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: JANUARY 21, 1999

TO: DIRECTOR, DIVISION OF RECORDS AND REPORTING (BAYÓ)

FROM: DIVISION OF WATER AND WASTEWATER (B. DAVIS, FUCHS, GILCHRIST, GOLDEN, LINGO, KYLE, RIEGER, MERCHANT)
DIVISION OF AUDITING AND FINANCIAL ANALYSIS (CAUSSEAUX, DRAPER, LESTER)
DIVISION OF LEGAL SERVICES (REYES)

RE: DOCKET NO. 980214-WS - APPLICATION FOR RATE INCREASE IN DUVAL, St. JOHNS AND NASSAU COUNTIES BY UNITED WATER FLORIDA INC.

COUNTY: DUVAL, NASSAU AND St. JOHNS

AGENDA: 02/02/99 - REGULAR AGENDA - PROPOSED AGENCY ACTION - INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: 5-MONTH EFFECTIVE DATE: WAIVED UNTIL FEBRUARY 2, 1999

SPECIAL INSTRUCTIONS: DEFERRED FROM THE DECEMBER 15, 1998 AGENDA

FILE NAME AND LOCATION: S:\PSC\WAW\WP\980214A.RCM

REVISED RECOMMENDATION

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COST OF CAPITAL

NET OPERATING INCOME

CASE BACKGROUND

United Water Florida, Inc. (UWF or utility) is a Class A utility providing water and wastewater service to approximately 29,000 customers in Duval, Nassau, and St. Johns Counties. According to its 1997 annual report, the utility's operating revenues were $9,080,002 for its water service and $16,375,517 for its wastewater service, and net operating income was $1,361,740 for water service and $4,117,334 for wastewater service. UWF is located in a critical use area as designated by the St. Johns River Water Management District. Prior to May 1995, UWF was known as Jacksonville Suburban Utilities Corporation, a wholly-owned subsidiary of General Waterworks Corporation (GWC), now known as United Waterworks, Inc. (UWW). Subsequent to a merger in April 1994, UWW became a wholly-owned subsidiary of United Water Resources, Inc. (UWR), a publicly traded corporation listed on the New York Stock Exchange.

By Order No. PSC-97-0618-FOF-WS, issued May 30, 1997, in Docket No. 960451-WS, the utility's last full rate case proceeding, the Commission approved the utility's current rate structure. On June 16, 1997, UWF timely filed a Motion for Reconsideration of the Commission's Final Order. OPC filed a timely response to that motion on June 25, 1997. By Order No. PSC-97-1146-FOF-WS, issued September 30, 1997, in Docket No. 960451-WS, the Commission approved in part and denied in part the utility's motion for reconsideration.

On December 8, 1997, UWF filed a Petition for Limited Proceeding Regarding Other Postretirement Employee Benefits and Petition for Variance from or Waiver of Rule 25-14.012, Florida Administrative Code. By Order No. PSC-98-1243-FOF-WS, issued September 21, 1998, in Docket No. 971596-WS, the Commission denied the utility's Petition for Limited Proceeding and its Petition for Variance from or Waiver of Rule 25-14.012, Florida Administrative Code. This order became final on October 12, 1998. The utility appealed this order to the First District Court of Appeal in October, 1998.

On February 19, 1997, UWF and Sunray Utilities - Nassau, Inc. (Sunray) filed a joint application to transfer Certificates Nos. 502-W and 436-S from Sunray to UWF. In addition, they asked the Commission to establish rate base balances for Sunray's facilities. By design, the purchase price for Sunray's facilities will be adjusted to conform with the verified net plant balance on Sunray's books. The applicants further asked the Commission to approve, with two exceptions, collection of UWF's rates and charges. The

exceptions concern retention of Sunray's plant capacity and guaranteed revenue charges. The applicants further asked the Commission to affirm that Sunray's facilities are part of UWF's single utility system whose service transverses county boundaries. Finally, they proposed canceling Sunray's certificates and amending UWF's operating certificates, Certificates Nos. 236-W and 179-S, to include the additional territory in Nassau County. The Commission approved the transfer of assets and Certificates Nos. 502-W and 436-S, from Sunray Utilities - Nassau, Inc. to UWF. Certificates Nos. 236-W and 179-S held by UWF were amended to include the territory of Sunray Utilities - Nassau, Inc. and Certificates Nos. 502-W and 436-S held by Sunray Utilities - Nassau, Inc. were canceled by Order No. PSC-97-0928-FOF-WS issued on August 4, 1997.

On May 18, 1998, UWF filed this Application for Rate Increase in Duval, St. Johns and Nassau Counties. Staff found several deficiencies in the Minimum Filing Requirements. These deficiencies were corrected, and June 23, 1998 was established as the official filing date. The utility requested that this application be processed using the Commission's Proposed Agency Action procedure, and did not request interim rates. The utility's rate case is based on the projected test year ending December 31, 1999. The Commission suspend the rates requested by the utility pending final action by Order No. PSC-97-0928-FOF-WS issued on August 22, 1998.

As part of the PAA process, staff held customer meetings and met with groups of customers on September 9-11, 1998, in Jacksonville, Florida. More detail regarding these meetings is addressed in Issue 1. Staff then issued a recommendation for the December 15, 1998 agenda which addressed UWF's requested final rates.

Prior to the December 15, 1998, agenda, the utility requested deferral until the February 2, 1999 agenda and waived the five-month statutory deadline until that date. The utility submitted additional information and met with staff to address its concerns with Issue 9, the rate base reduction for unfunded liability for Other Postretirement Employee Benefits (OPEBs); Issue 11, deferred income taxes included in the capital structure; Issue 14, appropriate method of forecasting customers and consumption; and Issue 29, the appropriate reuse rates. Staff has reviewed the additional information provided by the utility and has reconsidered the recommendations on these four issues. This recommendation addresses UWF's requested final rates in light of these reconsideration.

For purposes of information, the Commission has exclusive jurisdiction over UWF's facilities in all three counties. See Section 367.171(7), Florida Statutes, and Orders Nos. 24335, PSC-97-0929-FOF-WS and PSC-97-0618-FOF-WS, issued April 8, 1991, August 8, 1997 and May 30, 1997, respectively.

DISCUSSION OF ISSUES

ISSUE 1: Is the Quality of Service provided by United Water Florida, Inc., to its customers satisfactory?

RECOMMENDATION: Yes, the quality of service provided by UWF to its customers is satisfactory. However, the utility should be required to develop a program that requires a utility representative to return customers' telephone calls within a specified time period to be more responsive to customer complaint letters and telephone calls. This program should be developed within six months of the issuance date of the Commission order and a copy sent to the Commission. (FUCHS)

STAFF ANALYSIS: Staff's recommendation on the overall quality of service provided by the utility is derived from the evaluation of three separate components of Water and Wastewater Utility Operations:

(1) Quality of the Utility's Product (water and/or wastewater),
(2) Operational Condition of the Utility's Plant or Facilities and
(3) Customer Satisfaction

Quality of Utility's Product

In order to assess the overall quality of service provided by the utility, the quality of the product (water and/or wastewater) must be evaluated. This evaluation consists of a review of the utility's current compliance with Department of Environmental Protection (DEP) and Health Department (water and wastewater) standards.

The ultimate concern of a water utility is the quality of piped water consumed by customers. The degree to which a utility is able to maintain satisfactory water quality may be reflected by its ability to meet DEP primary and secondary drinking water standards, as well as several unregulated standards set by the Environmental Protection Agency (EPA).

The primary drinking water standards include maximum contaminant levels (MCLs) for harmful contaminants. These MCLs are not to be exceeded, unless specified otherwise by a DEP variance or exemption. Some examples of primary contaminants are arsenic, lead, trihalomethanes, coliform bacteria and radium. Secondary

drinking water standards generally contain MCLs which regulate the aesthetic qualities of the water, such as color corrosivity, odor and hardness. Additionally, each utility must periodically test for several unregulated contaminants, which the EPA considers potentially harmful. These contaminants are still under investigation by the EPA.

The primary concern of a wastewater utility is the quality of the effluent discharged from the plant. Plant effluent has specific limitations, which are dependent on the point of discharge. For example, the limitations imposed on surface water discharges (lakes and rivers) are more stringent than discharges to percolation ponds.

UWF has no current DEP, Health Department or EPA violations with either the water or wastewater facilities.

Operational Condition of the Utility's Plant or Facilities

The operational conditions of the utility's treatment and distribution/collection systems must also be evaluated to determine the overall quality of service provided by the utility. Evaluation of these systems includes a review of the utility's compliance with Department of Environmental Protection standards of operation as well as an analysis of proper system design. For example, among other standards of evaluation, water treatment plants and distribution systems are reviewed for compliance with permit standards and minimum operator requirements as well as standards regarding the location of wells with regard to potential sources of pollution. Wastewater treatment plants and collection systems are reviewed for compliance with permit standards, minimum operator requirements and lift station location and reliability among other standards. The utility is in compliance with all operational regulations. During a site inspection of all facilities, performed by a staff engineer the week of September 14, 1998, all but one of the facilities were found to be in proper maintenance and operational condition. At that site, the Green Forest Water Treatment Plant (WTP), a chlorine leak in the chlorine room was discovered. The chlorine odor was easily detectable from outside the room. The supervisor immediately dispatched an operator to the site and the leak was repaired.

Customer Satisfaction

The final component of the overall quality of service which must be assessed is the level of customer satisfaction which results from the utility's relations with its customers. A

qualitative evaluation of these relations includes a review of proper notification requirements between the utility and its customers as well as a review of action taken by the utility regarding customer complaints. For example, utility policies are reviewed in order to insure that customers have been properly notified of scheduled service interruptions.

On September 10, 1998, staff conducted both morning and evening customer meetings. In addition, staff met with representatives of homeowners associations on the afternoon of September 9, 1998, and a customer requested meeting on the morning of September 11, 1998 Approximately 85 persons attended the four scheduled meetings. Of those, forty-two customers testified: 25 complained regarding the poor water quality, 13 complained about the rates being too high and 4 complained about a combination of high rates and poor quality. One customer, Mr. Carl Phillips, also complained of an overflowing sewer.

The Commission also has received 76 letters from customers. There were 27 registering complaints about high rates, 25 complained about rates and poor quality, 23 complained about quality and one was concerned about a lack of fire hydrants in the South Ponte Vedra Beach area.

If one combines the various complaints from both customer meetings and the complaint letters, there was a total of 77 complaints regarding poor water quality, 69 mentioned rates being too high. At least two of the customers were representing multiple families totaling 277 customers. They both complained about rates and quality. Analysis of the written complaints about water quality, when specific problems were mentioned revealed the following numbers: bad taste 15, poor pressure 6, odor 18, corrosivity 8, service interruption 1, color 10, high Chlorine 9, sediment 5.

Eight of the customers complaining about odor and corrosivity reside in the Royal Lakes area, six in the San Jose area and three in the Arlington area. The Royal Lakes and San Jose area are two that are receiving new "packed tower" aeration units. Packed towers are new technology designed to replace the older tray aerators. Packed towers have been shown to remove Hydrogen Sulfide much more effectively than tray aerators, permitting less Chlorine and other chemicals to be required in the treatment process. The Arlington area is also scheduled to receive improved corrosion control equipment.

Additionally, several customers also complained about the utility's lack of responsiveness to their concerns when they called with a problem. They stated that they are frequently not called back when they leave a number. The theme . . . if they would just bother returning my calls . . . was repeated several times. These complaints were specifically brought to the attention of utility representatives attending the meetings and we received a verbal commitment that they would improve in that area.

The staff engineer visited the homes of four complainants, Ms. Beth Perry, Ms. Elizabeth Drummond, Mr. Robert LaBelle and Mr. Phillips. Also, Ms. Linda Montgomery was contacted and interviewed by phone. Their complaint, with the exception of Mr. Phillips, was poor water pressure and high chlorine. Water pressure, at the time of the visits, was well above FDEP's minimum requirement of 20 pounds per square inch. Chlorine levels and H2S odors also, were not a problem on the day of the visits. The "packed towers" being installed by UWF should alleviate high chlorine, odor and corrosive problems. Because of the efficiency of the towers in removing H2S, less chlorine will be required to control H2S odor leaving less residual chlorine in the water lines, especially those nearer the treatment plants.

A site visit to the reported sewer overflow produced no visual evidence of such an occurrence. The manhole cover appeared not to have been disturbed for a long period. Grass was overgrowing it profusely and there was no evidence of sewer line residues in the area.

The staff engineer also visited the service area of South Ponte Vedra, where residents complained of a lack of fire hydrants. Staff met with two of the area representatives who registered their concern regarding the lack of fire hydrants in the area at the September 9 meeting with homeowners associations. The utility has made a commitment to the residents, in writing, to begin installation of approximately 10,000 feet of 8" water mains and sufficient hydrants to meet insurance requirements no later than the year 2000. However, according to Fire Marshall, Mr. Frank McElroy, St. Johns County currently has no ordinance requiring retroactive refitting of older systems.

UWF has more than 28,000 customers within its three county service area. The utility is attempting, with a large portion of the increase requested in this proceeding, to alleviate the very problems brought forth by many of the customers attending the customer meetings.

Staff recommends the Commission require UWF to develop a program that requires a utility representative to return customers' telephone calls within a specified time period to be more responsive to customer complaint letters and telephone calls. This program should be developed within six months of a Commission order and a copy of it sent to the Commission. Staff further recommends the Commission find the quality of service provided to its customers by UWF to be satisfactory.

RATE BASE

ISSUE 2: Is the projected level of additions to plant in service appropriate for inclusion in this rate case?

RECOMMENDATION: Yes. (FUCHS)

STAFF ANALYSIS: Many of the proposed plant in service additions, such as the addition of "packed tower" aeration equipment, are to improve water quality in several service areas which was discussed in Issue 1. Other additions involve plant safety items, such as railings at a wastewater treatment plant (Royal Lakes) or replacement of worn or outdated equipment to improve efficiency. The construction of the new Wastewater Treatment Plant (WWTP) at Blacks Ford will permit closing at least one outdated facility and permit growth in an area of St. Johns County that is expected to experience much growth in the near future due to the land being sold by a paper company which has extensive holdings in the area.

A list of the projected water and wastewater projects, including a description and projected dollar investment of each is shown as Attachment A.

Staff recommends the Commission find the projected level of additions to plant in service appropriate for inclusion in this rate case.

UNITED WATER FLORIDA, INC. **ATTACHMENT A**
TEST YEAR ENDED 12/31/99 **DOCKET 980214-WS**
Budget Year 1998 - Water Projects **Page 1 of 3**

Project Description	Totals
H2S Treat Monument Road	$21.4
Ortega WTP Upgrade	$335.6
San Jose WTP tank	($44.1)
Wheat Rd Tank	$44.0
Signs	$2.7
H2S Treat Royal Lakes	$510.0
Hyde Grove Upgrade	$132.8
PDL WTP Pump Rpl	$3.2
Marshview GST	$410.0
H2S Treatment San Pablo (Elvia)	$350.0
H2S Treatment San Jose	$550.0
St. John's Forest GST	$303.5
St. John's No. WTP Tank	$498.2
New Monument Rd WTP GST	$529.6
Lofton Oaks GST	$595.0
Sunray North Well	$212.3
Monument Rd Well	$235.0
St. John's North Well	$186.0
Alderman Park Generator	$47.4
Royal Lakes Electrical Upgrade	$65.3
Aux. Generator - Ponce de Leon	$75.0
Replacement High Service Pumps	$8.9
Replace Well Pumps	$40.0
Replacement High Service Pumps	$40.0
St. Johns Forest - Fire Pump	$51.0
Flow & Pressure Recorders	$17.0
St. John's North WWTP	($52.6)
Corona Rd Corrosion Control	$0.2
San Jose Corrosion Control	$0.3
Upgrade 7 WTP Disinfect System	$12.3
Arlington Corrosion Control	$0.8
Jax Heights Corrosion Control	$0.6
MVW & Q-acres Corrosion Control	$1.0
Chlorine/pH Analyzers	$40.0
Chlorine Scales	$10.0
Many Main Replacement Projects	$3,706.9
Various Projects for Services	$1,358.4
Various Projects for Meters	$296.9
Hydrant Projects	$172.9
Various Data Processing Projects	$944.2
Safety & Misc. Eq.	$65.8
SCADA MOSCADS	$30.8
WTP Valve Replacement	$8.9
Total 1998 Water	**$11,817.2**

UNITED WATER FLORIDA, INC. **ATTACHMENT A**
TEST YEAR ENDED 12/31/99 **DOCKET 980214-WS**
Budget Year 1998 - Wastewater Projects **Page 2 of 3**

Project Description	Totals
Holly Oaks	$432.1
Jax Heights Ops Bld.	($7.4)
San Pablo WWTP Bld.	$7.9
Stardust LS	$35.4
Sandy Cove LS	$30.7
Lucina & Jiffy Mart LS	$6.1
Marsh Landing LS	$8.6
Ponte Vedra WWTP Upgrade	$1,357.1
Ponte Vedra WWTP Site Work	$199.8
Blacks Ford Land Acq.	$795.8
Sunray Env. Assessment	($16.2)
Various Main Projects	$1,364.8
More Replacement Mains	$2,274.6
Replacement Laterals & STEPs	$1,322.8
Flow Recorders	$6.0
Extensions	$434.6
San Pablo Apt L/S (Yulee Jail)	
Monterey WWTP	$91.3
Various LS Projects	$188.7
San Jose	$16.5
St. John's North WWTP	
San Pablo	$14.2
Royal Lakes WWTP Railings	$6.8
San Pablo UV System	$312.2
Royal Lakes Upgrade	$438.7
Jax Heights Lime Handling Upgrade	$38.0
Ponte Vedra Effluent FM	$150.0
Jax Heights Stream Gages	$2.6
St. Johns Forest GST	$107.0
Various Computer Equipment	$1,332.7
Safety Equipment	$6.0
Ortega Hills Master PS	$34.8
SCADA	$432.9
Various Projects	$74.6
Total 1998 Wastewater	**$11,482.4**
Combined 1998 Water & Wastewater	**$23,299.6**

UNITED WATER FLORIDA, INC. **ATTACHMENT A**
TEST YEAR ENDED 12/31/99 **DOCKET 980214-WS**
Budget Year 1999 - Water Projects **Page 3 of 3**

Project Description	Totals
Lofton Oaks WTP Expansion	$375.0
Arch./Structural Imp. WTP	$50.0
Disinfection - Liquid	$190.0
H2S Treatment - Alderman Park	$400.0
H2S Treatment - Corona Rd	$210.0
H2S Treatment - Elvia	$450.0
WTP Flowmeters	$45.0
SCADA Upgrades	$20.0
Replace HS Pumps	$40.0
Replace Well Pumps	$40.0
St. John's Forest HSP - Pump Station	$300.0
Otter Run - Well Pumps	$100.0
Various Main Extensions	$1,535.0
Various Services	$1,102.0
New and Replacement Meters	$230.0
Hydrants	$87.5
New St. Johns North Regional WWTP	$10.0
Hardware Upgrades	$40.0
Safety & Misc. Eq.	$60.0
Total 1999 Water	**$5,284.5**

Budget Year 1999 - Wastewater Projects

New St. John's Regional WWTP	$5,803.0
San Pablo WWTP (Digestor)	$601.0
Monument Rd. Force Main City Rd.	$107.9
Extensions to New Customers	$325.0
Ortega Hills FM (Phase-out wwtp)	$455.0
Tie-in Cimmarone to Black Ford	$750.0
Tie-in St. John's North to Black's	$250.0
Various Extensions to Customers	$1,775.0
Sewer Laterals	$1,075.0
Extensions to new customers	$160.0
Lift Station Upgrades	$175.0
LS for Cimmaron tie-in to Black Ford	$150.0
LS for St. John's tie-in to Black Ford	$150.0
Future Projects & Safety Eq.	$60.0
Total 1999 Wastewater	**$11,826.9**
Combined 1999 Water & Wastewater	**$17,111.4**

ISSUE 3: Should a margin reserve be granted for the water and wastewater systems?

RECOMMENDATION: No for all except the Blacks Ford WWTP. The utility did not request a margin reserve. Further, if the Commission votes in Issue 5 to approve staff's recommendation for 100% used and useful for all systems except the new WWTP, known as St. Johns Regional WWTP (Blacks Ford), a margin reserve is not necessary. Regarding the Blacks Ford facility and land, a margin reserve equal to 175,840 GPD is recommended. The methodology for this margin reserve calculation is discussed in the used and useful Issues 5 & 6. (FUCHS)

STAFF ANALYSIS: The purpose of a margin reserve allowance is to permit a utility to expand prudently beyond its current demands to enable it to meet reasonable projected short term growth. It is staff's practice to recommend a reasonable margin reserve when necessary and requested by the utility.

Section 367.111(1), Florida Statutes, provides, in part, that "[e]ach utility shall provide service to the area described in its certificate of authorization within a reasonable time." In past orders, we have recognized that, for a utility to meet this statutory responsibility, it must have sufficient capacity and investment to meet existing demands of present customers and the demands of potential customers. Staff has consistently recognized margin reserve as an element in used and useful calculations. However, when the plant is recognized to be 100% used and useful, as staff recommends for the majority of the plants in this docket, no further growth, or growth beyond present capacity, is contemplated for that facility and a margin reserve, which is specifically granted for growth, is not necessary.

Margin reserve is calculated by including the number of equivalent residential connections (ERCs) from previous years (usually five years) and utilizing the regression analysis method of projection. Regarding the Blacks Ford plant, there is no ERC history since this is a new facility in a relatively new and undeveloped area. What staff has in this docket is the utility's flow projections based on two components:

1) Immediate flows being transferred to the plant upon going on line, and;
2) Developer requests for capacity (Attachment B) until the year 2001.

Since growth for the margin reserve is usually projected for an 18-month period, absent justification by the utility for a longer time period, staff has substituted the utility's flow projections through the year 2001 in lieu of historical growth in ERCs. The Commission has previously used alternative methods of calculation of growth for margin reserve. In Order No. PSC-94-1042-FOF-SU, issued August 24, 1994, Mid-County Services, Inc., had a negative growth history for the preceding years due to problems with the plant and a consent decree imposed by the DEP forbidding additional connections. In response to a staff request in that case, the utility submitted data revealing developer requests for capacity which was used by the staff in the margin reserve calculations and approved by the Commission.

Based on the foregoing, staff recommends no margin reserve for all facilities in this docket except the Blacks Ford WWTP and land as discussed in Issues 5 & 6. A margin reserve equal to 175,840 GPD is recommended for the Blacks Ford WWTP.

ISSUE 4: Is there excessive unaccounted for water, and, if so, what adjustments are necessary?

RECOMMENDATION: Yes, there is excessive unaccounted for water in several systems. Expenses for Accounts No. 610 (purchased water), 615 (purchased power) and 618 (chemicals), should be reduced by the following amounts:

Account no. 610 (purchased water)	$9,058
Account no. 615 (purchased power)	$9,941
Account no. 618 (chemicals)	$3,533

Further, UWF should be ordered to study each system having more than 10% unaccounted for water, as reported in its MFRs, in this docket, Schedules F-1, to determine the problems causing unaccounted for water and what steps are necessary to reduce the amount to an acceptable level and the cost of doing so on a per system basis. Those systems include:

SYSTEM	% UFW	SYSTEM	% UFW
Arlington	12.36%	Forest Brook	18.88%
Holly Oaks	15.60%	Ortega Hills	15.25%
Ponce De Leon	20.40%	San Jose	10.10%
St. Johns North	10.01%	Milmar	47.33%
Ridgeland	12.57%	Riverview	33.27%
Town & Country	16.50%	Westwood	11.17%

The utility should be ordered to report its findings in the study, to this Commission, within 6 months of the effective date of the final order in this docket. Further, the utility should be ordered to clarify to the Commission, in that report, why monthly reported unaccounted for water in various systems ranges from as low as minus 398% to a positive 225%. (FUCHS)

STAFF ANALYSIS: The company-wide unaccounted for water is reported by the utility in its MFRs in this docket, to be 8.5%. What the overall percentage tends to mask, however, is that several systems have excessive amounts of unaccounted for water, with excesses ranging from a low of 0.01% to a high of over 37% above the normally accepted level of 10%.

