystal Lake accuracy tests
Attachments: Crystal Lake NEW meter EN51 Feb 2010.pdf; Crystal Lake OLDmeter EN51 DEC 2009.pdf

Bryan,

Enclosed is the accuracy reports for the Crystal Lake meter.



Kathy Sillitoe

Water Conservation Coordinator

Utilities, Inc. of Florida and affiliates


200 Weathersfield Avenue

Altamonte Springs, FL 32714

407-869-1919 ext. 1370

Fax 407-869-6961

kasillitoe@uiwater.com

 Go Green: Please do not print this e-mail unless you find it's absolutely necessary.

7/29/2010

DOCUMENT NUMBER: 06187 JUL 29 2010
FPSC-COMMISSION CLERK

FLOW METER ACCURACY RECORD

FLORIDA RURAL WATER ASSOCIATION
2970 Wellington Circle West, Suite 101
Tallahassee, Florida 32308

CONSUMPTIVE USE PERMIT NUMBER: 8351

PERMITTEE NAME: CRYSTAL LAKE

DATE OF PERMIT ISSUANCE: / / PUMP NUMBER: 41

PUMP CAPACITY: 190 GPM SERIAL NUMBER ON METER: 15562377

METER MODEL: 8AD6GR

DISCHARGE PIPE DIAMETER: 4"

DATE OF LAST METER TEST: / /

DATE OF THIS TEST: 12/16/09

NAME OF PERSON PERFORMING TEST: David Hanna

METHOD OR EQUIPMENT USED FOR TEST: Fuji Ultrasonic Flow Tester

INITIAL METER READINGS AT START OF TEST: 19640600

FINAL METER READING AT END OF TEST: 19640700

READINGS ON EQUIPMENT USED FOR TEST:

START: 35 END: 145

(ATTACH FORMULAS USED TO MAKE CALCULATIONS)

PERCENT OF ERROR BETWEEN METER AND TEST EQUIPMENT READING: -10 %

NAME OF PERSON COMPLETING THIS FORM (PLEASE PRINT): David Hanna

COMPANY NAME: FLORIDA RURAL WATER ASSOCIATION

ADDRESS: 2970 Wellington Circle West, Suite 101

CITY, STATE, ZIP: Tallahassee, Florida 32308

DAYTIME TELEPHONE: (850) 668-2746

DATE: 12/16/09 SIGNATURE: David Hanna

CRYSTAL LAKE

FLOW METER WATER CALIBRATION RECORD

**ST. JOHN RIVER WATER MANAGEMENT DISTRICT
P.O. BOX 1429
PALATKA, FLORIDA 32177-1429**

CONSUMPTIVE USE PERMIT NUMBER: 8351

PERMITTEE NAME: Crystal Crystal Lake

DATE OF PERMIT ISSUANCE: 11/15/2000 PUMP NUMBER: 1

PUMP CAPACITY: 175 GPM SERIAL NUMBER ON METER: 15500377

METER MODEL: BARBER 4"

DISCHARGE PIPE DIAMETER: 4"

DATE OF LAST METER CALIBRATION: 9/10/08

DATE OF THIS CALIBRATION: 11/29/09

NAME OF PERSON PERFORMING CALIBRATION: RONALD GRAY

METHOD OR EQUIPMENT USED FOR CALIBRATION: DYNASONICS PORTABLE FLOWMETER

INITIAL METER READING AT START OF CALIBRATION: 19164.4

FINAL METER READING AT END OF CALIBRATION: 19173.5
Total Flow (Initial - Final): 910

READINGS ON EQUIPMENT USED FOR CALIBRATION

START: 0 END: 2000 Total: 1000

(ATTACH FORMULAR LINKED TO MAKE CALCULATIONS)

Percent of error = Total initial meter Total calibration meter

PERCENT OF ERROR BETWEEN METER READINGS AND CALIBRATION EQUIPMENT: 9% ← FAIL

NAME OF PERSON COMPLETING FORM (PLEASE PRINT): RONALD GRAY

COMPANY NAME: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

DAYTIME TELEPHONE: (407) 330-4480

DATE: 11/29/09 SIGNATURE: _____

PLEASE RETAIN A COPY FOR YOUR RECORDS

FLOW METER ACCURACY RECORD

FLORIDA RURAL WATER ASSOCIATION
2970 Wellington Circle West, Suite 101
Tallahassee, Florida 32308