In Order No. PSC-97-0618-FOF-WS, issued May 30, 1997, in the preceding rate case involving UWF, the Commission found, "...in keeping with our policy of reviewing service areas individually for unaccounted for water, a reduction to expenses is appropriate. Accordingly, we have reduced Purchased Water by $18,460; Purchased

Power by $2,967; and Chemicals by $617. Additionally, the utility shall continue to take corrective action to reduce the excess unaccounted for water wherever feasible."

In the filing for this case, monthly unaccounted for water percentages for individual systems range from minus 398% to positive 225%. The utility appears to have made positive steps toward an attempt to reduce overall unaccounted for water since the previous rate case. The number of systems exceeding 10% of unaccounted for water is 12 in this docket compared to 15 in the preceding docket. However the total unaccounted for water appears to have increased slightly as indicated by the total increase in reduction to expenses recommended by staff, $22,532 compared to $22,044 in the last docket. Staff remains concerned with the number of systems still reporting excesses and the amounts of unaccounted for water in them. Staff is particularly puzzled about the Brackenridge system. It is reported to have a 59% negative unaccounted for water percentage. The utility reported in its MFRs that it purchased 7.709 million gallons of water and sold 12.675 million gallons. Staff is curious how a utility can sell more water than it pumps or purchases at a single system.

When calculated separately, all systems pumping water have a combined 10.14% unaccounted for water. This combined percentage is a fraction over the normal allowable threshold of 10%. Those systems of the utility that purchase water reveal a combined percentage of unaccounted for water of 11.57%. Unaccounted for water percentages in those systems range from minus 59.07% to a positive 47.33%. If only the systems with unaccounted for water over 10% are calculated, the systems pumping water have a combined unaccounted for water percentage of 12.88%. Those systems purchasing water have levels ranging from 11.17% to 47.33% for a combined 23.79% of unaccounted for water. As stated previously, the normal acceptable threshold of unaccounted for water is 10%, therefore the utility is 13.79% over in those systems.

In order to arrive at the recommended expense reduction for each account, staff calculated the excess unaccounted for water on a per system basis for all systems exceeding 10%. Systems pumping water were segregated from those purchasing water. Expenses for specific systems, were allocated to each as a percentage of the total expense according to the individual flows reported. Purchased power and chemical expenses were allocated only to the systems pumping water and purchased water expense was allocated only to those systems purchasing water for distribution. The results were then totaled according to the specific accounts 610(purchased water), 615(purchased power) and 618(chemicals).

As quoted above, in Order No. PSC-97-0618-FOF-WS, the utility was also ordered to take corrective action to reduce excess unaccounted for water wherever feasible. Staff believes the amount of unaccounted for water remaining indicates an urgent need to continue this course of action with more emphasis on correction and less on *wherever feasible.*

Based on the foregoing analysis, there is excessive unaccounted for water in several systems. Expenses for Accounts No. 610 (purchased water), 615 (purchased power) and 618 (chemicals), should be reduced by the following amounts:

Account no. 610 (purchased water)	$9,058
Account no. 615 (purchased power)	$9,941
Account no. 618 (chemicals)	$3,533

Further, UWF should be ordered to study each system having more than 10% unaccounted for water, as reported in its MFRs, Schedules F-1, in this docket, to determine the problems causing unaccounted for water and what steps are necessary to reduce the amount to an acceptable level and the cost of doing so on a per system basis. The utility should be ordered to report its findings in the study, to this Commission, within 6 months of the effective date of the final order in this docket. Further, the utility should be ordered to clarify to the Commission, in that report, why monthly reported unaccounted for water in various systems ranges from as low as minus 398% to a positive 225%.

ISSUE 5: What are the appropriate used and useful percentages for the water and wastewater systems?

RECOMMENDATION: All water treatment plants and distribution systems should be considered 100% used and useful. With the exception of the new St. Johns Regional WWTP(Blacks Ford), all wastewater treatment plants and collection systems including the St. Johns Regional WWTP collection system should be considered to be 100% used and useful. The Blacks Ford WWTP should be considered to be 49% used and useful. Accordingly, used and useful plant should be reduced by $2,969,279 and used and useful accumulated depreciation should be reduced by $587,950. Used and useful depreciation expense and property taxes should be reduced by $165,092 and $29,039, respectively, to show the expenses associated with the non-used and useful plant. (FUCHS, B. DAVIS)

STAFF ANALYSIS: Based on staff analysis and expert witness testimony in the previous rate proceeding involving UWF, Docket No.960451-WS, this Commission found all water treatment plants and distribution systems and wastewater treatment plants and collection systems for this utility to be 100% used and useful. That finding was memorialized in Order No. PSC-97-0618-FOF-WS, issued May 30, 1997. With the exception of the new Blacks Ford WWTP, no capacity has been added at any system since that order was issued.

Blacks Ford WWTP, which has a design capacity of 1 MGD, will replace the St. Johns Forest plant which will be closed. St. Johns Forest has a capacity of 0.070 MGD, with average daily max month flows of 0.049 MGD. In response to a staff data request, the utility provided developer requests for service with estimated flows to the Blacks Ford WWTP through the year 2001. The requests for service, upon which the utility forecasts are based, are shown on Attachment B. Beginning with initial flows of 312,480 GPD in 1999, the utility has commitments that reveal a steady increase in flows to the year 2001 projected 488,320 GPD figure, which, as discussed in Issue 4, were used for margin reserve flow figures in lieu of the nonexistent historical growth in the used and useful calculation. Used and useful calculations for the Blacks Ford plant are shown on Attachment C.

In its original filing in this proceeding, the utility requested in paragraph 8 that, "In the event that the Commission determines that any of the applicant's facilities are not 100% used and useful, the Applicant requests that it be allowed to charge and collect an Allowance for Funds Prudently Invested (AFPI) in an amount sufficient to cover all water and wastewater plant amounts

that are determined by the Commission not to be used and useful." AFPI is addressed in a separate issue. Due to the expected growth projections for the area served by the Blacks Ford plant submitted by the utility, staff believes construction of a 1.0 MG plant in lieu of a smaller capacity plant which would require additions in the immediate future, should the projected growth rate continue, to be a prudent decision.

Staff recommends the Commission find all water treatment plants and distribution systems and, with the exception of the new Blacks Ford WWTP, all wastewater treatment plants and collection systems, including the Blacks Ford collection system to be 100% used and useful. The Blacks Ford WWTP should be considered to be 49% used and useful.

The cost estimate for the Blacks Ford WWTP is $5,803,000. The non-used and useful portion, 51%, is $2,969,279. The portion of accumulated depreciation associated with the non-used and useful plant is $587,950 and the depreciation expense, at the average rate for treatment plant, is $165,092. The percentage of non-used and useful plant to total plant is 2.91%. Staff has also removed $29,039 for non-used and useful property taxes, or 2.91% of the total property taxes of $999,027.

ATTACHMENT B
St. Johns Regional WWTP

State of Florida
Public Service Commission
Docket No. 980214-WS
Information Request via FAX

Question:

Referring to a memorandum from Pasquale J. Radice, dated June 2, 1998.

In paragraph two under "discussion", it states "currently in the St. Johns Service area UWFL has committed a flow of 488,00 gpd or approximately 1,700 Equivalent Residential Customers (ERC's) to existing development projects. UWFL anticipates immediate flow of 200,000 gpd from the existing treatment facilities and is projecting a flow of 1 mgd by the year 2002.

Where are the flows of 488,000 gpd in excess of the "immediate flow of 200,000 gpd" expected to come from?

What is the expected time period for the additional 288,000 gpd to develop?

Has the utility received any requests to date from developers reserving capacity from the Blacks Ford facility? If yes, please provide copies.

Has the utility received any contributions to date from developers reserving capacity? If yes, please provide amounts and names of the developers and time frames for expected connections.

Response:

The projected flow of 488,000 gpd is a combination of existing flows and committed developer projects. The anticipated flows are summarized in the following table;

Project Name	# ERC's	Proj/Permitted Flow (280 gpd/ERC)

Existing Commitments/Flow	1116	312480
Cimmarone - Phase 1	113	31640
Cimarone - Arrowhead Point	31	8680
St. Johns County - Fire Station	5	1400
Cim. Prop. Owners Assoc. Pool	2	560
Southern Grove S/D - Phase 1	52	14560
Nat. Auto/Truckstops Inc.	41	11480
Cimarone Clubhouse	21	5880
Southern Grove S/D - Phase II	38	10640
Johns Glen - Phase I	49	13720
Indian Creek	69	19320
Emro Marketing Co. (Marathon)	13	3640
Southlake - Unit One (Panitz)	65	18200
Commanche Trail at Cimarone	78	21840
Johns Glen - Phase 2	51	14280
Totals	**1744**	**488,320**

Based upon the information available at this time, it is anticipated that the total wastewater flow in the St. Johns Service Area will be 488,000 gallons per day in the years 2000-2001.

Currently there are two projects whose flows been assigned to the Blacks Ford Regional WWTP as a result of the DEP permitting process. Those projects are Bridgestone at Cunningham Creek Plantation, Unit One and Lake Cunningham at Cunningham Creek Plantation, Unit One. A copy of the DEP permit showing this assignment is attached.

The utility has received $102,750 in contributions from the two projects mentioned above. Appropriate pages from the developer agreement has been attached which shows the breakdown of the contributions collected.

ISSUE 6: What is the appropriate used and useful percentage for the land acquired for the new St. Johns Regional WWTP (Blacks Ford)?

RECOMMENDATION: The land acquired for the St. Johns Regional WWTP should be considered to be 49% used and useful. Accordingly, non-used and useful land should be reduced by $407,195. (FUCHS, B. DAVIS)

STAFF ANALYSIS: In its original filing in this proceeding, the utility requested that, "In the event that the Commission determines that any of the applicant's facilities are not 100% used and useful, the Applicant requests that it be allowed to charge and collect an Allowance for Funds Prudently Invested (AFPI) in an amount sufficient to cover all water and wastewater plant amounts that are determined by the Commission not to be used and useful." AFPI is addressed in Issue 33. The utility purchased approximately 330 acres of land for the new regional WWTP for $795,800. Thirty acres of the land is dedicated to the treatment plant site. The remaining land, which is mostly swampland underwater, is to be used for effluent disposal. Staff was told by the utility that, at the time of purchase, UWF was required to buy the entire parcel as a condition of purchase.

While staff recognizes that the swamp land cannot be sectioned off or partitioned and the entire area will be used, the land was purchased as an effluent disposal site for up to 1 MGD. Further, the utility submitted no supporting documentation or studies showing the actual flow or disposal capacity of the area. Until such a study or flow data is submitted, staff believes it should be tied directly to the plant size. Staff recommended, in Issue 5, that the Commission find the plant to be 49% used and useful based on expected flows.

Based on the foregoing, staff recommends that the Commission find the land, in its entirety, was a prudent investment. Further, consistent with the used and useful recommendation for the WWTP, staff recommends that the Commission find the land to be considered 49% used and useful.

The cost for the land acquired for the St. Johns Regional WWTP is $795,800. The non-used and useful portion, 51%, is $407,195 and should be removed from rate base.

ISSUE 7: Should the Commission include an imputation of Contributions in Aid of Construction (CIAC) on the margin reserve?

RECOMMENDATION: Yes. The Commission should include an imputation of CIAC as a matching provision to the margin reserve calculation. However, as an averaging method, only 50% of the imputed CIAC should be recognized since the imputed amount will be collected over the life of the margin reserve period rather than all at the beginning of the period. In addition, the imputation should be limited to the amount of net plant included in the margin reserve. Accordingly, wastewater CIAC should be increased by $160,102. Corresponding adjustments should also be made to increase wastewater accumulated amortization of CIAC by $2,690 and increase test year amortization of CIAC by $5,379. (KYLE)

STAFF ANALYSIS: The margin reserve reflects the utility's obligation to serve existing and potential customers, and its investment in central plant to meet this service obligation. If margin reserve is included in the used and useful calculations, then, to achieve proper matching, an amount of CIAC equivalent to the number of equivalent residential connections (ERCs) represented by the margin reserve should be reflected in rate base. When determining the amount of imputed CIAC, the Commission should use the existing or new capacity charges, since this is a forward looking adjustment. The Commission has also found that the amount of CIAC recognized in rate base should be no greater that the amount of net plant included in the margin reserve. Our imputation of CIAC on the margin reserve in this case is consistent with previous Commission decisions. See Order No. 20434, issued on December 8, 1988 in Docket No. 871134-WS; Order No. 20272, issued on November 7, 1988 in Docket No. 880308-SU; Order No. 24735, issued on July 1, 1991 in Docket No. 900718-WU; and Order No. PSC-93-0301-FOF-WS, issued on February 25, 1993 in Docket No. 911188-WS.

In conclusion, staff recommends that the Commission should impute CIAC on the margin reserve in this case. In the wastewater facilities this equates to $320,205 based on the 628 ERCs included in the margin reserve (1.5 years) times the current $510 plant capacity charge.

In the most recent rate proceedings of other water and wastewater utilities, the Commission has decided to impute only 50% of the CIAC estimated to be collected during the margin reserve period. This is based on the premise that all of the CIAC related to the margin reserve will not be collected on day-one of the

period, but evenly over the three-year period. See Order No. PSC-97-0388-FOF-WS, issued on April 7, 1997; Order No. PSC-96-1320-FOF-WS, issued on October 30, 1996; and Order No. PSC-96-1338-FOF-WS, issued on November 7, 1996. Fifty percent of the gross CIAC for the wastewater system, stated above, is $160,102. The amount of net plant included in the margin reserve is $958,283. Accordingly, for the Blacks Ford wastewater system, staff recommends that it is appropriate to impute additional CIAC of $160,102. Adjustments should also be made to increase accumulated amortization of CIAC by $2,690 and increase test year amortization of CIAC by $5,379.

ISSUE 8: What is the appropriate allowance for working capital?

RECOMMENDATION: The appropriate amount for the allowance for working capital is $676,214 for water and $1,202,159 for wastewater. This requires a reduction of $258,949 for water and $460,352 for wastewater from the amounts proposed by the utility in its MFRs. (KYLE, MERCHANT)

STAFF ANALYSIS: In Audit Disclosure No. 8, the staff auditors note that Minimum Filing Requirement (MFR) Schedule A-17 reflects Working Capital to be $2,597,674 for the year ending December 31, 1999. The audit staff noted several differences between the MFR and the General Ledger. These differences are noted below:

Account	Description	MFR	General Ledger	Difference
174	Miscellaneous Current Assets	$98,430	$0	($98,430)
162	Prepayments	$0	$33,393	$33,393
186.601	Deferred Tank Painting Expense	$1,132,413	$202,646	($929,767)
	TOTAL	$1,230,843	$236,039	($994,804)

The utility answered this disclosure by stating that the above differences in the Miscellaneous Current Assets (No. 174) and in the Prepayments (162) result from labeling the miscellaneous current assets incorrectly. The $98,430 actually comprises two prepaid general ledger accounts: account numbers 165-000 (Prepayments), $5,378, and 165-200 (Prepaid Taxes), $93,052. These two accounts amount to $98,430, and should be identified as Prepayments on MFR A-17. The balance of the prepayments in the general ledger includes an account for prepaid pension costs which should be included in general ledger account number 263, Pensions and benefits reserve, and should not be included in the working capital calculation because it does not require a current expenditure of cash. The utility provided the following reconciliation:

Account No.	Description	General Ledger Amount	MFR A-17 Cash W.C.
165-000	Prepayments	$5,378	
165-200	Prepaid Taxes	93,052	98,430
165-800	Pension (Excluded)	-65,037	
Total		$33,393	$98,430

The Audit Report indicates that there is a $929,767 difference between the general ledger and the MFRs for the Deferred Tank Painting Expense. The general ledger system presents the beginning and ending balances related to the major account classifications, in this case the 186 series of accounts. The general ledger information on sub-accounts belonging to the 186 series, in this case Account 186.601, Deferred Tank Painting Costs, only shows the 12-month activity for that particular sub account. In order to accurately compare the balance in the sub-accounts, the analysis must include the beginning balance; otherwise, it will reflect only the year's activity and not the general ledger balance. In addition, the MFRs reflect a deduction reflecting the elimination of expiring tank painting cost amortizations. The reconciliation including a beginning balance for the general ledger is shown below:

	Tank Painting - MFR	General Ledger
Beginning Balance	$945,346	$945,346
1997 Activity	202,646	202,646
Ending Balance	$1,147,992	$1,147,992
Deduct Expiring Costs	15,579	0
Adjusted Balance	$1,132,413	$1,147,992

In addition to reviewing matters discussed in the audit report, staff analyzed UWF's calculation of working capital on Schedule A-17 of the MFRs. The MFRs did not provide the methodology for forecasting the balances of the accounts included in the working capital computation. Further analysis disclosed that there was a large unexplained difference between the working capital projected by the utility for the year ended December 31,

1997 in its last rate case ($1,030,677) and the working capital requirement resulting from historical data for 1997 presented in the MFRs for the present case ($2,946,011 based on a thirteen-month average). Staff also has doubts as to the reliability of the monthly balances because of the problems associated with the utility's new accounting software which was installed in 1997. The historical year end balance at December 31, 1997 ($1,652,134) is the only audited amount available.

Staff agrees that the 1997 year-end balance of working capital is inappropriate to use, because the test year is projected 1999. Also, UWF acquired two new facilities and added other plant subsequent to 1997. In the absence of specific documentation of the forecast methodology for accounts included in the working capital calculation, staff believes that an alternative calculation is appropriate. Test year working capital should be calculated by increasing the audited working capital allowance at December 31, 1997 by the same percentage as the increase in test year Operation and Maintenance expense recommended in this case over the historic 1997 Operation and Maintenance expense presented in the MFRs. Staff's calculation of the appropriate working capital requirement is summarized below.

Recommended O & M Expense, 1999 Test Year	13,740,568
Historic O & M Expense, 1997	12,085,597
Increase	1,654,971
Percentage Increase	14%
Working Capital at 12/31/97 (audited)	1,652,134
Recommended Increase (14%)	226,239
Working Capital Recommended	1,878,373
Allocation to Water (36%)	676,214
Allocation to Wastewater (64%)	1,202,159
Total	1,878,373

This results in a decrease of $258,949 for water and $460,352 for wastewater from UWF's requested working capital allowance.

ISSUE 9: By what amount should rate base be reduced for unfunded liability for Other Postretirement Employee Benefits (OPEBs)?

RECOMMENDATION: Rate base should be reduced by a total of $1,509,677 ($543,484 for water and $966,193 for wastewater) to reflect the unfunded liability for OPEBs, pursuant to Rule 25-14.012(3), Florida Administrative Code. This requires an additional reduction of $565,543 ($214,280 for water and $351,263 for wastewater) to the amount calculated by the utility in its MFRs. (KYLE)

STAFF ANALYSIS: By Order No. PSC-93-1040-FOF-PU, in Docket No. 910840-PU, issued July 16, 1993, the Commission adopted Rule 25-14.012, Florida Administrative Code, with an effective date of August 4, 1993. Section (3) of the rule states:

> (e)ach utility's unfunded accumulated Postretirement benefit obligation shall be treated as a reduction to rate base in rate proceedings. The amount that reduces rate base is limited to that portion of the liability associated with the cost methodology for post retirement [sic] benefits other than pensions.

In its MFRs, UWF calculated an average test year rate base reduction for unfunded OPEB liability of $914,456 ($329,204 for water and $614,930 for wastewater). Staff notes that, due to an apparent error in constructing Schedule G-1 of the MFRs, the two individual amounts do not sum to the total amount presented by the utility. In UWF's last rate case, the Commission ordered a rate base reduction of $1,153,000 ($415,080 for water and $737,920 for wastewater). In re: Application for rate increase in Duval, Nassau, and St. Johns Counties by United Water Florida, Inc., Order No. PSC-97-0618-FOF-WS, issued May 30, 1997, in Docket No. 960451-WS. On December 9, 1997, UWF filed a Petition for Limited Proceeding Regarding Other Postretirement Benefits and Petition for Variance from or Waiver of Rule 25-14.012, Florida Administrative Code. In its petition, the utility requested, among other things, that the rate base reduction ordered by the Commission be decreased by $838,025 ($301,689 for water and $536,336 for wastewater) because UWF had not recovered certain OPEB costs incurred before the effective date of the order. The requested reduction was used by UWF in calculating the rate base adjustment submitted in its MFRs. Subsequent to the filing of the MFRs in the current rate case, the Commission denied the utility's petition and request for variance or waiver. In re: Petition for Limited Proceeding Regarding Other Postretirement Benefits and Petition for Variance

from or Waiver of Rule 25-14.012, Florida Administrative Code, by United Water Florida, Inc., Order No. PSC-98-1243-FOF-WS, issued September 21, 1998, in Docket No. 971596-WS. This order became final on October 12, 1998. Accordingly, staff believes that the utility's requested adjustment should not be considered in calculating the test year rate base reduction for unfunded OPEB liability. It should be noted that on November 10, 1998, UWF filed notice of its intent to file an appeal of Order No. PSC-98-1243-FOF-WS with the First District Court of Appeal.

Staff has recalculated the rate base reduction as the cumulative OPEB obligation, less amounts funded by UWF. The cumulative OPEB obligation consists of actual OPEB costs incurred from the effective date of UWF's implementation of SFAS 106 through 1997 plus projected OPEB costs for 1998 and 1999 (as adjusted by staff). The level of funding consists of the actual funded amounts through 1996 as reported in the previous rate case, plus 22 percent of the additional costs from 1997 through 1999 (as estimated by UWF in its MFRs). Using this methodology, staff calculates projected unfunded OPEB liabilities of $1,297,689 at December 31, 1998 and $1,721,665 at December 31, 1999. Staff has followed the utility's methodology, with the exception of eliminating the utility adjustment denied in the Limited Proceeding, in calculating the appropriate test year rate base reduction as the average of these two amounts, $1,509,677.

During the development of the analysis for Docket No. 971596-WS, staff discovered that, in the last rate case, the transition obligation was considered for the purpose of determining annual OPEB expense, but was not considered in determining the rate base reduction. Staff originally believed that this was an error. Staff has researched Commission orders in which the OPEB rate base reduction was considered, issued since the effective date of Rule 25-14.012, Florida Administrative Code. All of the orders concluded that rate base reduction was required by the rule, but none specifically addressed the issue of inclusion of the transition obligation in the rate base reduction. In Re: Florida Public Utilities Co., Order No. PSC-94-0983-FOF-EI, issued August 12, 1994, in Docket No. 930720-EI. In Re: Poinciana Utilities, Inc., Order No. PSC-94-1168-FOF-WS, issued September 26, 1994, in Docket No. 930912-WS. In Re: Florida Cities Water Co., Lee County Division, Order No. PSC-96-1133-FOF-SU, issued September 10, 1996, in Docket No. 950387-SU. In Re: Florida Cities Water Co., Barefoot Bay Division, Order No. PSC-96-1147-FOF-WS, issued September 12, 1996, in Docket No. 951258-WS. In Re: Southern States Utilities, Inc., Order No. PSC-96-1320-FOF-WS, issued October 30, 1996, in Docket No. 950495-WS.

In addition to requiring the accrual of current period OPEBs expense, SFAS 106 requires recognition of a "transition obligation," consisting of the difference between the estimated present value of the accumulated OPEB costs not previously charged to expense, and the net fair value of qualifying plan assets when SFAS 106 was implemented. SFAS 106 permits two treatments of the transition obligation: (1) it may be charged to expense in one year; or (2) it may be amortized on a straight-line basis over a period of up to 20 years. By promulgating Rule 25-14.012, Florida Administrative Code, the Commission mandated that the rules of SFAS 106 would be used in accounting for OPEB costs for rate making purposes in Florida.

The utility appropriately included annual amortization of the transition obligation in the amount of $81,974 in its test year OPEB expense in the last rate case and in the current MFRs. In response to a staff request, UWF provided copies of worksheets used by its actuary in calculating the annual amortization amount. The worksheets identify the "transition obligation" as the "Unrecognized Transition Obligation After Recognition of the Plan Amendment Effective January 1, 1995." This amount is $560,801 and it relates solely to UWF employees. The annual amortization of this amount is $31,156. The worksheets also identify an "initial obligation" which is an allocation to UWF of the "initial Transition Obligation of Former GWC under Purchase Accounting Rules." This amount is $1,016,364, resulting in annual amortization expense of $50,818.

Subsequent to the issuance of staff's original recommendation on this issue, UWF pointed out that, pursuant to its interpretation of SFAS 106, it had never recorded the total transition obligation on its books. The utility's external CPA firm also submitted a letter supporting the validity of this interpretation. Staff now believes that UWF's position has merit, and that only the amortized portion of the transition obligation should be included in the rate base reduction required by Rule 25-14.012(3), Florida Administrative Code.

Following is a summary of staff's calculation of the appropriate rate base reduction.

	OPEB Obligation	Funded	Unfunded
Annual Expense:			
1995	449,121	(97,609)	351,512
1996	480,241	(114,597)	365,644
1997	235,848	(51,887)	183,961
1998 (Projected)	508,426	(111,854)	396,572
Cumulative 12/31/98	1,673,636	(375,947)	1,297,689
1999 (Projected)	543,559	(119,583)	423,976
Cumulative 12/31/99	2,217,195	(495,530)	1,721,665
1999 Average	1,945,416	(435,739)	1,509,677

ISSUE 10: What is the appropriate rate base?

RECOMMENDATION: The appropriate projected average rate base for the 1999 test year is $37,514,874 for the water system and $58,970,047 for the wastewater system. (B. DAVIS)

STAFF ANALYSIS: After considering the impact of the revisions to Issues 9 and 15, staff has determined that the appropriate projected average rate base for the 1999 test year is $37,514,874 for the water system and $58,970,047 for the wastewater system, as adjusted for the resolution of Issues 2 through 9 as shown on Revised Schedules 1-A, 1-B and 1-C attached to this recommendation.

COST OF CAPITAL

ISSUE 11: What is the net amount of deferred income taxes that should be included in the capital structure, if any?

RECOMMENDATION: Net deferred income taxes in the amount of $3,708,070 should be included in the capital structure at a cost rate of zero. (CAUSSEAUX)

STAFF ANALYSIS: The average amount of deferred income taxes (DITs) included in the utility's MFRs for the base year 1997 is $1,546,433. The utility did not project any additions for the projected years 1998 and 1999 and instead reflected the 1997 year-end balance of $1,799,426 for the test year 1999.

According to Audit Exception No. 4, the $1,799,426 year-end balance of DITs included in the utility's MFRs is $3,656,646 less than the year-end balance of $5,456,073 shown on the utility's General Ledger. Further, according to the Audit Report, the utility was unable to reconcile the difference.

In responding to the Audit Report, the utility states that the only amount of DITs properly included in rate base is the year-end amount of $1,799,426 which is due to book-tax depreciation. The utility further states that DITs attributable to the Statement of Accounting Standards No. 109 (SFAS 109) are to be revenue neutral and, thus, should not be considered. It would appear that the utility considers the year-end difference of $3,656,646 to be completely attributable to SFAS 109. The MFRs and response seem to indicate that the utility misconstrues the SFAS 109 and Rule 25-14.013, Accounting for Deferred Income Taxes Under SFAS 109, Florida Administrative Code, (Rule 25-14.013) to mean that only depreciation related deferred taxes are considered for rate making purposes. Staff disagrees.

SFAS 109 had the effect of grossing-up existing deferred tax and investment tax credit balances and the equity portion of the allowance for funds used during construction (AFUDC). The gross-up effectively restated the existing balances at a liability or asset level; that is, the deferred revenue level at which they would be paid or provide benefit in the future. It is the creation of this gross-up that is to be revenue neutral under Rule 25-14.013. For each addition to, or reduction of, an existing deferred tax balance, there would generally have been an equal and offsetting entry to a regulatory asset or liability. Further, it was contemplated that this offset would appear on the capital structure

schedule and that these amounts would be identifiable on a utility's books.

Deferred taxes, from whatever source, are includable in the capital structure if the transaction from which they arose is considered for rate making purposes. It is only the related gross-up that must be revenue neutral. Double entry bookkeeping would require that an addition to one side of the balance sheet would elicit an equal and off-setting one to the other side.

It appears that the utility had not previously normalized many items routinely normalized and, as a result of SFAS 109, had to create both the DITs that would have existed had there been comprehensive interperiod income tax allocation in place and the gross-up. Staff does not believe that it is appropriate to exclude DITs balances that would normally be a part of the capital structure for this reason. The utility's MFR schedules do not break the specific components of the DITs balances down to this level of detail.

Staff further notes that in 1998 and 1999 the utility calculated a deferred tax expense for book-tax depreciation which should have flowed to the balance sheet. This does not appear to have been done since the depreciation DIT balances did not grow between December, 1997 and the 1999 test year. The MFRs did not provide monthly data for DITs in 1998 or 1999. Therefore, in order to recognize the additional deferred tax expense calculated by the utility, staff has made a simple average calculation to increase the $1,546,433 13-month MFR average balances for 1998 and 1999. These amounts are $606,738 for 1998 and $623,911 for 1999, for a recommended test year DITs associated with depreciation of $2,750,082. In staff's original recommendation, we added the total average credit balance of SFAS 109 deferred taxes of $2,915,249. Staff also made a mathematical error in our original recommendation and overstated the adjustment by $27,000. The total DITs recommended by staff in the original recommendation was $5,692,331.

Based on information supplied by the utility in January 1999, staff was able to calculate the debit amounts that offset the credit amounts related to SFAS 109, and reduced the original adjustment for SFAS 109. The remaining average net amount included in the capital structure at zero cost is $930,988. Based on this adjustment, staff recommends that total DITs that should be included in the test year should be $3,708,070. This is a $1,908,644 increase to the utility's requested balance.

ISSUE 12: What is the appropriate amount and cost rate for unamortized investment tax credits that should be included in the capital structure?

RECOMMENDATION: Unamortized investment tax credits (ITCs) in the amount of $1,141,663 should be included in the capital structure at a cost rate of zero. (CAUSSEAUX)

STAFF ANALYSIS: In its last rate case proceeding, Docket No. 960451-WS, UWF was unable to provide a copy of its election for the rate making treatment of investment tax credits (ITCs). During the course of the hearing, the utility's witness proffered a late filed affidavit as to the election. Based on the contents of the affidavit, staff recommended that the Commission not rely on the affidavit. Staff further recommended that the Commission assign the ITCs a cost rate of zero with amortization of the ITCs to below the line income and expenses. The Commission's decision, as reflected in Order No. PSC-97-0618-FOF-WS, issued May 30, 1997, was to assign a zero cost rate to the ITCs and amortize the ITCs below the line.

In this proceeding, UWF has again been unable to provide a copy of an election. The MFRs say it will be provided later. It was not provided at the time of the audit nor has it yet been supplied. It is the utility that makes the election. Utility regulatory commissions may not mandate a specific election on the treatment of ITCs for rate making purposes or on the utility's regulated books of account. Assets that gave rise to existing unamortized ITCs generally have long lives, many exceed the passage of time since the first election was available in the year they were placed in service. Thus, staff believes that the prudent utility would keep its relevant records so that it can provide adequate, sufficient evidence of its election should it be questioned during the life of the related assets.

The utility states that it has been many years since it filed the election. Staff also notes that the utility says its ITCs were given the overall rate of return in prior proceedings and that staff's auditor calculated an overall rate of return for the ITCs in the utility's last rate case. Staff believes that these are not new arguments since they were considered and rejected in the last rate case and on reconsideration of that decision. Staff notes that an internal Commission memorandum indicates that this utility is subject to Option 1 treatment of it ITCs. Staff also notes that an earlier Commission Audit Report of this utility states that the

utility is an Option 1 utility. To staff's knowledge, the utility did not, at that time, dispute that portion of that audit report.

The utility stresses that it has been amortizing is ITCs ratably over the lives of the related assets. Apparently the utility believes this supports its claim to an Option 2 election. It should be noted that both Option 1 and Option 2 require ratable amortization. It is the resting place--above or below the line--of the amortization that differs.

Further, the ITCs of a utility are subject to more than one election. The first election had to be made by March 10, 1972. Some of the property subject to that election, or failure to elect, would, in all probability, have had a life of 40 to 50 years. Thus, there would still be ITCs in the utility's capital structure that are subject to that election. The second election was to be made by June 28, 1975, and related to the increase in the credit allowed by Congress. If a utility failed to make this election portions of its property could have been subject to both Option 1 and Option 2 elections. Thus, even if UWF did manage to produce a copy of its first election, it would have to also produce a copy of the second. Indeed, the utility has not mentioned this election in any of its responses to staff. In addition, the Tax Equity and Fiscal Responsibility Act of 1982, required utilities to elect whether to use the entire 10% credit and take a reduction to the tax depreciable base for the amount of the credit taken or to take an 8% credit without having to reduce the tax depreciable base of the related assets. Rule 25-14.009, Investment Tax Credit Elections, Florida Administrative Code, adopted May 17, 1983 required the utilities to justify their choice of credit percentage for each year. That rule was subsequently repealed when ITCs were repealed.

All of these elections should have been kept with the tax returns for those years. Absent the ability to find a copy of the elections, a copy could have been requested from the Internal Revenue Service. Thus, staff recommends a zero cost rate with amortization below the line.

ISSUE 13: What are the appropriate capital structure and weighted average cost of capital including the proper components, amounts, and cost rates associated with the capital structure for the projected test year ending December 31, 1999?

RECOMMENDATION: The appropriate capital structure for rate making purposes should be based on a combination of the relative percentages of investor capital maintained at the parent level and the actual balances of investment tax credits, deferred taxes and customer deposits maintained at the utility level. The appropriate weighted average cost of capital is 8.12%. (DRAPER, LESTER)

STAFF ANALYSIS: United Water Florida, Inc. (UWF) is a wholly-owned subsidiary of United Waterworks, Inc. (UWW), which provides all investor capital to its subsidiaries. UWF has been financed entirely with common equity by its parent utility UWW. Therefore, for rate making purposes, the appropriate capital structure for UWF's projected test year ending December 31, 1999 should be based on the relative percentages of investor capital maintained at the parent level as of December 31, 1997. The utility specifically identified the balances for investment tax credits, deferred income taxes, and customer deposits.

UWW's relative percentages of investor capital for the year ending December 31, 1997, are 46.16% common equity, 53.69% long term debt and 0.15% preferred stock. In its MFRs, UWF has proposed a projected 13-month average capital structure using ratios of 46.80% common equity, 53.06% long term debt and 0.15% preferred stock for the year ending December 31, 1999. The utility ratios differ slightly from the parent ratios because the utility projected a retention of earnings at the utility level. However, staff disagrees with the utility's projection of retaining earnings at the UWF level since the parent, UWW, controls the capital structure. Therefore, staff recommends that UWF's appropriate capital structure for the period ending December 31, 1999, should be based on the relative percentages of investor capital maintained at the parent level. The treatment of investor capital, investment tax credits, deferred income taxes, and customer deposits in this case is consistent with how these balances were treated in UWF's last rate case (Order PSC-97-0618-FOF-WS, issued May 30, 1997).

The cost of common equity as determined by the leverage formula currently in effect is 9.57%, with a range of plus or minus 100 basis points. The current leverage formula was established by Order No. PSC-98-0903-FOF-WS, effective October 6, 1998. The cost of long-term debt for UWF should be based upon the cost of long-

term debt of its parent, UWW. Based upon the utility's MFR filing, staff recommends that the appropriate weighted average cost of long-term debt is 7.69%. The cost rate for customer deposits is 7.00%. The utility requested an 8.84% cost rate for its investment tax credits (ITCs). Staff recommends that ITCs and deferred taxes have a zero cost rate. Staff further discusses the appropriate cost rate for ITCs in Issue 12.

Based on the relative amounts of investor capital, investment tax credits, deferred income taxes, customer deposits and the respective cost rates discussed above, the resulting weighted average cost of capital is 8.12%. Schedule No. 2 shows the components, amounts, cost rates and weighted average cost of capital associated with the December 31, 1999, test year capital structure.

NET OPERATING INCOME

ISSUE 14: What is the appropriate method of forecasting customers and consumption for the projected test year ending December 31, 1999, and what are the resulting projected increases in the number of water and wastewater customers and the resulting projected number of bills and consumption for the 1999 projected test year before repression adjustments, if any, are made?

RECOMMENDATION: Linear regression is the appropriate method of forecasting customers and consumption. The resulting projected increases in water and wastewater customers during the 1998 and 1999 rate years are 1,746 customers for the water system and 1,210 customers for the wastewater system. The resulting projected number of water and wastewater system bills for the 1999 projected test year are 146,076 bills and 113,358 bills, respectively. The resulting projected water and wastewater system consumption for the 1999 projected test year, before a repression adjustment, are 5,417,837,000 gallons and 3,961,678,000 gallons, respectively. (LINGO, B. DAVIS)

STAFF ANALYSIS: Our analysis of this issue included an examination of both the utility's historical year billing determinants as well as its projections and associated methodologies. Our discussion of each topic follows.

Historical Year Billing Determinants (B. DAVIS)

The historic billing determinants, customers, bills and quantity billed, were audited by staff and reflect, in all material respects, actual consumption by customer class.

Projections and Forecasting Methodologies (LINGO, B. DAVIS)

UWF's forecasts were developed based on a combination of linear regression and averaging methodologies. This analysis included (but was not limited to) an assessment of historical water consumption and wastewater use patterns for UWF, and forecasts of water and wastewater customer growth and consumption for the projected test year ending December 31, 1999. The primary database used to develop the models to forecast water consumption included total billed consumption and related adjustments, total bills rendered and customers served on a monthly basis.

Water System Customer Growth Forecasts

In order to predict customer growth for each customer group (residential, commercial and public sector), the utility assumed that the respective groups' average underlying growth would continue at about the same rate that was exhibited during the 1991 - 1997 period, exclusive of the disturbances caused by the addition of the Ponte Vedra and San Pablo systems. This customer growth was expected to continue through 1998 and 1999. In addition, the Sunray system was acquired and incorporated into the UWF system during 1997. The projected number of bills for each customer class was derived from the number of customers to be served, assuming that residential customers are billed four times per year and commercial and public sector customers are billed 12 times per year.

Water System Consumption Forecasts

The utility's explanatory data analysis revealed that weather conditions, as expected, had an impact on residential water consumption, particularly during the summer season. Therefore, a methodology that would enable analysis of the variability in water demand was deemed appropriate for the residential forecast. In addition, the utility recognized that the additions of acquired systems (Ponte Vedra, San Pablo and Sunray) would also affect consumption.

To normalize for the variability in water demand the utility decided to use simple regression analysis to assess the long run pattern in water use per bill rendered. The number of customers served was then multiplied by the trended use per customer to derive normalized water consumption for 1991 - 1997. Projected residential and commercial water consumption for 1998 and 1999 was derived by multiplying the trended use per bill by the projected number of bills. For the public sector class, a multiple regression equation that incorporated the number of bills rendered, and the addition of large blocks of public sector customers to the service area proved to be the best model.

Wastewater System Customer Growth Forecasts

The growth in the number of residential wastewater customers paralleled the growth in water customers, and the average underlying growth rate was calculated in the same way as for the water sector and projected to 1998 and 1999. The analysis of

commercial and public sector wastewater customers followed the analysis for the residential sector.

Wastewater System Consumption Forecasts

Wastewater usage is clearly a function of water consumption. Therefore, to project wastewater usage by customer class, the trend in the ratio of wastewater consumption to water consumption was assessed, and it was assumed that for the two rate years in this analysis the respective ratios for each customer class would remain constant.

Staff Discussion

Staff's analysis of UWF's forecasts was a multi-step process. First, we examined the utility's selection of averaging techniques to forecast customer growth. Next, we determined whether UWF selected models with reasonable predictive reliability. Third, we developed and examined other models which included independent variables that we believed would have an effect on consumption. Fourth, the predictive reliability of staff's models were compared to those of the utility. Finally, a comparison of the customer bills and consumption generated by both the utility's model and staff's model are compared, and conclusions are drawn. The details of our analysis follow.

Analysis of UWF's Averaging Methodology to Forecast Customer Growth

As discussed previously, averaging techniques were used to forecast customer growth. However, we believe simple linear regression can more accurately quantify a relationship between time and growth and therefore would more reliably reflect positive or negative trends in growth than would simple averaging. To illustrate this concept, Attachment C contains comparisons, both in numerical and graphical forms, of each customer class' customer growth forecast based on averaging versus simple linear regression. In each forecast, not only is the simple linear regression line a better fit to the actual data than the utility's flat average line, but the regression line yielded greater projected growth in customers than did simple averaging. Furthermore, the use of regression to forecast customer growth is consistent with Commission practice, and, as discussed in Order No. PSC-97-0618-FOF-WS, issued May 30, 1997, the Commission found that simple linear regression, rather than averaging, was the appropriate

methodology to use when forecasting customer growth for this utility.

Therefore, in the absence of any compelling documentation to the contrary, and consistent with previous Commission decisions and the Commission's finding in the last UWF rate case, staff recommends that simple linear regression is the appropriate methodology to forecast customer growth.

Staff's recommended methodology results in adjustments to the utility's water and wastewater systems' customer growth forecasts of 526 customers and 228 customers, respectively. The customer growth forecasts are subsequently used to forecast the number of bills rendered. (Residential customers are billed quarterly, while commercial and public sector customers are billed monthly.) The resulting customers, bills and consumption generated by staff's recommended forecasts is included as Attachment D, and a comparison of the resulting projected bills rendered and consumption, based on both UWF's and staff's recommended methodologies, is presented on Attachment E. As shown on Attachment E, staff's method resulted in bills rendered projections for the water and wastewater systems that are approximately 1.3% greater and 0.2% greater, respectively, than the utility's corresponding projections. Therefore, staff recommends adjustments of an additional 1,888 bills to the water system and an additional 257 bills to the wastewater system.

Analysis of UWF's
Water Consumption Forecast Model

As discussed previously, UWF recognized that weather and the additions of acquired systems as factors that would have an effect on residential water consumption. This is consistent with the utility's analysis of residential consumption in its last rate case. However, in its last rate case, the utility selected multiple (rather than simple) linear regression as the forecasting methodology that would best account for those factors. In that case, the utility stated:

> Explanatory data analysis revealed that weather conditions, as expected, had an impact on water consumption, particularly during the summer season. Therefore, a methodology that would enable analysis of the impact of weather conditions on water was deemed appropriate for the forecast. In addition, two systems ... had been acquired and incorporated into the United Water System....The addition of these

> systems represent a discontinuity in the historical data record, and therefore suggested that a way would have to be found to explicitly account for the addition of these systems in the analysis. Multiple linear regression is a methodology that can handle such a data history, and therefore was selected as the primary data analysis tool for this projection. (Docket No. 960451-WS, EXH 18, p. 2)

The Commission agreed, and as discussed in Order No. PSC-97-0618-FOF-WS, the Commission found multiple regression analysis to be the appropriate methodology to forecast UWF's consumption.

Although the stated factors affecting consumption in the instant case are the same as those stated in the utility's prior rate case with respect to weather and the incorporation of acquired systems, UWF nevertheless used simple regression analysis with one independent variable (time), rather than multiple independent variables, to forecast residential and commercial consumption. When asked about the change in forecasting methodologies, and how (or if) weather and the acquired systems were accounted for in the forecasting models in this case, the utility responded:

> Based on the understanding about overall system and sector demands in the UWF system gained in the prior case, and an examination of actual results for the intervening period between the last case and this case, it was determined that simpler trending analysis would provide comparably reliable results.... Since the projection methodology implicitly included the number of customers served (i.e., as part of the use per bill trending), coupled with the fact that the customer base added with the acquisition of Ponte Vedra, San Pablo and Sunray was similar in character to the existing customer base, it was decided that there was no need to explicitly take into account the addition of these systems by adding dummy variables to the analysis. The decision to use the trend in the use per bill as the primary predictive variable for water consumption trending was made based on my experience and use of this type of analysis in

> other systems.... (UWF Response to staff's Data Request No. 5-3)

Furthermore, the utility's consumption models in this case produced poor r^2 scores of 2.09% for the residential class and 3.20% for the commercial class. (r^2 values are a measure of predictive reliability; that is, how much variation in the dependent variable can be explained by the combination of the independent variables.) Assuming all other things being equal, the higher the r^2 value, the better the model. When asked to assess the r^2 score for the residential class, the utility responded:

> A low r^2 value such as this one does mean that the regression line is a poor fit overall for the data. In deciding to use the results of the regression analysis more emphasis was placed on how the regression line plot looked relative to the actual residential use per bill data.... (UWF Response to Staff's Data Request No. 5-6)

When asked about the corresponding r^2 score for the commercial consumption class, the utility replied:

> The same rationale was used in assessing and deciding to use the regression of commercial use per bill as the basis for the demand projection for the commercial sector as was used in the residential analysis.... (UWF Response to Staff's Data Request No. 5-10)

Although UWF agreed that the r^2 scores resulting from use per bill trending over time indicate a poor overall fit to the data, UWF nevertheless believed the analyses "produced credible results" so it did not "continue and try alternate methodologies or variables." (UWF Response to Staff's Data Request No. 5-3)

Staff disagrees with the utility's reliance on its consumption model for the residential and commercial classes. The low r^2 score of each class indicates that the regression line is a very poor fit, with virtually no correlation between the independent variable (time) and the dependent variable (consumption). Therefore, we believe alternative models should have been explored in an attempt to improve the predictive reliability of the forecasts. Furthermore, consistent with the Commission's findings in UWF's last rate case, staff believes that multiple linear regression,

with the inclusion of independent variables other than time, is the appropriate water consumption forecasting methodology.

The first step in developing staff's recommended forecasting consumption model was to correct UWF's forecast worksheets to reflect: a) the adjusted (rather than unadjusted) numbers of customers; b) the correction of minor formula errors; and c) the inclusion of Sunray into UWF's system in December 1997. In addition, staff revised the worksheets' customer growth figures to be consistent with our recommendation that simple linear regression is the appropriate methodology to forecast customer growth.

After the initial recommendation dated December 3, 1998 was filed in this case, staff made a final set of changes to the forecast worksheets. After the initial recommendation in this case was filed, the utility requested a deferral to allow time for utility representatives to meet with staff. The purpose of this meeting was to discuss the utility's assertion that staff erred in the calculation of projected test year revenues.

Staff met with the utility on January 6, 1999. During the course of the meeting, the utility advised staff that, probably due to data entry errors, the historical 1997 monthly bills and consumption data in the forecast worksheets did not match the corresponding numbers in the utility's adjusted billing analysis. It was the utility's contention that it would be appropriate to make adjustments to staff's projections to compensate for these differences.