CONSUMPTIVE USE PERMIT NUMBER: 8351

PERMITTEE NAME: CRYSTAL LAKE

DATE OF PERMIT ISSUANCE: / / PUMP NUMBER: #1

PUMP CAPACITY: 205 GPM SERIAL NUMBER ON METER: 09064933

METER MODEL: BADGER

DISCHARGE PIPE DIAMETER: 4"

DATE OF LAST METER TEST: 1/22/10 New meter

DATE OF THIS TEST: 2/10/10

NAME OF PERSON PERFORMING TEST: David Hanna

METHOD OR EQUIPMENT USED FOR TEST: Fuji Ultrasonic Flow Tester

INITIAL METER READINGS AT START OF TEST: 538400

FINAL METER READING AT END OF TEST: 538500

READINGS ON EQUIPMENT USED FOR TEST:

START: 44 END: 148

(ATTACH FORMULAS USED TO MAKE CALCULATIONS)

PERCENT OF ERROR BETWEEN METER AND TEST EQUIPMENT READING: -4 %

NAME OF PERSON COMPLETING THIS FORM (PLEASE PRINT): David Hanna

COMPANY NAME: FLORIDA RURAL WATER ASSOCIATION

ADDRESS: 2970 Wellington Circle West, Suite 101

CITY, STATE, ZIP: Tallahassee, Florida 32308

DAYTIME TELEPHONE: (850) 668-2746

DATE: 2/10/10 SIGNATURE: David Hanna

Lisa Ray

Subject: FW: Doc. # 090462-WS -- UIF Rate Case - Information regarding UAFW

From: Patrick Flynn [mailto:PCFlynn@uiwater.com]
Sent: Wednesday, July 07, 2010 6:31 PM
To: Stan Rieger
Cc: Mike Wilson
Subject: RE: UIF Rate Case - Information regarding UAFW

Stan,

I apologize for not responding sooner to your June 22 email as I have been on vacation or otherwise out of the office since then.

My reasoning for restating the flushing volume in Summertree is as follows:

In order to maintain an adequate chlorine residual and in response to customer requests, our field staff utilize (14) fire hydrants and (12) 2-inch blowoffs at locations scattered throughout the Summertree community, which I have subdivided into five areas for purposes of delineating the locations of each one. Our field staff utilizes a flushing schedule that reflects landscaping and drainage constraints that restrict the use of hydrants and blowoffs to less than a full bore flow. Instead, they are partially opened, for periods lasting from 20 minutes to as much as four hours, depending on location in the system primarily. Because it is impractical to use a flow meter during each flushing event (multiple locations may be flushed during coincident time periods) to quantify the volume used, I utilized conservative estimates for flow rate in my calculations below.

Utilities, Inc. of Florida
 Docket #090462
 Summertree flushing schedule

	Hydrants	Blowoffs	gpm	# of min	x/month	Gal/mo
Cross Creek area						
Merganser East		1	50	120	8	48,000
Merganser West		1	50	60	8	24,000
Merganser West	1		150	240	6	216,000
Godwin Ct		2	50	60	3	18,000
Kisskadee	1		200	180	1	36,000
Windstar		2	50	60	2	12,000
Sinatra	1		200	30	4	24,000
Clear Oaks	1		300	20	4	24,000
Clear Oaks	2		200	20	2	16,000
Greens at Summertree						
Phase 5		2	50	40	4	16,000
Tournament View		1	50	240	8	96,000

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Golf Round Villas at Summertree	1	50	60	2	6,000
Foxworth	1	50	60	4	12,000
Holly Ann	1	50	60	4	12,000
Ivywood	1	50	60	4	12,000
Loblolly Pine	1	50	60	6	18,000
Pampas Paradise Point Way	1	200	10	4	8,000
Golf Course Clubhouse	1	100	10	4	4,000
Scotch Pine	1	50	20	4	4,000
Near bridge	1	50	15	4	3,000
Condos Various locations	4	50	120	4	96,000
TOTAL	14	12			537,000

The fact is we are using a minimum of 500,000 gallons of water each month to flush the system, which is much greater than I had originally calculated. The effect of applying this amount to the F-1 schedule in place of the data originally submitted in Column 4 is to decrease the UAFW percentage to 7.5%, well below the allowed 10%.