However, staff believes a better solution is to make monthly pro rata adjustments to 1997 bills and consumption in the forecast worksheets such that, for each system and customer class, the sum of the 1997 bills and gallons equal both the corresponding bills and gallons from the utility's adjusted billing analysis and the historical 1997 test year figures from MFR Schedule E-13. These represent the final changes made to the data in the forecast worksheets.

We agree with the utility that weather plays a role in water demand, so we included a weather variable in our analysis. Next, we decided to include dummy variables in our analysis. We believe dummy variables are the best way to account for the discontinuity in the historical data record resulting from the additions of the Ponte Vedra, San Pablo and Sunray systems. Therefore, in our analysis, dummy variables were added to account for the separate additions of the Ponte Vedra, San Pablo and Sunray systems to the service area. These events were handled two ways: 1) three dummy

variables were added, representing the addition of the Ponte Vedra, San Pablo and Sunray systems separately; and 2) the addition of the Ponte Vedra and San Pablo systems was handled with a single dummy variable, with another dummy variable representing the addition of the Sunray system.

The next step in developing our recommended model was to explore combinations of these (and other) independent variables in an attempt to arrive at a model whose R^2 values for the respective customer classes were greater than those of the utility's model. In the December 3, 1998 recommendation, our model, which includes bills rendered, average temperature and two dummy variables (one to account for the combined addition of the Ponte Vedra/San Pablo systems and the other to account for the separate addition of the Sunray system), produced R^2 scores of 76.28% for the residential class and 41.56% for the commercial class (compared to corresponding scores from UWF's model of 2.09% and 3.20%, respectively). Our public sector model produced an R^2 score of 58.19%. The inclusion of the final pro rata changes to 1997 data contained on the forecast worksheets (resulting from staff's January 6, 1999 meeting with the utility) produced nominally different revised R^2 scores of 75.15% for the residential class, 42.00% for the commercial class and 64.05% for the public sector class.

Based on our analysis and the comparative R^2 scores, we recommend that our model is a more appropriate and reliable model of forecasting residential and commercial consumption than the model used by UWF. The addition of Sunray added no public sector customers to the system; therefore, our recommended model for the public sector class is the same as for the residential and commercial class, except that it excludes the Sunray system dummy variable. As shown on Attachment E of the December 3, 1998 recommendation, staff's model resulted in projections for consumption that were approximately 7% greater than the utility's respective projections; therefore, staff recommended an adjustment to the utility's forecasted consumption of an additional 349,004,000 gallons.

The above-referenced adjustment is less than our revised recommended adjustment to forecasted consumption. As shown on revised Attachment E, our model resulted in projected consumption that was approximately 11% greater than the utility's corresponding projections, resulting in a revised recommended adjustment of an additional 528,414,000 gallons over the utility's projections.

Analysis of UWF's
Wastewater Consumption Forecast Model

As discussed previously, UWF assumed that the trend in the ratio of wastewater consumption to water consumption for each customer class would remain constant for the next two rate years. We agree with the utility that wastewater consumption is clearly a function of water use. However, consistent with our belief that simple linear regression can better quantify a relationship between an independent and dependent variable, staff regressed wastewater consumption against water use. In the December 3, 1998 recommendation, this analysis yielded r^2 scores for the residential, commercial and public sector classes of 83.50%, 37.82% and 67.17%, respectively. As shown on Attachment E of that recommendation, staff's model resulted in projections for wastewater consumption that were approximately 22.3% greater than the utility's respective projections; therefore, staff recommended an adjustment to the utility's forecasted wastewater consumption of an additional 804,486,000 gallons.

Based on other discussions during staff's meeting with the utility, staff discovered that we made the following errors with regard to the wastewater consumption forecast: 1) no cap was applied to residential wastewater consumption when calculating projected test year billed consumption and revenues; and 2) commercial wastewater consumption was overstated due to an incorrect column reference when performing the regression analysis. Correcting the column reference in the commercial model, in conjunction with the pro rata changes to 1997 historical consumption discussed earlier, produced revised r^2 scores of 83.37% for the residential class, 35.18% for the commercial class, and 71.50% for the public sector class. We believe these r^2 scores indicate that staff's simple regression model is a better predictive model than the model selected by the utility. The effect of correcting the residential wastewater consumption cap error is captured on revised Attachment E. As shown on that attachment, staff's model resulted in projections for wastewater consumption that were approximately 9.24% greater than the utility's projections; therefore, staff recommends an adjustment to the utility's forecasted wastewater consumption of an additional 335,118,000 gallons.

Conclusions

As discussed above, we believe simple linear regression can more accurately quantify a relationship between time and growth and

therefore would more reliably reflect positive or negative trends in growth than would simple averaging. Furthermore, we believe our multiple regression model to forecast water consumption, using the number of bills rendered, average temperature and two dummy variables (one to account for the combined addition of the Ponte Vedra/San Pablo systems and the other to account for the separate addition of the Sunray system), is a more appropriate and reliable model of forecasting residential and commercial water consumption than the model used by UWF. (The addition of Sunray added no public sector customers to the system; therefore, our recommended model for the public sector class is the same as for the residential and commercial class, except that it excludes the Sunray system dummy variable.) Finally, we believe our simple regression model to forecast wastewater consumption, which regressed wastewater consumption against water use, is a better predictive model for wastewater consumption than the model selected by the utility.

In support of our belief that our recommended consumption forecasting models have greater predictive reliability than UWF's models, we compared the R^2 (or r^2) scores of our models versus those of the utility's corresponding models. R^2 is a measure of how much variation in the dependent variable can be explained by the combination of the independent variables. Assuming all other things being equal, the higher the R^2 value, the better the model. Our recommended water consumption model, produces R^2 scores of 75.15% for the residential class and 42.00% for the commercial class (compared to corresponding scores from UWF's model of 2.09% and 3.20%, respectively). Staff's recommended water consumption model for the public sector class produced an R^2 score of 64.05%. Staff's recommended wastewater consumption forecasting model yielded r^2 scores for the residential, commercial and public sector classes of 83.37%, 35.18% and 71.50%, respectively.

Therefore, based on the foregoing, staff recommends that linear regression is the appropriate method of forecasting customer growth and consumption. The use of simple linear regression to forecast customer growth results in recommended adjustments of an additional 1,888 water bills and 257 wastewater bills. The use of staff's recommended multiple linear regression model to forecast water consumption results in an adjustment of an additional 528,414,000 gallons, while the use of staff's recommended simple regression model to forecast wastewater consumption results in an adjustment of an additional 335,118,000 gallons.

CUSTOMER GROWTH FORECASTS BASED ON SIMPLE LINEAR REGRESSION

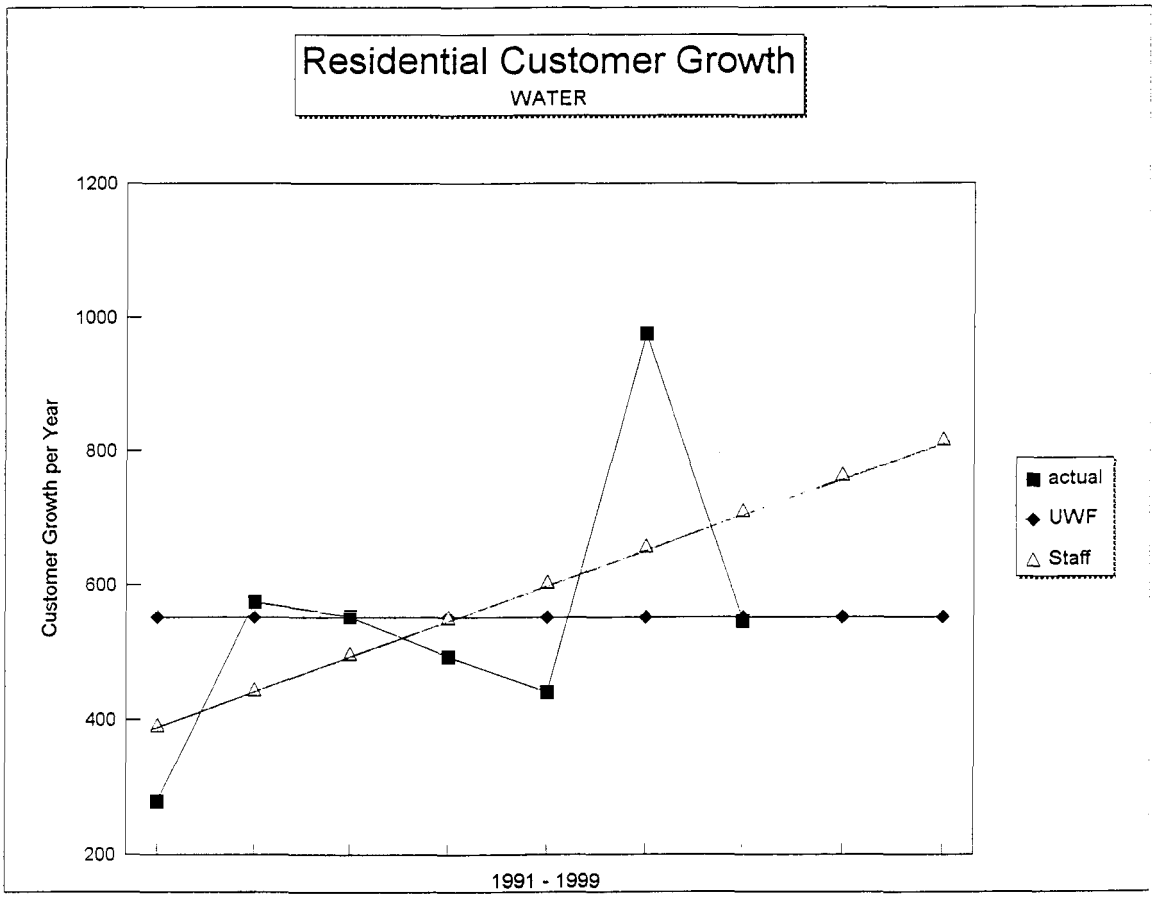
RESIDENTIAL (RS) CLASS: CUSTOMER GROWTH PROJECTIONS - WATER

	Year = X	Cust Chg per Year = Y	XX	YY	XY
	1	279	1	77,841	279
	2	575	4	330,625	1,150
	3	553	9	305,809	1,659
	4	494	16	244,036	1,976
	5	441	25	194,481	2,205
	6	975	36	950,625	5,850
	7	547	49	299,209	3,829
SUM	28	3,864	140	2,402,626	16,948
AVG	4	552			
Proj Yr	8	765			
Proj Yr	9	818			

n	sum(XY)	sumX	sumY	sumXX	sumXsumX	avgX	avgY
7	16,948	28	3,864	140	784	4	552

slope = 53

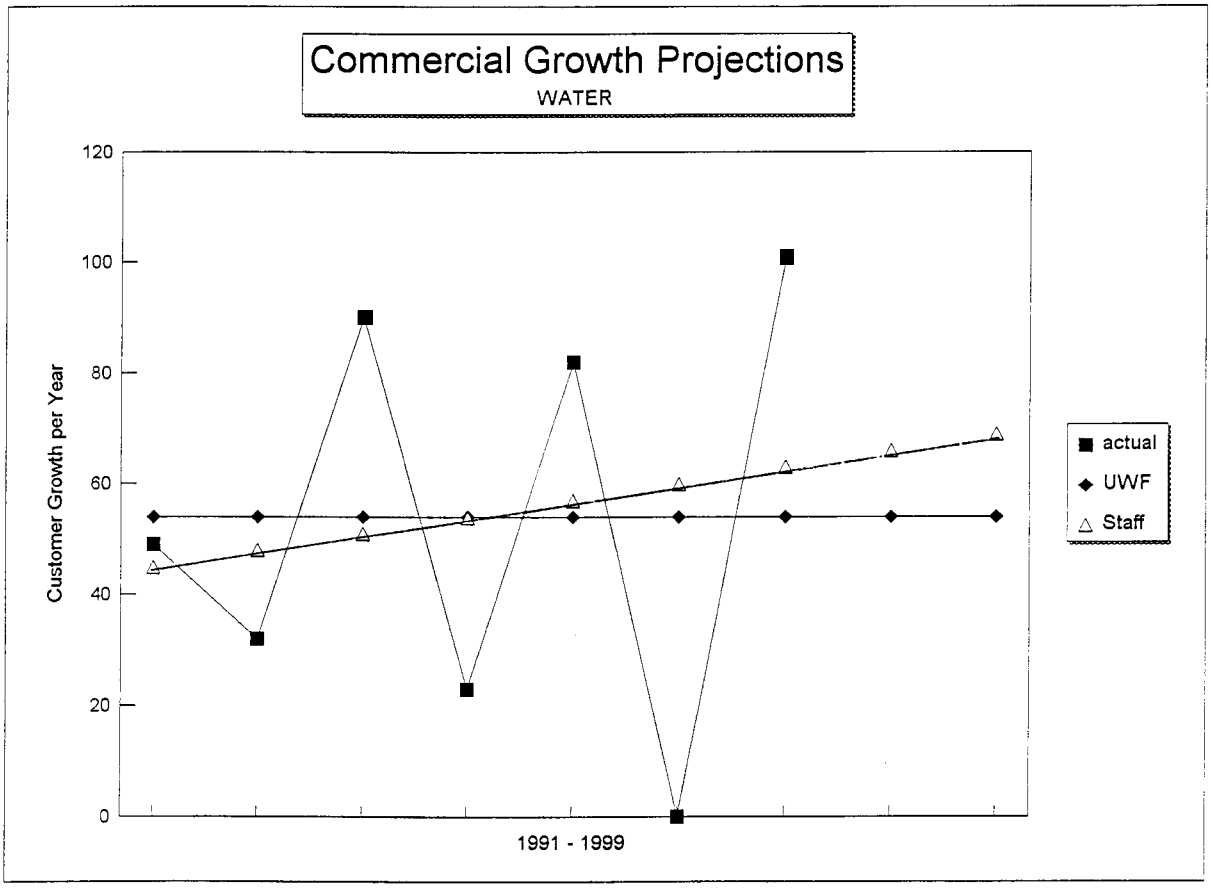
constant = 339



CUSTOMER GROWTH FORECASTS BASED ON SIMPLE LINEAR REGRESSION

COMMERCIAL (CS) CLASS: CUSTOMER GROWTH PROJECTIONS - WATER

	X	Cust Chg per Year Y	XX	YY	XY	n	sum(XY)	sumX	sumY	sumXX	sumXsumX	avgX	avgY
	1	49	1	2,401	49	7	1,592	28	377	140	784	4	54
	2	32	4	1,024	64								
	3	90	9	8,100	270		slope =	3					
	4	23	16	529	92								
	5	82	25	6,724	410								
	6	0	36	0	0								
	7	101	49	10,201	707		constant =	42					
SUM	28	377	140	28,979	1,592								
AVG	4	54											
Proj Yr	8	66											
Proj Yr	9	69											



CUSTOMER GROWTH FORECASTS BASED ON SIMPLE LINEAR REGRESSION

PUBLIC SECTOR (PS) CLASS - CUSTOMER GROWTH PROJECTIONS - WATER

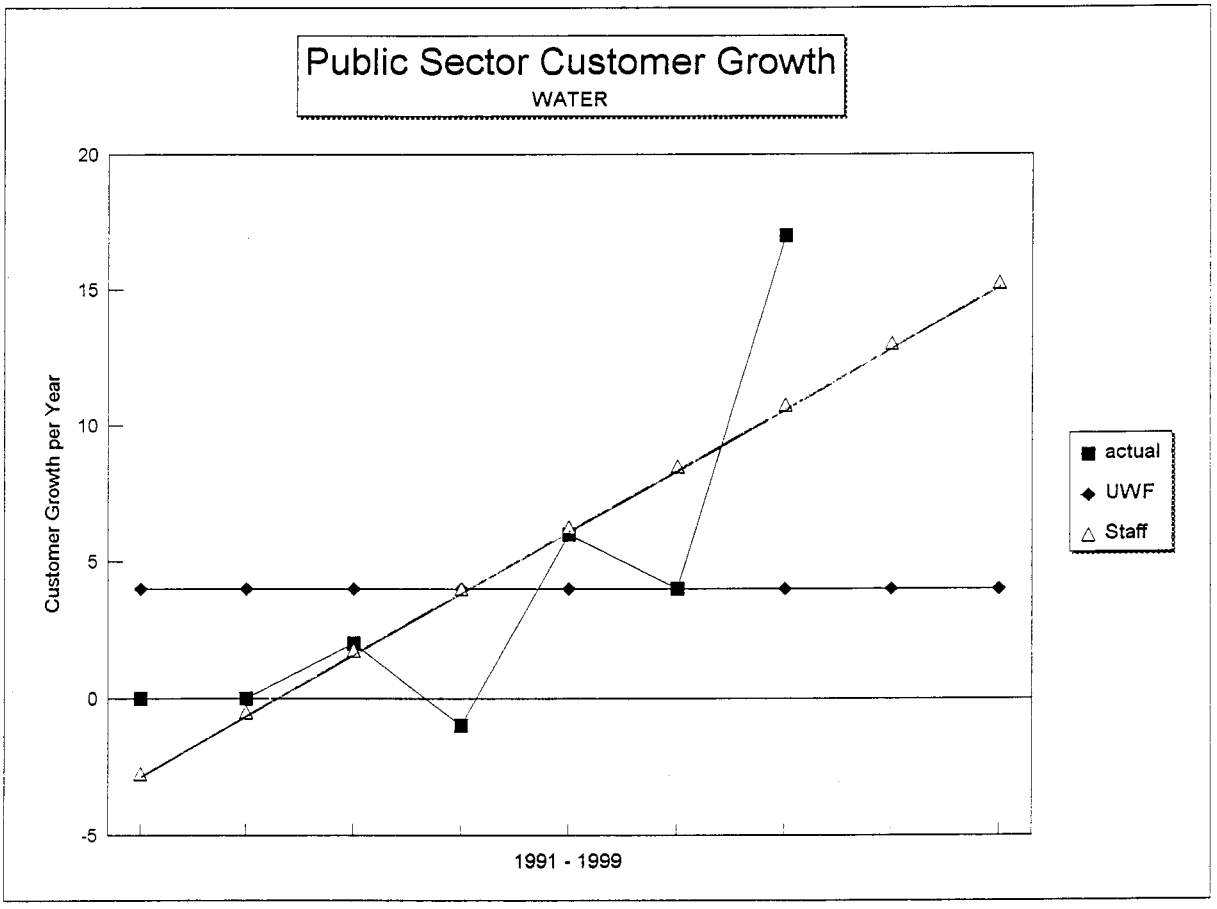
	X	Cust Chg per Year Y	XX	YY	XY
	1	0	1	0	0
	2	0	4	0	0
	3	2	9	4	6
	4	(1)	16	1	(4)
	5	6	25	36	30
	6	4	36	16	24
	7	17	49	289	119
SUM	28	28	140	346	175
AVG	4	4			

n	sum(XY)	sumX	sumY	sumXX	sumXsumX	avgX	avgY
7	175	28	28	140	784	4	4

slope = 2

constant = (5)

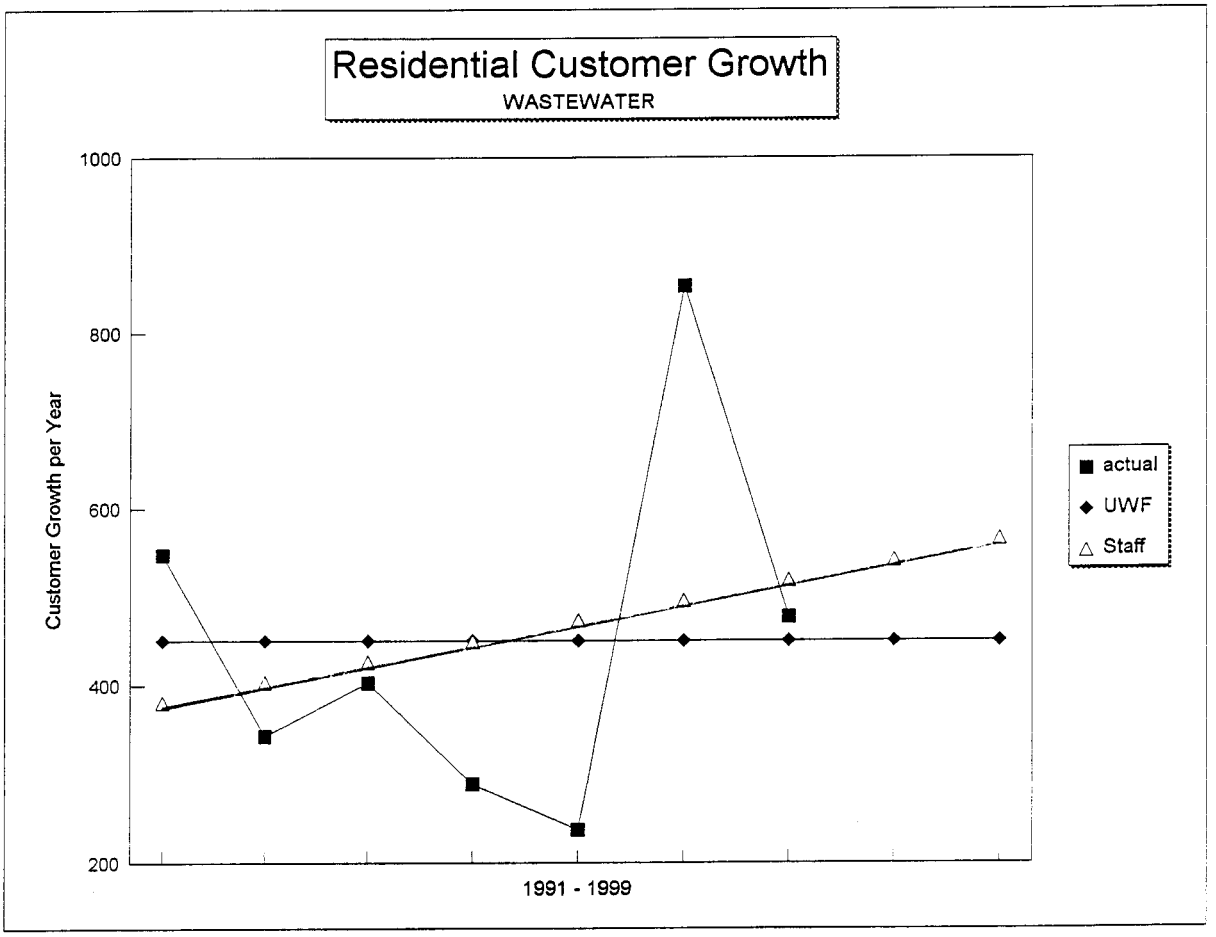
Proj Yr	8	13
Proj Yr	9	15



CUSTOMER GROWTH FORECASTS BASED ON SIMPLE LINEAR REGRESSION

RESIDENTIAL (RS) CLASS- CUSTOMER GROWTH PROJECTIONS - WASTEWATER

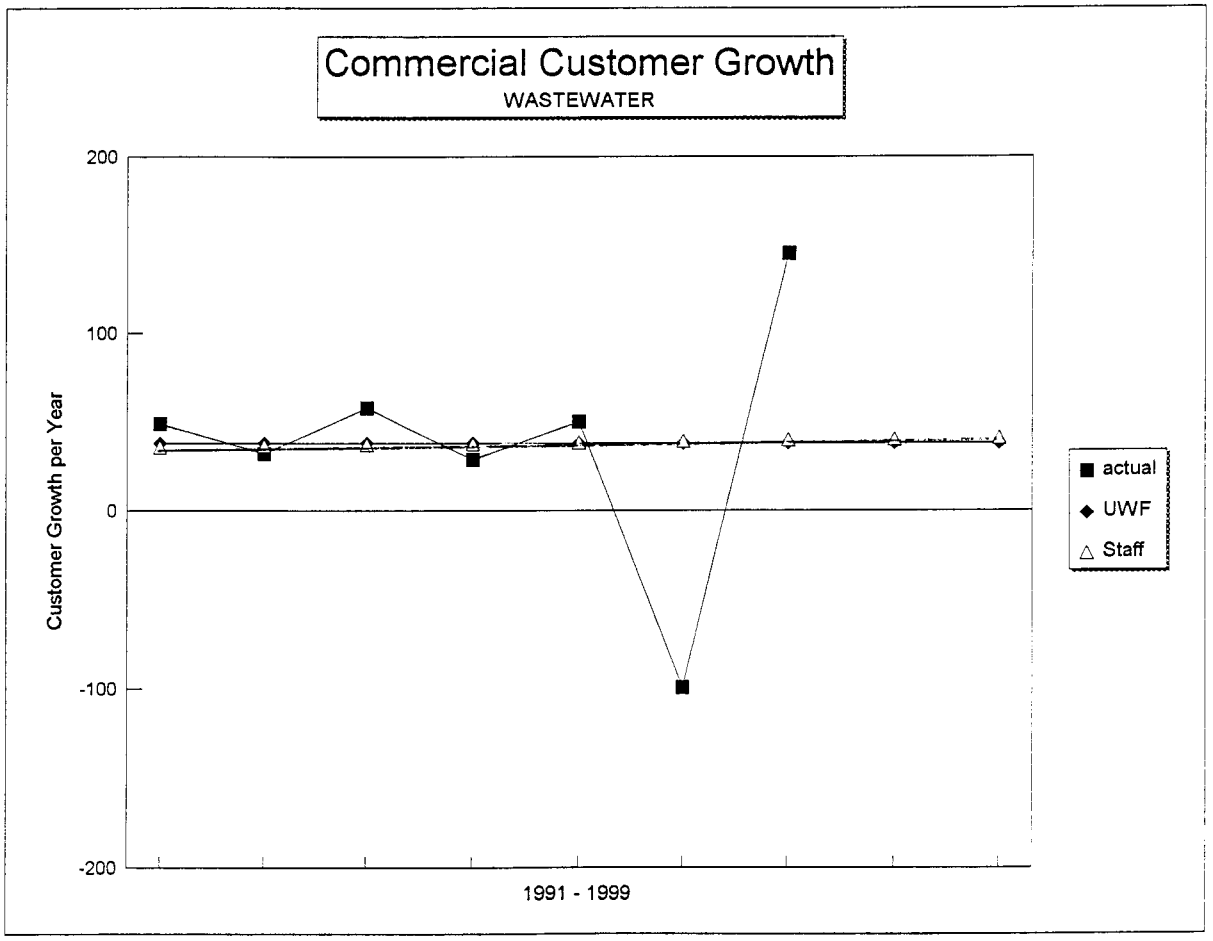
	X	Cust Chg per Year Y	XX	YY	XY	n	sum(XY)	sumX	sumY	sumXX	sumXsumX	avgX	avgY
	1	547	1	299,209	547	7	13,240	28	3,149	140	784	4	450
	2	343	4	117,649	686								
	3	403	9	162,409	1,209		slope =	23					
	4	289	16	83,521	1,156								
	5	237	25	56,169	1,185								
	6	853	36	727,609	5,118								
	7	477	49	227,529	3,339		constant =	358					
SUM	28	3,149	140	1,674,095	13,240								
AVG	4	450											
Proj Yr	8	542											
Proj Yr	9	565											