Month/ Year	(1) Total Gallons Pumped	(2) Gallons Purchased	(3) Gallons Sold See Note	(4) Other Uses	(5) Unaccounted For Water (1)+(2)-(3)-(4) See Note	(6) % Unaccounted For Water See Note
Jan-08	6.001		5.522	0.500	-0.021	-0.4%
Feb-08	6.689		5.997	0.500	0.192	2.9%
Mar-08	6.175		5.457	0.500	0.218	3.5%
Apr-08	7.035		6.552	0.500	-0.018	-0.2%
May-08	7.736		6.765	0.500	0.471	6.1%
Jun-08	7.275		6.389	0.500	0.386	5.3%
Jul-08	6.365		3.672	0.500	2.193	34.5%
Aug-08	4.576		12.463	0.500	-8.387	-183.3%
Sep-08	8.071		0.040	0.500	7.531	93.3%
Oct-08	9.790		0.000	0.500	9.290	94.9%
Nov-08	6.636		10.096	0.500	-3.960	-59.7%
Dec-08	5.818		7.016	0.500	-1.698	-29.2%
Total	82.166	0	69.969	6.000	6.197	7.5%

(Above data
in millions of
gallons)

I believe this reduced UAFW percentage is consistent with the condition of the water system. The flow meters at the wells have been checked for accuracy, the distribution system was built using quality materials and construction methods with little evidence of leaks, and the vast majority of the water meters that were in service when we bought the system have been replaced over the last 10 years with a high quality meter that provides long term accuracy. There are only about 100 meters still in service that are more than 15 years old.

Please let me know if you have any questions or need more information.

Thanks,
Patrick
(321) 972-0359

From: Stan Rieger [mailto:SRieger@PSC.STATE.FL.US]
Sent: Tuesday, June 22, 2010 12:54 PM
To: Patrick Flynn
Subject: RE: UIF Rate Case - Information regarding UAFW

Patrick - Thanks for your response. Concerning Summertree, we are interested in how the new flushing numbers were developed. Can you supply us with data supporting the estimated 100,000 gallons per month? How was it calculated?

From: Patrick Flynn [mailto:PCFlynn@uiwater.com]
Sent: Monday, June 21, 2010 11:21 AM
To: Stan Rieger
Cc: Patti Daniel; Tom Walden; Kirsten Weeks
Subject: RE: UIF Rate Case - Information regarding UAFW

Stan,

With regard to Lake Tarpon's high UFW, we initiated a comprehensive water meter changeout effort this year in order to reduce the UFW in this system. So far, approximately 210 meters have been switched out and another 190 are candidates for replacement. I fully expect to have this effort completed in Lake Tarpon in the third quarter of 2010. On a going forward basis, the UAFW will be less than 10% by end of year. In fact, year to date, we have seen an approximate reduction of 6-7% in UAFW in this system, which reflects the effect of having replaced about 75 of the 210 meters in the first quarter of 2010.

Once we complete our meter changeout efforts in Lake Tarpon, we will focus our resources in the Buena Vista Trailer Park. We purchased the two Bartelt Enterprises water systems in 2000, which contained approximately 1,250 residential accounts. Since the purchase of the systems, we have replaced the majority of the meters. However, in Buena Vista Trailer Park, approximately 119 meters pre-date the purchase of the system with the meter installation date unknown. Similarly, the Buena Vista Mobile Home Park (Wis-Bar) contains 166 residential meters with 71 meters pre-dating the purchase date. These 190 old meters (119 in BV + 71 in WB) will be changed out by end of the fourth quarter of 2010. This will result in a significant improvement in the UAFW for this system. Those residential meters in the original Orangewood water system have already been replaced within the last 10 years and are not a significant source of UAFW.

In Summertree, the volume of water used for flushing was understated by our field crew throughout much of the Test Year. Due to the presence of sulfide in the source water, our field staff must flush the most distant points of the distribution system at least twice each week. Without this flushing effort, it is difficult to maintain an adequate chlorine residual at those locations. Consequently, our operators make a consistent effort to flush the system but the amount of water used for this purpose is understated on our flushing logs. Based on my conversations with the operators and after reviewing the flushing logs, the water used for flushing is understated by 100,000 gallons per month or about 1.2 million gallons per year. Once this is taken into account, the UAFW in Summertree drops below 10%. Therefore, it would be inappropriate to make any expense adjustments in this case.