CUSTOMER GROWTH FORECASTS BASED ON SIMPLE LINEAR REGRESSION

COMMERCIAL (CS) CLASS: CUSTOMER GROWTH PROJECTIONS - WASTEWATER

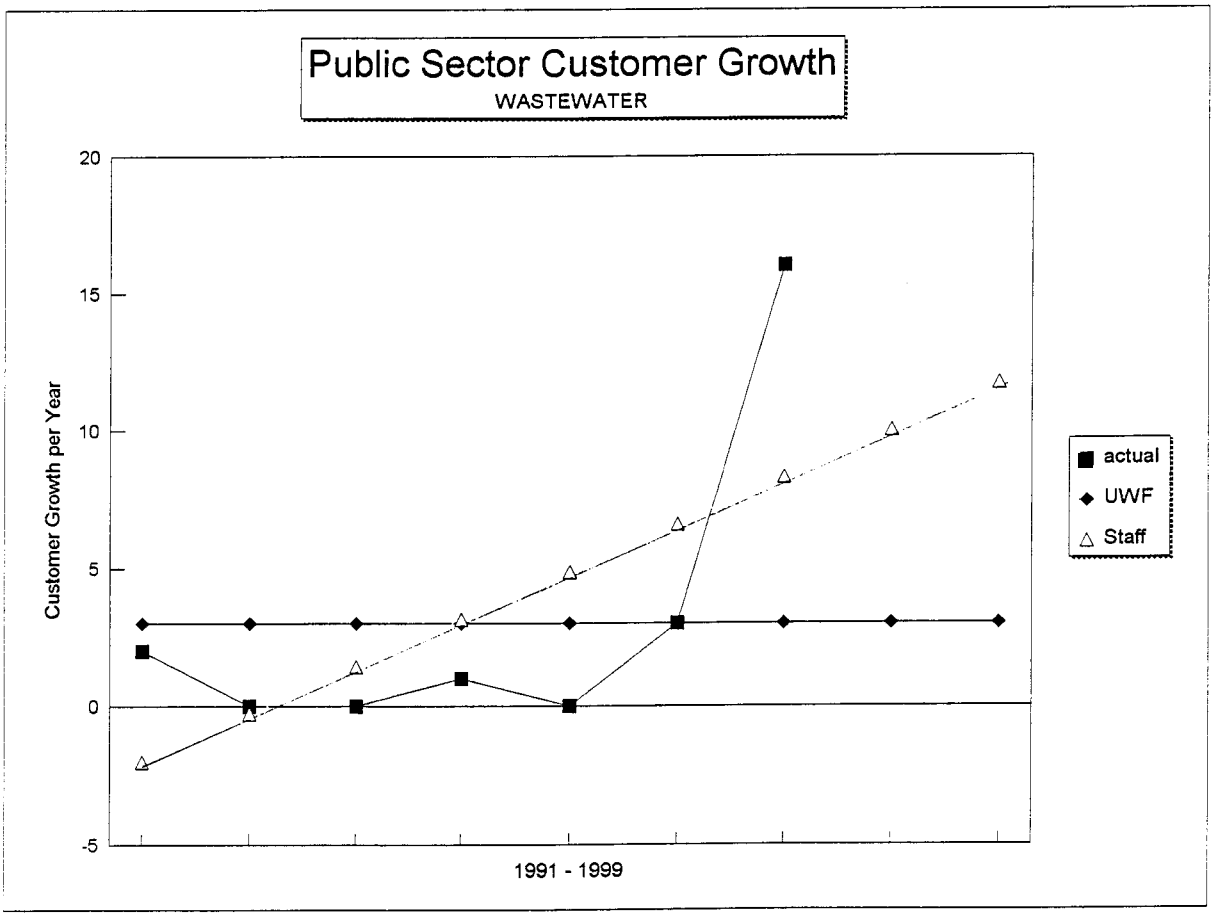
	X	Cust Chg per Year Y	XX	YY	XY	n	sum(XY)	sumX	sumY	sumXX	sumXsumX	avgX	avgY
	1	49	1	2,401	49	7	1,074	28	264	140	784	4	38
	2	32	4	1,024	64								
	3	58	9	3,364	174		slope =	1					
	4	29	16	841	116								
	5	50	25	2,500	250								
	6	(99)	36	9,801	(594)								
	7	145	49	21,025	1,015		constant =	35					
SUM	28	264	140	40,956	1,074								
AVG	4	38											
Proj Yr	8	40											
Proj Yr	9	41											



CUSTOMER GROWTH FORECASTS BASED ON SIMPLE LINEAR REGRESSION

PUBLIC SECTOR (PS) CLASS: CUSTOMER GROWTH PROJECTIONS - WASTEWATER

	X	Cust Chg per Year Y	XX	YY	XY	n	sum(XY)	sumX	sumY	sumXX	sumXsumX	avgX	avgY
	1	2	1	4	2	7	136	28	22	140	784	4	3
	2	0	4	0	0								
	3	0	9	0	0		slope =	2					
	4	1	16	1	4								
	5	0	25	0	0								
	6	3	36	9	18								
	7	16	49	256	112		constant =	(4)					
SUM	28	22	140	270	136								
AVG	4	3											
Proj Yr	8	10											
Proj Yr	9	12											



Sources: UWF's response to Staff's data request no. 5-1.

RECOMMENDED PROJECTED BILLS AND CONSUMPTION FOR THE PROJECTED TEST YEAR ENDING DECEMBER 31, 1999

WATER

PROJECTIONS FOR 1998:		RESIDENTIAL	COMMERCIAL	PUBLIC SECTOR
(1)	Bills rendered in 1997	103,187	29,655	706
(2)	Increase in customers projected for 1998	765	66	13
(3) = (2) x 4 or (2) x 12	Projected increase in bills rendered in 1998	3,060	792	156
(4) = (1) + (3)	Projected bills rendered in 1998	106,247	30,447	862
(5) = (3) / 2	Annualized increase in bills rendered 1998	1,530	396	78
(6) = (4) + (5)	Annualized bills rendered 1998	107,777	30,843	940
(7)	Consumption 1997 (000)	2,254,177	2,014,472	149,583
(8)	Increase in consumption projected for 1998	508,789	223,595	40,028
(9) = (7) + (8)	Projected consumption 1998	2,762,966	2,238,067	189,611
(10) = (8) / 2	Annualized increase in consumption 1998	254,395	111,798	20,014
(11) = (9) + (10)	Annualized consumption 1998	3,017,361	2,349,865	209,625
PROJECTIONS FOR 1999:				
(1)	Bills rendered in 1998	106,247	30,447	862
(2)	Increase in customers projected for 1999	818	69	15
(3) = (2) x 4 or (2) x 12	Projected increase in bills rendered in 1999	3,272	828	180
(4) = (1) + (3)	Projected bills rendered in 1999	109,519	31,275	1,042
(5) = (3) / 2	Annualized increase in bills rendered 1999	1,636	414	90
(6) = (4) + (5)	Annualized bills rendered 1999	111,155	31,689	1,132
(7)	Consumption 1998	2,762,966	2,238,067	189,611
(8)	Increase in consumption projected for 1999	81,778	30,238	39,446
(9) = (7) + (8)	Projected consumption 1999	2,844,744	2,268,305	229,057
(10) = (8) / 2	Annualized increase in consumption 1999	40,889	15,119	19,723
(11) = (9) + (10)	Annualized consumption 1999	2,885,633	2,283,424	248,780

RECOMMENDED PROJECTED BILLS AND CONSUMPTION FOR THE PROJECTED TEST YEAR ENDING DECEMBER 31, 1999

WASTEWATER

PROJECTIONS FOR 1998:		RESIDENTIAL	COMMERCIAL	PUBLIC SECTOR
(1)	Bills rendered in 1997	78,291	27,403	540
(2)	Increase in customers projected for 1998	542	40	10
(3) = (2) x 4 or (2) x 12	Projected increase in bills rendered in 1998	2,168	480	120
(4) = (1) + (3)	Projected bills rendered in 1998	80,459	27,883	660
(5) = (3) / 2	Annualized increase in bills rendered 1998	1,084	240	60
(6) = (4) + (5)	Annualized bills rendered 1998	81,543	28,123	720
(7)	Consumption 1997 (000)	1,327,423	1,871,357	87,064
(8)	Increase in consumption projected for 1998	599,117	289,738	7,530
(9) = (7) + (8)	Projected consumption 1998	1,926,540	2,161,095	94,594
(10) = (8) / 2	Annualized increase in consumption 1998	299,559	144,869	3,765
(11) = (9) + (10)	Annualized consumption 1998	2,226,099	2,305,964	98,359
PROJECTIONS FOR 1999:				
(1)	Bills rendered in 1998	80,459	27,883	660
(2)	Increase in customers projected for 1999	565	41	12
(3) = (2) x 4 or (2) x 12	Projected increase in bills rendered in 1999	2,260	492	144
(4) = (1) + (3)	Projected bills rendered in 1999	82,719	28,375	804
(5) = (3) / 2	Annualized increase in bills rendered 1999	1,130	246	72
(6) = (4) + (5)	Annualized bills rendered 1999	83,849	28,621	876
(7)	Consumption 1998	1,926,540	2,161,095	94,594
(8)	Increase in consumption projected for 1999	48,793	28,901	35,568
(9) = (7) + (8)	Projected consumption 1999	1,975,333	2,189,996	130,162
(10) = (8) / 2	Annualized increase in consumption 1999	24,397	14,451	17,784
(11) = (9) + (10)	Uncapped annualized consumption 1999	1,999,730	2,204,447	147,946
(12) = (11) x 79.35%	Capped annualized consumption 1999	1,586,785	2,204,447	147,946

Source: UWF responses to Staff's data request no. 5-1 and Staff's informal data requests 10/02/98 (as corrected by Staff) and 12/21/98.

UNITED WATER FLORIDA, INC.
DOCKET NO. 980214-WS
PROJECTED TEST YEAR ENDING DECEMBER 31, 1999

REVISED
ATTACHMENT E

COMPARISON OF PROJECTED BILLS AND CONSUMPTION: UWF v. STAFF

WATER SYSTEM

		Projections per Utility		Projections per Staff		Difference: Staff in Excess of UWF	
		Bills Rendered	(000) Billed Consump	Bills Rendered	(000) Billed Consump	Bills Rendered	(000) Billed Consump
Metered Sales:	Residential	109,878	2,557,378	111,155	2,885,633	1,277	328,255
	Commercial	31,461	2,179,847	31,689	2,283,424	228	103,577
	Public	749	152,198	1,132	248,780	383	96,582
	Subtotal	142,088	4,889,423	143,976	5,417,837	1,888	528,414
Flat Rate Svcs:	Pvt Fire Protection	2,100		2,100		0	
	Subtotal						
TOTALS FOR MONTHLY SERVICE:		144,188	4,889,423	146,076	5,417,837	1,888	528,414
						1.31%	**10.81%**

WASTEWATER SYSTEM

		Projections per Utility		Projections per Staff		Difference: Staff in Excess of UWF	
		Bills Rendered	(000) Billed Consump	Bills Rendered	(000) Billed Consump	Bills Rendered	(000) Billed Consump
Metered Sales:	Residential	83,453	1,500,025	83,849	1,586,785	396	86,760
	Commercial	29,026	2,012,807	28,621	2,204,447	(405)	191,640
	Public	610	91,228	876	147,946	266	56,718
	Jacksonville University	12	22,500	12	22,500	0	0
TOTALS FOR MONTHLY SERVICE:		113,101	3,626,560	113,358	3,961,678	257	335,118
						0.23%	**9.24%**

Source: UWF response to Staff's informal data request 10/02/98 (as corrected by Staff); Attachment D.

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ISSUE 15: What adjustments, if any, are necessary to the 1999 projected test year revenues, expenses and contributions to reflect the appropriate number of water and wastewater customers, bills and consumption?

RECOMMENDATION: Based on staff's revised projections of the appropriate number of water and wastewater customers, bills and consumption discussed in Issue 14, test year projected operating revenue at the current rates, chemical expense, power expense, sludge hauling expense, uncollectible accounts, CIAC, Accumulated Amortization of CIAC and CIAC amortization should be increased as outlined in the staff analysis. (B. DAVIS)

STAFF ANALYSIS: In order to show projected test year revenue at the current rates, staff first removed the utility's requested increase in revenue calculated at the requested rates, as found on MFR Schedule B-1 for water and B-2 for wastewater. This results in a decrease in revenue of $2,204,773 for water and $3,067,140 for wastewater returning to the utility's test year revenue before rate adjustment of $10,443,674 for water and $18,708,229 for wastewater. When the utility calculated the test year revenue on MFR Schedule E-13, the projected annual increases in bills and consumption from 1997 to the projected test year of 1999, as calculated on MFR Schedule G-41, were applied incorrectly to the historic amounts derived from the billing analysis.

Staff has revised the projections of the appropriate number of water and wastewater customers, bills and consumption as discussed in Issue 14. Using these projections, taking into account the corrected exclusion of the wastewater consumption for residential customers above the cap, staff has recalculated the test year operating revenue. Based on this recalculation, test year revenue should be increased by $776,786 for the water system and $2,105,881 for the wastewater system. These calculations result in test year projected operating revenue at the current rates of $11,220,460 for the water system and $20,814,110 for the wastewater system, as shown on attached Revised Schedules 3-A and 3-B.

The projections for sludge hauling expense, chemical expense and power expense are dependent of the projected consumption as shown on MFR Schedule Nos. G-14, G-24 and G-27. Based on staff's revised projected consumption, sludge hauling expense should be increased by $114,617. Power expense should be increased by $57,012 for water (after application of the unaccounted for water adjustment) and $193,748 for wastewater. Chemical expense should

be increased by $20,509 for water (after application of the unaccounted for water adjustment) and $24,703 for wastewater.

The projection of uncollectible accounts is based on the projection of revenue as shown on MFR Schedule No. G-28. Based on staff's recommended increase in revenue, the uncollectible accounts expense, as a percentage of revenue, should be increased by $4,834 for water and $14,741 for wastewater.

The projection of CIAC and the associated accumulated amortization and annual amortization is based on the forecasted number of connections. In Issue 14, staff has recommended that test year factored ERCs should be increased by 777 for water and 210 for wastewater over that projected by the utility. The average test year CIAC associated with this increase should be increased by $61,739 for water and $33,039 for wastewater. The corresponding accumulated amortization of CIAC over the projected two year period is $2,111 for water and $1,665 for wastewater. The test year amortization of this CIAC is $1,408 for water and $1,110 for wastewater.

ISSUE 16: Are any adjustments necessary to the projected test year expenses for purchased sewage treatment?

RECOMMENDATION: Yes, the utility's projected test year expenses for purchased sewage treatment are overstated by $149,514. The correct amount of projected purchased sewage treatment expense to be included in the test year is $338,719. (B. DAVIS)

STAFF ANALYSIS: The staff auditors found that in 1997, the utility recorded $222,590 in purchased sewage treatment charges to NARUC Account 710, and charges totaling $14,156 were charged to four other accounts. The total purchased sewage treatment expense recorded was $236,744. The utility projected $476,652 for 1998 and $488,233 for 1999. These projections represent an increase over 1997 of $254,062 for 1998 and $265,643 for 1999. The utility, justified its projection to the auditors by stating that sewage flows in St. Johns, Nassau, and Duval counties are increasing.

The staff audit review of these costs presented four areas of concern in Audit Disclosures 1, 2 and 5:

1) The projected amount recorded in the MFR is in error.
2) The flows are actually decreasing.
3) The wrong tariff rate was used in the projections.
4) Rebates of the bills were not recognized by the utility.

1) The projected amount recorded in the MFR is in error.

The staff auditors found that, in 1997, total purchased sewage treatment expense was $236,744. Schedule G-20 projects 1998 and 1999 purchased sewage treatment charges using this amount as a starting point and calculates the 1999 projected amount of purchased sewage treatment to be $372,036, not the $476,653 found in the B section of the MFRs. The auditors concluded that the projected purchased sewage treatment, as shown on MFR Schedules B-2, B-3 and B-6 is overstated.

In answer to the staff audit, the utility claimed that they recorded $236,744 for purchased sewage treatment, including $25,869 for Account No. 610 and $210,875 for Account 710, as shown on MFR Schedule B-3, page 1 of 3, MFR Schedule G-20, column 1. As shown on MFR Schedule B-3, page 1 of 3, MFR Schedule G-20, columns 2 and 4, respectively, the purchased sewage treatment is projected as $362,930 for 1998 and $372,036 for 1999. There is an error on MFR Schedule B-6 for purchased sewage treatment expense for 1998 ($476,652) and 1999 ($488,233). However, UWF stated that the

correct information is set forth in MFR Schedule B-3 and was used to determine the appropriate operating and maintenance costs. Thus, UWF contended that the projections represent an increase over the 1997 amounts of $126,186 for 1998 and $135,292 for 1999, not the increases set forth in the Audit Report.

As part of staff's initial analysis, staff examined MFR Schedules B-2, the operating statement; B-3, adjustments; and B-6, detail of operation and maintenance expenses and found that the amounts did match, therefore, staff believes that the error on MFR Schedule B-6 is carried through to the operating statement, MFR Schedule B-2, and recommends that operating expenses be reduced by $116,197 to remove the error.

2) The flows are actually decreasing.

The staff audit review of the historical trends indicates that sewage flows have decreased. In 1996 the flows decreased by 5 percent (7,372,000 gallons) and in 1997, the flows decreased by 10 percent (15,382,000 gallons) Based on this observation, the staff auditors recommend that projected 1998 and 1999 amounts for Purchased Sewage Treatment should be less than the 1997 recorded costs of $236,744 because the sewage flows have fallen not increased.

The utility claims that, contrary to the allegations in Disclosure No. 1, UWF's purchased sewage treatment flows are not decreasing in 1998. In fact, the flows are increasing approximately 16 percent in 1998. The utility recalculated these purchased treatment flows and provided them to staff. The recalculation uses the actual flows derived from the utility's records for January through September for Hyde Grove, Magnolia Gardens, and Venetia Terrace for 1998 with an estimate for October through December for 1998, based on an average for the particular month being estimated for the prior two years. Accordingly, while flows declined in 1996 and 1997, UWF stated that the flows are increasing in 1998 and will be approximately 21,000,000 gallons more in 1998 than in 1997. The projected level of purchased sewage flows for 1999 is 145,373,000 gallons, which represents the three-year average level of purchased sewage flows for 1996 (148,700,000), 1997 (133,319,000) and 1998 (154,100,000). This is an approximate decrease of 6 percent from the 1998 level of 154,100,000 gallons. UWF prepared a revised Schedule G-20 using flows as recalculated by the utility.

Staff has reviewed the utility's response and revised MFR Schedule G-20 and we agree with the utility's methodology to average the 1999 projection. This methodology is reasonable as it

takes into account the increase in 1998 as well as the decreases in 1996 and 1997.

3) The wrong tariff rate was used in the projections.

MFR Schedule G-20 projects 1998 and 1999 purchased sewage treatment charges using a factor for cost per each thousand gallons of sewage treated of $2.51. The utility derived this cost from an outdated tariff for $1.88 per hundred cubic feet. The audit staff recalculation of several bills shows Jacksonville Electric Authority (JEA) billed the utility in 1997 at the rate of $1.74 per hundred cubic feet. The governing tariff shows $1.74 ($2.33 per thousand gallons) as the current tariff rate. Further, JEA confirmed the current tariff is frozen for 5 years beginning in 1997. In its response to Audit Disclosure No. 5, UWF agreed with the $2.33 per thousand gallons charge.

4) Rebates of the bills were not recognized by the utility.

In Audit Disclosure 2, the auditors recommended that purchased sewage treatment expenses were overstated for rebates not recorded or included in test year projections. The auditors cite Merriam Webster's dictionary which defines rebate as "a return of a part of a payment." The utility's position was the rebate was a billing adjustment and should not be recorded. In reply, the utility claims that UWF clearly disclosed the facts pertaining to the JEA's use of the term "rebates" to the staff auditors.