Thanks,
Patrick(321) 972-0359

7/29/2010

From: Stan Rieger [mailto:SRieger@PSC.STATE.FL.US]
Sent: Thursday, June 17, 2010 1:17 PM
To: Patrick Flynn; Bryan Gongre
Cc: Tom Walden; Patti Daniel
Subject: FW: UIF Rate Case - Information regarding UAFW

In review of other UIF water systems concerning UAFW, we note that Orangewood @ 19.1% and Summertree @ 11.6% in Pasco Co., and Lk. Tarpon @ 22.4% in Pinellas Co. are above the 10% amount normally considered by the Commission as reasonable. Unless these values are somehow proven to be inaccurate (similar to what has been identified for the systems discussed below), resulting expense adjustments for excessive unaccounted for water to purchased power and chemicals are possible. Please consider the above systems and respond as soon as possible if these numbers are not correct for whatever reason. Thanks for looking into this.

From: Patrick Flynn [mailto:PCFlynn@uiwater.com]
Sent: Tuesday, April 13, 2010 10:56 AM
To: Stan Rieger
Subject: FW: UIF Rate Case - Information regarding UAFW

Stan,

This is a follow up to some items you mentioned during your UIF-Seminole County visit last month.

At Crystal Lake, we replaced the well flow meter that was over-registering the pumpage volume and causing UFW to be inflated.

At Phillips, through the data generated using our automated meter reading equipment, staff was able to quantify a distribution system leak. The leak was fixed and the UFW was much improved.

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Please let me know if you have any questions.

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 (321) 972-0359

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Sent: Wednesday, March 31, 2010 3:29 PM
To: Patrick Flynn
Subject: UIF Rate Case - Information regarding UAFW

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Ravenna Park;

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Little Wekiva;

A bucket test for all meters was performed. It identified only one, at 808 Little Wekiva, that was out of spec (56% low flow). It has been replaced. The vast majority were 98% or greater. This could be the problem but

7/29/2010


we are still looking at this system.

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Bryan K. Gongre
Regional Manager

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407.869.6961, Fax
bkgongre@uiwater.com

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Lisa Ray

Subject: FW: Doc.#090462-WS --UIF

Attachments: UIF Sumertree 2008 I&I 6-18-10.xls; Summertree YTD Bulk Sewer Stats Starting Jan 2008.xls; Summertree Flow meter cal sheet.pdf

From: Stan Rieger

Sent: Thursday, July 22, 2010 3:47 PM

To: Lisa Ray

Subject: FW: Doc.#090462-WS --UIF

Lisa - Please put the email into the Docket file. Thanks

From: Patrick Flynn [mailto:PCFlynn@uiwater.com]

Sent: Monday, June 21, 2010 11:51 AM

To: Stan Rieger

Cc: Patti Daniel; Kirsten Weeks

Subject: RE: Doc.#090462-WS --UIF

Stan,

Attached is an updated I&I analysis for Summertree in Pasco County as requested by you in your email of June 17. As you can see, the amount of wastewater treated is substantially higher than recorded in 2005. We have looked at our records and this is what we have found. The totalizer stopped working in mid-2006. We did not get valid readings until mid-2007. Then, we had a problem with the lack of a dependable power source for the first four months of 2008. The MFR shows the readings we did get for 2008. An examination of 2009 readings confirms the level of the 2008 readings after the power supply problem was corrected. These readings indicate that there is a problem of which we were not previously aware. The company intends to investigate and correct the situation.

Additionally, I am attaching an analysis of bulk sewer invoices from Pasco County to show the flow generated per month per active customer between January 2008 and April 2010. The large jump between February and March 2010 was found to be due to the flow meter being out of calibration by 50% based on a meter calibration done in April. Again, the utility will investigate further, but it appears that the 2005 data was lower than actual, which benefited the rate payers in the subsequent years.

Thanks,

Patrick

(321) 972-0359

From: Stan Rieger [mailto:SRieger@PSC.STATE.FL.US]

Sent: Monday, June 21, 2010 8:41 AM

To: Patrick Flynn

Subject: RE: Doc.#090462-WS --UIF

Patrick - Concerning the Summertree I&I, and the Orangewood, Summertree, and Lk. Tarpon Unaccounted for water situations, am I going to see anything else come out of your shop today? I am scheduled to turn over adjustments to the analyst by noon today.