According to a letter from JEA, the word rebate is used to reference bill corrections, not additional income or discounts. When discounts are shown on a JEA bill, they are shown specifically as savings. Accordingly, UWF states that the purchased sewage treatment expense was already reduced by the amount of the rebates and the total purchased sewage treatment expense recorded was net of such rebates. The utility's position is that the rebates have already been recorded. To record the rebates a second time will understate the expense. Staff agrees with the utility that the term "rebate", as used by JEA, is not what is normally considered a rebate and, as such, has no effect on test year expense.

As discussed above, staff recommends that operating expenses be reduced by $116,197 to remove the error in the MFR balances of purchased sewage treatment expense. Based on the utility's revised MFR Schedule G-20 which uses the utility's recalculation of the projected amount of purchased sewage treatment and the agreed upon rate, staff recommends reducing purchased sewage treatment expense

by $33,371 from $372,036 to $338,719. The total adjustment to purchased sewage treatment recommended by staff is $149,514.

ISSUE 17: Are any adjustments necessary to the projected test year expenses for Other Postretirement Employee Benefits (OPEBs)?

RECOMMENDATION: Yes. Test year OPEB expenses should be reduced by $26,402 and $46,938 for water and wastewater operations, respectively. (KYLE)

STAFF ANALYSIS: In the MFRs, the utility has projected 1999 expenses for Other Postretirement Employee Benefits (OPEBs) in the amount of $616,899. Of this amount $222,084 was allocated to water operations, and $394,815 was allocated to wastewater operations. The test year expense level represents an adjustment of $381,051 over the base year expenses. (Schedule G-23)

As discussed in Issue 9, on December 9, 1997, UWF filed a Petition for Limited Proceeding Regarding Other Postretirement Benefits and Petition for Variance from or Waiver of Rule 25-14.012, Florida Administrative Code. In its petition, the utility requested, among other things, recovery of $1,100,098 of OPEB costs which were incurred from April 1, 1994 through May 30, 1997. These costs had been deferred without obtaining prior Commission approval as required by Rule 25-14.012(2), Florida Administrative Code. UWF proposed to have its rates increased so as to allow recovery of amortization of these costs over a fifteen-year period, at $73,340 per year ($26,402 for water and $46,938 for wastewater). These amounts were included in the OPEB expense calculated by UWF in its MFRs for the intermediate year ending December 31, 1998 and the test year ending December 31, 1999. Subsequent to the filing of the MFRs in the current rate case, the Commission denied the utility's petition and request for variance or waiver. In re: Petition for Limited Proceeding Regarding Other Postretirement Benefits and Petition for Variance from or Waiver of Rule 25-14.012, Florida Administrative Code, by United Water Florida, Inc., Order No. PSC-98-1243-FOF-WS, issued September 21, 1998, in Docket No. 971596-WS. It should be noted that on November 10, 1998, UWF filed notice of its intent to file an appeal of Order No. PSC-98-1243-FOF-WS with the First District Court of Appeal. Accordingly, staff believes that the test year OPEB expense should be reduced by the amount of the disallowed amortization.

ISSUE 18: Should uncollectible accounts expenses be adjusted for undocumented costs?

RECOMMENDATION: Yes. Uncollectible accounts expense for water should be reduced by $26,000. (KYLE, REYES)

STAFF ANALYSIS: In Audit Disclosure No. 9 the audit staff reported the results of a judgmental sample of entries in the utility's general ledger detail based on transaction descriptions. Transactions with large dollar amounts were examined and the utility was asked to provide supporting documentation. One of the entries was a write off of uncollectible accounts in the amount of $43,740. The audit report states that, of this amount, $26,000 could not be supported by documentation provided by UWF.

The utility responded to the audit report with a description of its methodology for calculating uncollectible amounts and stated that it did in fact have documentation for all amounts in this account, but did not submit any additional documentation. "Burden of proof in a commission proceeding is always on a utility seeking a rate change...." Florida Power Corporation v. Cresse, 413 So. 2d 1187, 1191 (Fla. 1982). Accordingly, staff believes that uncollectible expense for water should be reduced by $26,000, the amount found to be unsupported by the audit staff.

ISSUE 19: Should lobbying costs be removed from operation and maintenance expenses?

RECOMMENDATION: Yes. Operation and Maintenance Expense should be reduced by $11,269 and $6,586 for water and wastewater, respectively. (KYLE)

STAFF ANALYSIS: According to Audit Disclosure No. 9, the audit staff examined selected general ledger transactions along with the supporting documentation and a few discrepancies were noted. Expenditures were made for professional association dues to Florida Waterworks Association (FWWA), $6,875, and the National Association of Water Companies (NAWC), $5,771. Upon further analysis, staff found a similar payment of $5,625 to FWWA, allocated to wastewater. The invoices state that "lobbying" accounts for approximately 38% and 20% of FWWA's and NAWC's activities, respectively. The utility did not make any adjustment to reduce these dues for the estimated cost of lobbying. The utility also made a payment to the American Water Works Association for a "subscription for research". The total payment was $134,749, with $6,950 allocated to the utility. The auditors also questioned a payment of $5,000 to a law firm for representation during the 1997 legislative session. Order No. PSC-97-0618-FOF-WS, issued on May 30, 1997, in Docket No. 960451-WS, notes that "At the prehearing conference, and during the technical hearing, the parties reached a number of proposed stipulations. At the hearing, we found the stipulations listed below to be reasonable and we thereby accepted them. We also found that these stipulations shall have no precedential value in any subsequent proceeding." One of the stipulations was that "Test year O&M expenses shall be reduced by $503 and $895 for lobbying expenses for water and wastewater, respectively."

The utility responded with a description of the activities of FWWA, NAWC and AWWA. Among these are "informing public officials and legislators on issues important to both our customers and NARUC...", and "conduct(ing) research activities relating to water quality and other water industry concerns." UWF stated that costs incurred for these memberships and subscriptions should be allowed as components of Operations and Maintenance Expense. The utility also stated its belief that the $5,000 paid for representation during the 1997 legislative session should be allowed because the Legislature considered several proposals which could significantly affect UWF's service to its customers, such as the Commission's retention of jurisdiction over multi-county systems.

In previous cases, the Commission has disallowed lobbying costs, unless the utility can clearly demonstrate that such costs should be included above the line. See, for example, In Re: Southern States Utilities, Inc., Order No. PSC-96-1320-FOF-WS, issued October 30, 1996, in Docket No. 950495-WS. Further, the NARUC Uniform System of Accounts requires that expenditures for the purpose of influencing public opinion or the opinions of public officials are to be recorded to Account 426, Miscellaneous Nonutility Expenses. Staff believes that, based upon available information, UWF has not met its burden of showing that the expenses in question should be included in Operations and Maintenance Expense, and staff recommends reductions of $11,269 and $6,586 for Water and Wastewater, respectively. Following is a summary of amounts recommended for disallowance.

Invoice	Amount	Percentage Disallowed	Amount Disallowed	Water	Wastewater
FWWA	6,875	38%	2,613	2,613	
FWWA	5,625	38%	2,138		2,138
NAWC	5,771	20%	1,154	1,154	
AWWA	6,950	100%	6,950	2,502	4,448
Legis. Rep.	5,000	100%	5,000	5,000	
Total	30,221		17,855	11,269	6,586

ISSUE 20: Should the public services tax be removed from operation and maintenance expenses?

RECOMMENDATION: Yes. Expenses recorded in Utility Account No. 905000 in the amount of $15,487 for water and $48,480 for wastewater should be removed from Operations and Maintenance Expense. (KYLE)

STAFF ANALYSIS: In Audit Disclosure No. 9, the audit report states that examination of selected transactions revealed an expenditure of $15,487 relating to UWF's remittance of the Public Service Tax recorded as a "Miscellaneous Customer Accounts Expense." The auditors suggested that this amount should be reclassified to "Taxes Other Than Income." Upon subsequent analysis, staff also found a similar entry in the amount of $48,480 recorded for wastewater.

In its response, the utility stated that the Public Service Tax is a tax levied by the City of Jacksonville which UWF is required to collect from certain customers and remit to the city. Collections and remissions are normally recorded in the Prepaid Taxes account. The Miscellaneous Customer Accounts expense account is used as a temporary reconciling mechanism. The utility believes that this tax is merely a pass-through item, and should not be treated as either a revenue or expense on the utility's books. Staff agrees with this assertion, and recommends removal of $15,487 and $48,480 from water and wastewater, respectively. These amounts should not be reclassified to Taxes Other Than Income.

ISSUE 21: What is the appropriate provision for rate case expense?

RECOMMENDATION: The appropriate rate case expense for this docket is $398,061. Consistent with Section 367.0816, Florida Statutes, this expense should be recovered over four years for an annual expense of $35,825 for water and $63,690 for wastewater. These amounts should be added to the existing rate case expense recovery from Docket No. 960451-WS which expires in September, 2001 of $43,310 for water and $76,996 for wastewater, for a total recovery of $79,135 for water and $140,686 for wastewater. (B. DAVIS)

STAFF ANALYSIS: The utility included a $560,000 estimate in the MFRs for current rate case expense. The utility also included additional rate case expense for the reconsideration motion in Docket No. 960451-WS and the expense of the limited proceeding on OPEBs, Docket No. 980112-WS. This resulted in total rate case expense requested of $682,191. The utility allocated rate case expense in the amount of $245,589 to water operations and $436,602 to wastewater operations. This allocation resulted in projected annual rate case amortization expense of $61,397 and $109,151 for water and wastewater, respectively.

As part of our analysis, staff requested an update of the actual rate case expense incurred, with supporting documentation, as well as the estimated amount to complete. The revised estimated rate case expense through completion of the Proposed Agency Action (PAA) process is $552,133. The components of the estimated rate case expenses are as follows:

	MFR	REVISED ESTIMATE		
	ESTIMATED	ACTUAL	ESTIMATED	TOTAL
Miscellaneous Expenses	$90,000	$48,138	$10,000	$58,138
Legal	255,000	96,008	28,992	125,000
MFR Preparation	215,000	210,348	36,456	246,804
Current Expense	$560,000	$354,494	$75,448	$429,942
Prior Case Reconsideration	42,191	42,191	0	42,191
Limited Proceeding	80,000	80,000	0	80,000
Total Expense	$682,191	$476,685	$75,448	$552,133
Annual Amortization	$170,548			$138,033

UWM&S Employee Rate Case Expense

The revised total rate case expense requested in this docket is $552,133, which is an annual expense of $138,033 for four years. Staff has examined the requested actual expenses, supporting documentation and estimated expenses as listed above for the current rate case and found them to be prudent except for MFR preparation. The term MFR preparation as used by the utility includes the costs incurred by UWM&S employees in not only preparing the MFRs, but also assisting the audit staff and discovery requests. The total expense the utility was allowed in the last case was lower than the revised estimate in this case, even though the last case went directly to hearing and involved the preparation of testimony and exhibits that were not required in this case. The last case included the Office of Public Counsel as a party. There are no other parties, other than the utility, in this case.

Staff does not believe that the estimate for UWM&S employee rate case expense in this case should be greater than the amount allowed in the last case. One of the purposes of having this case processed as PAA was to save costs. The utility has not reflected any such costs savings in its estimate. Staff believes that one source of additional actual costs is the time spent obtaining information from the new computer system for the staff auditors. It was the utility's decision to file its rate case during the time that it chose to install its new software program. The fact that additional employee time was required (thus increased rate case expense) to address the staff auditors' requests should have been taken into account when deciding the timing of rate relief. The condition and quality of the utility's books and records are addressed in Issue 35. We also note that there were numerous utility errors in the MFRs that necessitated additional discovery requests from staff.

Staff recommends that the additional actual rate case costs incurred by the UWM&S employees is excessive and should not be recovered by the rate payers. It is the utility's burden to justify its requested costs, with no exceptions made for rate case expense. Florida Power Corp. v. Cresse, 413 So.2d 1187, 1191 (Fla. 1982). Although it would constitute an abuse of discretion to automatically award rate case expense without reference to the prudence of the costs incurred in the proceeding, the Commission has broad discretion with respect to the allowance of rate case expense. Meadowbrook Util. Sys., Inc. v. FPSC, 518 So.2d 326, 327 (Fla. 1st DCA 1987); Florida Crown Util. Servs., Inc. v. Utility Regulatory Bd. of Jacksonville, 274 So.2d 597, 598 (Fla. 1st DCA

1973). Accordingly, staff recommends that UWM&S employee rate case expense be limited to the utility's original estimate of $215,000.

Prior Rate Case Expense

Order No. PSC-97-1146-FOF-WS, issued on September 30, 1997, granted in part and denied in part the motion for reconsideration and the motion to amend Order No. PSC-97-0618-FOF-WS, the final order in UWF's last rate case. This order amended rate case expense to include the additional costs of the reconsideration. The annual recovery from the last case, which will continue until September, 2001, already includes these costs and inclusion in the current rate case expense would be inappropriate double counting of these costs.

OPEB Limited Proceeding

The utility also requested the costs of limited proceeding Docket No. 980112-WS, regarding Other Postretirement Employee Benefits. By Order No. PSC-98-1243-FOF-WS, issued September 21, 1998, the Commission denied the utility's Petition for Limited Proceeding and its Petition for Variance from or Waiver of Rule 25-14.012, Florida Administrative Code. This order became final on October 12, 1998. Since the petition was denied, staff believes that it is inappropriate for the customers to pay for these costs through rates. Staff's recommendation in this regard is consistent with the Commission's decision in Docket No. 971663-WS, Petition of Florida Cities Water Company For Limited Proceeding to Recover Environmental Litigation Costs for North and South Ft. Myers Divisions in Lee County, and Barefoot Bay Division in Brevard County. By Order No. PSC-98-1583-FOF-WS, issued on November 25, 1998, the Commission denied the utility any recovery of rate case expense associated with the utility's underlying request, which formed the basis of the proceeding.

Staff recommends $398,138 as the appropriate rate case expense. A breakdown of the recommended allowance of rate case expense is as follows:

	ACTUAL	ESTIMATED	TOTAL
Miscellaneous	$48,138	$10,000	$58,138
Legal	96,008	28,992	125,000
MFR Preparation	210,348	4,652	215,000

	ACTUAL	ESTIMATED	TOTAL
Miscellaneous	$48,138	$10,000	$58,138
Total Current Expense	$354,494	$43,644	$398,138
Annual Amortization			$99,535
Prior Case			120,306
Total Amortization			$219,841
Water			$79,142
Wastewater			$140,698

Based on the above adjustments, staff recommends that total rate case expense of $398,138 should be approved. This represents annual amortization expenses of $99,535, $35,832 and $63,702 for water and wastewater operations, respectively. This will be in addition to the currently approved recovery for Docket No. 960451-WS of $43,310 for water and $76,996 for wastewater. This is a total annual recovery of $79,142 for water and $140,698 for wastewater. Therefore, staff recommends that test year expenses should be decreased by $23,616 for water and $41,983 for wastewater.

For informational purposes, the prior rate case expense four-year rate reduction for UWF's last rate case (Order No. PSC-97-1146-FOF-WS, issued on September 30, 1997, in Docket No. 960451-WS), will occur on September 30, 2001.

ISSUE 22: What is the amount, if any of the parent debt adjustment?

RECOMMENDATION: No parent debt adjustment should be made. (CAUSSEAUX)

STAFF ANALYSIS: Rule 25-14.004, Effect of Parent Debt on Federal Corporate Income Tax, Florida Administrative Code, anticipates that there will be a parent debt adjustment for each level of ownership, parent and grandparents. Thus, because there is more than one level of parent, an adjustment was made in the last rate case. However, adequate data is not available in this case to make such an adjustment.

ISSUE 23: What adjustments, if any, are required to test year income tax expense as filed?

RECOMMENDATION: Income tax expense as filed should be reduced to reflect the tax effect of staff's adjustments to revenues, expenses, and capital structure and capital costs in other issues. This is a fall out issue. (CAUSSEAUX, B. DAVIS)

STAFF ANALYSIS: Removal of investment tax credits amortization is addressed in a previous issue. Staff has recommended adjustments to operating revenue and expenses in Issue Nos. 15 through 22. The effect of those adjustments, including the removal of the requested revenues, on the utility's requested income taxes is a reduction $480,948 for water income taxes and $200,702 for wastewater income taxes.

ISSUE 24: What is the test year operating income before any rate adjustment?

RECOMMENDATION: The test year operating income should be $2,445,394 and $4,882,767 for water and wastewater operations, respectively. (B. DAVIS)

STAFF ANALYSIS: Based on the adjustments discussed in previous issues, staff recommends that the test year operating income before any provision for increased revenues should be $2,445,394 and $4,882,767 for water and wastewater operations, respectively. The schedules for water and wastewater operating income are attached as Revised Schedules Nos. 3-A and 3-B, and the adjustments are shown on Revised Schedule No. 3-C.

REVENUE REQUIREMENT

ISSUE 25: What is the appropriate revenue requirement?

RECOMMENDATION: The following revenue requirements should be approved: (B. DAVIS)

	TOTAL	$ INCREASE	% INCREASE
Water	$12,236,921	$1,016,460	9.06%
Wastewater	$20,656,316	($157,794)	-0.76%

STAFF ANALYSIS: The revenue requirement is a summary computation that is dependent upon previously approved provisions for rate base, cost of capital, and operating expenses. UWF requested final rates designed to generate annual revenues of $12,648,447 and $21,775,369 for water and wastewater, respectively. These revenues exceed test year revenues by $2,204,773 (21.11%) for the water operations and $3,067,140 (16.39%) for the wastewater operations.

Based upon staff's proposed recommendations concerning the underlying rate base, cost of capital, and operating income issues, we recommend approval of rates that are designed to generate a revenue requirement of $12,236,921 and $20,656,316 for water and wastewater, respectively. These revenues exceed staff's recommended test year revenues by $1,016,460 (9.06%) for the water operations and are a reduction of $157,794 (-0.76%) for the wastewater operations as shown on attached Revised Schedules 3-A and 3-B. These revenues were derived by adding the recommended expenses to the return on rate base, at 8.12%, and expanding for regulatory assessment fees (RAFs), uncollectible accounts and state and federal income taxes. In its application, UWF grossed-up its revenue requirement by uncollectible accounts, as well as the RAFs, income taxes. In our first recommendation, staff accidentally omitted the gross-up factor for uncollectible accounts which has been corrected in this recommendation. A gross-up for uncollectible accounts is not normally done in water and wastewater cases, although it is standard practice in the electric, gas and telephone industries. This factor was requested and approved in UWF's last rate case, Docket No. 960451-WS, as shown in Order No. PSC-97-0618-FOF-WS. Staff recommends that it is also appropriate in this case, as it is a common assumption that uncollectible accounts will change proportionately with revenue.

RATES

ISSUE 26: What is the appropriate conservation rate structure for this utility?

RECOMMENDATION: The appropriate conservation rate structure for this utility is a continuation of the current base facility and quantity charge rate structure. (GILCHRIST, RIEGER)

STAFF ANALYSIS: On September 9, 1996, the entire St. Johns River Water Management district (SJRWMD) was designated as a Water Use Caution area (WUCA). Therefore, all of UWF's water systems located in Duval, Nassau and St. Johns County are in a WUCA. The SJRWMD has imposed a year round restriction on irrigation; irrigating is not permitted between the hours of 10:00 a.m. and 4:00 p.m.

UWF has implemented a conservation program that has been approved by the SJRWMD. Staff requested, and the utility submitted a copy of its Water Use Management Plan(the Plan). UWF strongly encourages water use management and has implemented several procedures to achieve this goal, including monthly unaccounted-for-water reporting, corrosion control studies, on-site reuse at wastewater treatment plants, leak detection surveys, public education, annual replacement of old water mains and old meters, annual testing of all large meters (3" and above), and annual testing of water treatment plant production and city inter-tie meters. City inter-tie meters are used to measure the bulk water and wastewater treatment services purchased from the City of Jacksonville.

Specifically, in the areas of unaccounted-for-water losses, public education, reuse, and conservation rate structure, UWF is doing the following to achieve its conservation goals:

Unaccounted-for-water

UWF, conducts a comprehensive water audit for each system on a monthly basis. The utility annually tests the water treatment plant production meters, the city inter-tie meters, and customer meters 3" and above and recalibrates as necessary. UWF replaces approximately 2,500 customer meters each year. The utility's computerized billing system includes a built-in check for water usage. If the usage is above or below the range, the meter is checked, a field accuracy test is performed, and the meter is changed out when necessary. UWF replaces old water mains and water services with PVC. The utility reports monthly fire flow usage. UWF also implemented a leak location survey on all of its systems. The survey covered approximately 122 miles of water mains and 41 leaks totaling an estimated 94,492 GPD of leakage was detected.

The SJRWMD advised staff that the Arlington and San Jose systems are the only two systems that have exceeded their permitted water allocations. The SJRWMD will be acquiring data on these systems for about a year and then will determine if the problem is due to meter inaccuracies or high consumption. If it is determined that these systems are exceeding because of high usage, UWF will be required to modify their permits, accordingly.

Public Education

UWF is active in instilling water conservation ethics through its participation in various school programs. UWF plans to increase the frequency of classroom presentations. The utility provides water conservation kits to its customers. Different water conservation kits are available, and commonly include such items as flow-conserving showerheads, toilet displacement bags, leak dye tablets, faucet aerators, and information on other household conservation measures. UWF plans to increase the frequency of its conservation literature mailings and it intends to increase the frequency of bill-stuffers containing conservation tips.

Reuse

UWF has implemented reuse for in-plant use at five of its wastewater treatment plants. Also, the utility intends to provide reuse to the Ponte Vedra Golf Course. A detailed discussion regarding reuse follows in Issues Nos. 28 and 29.

Conservation Rate Structure

UWF's current rate structure is defined as a base facility uniform volume rate, in which customers are charged a base rate according to meter size and a usage rate according to consumption. As of July, 1998, the current gallons per day per capita (gpdc) calculated for each system is based on 3.5 persons per connection. The gpdc for UWF systems vary; Magnolia Gardens has the lowest, with a gpdc of 70 and Royal Lakes has the highest, with a gpdc of 446. On an overall basis, under the current rate structure, the total average consumption per bill is 9,289 gallons which is below the 10,000 gallon threshold that determines whether a more aggressive conservation-oriented rate structure is appropriate. Further, the residential customers with a 5/8 inch meter use an average of 8,868 gallons, which is 91% of all of the consumption used by the residential customers.

Based on the reasons above, the appropriate conservation rate structure for this utility is a continuation of the current base facility and quantity charge rate structure.

ISSUE 27: Is repression of consumption likely to occur, and, if so, what are the appropriate adjustments and the resulting consumption to be used to calculate consumption charges?

RECOMMENDATION: Repression of consumption is not likely to occur; therefore, adjustments to consumption are not appropriate. The consumption to be used to calculate consumption charges are the water and wastewater gallons approved in Issue 14. (LINGO)

STAFF ANALYSIS: At the overall average consumption level of 9,605 gallons per month, the preliminary monthly price increase to a typical residential water customer, before any repression adjustment, is $0.22 (approximately 1.1%). A residential customer using 9,000 gallons per month of wastewater (representing 9,605 gallons of consumption capped at 9,000 gallons) would experience a monthly increase, based on preliminary rates before repression considerations, of $0.53, or a change of 1.3%.

Based on the analysis above, we do not believe that these recommended nominal price increases will result in customers repressing consumption for the respective systems. Therefore, we recommend that repression adjustments are not appropriate in this instance. The consumption to be used to calculate consumption charges are the water and wastewater gallons approved in Issue 14.

ISSUE 28: How should the reuse costs be recovered?