From: Patrick Flynn [mailto:PCFlynn@uiwater.com]

Sent: Thursday, June 17, 2010 5:59 PM

To: Stan Rieger

Cc: Mike Wilson

7/29/2010

Subject: RE: Doc.#090462-WS --UIF

Stan,

I know that the bulk sewer meter had some issues at times. The unit would occasionally go haywire and over-register for a period of time until a calibration check could be done and repairs made. This has the effect of elevating the monthly total flow value above actual and thus giving the impression that excess I&I is present. I will see what documentation I can provide on short notice and send it to you tomorrow. You're right, that 's not much time.

Thanks,
Patrick
(321) 972-0359

From: Stan Rieger [mailto:SRieger@PSC.STATE.FL.US]
Sent: Thursday, June 17, 2010 4:28 PM
To: Patrick Flynn
Cc: Bryan Gongre
Subject: FW: Doc.#090462-WS --UIF

Patrick -- Regarding the Ravenna Park/Lincoln Heights I&I situation, it looks like we have a supporting documentation situation that precludes us from considering the \$120,000 Proforma project indicated in the MFRs. Perhaps it would be best to address this situation later in another proceedings.

Also, regarding Summertree in Pasco Co., the MFRs show that (like Ravenna Park/Lincoln Heights) there are more gallons treated than gallons sold. This is an indication that excessive I&I exists. Attached is a copy of 2006 I&I study submitted in the last rate case. Please update with test year 2008 information to determine the amount of existing I&I for this system. Now here is the problem. Given the pending recommendation deadline, we need this as soon as possible. If you can not give us the update tomorrow (6/18/10) we will make our own determination with the information available. I am sorry about the short turn around time. This was a late discovery on our part.

Thanks for your consideration on this.

7/29/2010

PARALEE COMPANY INCORPORATED

3931 Kiawa Drive Phone 407-948-2273

Orlando, FL 32837 Fax 407-850-0532

FACILITY: UTILITIES INC - SUMMERTREE MASTER LIFT STATION

METER LOCATION - NAME: SUMMERTREE FLOWMETER
BU 252126

FLOW METER CALIBRATION REPORT

Date: 9-Apr-10

TAG NUMBER: _____

MANUFACTURER: TURBO

MODEL #: _____

SERIAL #: 289656/A

RANGE OF METER: 0-1000 GPM

Range Percent % input	Primary Device Actual Input psi/inches/milliamp	Display			Output Signal			Percent Deviation	Corrective Action Taken
		As Found	Expected	As Left	As Found	Expected	As Left		
0%	<u>4.00 ma</u>				<u>3.76</u>	<u>4.00</u>	<u>4.00</u>		<u>Adjusted Calibration AS REQUIRED</u>
25%									
50%									
75%									
100%	<u>20.00 ma</u>				<u>19.22</u>	<u>20.00</u>	<u>20.00</u>		

TOTALIZER CHECK

Pulse Volume	Time Interval Minutes	Signal Setting ma	Totalizer Start Reading	Totalizer Stop Reading	Actual Totalizer	Calculated Totalizer	Percent Deviation	Corrective Action

Comments: FOUND METER K-FACTOR SET TO 5.000 WHICH IS THE CALIBRATION ONLY FACTOR. CHECKED CALIBRATION, ADJUSTED AS NEEDED, RESET CALIBRATION FACTOR TO 1.270 WHICH MADE TEST METER AND TURBO METER READ THE SAME. FLOWMETER IS WORKING GOOD AT THIS TIME.

Corrections Made: RESET CALIBRATION K-FACTOR, ADJUSTED CALIBRATION AS NEEDED. TOTALIZER WAS 49.9% HIGH BECAUSE K-FACTOR WAS NOT RESET TO PROPER SETTINGS FOR PIPE FLOW

Calibration Equipment: FLUKE Model: 87 SN#: _____ CalDate: _____ ReCal Due: _____
Used FLUKE Model: 744 SN#: _____ CalDate: _____ ReCal Due: _____


Technician: Phillip Marjason Signature: *Phillip Marjason* Date: April 9, 2010 Time: _____

ACCEPTED BY: _____ DATE: _____

Summertree

Pasco County Invoice						
	From	To	Consumption Billed to UIF	Days in Billing Period	Total Accounts Billed (WWW Cons.)	Avg. WWF flow Per Connection/ Per Day (Pasco Cty. Billed to UIF)
January 2008	12/31/07	01/30/08	3.844	30		
February	01/30/08	02/28/08	3.500	29		
March	02/28/08	03/31/08	4.096	32		
April	03/31/08	05/01/08	4.096	31		
May	05/01/08	06/02/08	5.651	32	1,101	160
June	06/02/08	07/02/08	5.964	30	1,060	188
July	07/02/08	08/01/08	6.976	30	1,006	231
August	08/01/08	08/28/08	5.359	27	1,100	180
September	08/28/08	10/01/08	6.886	34	1,100	184
October	10/01/08	11/03/08	7.617	33	1,104	209
November	11/03/08	12/02/08	6.507	29	1,104	203
December	12/02/08	12/31/08	7.742	29	1,061	252
January 2009	12/31/08	01/30/09	7.033	30	1,095	214
February	01/30/09	03/03/09	7.210	32	1,092	206
March	03/03/09	03/31/09	7.484	28	1,073	249
April	03/31/09	04/30/09	6.439	30	1,073	200
May	04/30/09	06/01/09	6.176	32	1,064	181
June	06/01/09	07/01/09	6.147	30	1,062	193
July	07/01/09	07/31/09	6.795	30	1,056	214
August	07/31/09	08/31/09	5.723	31	1,067	173
September	08/31/09	09/30/09	5.897	30	1,046	188
October	09/30/09	10/30/09	5.484	30	1,065	172
November	10/30/09	11/30/09	6.273	31	1,054	192
December	11/30/09	12/31/09	6.767	31	1,058	206
January 2010	12/31/09	01/31/10	6.534	31	1,057	199
February	01/31/10	03/02/10	3.658	30	1,069	114
March	03/02/10	03/23/10	8.224	21	1,069	265
April	03/23/10	04/30/10	8.254	38	1,039	209
2008 Total Pasco County Reads vs. UIF Reads (June - December 2008)			47.051	Annualized value = 80.658 mg		
2009 Total Pasco County Reads vs. UIF Reads			77.428			
2010 YTD Total Pasco County Reads vs UIF Reads			26.670	Annualized value = 80.010 mg		

*Total flow based on UIF Meter Reads - the total reflects the same 'From/To' dates as the Pasco County Utilities Invoice to UIF

 Bulk sewer flow meter was out of service. Billing by Pasco County Utilities was estimated from historical data.

Pasco County - Summertree System

A. Infiltration & Inflow allowance, including service laterals

Main dia. inches	Main length feet	Main length miles	Allowance @ 500 gpd/inch-dia./mile	
			gpd	gpy
4	372	0.070	141	
6	3,825	0.724	2,173	
8	30,585	5.793	23,170	
10	2,677	0.507	2,535	
Total	37,459	7.095	28,020	10,227,189
Inflow @ 10% of water sold				2,917,900
Total allowable I&I				13,145,089

B. Actual Inflow & Infiltration (I&I)

Wastewater treated 51,457,000

Gallons billed to WW customers	Estimated returned	
Residential (see note)	28,190,000	96% 27,062,400
General Service	989,000	96% 949,440
Estimated flows returned	29,179,000	28,011,840

Note: Residential gallons are all water gallons used by wastewater customers. Irrigation is separately metered and already removed from residential flows; therefore, assume all flows are returned at 96%

Estimated I&I (treated less returned)	23,445,160
Actual less allowable	10,300,071
Excess, if any	10,300,071
Excess as percent of wastewater treated	20.02%

Pasco County - Summertree System

A. Infiltration & Inflow allowance, including service laterals

Main dia. inches	Main length feet	Main length miles	Allowance @ 500 gpd/inch-dia./mile	
			gpd	gpy
4	372	0.070	141	
6	3,825	0.724	2,173	
8	30,585	5.793	23,170	
10	2,677	0.507	2,535	
Total	37,459	7.095	28,020	10,227,189
Inflow @ 10% of water sold				2,854,600
Total allowable I&I				13,081,789

B. Actual Inflow & Infiltration (I&I)

Wastewater treated 32,835,000

Gallons billed to WW customers	Estimated returned	
Residential (see note)	27,761,000	96% 26,650,560
General Service	785,000	96% 753,600
Estimated flows returned	28,546,000	27,404,160

Note: Residential gallons are all water gallons used by wastewater customers. Irrigation is separately metered and already removed from residential flows; therefore, assume all flows are returned at 96%

Estimated I&I (treated less returned)	5,430,840
Actual less allowable	-7,650,949
Excess, if any	0
Excess as percent of wastewater treated	0.00%