RECOMMENDATION: The reuse costs should be recovered through the wastewater rates pursuant to Section 367.0817, Florida Statutes. (GOLDEN, RIEGER)

STAFF ANALYSIS: In staff's recommendation dated December 3, 1998, staff recommended that the reuse costs be recovered through a combination of the wastewater and reuse rates. Following deferral of that recommendation from the December 15, 1998 Agenda Conference, staff discussed various concerns over that recommendation with representatives of the Ponte Vedra Inn & Club Golf Course (Ponte Vedra Golf Course or Golf Course), UWF, the St. Johns River Water Management District (SJRWMD or District), and the Department of Environmental Protection (DEP.) In consideration of the additional information that we received subsequent to our December 3, 1998 recommendation, staff has determined that it is appropriate to change our original recommendation. Staff now recommends that the reuse costs should be recovered only through the wastewater rates. The following is a discussion of the requirements for this reuse project, staff's original recommendation, and the factors that we considered in changing our recommendation.

REUSE PROJECT

According to the utility's application, it plans to provide reclaimed water service to the Ponte Vedra Inn & Club Golf Course. The utility is requesting that it be authorized to provide the reclaimed water service at a zero rate. Ponte Vedra Golf Course is located in Northeast St. Johns County and is in UWF's authorized service territory. Ponte Vedra Golf Course currently receives its potable water and wastewater service for its buildings from UWF. However, irrigation water for the golf course is not purchased from UWF. The golf course currently obtains its irrigation water from an on-site potable well for which Ponte Vedra Corporation (PVC) holds the Consumptive Use Permit (CUP.)

On November 19, 1993, UWF (under its former name Jacksonville Suburban Utilities Corporation) entered into a Spray Irrigation Agreement (Agreement) with PVC for the provision of reclaimed water service to the Ponte Vedra Golf Course. Staff became aware of the Agreement during the utility's last rate case, Docket No. 960451-WS. At the prehearing conference held on January 17, 1997 for that docket, the utility informed the Commission that although the parties had entered into an agreement for reclaimed water service,

the utility had not yet begun providing that service. The utility was advised that it must file an application for approval to provide reclaimed water service prior to providing service. Consequently, the utility has included a request for approval for the reclaimed water service in its current rate case application. The utility plans to begin providing the reclaimed water service to the Ponte Vedra Golf Course by early 1999.

According to the Agreement, PVC has agreed to allow the utility to dispose of its treated effluent on golf course property. The utility will construct, own, operate and maintain all of the pumps, mains, lines and other facilities necessary to transport treated effluent from its treatment plant to the ponds at the golf course. The golf course will be responsible for the ownership, construction, operation and maintenance of the ponds, pumping station, lines, and the irrigation systems on the golf course property.

The utility has agreed not to request approval of a rate for the reclaimed water service. However, the Agreement specifies that PVC shall abide by and pay for the treated effluent in accordance with the provisions of the utility's tariff regarding payment for treated effluent as required by applicable regulatory authority. Consequently, when staff made our December 3, 1998 recommendation, we believed that although UWF was not requesting a reuse rate, the Golf Course had agreed to pay a rate if approved by the Commission. Staff has since learned that the Golf Course is not willing to pay a rate for the reuse service and plans to obtain irrigation water from other sources if a rate is imposed. Ponte Vedra Golf Course's objection to the reuse rate will be discussed in more detail later in this issue.

REQUIREMENT FOR EFFLUENT REUSE

Effluent reuse is required by both UWF's and PVC's CUPs issued by the SJRWMD. Additionally, effluent reuse will enable the utility to comply with the DEP's effluent disposal requirements.

Regarding the SJRWMD's requirements, staff was informed by a representative of the District that many utilities in its district are experiencing water quality problems such as high levels of chlorides and sulfites in their wells. Additionally, they are experiencing loading/nutrient problems in the Intracoastal Waterway and some rivers due to disposal of treated effluent into those waterways. Consequently, the SJRWMD is very interested in implementing effluent reuse within its District.

Joint Agreement

In response to the District's increasing interest in effluent reuse, in February of 1997, the City of Jacksonville (City) and UWF entered into a Joint Agreement concerning reuse of reclaimed water. As stated in the Joint Agreement, the two parties believe that implementation of a reclaimed water system is in the public interest in order to preserve the ground waters of the County for use in the potable water supply and to reduce wastewater discharges into the St. Johns River and its tributaries. The parties agreed that where it is found to be technically, economically, and environmentally feasible to do so, wholesale reclaimed water service may be provided to one another. This allows the City and UWF to construct reclaimed water transmission mains through each other's service territory. However, provision of reclaimed water service to customers within each utility's service area will be limited to the utility in control of the service area and will be reviewed on a case-by-case basis.

This agreement allows the City to provide reclaimed water to potential sites located within UWF's service areas. These sites are existing golf courses which are presently using ground water for irrigation. By allowing the City to provide reuse within its territory, UWF averted potentially costly reuse requirements which were placed upon it by the SJRWMD. Prior to the implementation of the Joint Agreement, the SJRWMD slated five golf courses as potential users for reclaimed water from UWF. If UWF had not entered into the Joint Agreement, reuse to four of those five golf courses would now be necessary. Based on information received from the utility and the SJRWMD, it now appears that the utility must provide reuse to only one of those golf courses, which is the Ponte Vedra Golf Course discussed above.

Subsequent to UWF and the City entering into the Joint Agreement, the Jacksonville Electric Authority (JEA) took over operation of the City's water and wastewater systems. There is some uncertainty regarding whether or not the Joint Agreement still applies now that JEA has taken over the water and wastewater systems. However, staff was informed by a representative of JEA that it is still interested in pursuing this option and has been discussing these issues with UWF. JEA has targeted a number of golf courses and other large users as potential reuse customers, some of which may be in UWF's service territory. As part of its reuse program, JEA is currently constructing a reuse transmission line that will run through UWF's service territory. There is at least one golf course within UWF's territory that could be served by that line. JEA and UWF are in the process of determining if JEA should

serve the golf course directly or if UWF should purchase the reclaimed water from JEA and then resell it to the golf course. If UWF elects to purchase the reclaimed water and resell it, JEA plans to charge UWF the same rate that it would charge the golf course if it was served directly by JEA.

UWF's Consumptive Use Permit

As stated above, UWF's CUP issued by the SJRWMD requires effluent reuse. The utility's CUP for its Ponte Vedra water treatment plant requires that treated effluent must be used as irrigation water when the utility's Ponte Vedra wastewater treatment facility reaches an average daily flow of .300 million gallons per day (MGD.) Flows from this plant are now at approximately .430 MGD. Further, the CUP specifically states that the utility must dispose of all treated effluent on the Ponte Vedra Golf Course.

Ponte Vedra Corporation's Consumptive Use Permit

Effluent reuse is also required by PVC's CUP issued by the SJRWMD. The recommended water needs of the golf course are 216 million gallons per year (MGY.) The golf course occasionally uses as much as one million gallons on a peak day. The CUP states that as of April 1, 2000, PVC must use reclaimed water to meet 100% of the irrigation needs of the golf course unless the amount of reclaimed water available is not sufficient to meet the recommended 216 MGY. PVC is currently permitted to withdraw the full 216 MGY from its potable water wells. However, the CUP requires that the annual ground water withdrawals be reduced, not to exceed 50 MGY from April 1, 2000 through the duration of the permit, which expires November 12, 2011. In other words, the golf course may continue to obtain some of its irrigation water from its potable water wells even after implementation of the reclaimed water service.

The CUP also provides that in the event the District or UWF identifies other potential reclaimed water customers, the golf course is limited to using only the amount of reclaimed water from UWF necessary to meet the 216 MGY recommended allocation. Also, PVC is required to submit a plan to the District by June 1, 1999, which will discuss the use of reclaimed water storage in order to minimize the overuse of reclaimed water and overuse of ground water as a back-up water source.

The golf course was originally permitted to obtain water from six Floridan wells. The CUP states that within one year of receipt

of reclaimed water, PVC must abandon five of the six Floridan wells. Staff was informed by a representative of the SJRWMD that the golf course has installed one new backup well and has abandoned all of the six wells previously used for irrigation. The golf course is currently obtaining all of its irrigation water from the new well pending availability of the reclaimed water service from UWF. Prior to abandoning the wells, the golf course was experiencing high chlorides in those wells due to salt water intrusion.

Staff was informed by representatives of the SJRWMD and Ponte Vedra Golf Course that the golf course has completely renovated its irrigation system to accept the reclaimed water. Staff was initially informed that PVC had spent approximately $378,000 to renovate the golf course, a portion of which is directly related to converting to reclaimed water irrigation. However, as will be discussed later in this issue, representatives of Ponte Vedra Golf Course have informed staff that the information we received previously was incomplete, and the golf course has in fact spent considerably more on the reclaimed water project.

Presently, UWF is not able to meet the total irrigation needs of the golf course. Consequently, the golf course is in negotiation with another utility, St. Johns Service Corporation (SJSC), to accept excess effluent from that utility's facilities. Staff was informed that SJSC currently provides reclaimed water service to another golf course, but may have excess effluent available for the Ponte Vedra Golf Course. A representative of Ponte Vedra Golf Course informed staff that they are still in negotiation with SJSC and are uncertain as to if and when the service will begin. It is anticipated that there will not be a charge for the service.

DEP Effluent Disposal Requirements

In addition to the SJRWMD's reuse requirements, the utility has had effluent disposal compliance problems with the DEP. The percolation ponds currently being used for effluent disposal are overloaded and partially discharge to nearby surface waters. This condition has existed for quite some time, and the DEP wants the utility to find alternative sources for effluent disposal. The DEP fully supports the utility's efforts to change its method of effluent disposal from percolation ponds to golf course irrigation.

Presently, the utility is in the process of modifying its treatment plant operating permit to upgrade its existing treatment plant at Ponte Vedra to meet compliance requirements to provide

reuse water to the golf course. Soon to be made treatment plant improvements include the installation of high level ultra violet disinfection, filtration units, an effluent pumping station, and other plant modifications, at a cost of approximately $1,357,100. In addition to the plant improvements, a $150,000 reuse force main to a holding pond located at the golf course has been constructed. The current plan is that all of the treated effluent produced by the Ponte Vedra wastewater treatment plant will be discharged to a pond at the Ponte Vedra Golf Course and subsequently used for golf course irrigation.

Other Possible Reuse Sites

Currently, the utility is not required by either the SJRWMD or DEP to implement reuse for any of its systems other than Ponte Vedra. The utility does not intend to provide reuse to any other sites in the near future. Staff believes that there are two potential areas which may someday have reuse provided. They are the San Jose area, and the area to be served by the soon to be constructed Blacks Ford Regional Wastewater Treatment Plant. For San Jose, the utility and the San Jose Golf Course are exploring the possibility of providing reuse sometime in the future. The utility reports that many issues are still to be resolved. At a current estimated capital cost of approximately $750,000, the utility has concluded that it is not feasible to provide such service at this time.

Regarding Blacks Ford, the construction of this facility will combine the flows of two older inefficient plants which are slated to be decommissioned. When operational, the effluent leaving the new regional facility will be at advanced wastewater treatment (AWT) levels and will be discharging to a receiving wetland. Although the effluent will be suitable for reuse purposes, the utility contends that there are no regulations or ordinances which require golf courses in the area to use reuse water for irrigation purposes. Without the regulatory incentive, the utility believes that it is not feasible at this time to pursue reuse for this area. As a result, reuse for this area is presently not under consideration by the utility.

ALLOCATION OF REUSE COSTS

Section 367.0817(3), Florida Statutes, states that:

> All prudent costs of a reuse project shall be recovered in rates. The Legislature finds that reuse benefits water, wastewater, and reuse customers. The Commission

> shall allow a utility to recover the costs of a reuse project from the utility's water, wastewater, or reuse customers or any combination thereof as deemed appropriate by the Commission.

In its application, the utility has proposed allocating all of the costs related to the reuse project to the wastewater customers. UWF considers this project to be a means for disposal of treated effluent, similar to effluent disposal at wastewater treatment facilities that do not provide reuse.

According to utility representatives, if UWF does not dispose of its treated effluent through the Ponte Vedra Golf Course, UWF would have to provide advanced wastewater treatment at a cost of several million dollars, and then dispose of the treated effluent to the waters of the state, specifically the Intracoastal Waterway. Disposal of effluent to the Intracoastal Waterway would require expensive and time consuming anti-degradation studies. UWF believes that it avoided such costs by arranging to dispose of its treated effluent on the Ponte Vedra Golf Course. Also, because Ponte Vedra Golf Course has agreed to pay for the irrigation system, UWF has significantly reduced its cost of effluent disposal by entering into the Agreement with the golf course.

A representative of the SJRWMD informed staff that the Legislature has allocated funds to the District to be used for reuse projects. The District provides funds to both public and private utilities, therefore, there is a possibility that UWF could obtain funding for future reuse projects. A representative of UWF indicated that the utility did not apply for funding in 1998, and that the funds for fiscal year 1998 have already been allocated. However, it is the intent of UWF to apply for possible funding during fiscal year 1999. Although it appears that funds are not available for the immediate reuse project, staff strongly encourages the utility to apply for SJRWMD funding for any future reuse projects.

As stated above, Section 367.0817(3), Florida Statutes, allows a utility to recover the costs of a reuse project from its water, wastewater, or reuse customers or any combination thereof as deemed appropriate by the Commission. When determining the most appropriate allocation of the reuse costs, one of the factors staff evaluates is who benefits from the reuse service. In this case, staff believes that the water, wastewater, and reuse customers all benefit from the reuse project. It is unquestionable that reducing withdrawals of potable water from the aquifer will benefit the water customers by helping to protect the potable water supply,

especially in consideration of the current water quality problems being experienced in that region. Also, staff believes that the wastewater customers benefit because the reuse project provides a means of effluent disposal which will bring the utility into compliance with the DEP at a lower cost than some other methods of effluent disposal. Finally, staff believes the golf course benefits from the project because it enables the golf course to meet the requirements of its CUP, and provides a reliable source of water for irrigation.

Considering that all of the parties involved will receive some benefit from the reuse project, staff believes that an argument could be made in favor of dividing the cost among the water, wastewater, and reuse customers. However, staff believes there are no compelling reasons to allocate any of the reuse costs to water customers at this time.

As stated above, in staff's December 3, 1998 recommendation, we recommended that the reuse costs be recovered through a combination of the wastewater and reuse rates. In that recommendation, staff agreed with UWF that the reuse project was conceived primarily out of the need for an alternative means of effluent disposal in order to bring the utility back into compliance with DEP requirements. The conservation factor (complying with the CUP), although important, is a secondary issue. The majority of the costs associated with reuse are for upgrading the plant to meet compliance requirements. Staff agreed with the utility's assertion that much of the costs of the upgrades would occur whether or not the utility provides reclaimed water. Consequently, the incremental costs of going the next step in providing reclaimed water service is a small portion of the total upgrade costs and will not increase wastewater rates significantly. Therefore, staff believed at that time that the wastewater customers should bear a larger portion of the reuse costs, but not all of the reuse costs.

In our December 3, 1998 recommendation, staff disagreed with the utility that the reuse customer should not bear any of the costs. Staff believes from a policy standpoint reclaimed water should be regarded as a valuable resource for which a charge should apply when possible. In that recommendation, staff acknowledged that Ponte Vedra Golf Course had already expended funds in order to convert to reclaimed water irrigation; however, we did not believe that fact should preclude the golf course from sharing at least a portion of the reuse costs. Although, as discussed above, PVC is not totally dependent upon UWF for its irrigation needs, its CUP requires the golf course to begin using reclaimed water when

available. Moreover, PVC has abandoned its six previous wells due to high chloride content and now relies on a new well for irrigation. Thus, staff believed PVC would benefit from reuse by having a safe and reliable source of water for irrigation and by complying with its CUP.

Additionally, as discussed above, JEA intends to provide reuse to a number of golf courses, some of which may be in UWF's service territory. Staff believed that factor further supported our position that a charge was appropriate in this case. As will be discussed in Issue 29, JEA is offering several rate options, one of which is $0.10 per 100 cubic feet, which translates to $0.13 per thousand gallons of use. In Issue 29, staff previously recommended that this rate be approved for the Ponte Vedra Golf Course. Staff believed that JEA's rate provided a reasonable estimate of a market rate for reclaimed water in UWF's service territory.

Based upon information received prior to filing our December 3, 1998 recommendation, staff believed that the Ponte Vedra Golf Course needed the reclaimed water service. Also, based upon the Agreement between UWF and PVC, staff believed that PVC had agreed to pay for the reclaimed water service in accordance with the utility's approved tariff, and thus, approval of a reclaimed water rate would not jeopardize the project. Staff has since learned that this is not the case.

Subsequent to filing our December 3, 1998 recommendation, representatives of Ponte Vedra Golf Course informed staff that they were opposed to the reclaimed water rate and would not use the reclaimed water for irrigation if a rate was imposed. On January 11, 1998, staff received a letter from representatives of Ponte Vedra Golf Course which provided their reasons for opposing staff's recommended reclaimed water rate. One of the reasons cited in opposition to the rate is that the Agreement between UWF and PVC does not require the golf course to use the treated effluent as irrigation. They believe the golf course is required to accept the treated effluent into the lagoons on the golf course property, but it is at the sole discretion of Ponte Vedra Golf Course whether or not to use the effluent for irrigation of the golf course.

Representatives of Ponte Vedra Golf Course believe that the golf course can obtain sufficient quantities of water for irrigation from surface waters from the renovated lagoon system, SJSC, and the new backup well. Representatives from the SJRWMD and UWF have confirmed that it is possible that Ponte Vedra Golf Course may be able to obtain adequate supplies from those sources. As discussed above, it is anticipated that SJSC will not charge for

the reclaimed water service. Therefore, from a financial feasibility standpoint there is more incentive for Ponte Vedra Golf Course to obtain reclaimed water from SJSC than UWF if the Commission approves a charge for UWF.

Although the Golf Course's CUP specifically cites UWF as a source for reclaimed water, staff has been informed by representatives of the SJRWMD that the Golf Course is not limited to using reclaimed water from UWF. If the Golf Course can demonstrate that they have a more feasible source of irrigation water which will still reduce their potable water withdrawals from the aquifer, it is likely that the SJRWMD would allow them to use the other sources rather than purchase reclaimed water from UWF.

Another factor that was cited by Ponte Vedra Golf Course in opposition to the reclaimed water rate is that they believe that UWF will experience significant cost savings as a result of the Golf Course's decision to use the treated effluent for irrigation of the golf course. As stated above, they believe they must accept UWF's reclaimed water into the lagoons on their property but are not required to use the reclaimed water for irrigation of the golf course. Although the distinction between accepting the reclaimed water in the lagoons and actually using it for irrigation seems to be very small, it in fact produces a very significant chain reaction of events.

Based upon conversations with representatives from Ponte Vedra Golf Course, UWF, the SJRWMD, and the DEP, staff has learned that the result of Ponte Vedra Golf Course not irrigating with the reclaimed water which is discharged to the golf course lagoons will be that the treated effluent may flow from the lagoons into a river system which is considered waters of the state. Effluent which is discharged into the waters of the state requires a higher level of treatment than effluent used for irrigation purposes. If the effluent produced by UWF's Ponte Vedra treatment plant discharges into the waters of the state, UWF will be required to upgrade its facilities to AWT. As discussed above, the cost of the reuse project is approximately $1.5 million. The cost to upgrade the facilities to discharge to the waters of the state is approximately $6 to $7 million. Further, under that scenario the upgrade would be viewed strictly as an effluent disposal project and the full cost would be borne by UWF's wastewater customers. Therefore, the planned reuse project is clearly a less expensive alternative to correct UWF's effluent disposal problems.

As discussed above, staff was originally informed that Ponte Vedra Golf Course had spent approximately $378,000 to renovate the

golf course, a portion of which is directly related to converting to reclaimed water irrigation. In its January 11, 1998 letter, Ponte Vedra Golf Course provided updated figures which indicate that the Golf Course has spent considerably more than that. Ponte Vedra Golf Course was required to reconstruct and enlarge the lake into which the effluent will be discharged, at a cost exceeding $260,000. Additionally, the Golf Course's previous irrigation system was comprised of six wells and three pumps spread across the golf course. The Golf Course was required to replace that system with a centralized system which has one pump at the lake which is able to use the treated effluent, at a cost exceeding $930,000. The Golf Course will be required to monitor water discharging from the lake to assure compliance with water quality standards and water quality limits. The monitoring costs will be an on-going obligation.

Further, representatives of Ponte Vedra Golf Course stated in their January 11, 1998 letter that as a result of replacing the irrigation system, the Golf Course determined that is was necessary to tear up and reconstruct its entire golf course at a total cost of $3.7 million. According to representatives of Ponte Vedra Golf Course, the golf course renovation was not planned prior to implementation of the proposed reuse project. Also, a new sprinkler system was installed which exceeded $1.2 million. Additionally, the Golf Course was closed for six and one-half months during the renovation, which resulted in lost revenues in excess of $650,000.

Representatives of Ponte Vedra Golf Course believe that in consideration of the costs they have borne voluntarily for this project, they should not be required to pay twice through a separate reuse rate. Although staff believes an argument could be made that all of these expenditures are not directly related to the proposed reuse project, staff agrees that Ponte Vedra Golf Course has expended significant time and funds towards implementation of this project.

Additionally, Ponte Vedra Golf Course's January 11, 1998 letter points out that the Golf Course owns and operates six restaurants and 288 hotel rooms, all of which receive water and wastewater service from UWF. Therefore, the portion of the reuse costs that are recovered through the wastewater rates will apply to Ponte Vedra Golf Course as well.

Finally, Ponte Vedra Golf Course disagrees with staff's recommendation the JEA's reuse rate is a reasonable estimate of a market rate. The letter states that JEA has no customers that are

being charged that rate. Further, the letter cites three neighboring golf courses which receive treated effluent at no charge. As discussed in staff's December 3, 1998 recommendation in Issue 29, staff acknowledged that we are aware there are utilities in that region that are providing reclaimed water service at no charge. It is also true that the rates provided by JEA are rates which JEA "plans" to charge upon completion of its new reuse transmission line. The fact that JEA has not completed the project and begun charging customers does not change staff's opinion that those rates are a reasonable estimate of a market rate for that region.

As stated above, staff believes from a policy standpoint reclaimed water should be regarded as a valuable resource for which a charge should apply when possible. In staff's original analysis we believed that the wastewater and reuse customers should share the reuse costs. However, in consideration of the recent information that staff has received, staff now believes that is not the best alternative in this case. Cost avoidance and the need for an alternative means of wastewater effluent disposal are the driving forces behind the reuse project. Thus, it is the wastewater customers who will be harmed the most if the Golf Course does not use the effluent for irrigation. As discussed above, if the effluent is not used for irrigation by Ponte Vedra Golf Course, UWF will be required to make additional upgrades to its facilities at a cost of $6 to $7 million. Because the project would strictly be related to effluent disposal at that point, all of the costs would be passed on to the wastewater customers. It is clear from a financial standpoint that the reuse project is the best alternative for the wastewater customers.

Although the cost of the two alternatives is a significant factor in staff's analysis, staff believes it is important to recognize the other benefits that result from implementation of the reuse project. Implementation of the reuse project will help reduce potable water withdrawals from the aquifer, as well as help achieve the SJRWMD's goal of eliminating effluent discharges into the waters of the state. If the effluent is not used for irrigation by the Golf Course, it will not only result in a higher cost to UWF's customers, it will result in a loss of the other valuable benefits provided by the reuse project. For these reasons, staff believes that the reuse project is in the public interest, is consistent with the Commission's Memorandum of Understanding with the various water management districts, and the Commission should take the steps necessary to help promote the success of the project. Therefore, staff recommends that the reuse costs should be recovered through the wastewater rates pursuant to

Section 367.0817, Florida Statutes. Accordingly, as will be discussed in Issue 29, staff is also recommending that UWF be authorized to provide the reclaimed water service to Ponte Vedra Inn & Club Golf Course at a zero rate. Staff's recommendation follows the traditional methodology for allocating reuse costs that was used by the Commission prior to implementation of Section 367.0817, Florida Statues, which gave the Commission the authority to allocate the costs to water, wastewater, and/or reuse customers.

ISSUE 29: What are the appropriate reuse rates?

RECOMMENDATION: The utility should be authorized to provide reclaimed water service at a zero rate specifically to Ponte Vedra Inn & Club Golf Course. The effective date of the tariff is addressed in Issue 31. (GOLDEN, RIEGER)

STAFF ANALYSIS: In staff's recommendation dated December 3, 1998, staff recommended that a reuse rate of $0.10 per 100 cubic feet or $0.13 per 1,000 gallons of reclaimed water should be approved. As discussed in Issue 28, following deferral of that recommendation from the December 15, 1998 Agenda Conference, staff discussed various concerns over that recommendation with representatives of the Ponte Vedra Golf Course, UWF, the SJRWMD, and the DEP. In consideration of the additional information that we received subsequent to our December 3, 1998 recommendation, staff has determined that it is appropriate to change our original recommendation. As discussed in Issue 28, staff is recommending that the reuse costs be recovered through the wastewater rates. Consequently, staff is now recommending that a reuse rate of zero is appropriate in this case. The following is a discussion of staff's original recommendation and the factors that we considered in changing our recommendation.

As discussed in Issue 28, the utility has requested approval to provide reclaimed water service to the Ponte Vedra Golf Course at a zero rate. Historically, reclaimed water service was viewed solely as a means of effluent disposal, and as such was not viewed as a service for which a charge should apply. However, with increasing concerns over water conservation, the trend is shifting towards viewing reclaimed water as a valuable resource, as it is a more desirable source of irrigation, from a conservation standpoint, than ground water. As such, staff believes that a charge should apply for reclaimed water service whenever possible. The difficulty comes in determining what that rate should be.

In most, if not all, cases, a cost-based reuse rate would be cost prohibitive and would prevent acceptance of reclaimed water by customers. Because the ultimate goal is to encourage the use of reclaimed water for irrigation in order to reduce potable water withdrawals from the aquifer, the Commission has turned to alternative methods to establish reuse rates. In some cases, the Commission has considered factors such as whether or not the utility and reuse customer have a contract including a negotiated rate, the reuse rates that are charged by other utilities in the region, and cost avoidance such as a reduction in pumping costs by

the golf course after converting to reclaimed water irrigation. By considering these various factors, the Commission has been able to establish reuse rates which it believed would encourage the use of reclaimed water.

In the immediate case, staff has determined that a cost-based reuse rate would exceed the utility's potable water rate, and thus would not promote the use of reclaimed water. Upon determining that a cost-based rate is not a feasible alternative in this case, staff then considered the negotiated rate between UWF and PVC. As discussed in Issue 28, UWF agreed not to request approval of a charge for the reclaimed water service. As discussed in staff's December 3, 1998 recommendation in Issue 28, we recommended that the costs should be shared between the wastewater and reuse customers, and thus we believed a reclaimed water rate should be established. However, as discussed in Issue 28, staff is now recommending that all of the reuse costs should be recovered through the wastewater rates. Therefore, there is no longer a need for a separate reclaimed water rate.

As discussed in Issue 28, based upon information we received subsequent to filing our December 3, 1998 recommendation, staff believes that the critical issue is finding an acceptable and cost-effective method of effluent disposal to correct the utility's effluent disposal compliance problems. Implementation of a reclaimed water rate at this time will jeopardize the utility's ability to proceed with the reuse project. Therefore, staff believes that a zero rate is appropriate in this case. A zero rate will help insure the success of the reuse project, will improve water conservation efforts in that region, and will help achieve the SJRWMD's goal of eliminating effluent discharge into the waters of the state.

Although staff is now recommending a zero rate, we believe it may be helpful for informational purposes to include a discussion of the analysis we used in our December 3, 1998 recommendation to determine the previously recommended reclaimed water rate. As stated above, in some cases the Commission considers whether or not the parties have negotiated a rate. In this case, the negotiated reclaimed water rate is zero. Because staff originally determined that it would be appropriate to recover the reuse costs from both the wastewater and reuse customers, we believed that the negotiated contract rate was not appropriate in this case. Further, because the contract indicated that PVC had agreed to pay for the reclaimed water in accordance with the utility's approved tariff, staff did not believe that approval of a different rate would in and of itself jeopardize the utility's contract with PVC. As discussed in

Issue 28, that assessment was incorrect, and approval of a rate higher than zero does in fact put the entire reuse project in peril.

In staff's December 3, 1998 recommendation, upon determining that a zero rate was not appropriate, staff's next step was to consider the golf course's current pumping costs. The Commission has previously established reuse rates based upon a golf course's cost of pumping ground water from its wells for irrigation. In this way, the golf course pays for a portion of the reuse costs without being penalized. In cases where the golf course is not required to accept the reclaimed water, this approach provides an incentive to the golf course to convert to reclaimed water irrigation. This approach was used by JEA in developing one of its reuse rates, as will be discussed below.

Regarding Ponte Vedra Golf Course, it currently obtains its irrigation water from an artesian well which flows into a pond without additional pumping the majority of the time. The water is then pumped from the pond to the golf course irrigation system. After converting to reclaimed water irrigation, the golf course may eliminate much of the pumping costs associated with its well since withdrawals from the well will be decreased. Consequently, the golf course may actually experience a cost reduction as compared to its current irrigation costs. However, as discussed in Issue 28, staff was subsequently informed that the Golf Course will incur water monitoring expenses as a result of using treated effluent for irrigation of the golf course. Consequently, although the Golf Course may experience a cost savings in pumping costs, the savings may be offset or even exceeded by the addition of monitoring expenses. Staff does not believe there is enough certainty regarding the golf course's pumping and monitoring costs to use that as a basis for setting a reuse rate in this case.

Staff's final step was to consider the reuse rates charged by other utilities in this region. Staff is aware that some utilities in this region are providing reclaimed service at no charge. However, staff has been informed by a representative of JEA that it plans to charge for reuse service as follows. As an incentive to get them to connect to the reuse system, JEA is offering a lower rate to golf courses that request the reuse service by March 1999. Those golf courses have two rate options. The first option is a rate of $0.10 per 100 cubic feet for all usage with no minimum usage required. The second option is a take or pay option under which the golf course tells JEA the amount of reuse it will use. The golf course is then charged $0.06 per 100 cubic feet for that amount of reclaimed water whether or not it is used. If the golf

course uses more than the stated amount, the $0.06 rate applies to usage up to one and one-half times the stated usage amount. If the golf course uses more than one and one-half times the stated amount, the rate increases to $0.15 per 100 cubic feet. Golf courses which request the service after March 1999 will be charged a rate of $0.20 per 100 cubic feet. As an added incentive for golf courses to connect early, JEA is constructing the reuse line up to the golf course' ponds so that the golf courses do not have to construct any of the lines necessary for the reuse service, and is not charging a capacity fee.

Staff was informed that the rational behind JEA's inclining block rate structure is that JEA has estimated that it costs the golf courses approximately $0.06 per 100 cubic feet for the electric and maintenance costs to pump water from the aquifer. Therefore, the $0.06 rate provides an incentive for golf courses to accept reclaimed water because the cost is comparable to their current costs using potable water for irrigation. However, JEA is concerned that there may not be enough reclaimed water to meet demands during drought conditions if the reclaimed water is wasted. Therefore, the increased rate of $0.15 per 100 cubic feet for excess usage was adopted to encourage the golf courses not to waste the reclaimed water. The $0.10 per 100 cubic feet rate is an alternative for users who prefer not to use the take or pay option. Although the rate is higher, a customers bill may be lower if their usage fluctuates greatly because this option allows them to only pay for the amount they use, regardless of how little or how much.

As discussed in Issue 28, JEA is currently constructing a reclaimed water transmission line through UWF's service territory which will be capable of serving golf courses within UWF's territory. Consequently, staff believed it was reasonable to give more weight to JEA's reuse rates when considering market competitiveness in this region. Staff believed JEA's reuse rates were a reasonable source for determining a market competitive rate in this instance, and should be adopted in this case. Regarding the options, staff recommended that the first option of $0.10 per 100 cubic feet was more appropriate in this case. This translates to a rate of $0.13 per 1,000 gallons.

Staff believed that the reasons which supported allocating a portion of the reuse costs to the golf course also served to support approval of the $0.13 per 1,000 gallons rate in this case. As discussed in staff's December 3, 1998 recommendation in Issue 28, Ponte Vedra Golf Course is not only required to begin using reclaimed water by the SJRWMD, but will also benefit from the availability of a safe and reliable source of water for irrigation

in light of its failing wells. Also, the golf course is benefitting from UWF's agreement to construct and maintain the reuse line up to the golf course's pond. Additionally, as discussed above, staff believes that the golf course may even experience a reduction in pumping costs as withdrawals from the artesian well are reduced. However, staff believes that it is important to recognize the expenses that the golf course has already incurred to convert to reclaimed water irrigation, as well as its willingness to accept all of the effluent produced by the Ponte Vedra wastewater treatment plant. Therefore, staff believed at that time that a conservative rate was appropriate in this case. In consideration of these factors, staff believed the appropriate reuse rate for the Ponte Vedra Golf Course was $0.10 per 100 cubic feet or $0.13 per 1,000 gallons of reclaimed water. Staff believed that rate served to allocate a fair portion of the reuse costs to the golf course, but was conservative as well as competitive with other reuse providers.

However, as discussed above and in Issue 28, due to recent information, staff has determined that implementation of a reclaimed water rate higher than zero will jeopardize the reuse project and cause the utility to resort to more costly methods of effluent disposal. Again, staff believes that implementation of the reuse project is in the public interest because it provides a less costly alternative for effluent disposal, it helps to reduce potable water withdrawals from the aquifer thereby preserving the state's valuable water resources, and also helps to promote the SJRWMD's goal of eliminating effluent discharge into the waters of the state which in turn improves the quality of those waterways for the citizens of Florida. Therefore, staff believes that a zero rate is appropriate in this case. However, it should be noted that use of this methodology in this case does not preclude the Commission from establishing a different rate in future rate proceedings if the circumstances change, or for other reuse customers who connect at a later date.

In summary, staff recommends that the utility be authorized to provide reclaimed water service at a zero rate specifically to Ponte Vedra Inn & Club Golf Course. The effective date of the tariff is addressed in Issue 31.

ISSUE 30: What is the appropriate billing period for residential rates?

RECOMMENDATION: The utility should convert those customers who are on a quarterly billing cycle to monthly billing. This billing change should be noticed to the customers along with the other rate changes as discussed in Issue 31. (B. DAVIS)

STAFF ANALYSIS: Currently, UWF bills its residential customers on a quarterly basis and bills its general service customers on a monthly basis for both water and wastewater. The utility has included $156,894 as the anticipated costs to switch from quarterly to monthly billing for its residential customers. The utility believes that switching to monthly billing for all its customers is primarily a customer service issue in that a monthly bill for water and wastewater services would be smaller and thus easier for customers to budget for and pay than a quarterly bill. For example, in 1997 the average quarterly residential water bill was approximately $45; the average quarterly wastewater bill amounted to $90. With monthly billing, the customer's average water and wastewater bull would be reduced to approximately $15 and $30, respectively. A smaller monthly bill will enable lower income customers to more readily pay for the services they use. In addition, a smaller monthly bill should enable customers to more adequately budget for their water and wastewater service needs. Monthly billing also gives more current price signals in regard to conservation issues. Through monthly billing, the customers then can use this information to adjust their consumption levels for the following month. In the quarterly billing cycle, this consumption data is not received until three months after the fact. Staff believes that by receiving the data monthly, customers are better able to adjust their consumption patterns.

Monthly meter reading and billing creates a more useful water usage history since there are twelve reading periods instead of four. This history can enable a more accurate estimated monthly bill whenever an actual meter reading cannot be obtained. In addition, meter readers will have the ability to find customer leaks, spot high water usage, stopped meters, etc. more readily because they will visit customer sites three times as often. This allows for the potential reduction in the number and severity of these kinds of customer problems. Additionally, monthly billing provides greater and more frequent customer communication with the utility.

Staff believes that by switching UWF to a monthly billing cycle that it could possibly reduce UWF's bad debt expense by allowing customers to pay their bills more timely. Also, considering the increase in the amount of the charges, staff agrees that it would be easier for the residential customers to budget for monthly bills. Staff recommends that the Commission require the utility to convert all current quarterly-billed customers to a monthly billing cycle. This billing change should be noticed to the customers along with the other rate changes as discussed in Issue 31.

ISSUE 31: What are the appropriate water and wastewater rates?

RECOMMENDATION: Staff has recommended monthly rates using the base facility and quantity charge rate structure. The recommended water rates should be designed to produce annual operating revenues of $12,071,230, which is the $12,236,921 revenue requirement less $165,691 in miscellaneous revenue. The recommended wastewater rates should be designed to produce annual operating revenues of $20,592,723, which is the $20,656,316 revenue requirement less $63,593 in miscellaneous revenue. The residential wastewater quantity charge should be capped at 9,000 gallons or 1,200 cubic feet per month. The approved rates should be effective for service rendered on or after the stamped approval date of the revised tariff sheets, pursuant to Rule 25-30.475, Florida Administrative Code, provided customers have received notice. The revised tariff sheets should be approved upon staff's verification that the tariff is consistent with the Commission's decision, that the protest period has expired, and the proposed customer notice is adequate. The utility should provide notice of the date notice was given within ten days after the date of the notice. (B. DAVIS)

STAFF ANALYSIS: The permanent water rates requested by the utility are designed to produce annual operating revenues of $12,648,447. The requested revenues represent an increase of $2,204,773 (21.11%) for water based on the projected test year ending December 31, 1999. The permanent wastewater rates requested by the utility are designed to produce annual operating revenues of $21,775,369. The requested revenues represent an increase of $3,067,140 (16.39%) for wastewater based on the projected test year ending December 31, 1999.

Staff recommends that the final water rates approved for the utility should be designed to produce annual operating revenues of $12,071,230, which is the $12,236,921 revenue requirement less $165,691 in miscellaneous revenue. Staff recommends that the final wastewater rates approved for the utility should be designed to produce annual operating revenues of $20,592,723, which is the $20,656,316 revenue requirement less $63,593 in miscellaneous revenue. The utility's rates prior to this filing are based on this base facility rate design, including a base facility and quantity charge. Residential rates are currently billed quarterly. Staff has recommended changing the customers who are currently billed quarterly to monthly billing, the same as the rest of United's customers. For wastewater service, the utility currently has a quarterly cap of 27,000 gallons or 3,600 cubic feet for residential customers. There is no cap for general service

customers. Staff recommends that this cap is reasonable, but should be converted to a monthly amount of 9,000 gallons or 1,200 cubic feet for residential wastewater service.

Pursuant to Rule 25-30.437, Florida Administrative Code, in proposing rates, the utility should use the base facility and usage charge rate structure unless an alternative source is supported by the applicant. The base facility charge structure for setting rates because of its ability to track costs and to give the customers some control over their water and wastewater bills. Each customer pays his pro rata share of the related costs necessary to provide service through the base facility charge and only the actual usage is paid for through the quantity charge.

The recommended wastewater rates include a base charge for all residential customers regardless of meter size with a cap of 9,000 gallons or 1,200 cubic feet of usage monthly on which the quantity charge may be billed. There is no cap on usage for general service bills. The differential in the quantity charge for residential and general service wastewater customers is designed to recognize that a portion of a residential customer's water usage will not be returned to the wastewater system.

The utility's proposed rates are based on the existing rate structure and were increased pro rata by the percent of the revenue increase requested. Staff has recalculated the rates using the same basic methodology as before, but has used staff's projection of billing and usage information. In Order No. PSC-97-0618-FOF-WS, issued on May 30, 1997 in Docket No. 960451-WS, a stipulation was reached in which the current revenue allocation between the base facility charge and the quantity charge was set so that 37% of the total water revenue is collected from the base facility charge and 27% of the total wastewater revenue is collected from the base facility charge. This remained unchanged for both water and wastewater from previous rate cases. The last case also recognized a 1.2 differential in the quantity charge between general service and residential wastewater customers and a 1.03 differential between Jacksonville University and general service wastewater customers. Staff has used these allocations and differentials applied to staff's revised forecasted billing and consumption to produce the recommended rates as shown on Revised Schedule Nos. 4-A and 4-B.

The rates currently in effect also include a 1.39 differential in the water base facility charge and 1.14 in the wastewater base facility charge between general service and residential customers. This means that the general service customers pay a higher base

facility charge than the residential customers. These differentials were in place when United bought the system from Jacksonville Suburban. These differentials have been continued in the last two rate cases by pro rata increases to the existing rate structure. These differentiated base facility charges are not found in standard base facility charge rate design and staff was unable to find justification for these differentials in the last case nor the prior 1980 rate case. The base facility charge is designed to recover fixed costs of the utility based on the potential demand that a customer places on the system based on water meter size. Without justification of unusual circumstances for this differential, staff does not recommend continuance of differentiated charges and did not use these differentials when calculating the recommended rates. The base facility charges were based on meter size irrespective of customer class.

The approved rates should be effective for service rendered on or after the stamped approval date of the revised tariff sheets, pursuant to Rule 25-30.475, Florida Administrative Code, provided that the customers have received notice. The revised tariff sheets should be approved upon staff's verification that the tariff is consistent with the Commission's decision, that the protest period has expired, and the proposed customer notice is adequate. The utility should provide notice of the date notice was given within ten days after the date of the notice.

The comparison of the utility's original rates and requested rates, expressed as monthly rates, and staff's revised recommended rates is shown on Revised Schedule Nos. 4-A and 4-B. If the Commission does not agree with staff that the entire customer base should be placed on a monthly billing cycle, the equivalent revised quarterly rates to be applied are as follows:

Water : Residential Base Facility Charge

Meter Size	Current Rates	Requested Rates	Recommended Rates
5/8"	$17.39	$21.09	$23.76
3/4"	$25.16	$30.52	$34.44
1"	$44.63	$54.13	$61.05
1 ½"	$100.43	$121.81	$137.10
2"	$178.54	$216.55	$243.78

Wastewater : Residential

Meter Size	Current Rates	Requested Rates	Recommended Rates
All water meter sizes	$34.01	$39.70	$38.58

The quantity charges would be unaffected by the billing cycle, however, the wastewater quantity cap for residential customers would be 27,000 gallons or 3,600 cubic feet per quarter.

ISSUE 32: Should the utility's requested guaranteed revenue charges be approved?

RECOMMENDATION: No. UWF's proposed continuation of guaranteed revenue charges for Nassau County Area, Ponce de Leon Area, Sunray - St. Johns County Area, and Sunray - Nassau County Area should be denied because water and wastewater facilities in those areas have been found to be 100 percent used and useful. Guaranteed revenue charges, equal to the recommended base facility charges, should be established for the Blacks Ford WWTP customers only as shown on Schedule 6 attached to staff's recommendation. The approved charges should be effective for connections on or after the stamped approval date of the tariff sheets. The tariff sheets should be approved upon staff's verification that the tariff is consistent with the Commission's decision and that the protest period has expired. The tariffs will remain in effect until the St. Johns Regional WWTP (Blacks Ford) has reached capacity, estimated at an additional 1,827 ERC, at that time the charge will cease and the tariff will be canceled. All of UWF's prior tariff charges for guaranteed revenue should be canceled as of the date the new guaranteed revenue tariffs are effective. (KYLE)

STAFF ANALYSIS: According to Rule 25-30.515(9), Florida Administrative Code, guaranteed revenue charge means a charge designed to cover the utility's costs including, but not limited to the cost of operation, maintenance, depreciation, and any taxes, and to provide a reasonable return to the utility for facilities, a portion of which may not be used and useful to the utility or its existing customers. Guaranteed revenues are designed to help the utility recover its costs from the time capacity is reserved until a customer begins to pay monthly service rates. Further, guaranteed revenues are collected after service availability charges and AFPI have been paid, until actual connection to the system is made.

In its application, the utility proposed no change in its existing guaranteed revenue charges. (MFRs, Schedule E-10). Guaranteed revenue charges were approved for the Nassau County Area (Base Facility Charge Basis) and Ponce de Leon Area ($37.50 per ERC per month, combined water and wastewater) by Order No. PSC-95-0604-FOF-WS, in Docket No. 950386-WS, issued May 16, 1995. Guaranteed revenue charges were approved for Sunray - St. Johns County Area (residential water: $14.08/ERC/month; all others: $0.04/gallon/month; residential wastewater: $18.19/ERC/month; all others: $0.07/gallon/month) by Order No. PSC-97-0929-FOF-WS, in Docket No. 970210-WS, issued August 4, 1997. Guaranteed revenue

charges were approved for Sunray - Nassau County Area (residential water: $10.84/ERC/month; residential wastewater: $13.99/ERC/month) by Order No. PSC-97-0928-FOF-WS, in Docket No. 970209-WS, issued August 4, 1997.

Staff has recommended that all of UWF's facilities, with the exception of the Blacks Ford WWTP, be considered 100 percent used and useful. Staff also recommends approval of AFPI charges for the Blacks Ford WWTP. If the Commission approves staff's used and useful recommendations, all of the facilities for which guaranteed revenue charges are in effect will be considered 100 percent used and useful. Staff believes that UWF will earn a fair rate of return on these facilities without the guaranteed revenue charges, and, accordingly, staff believes that approval of these charges should be canceled.

Staff's recommended guaranteed revenue charges are shown on Schedule 6 attached to this recommendation. Guaranteed revenues are equal to the base facility charges for each size water meter. The charges should only be collected from the customers that connect to the Blacks Ford WWTP. The approved charges should be effective for connections on or after the stamped approval date of the tariff sheets. The tariff sheets should be approved upon staff's verification that the tariff is consistent with the Commission's decision and that the protest period has expired. The tariffs will remain in effect until the St. Johns Regional WWTP (Blacks Ford) has reached capacity, estimated at an additional 1,827 ERC, at that time the charge will cease and the tariff will be canceled. All of UWF's prior tariff charges for guaranteed revenue should be canceled as of the date the new guaranteed revenue tariffs are effective.

ISSUE 33: If any non-used and useful adjustments are made, should allowance for funds prudently invested (AFPI) charges be authorized, and if so, in what amount?

RECOMMENDATION: Staff has recommended that there is non-used and useful wastewater treatment plant and, therefore, recommends that AFPI charges be authorized for that plant. Revised Schedule 5, attached to the back of this recommendation, provides the charges recommended by staff. The approved rates should be effective for connections served only by the St. Johns Regional WWTP (Blacks Ford) on or after the stamped approval date of the tariff sheets. The tariff sheets should be approved upon staff's verification that the tariff is consistent with the Commission's decision and that the protest period has expired. The tariffs will remain in effect until the St. Johns Regional WWTP (Blacks Ford) has reached capacity, estimated at an additional 1,827 ERC, at that time the charge will cease and the tariff will be canceled. All of Sunray's prior tariff charges for AFPI should be canceled as of the date the new AFPI tariffs are effective. (B. DAVIS)

STAFF ANALYSIS: United requested AFPI charges in the event of utility property being declared non-used and useful. These charges are the product of mechanical calculations using the formula consistent with Rule 25-30.434, Florida Administrative Code, regarding AFPI, which the Commission has consistently used in the past. The cost of qualifying assets are the amounts of non-used and useful investment less accumulated depreciation. The net investment was divided by the number of ERCs remaining until build-out. The per ERC allowances for rate of return, income taxes, property taxes, and depreciation expense were calculated to arrive at a per ERC carrying cost for the non-used and useful investment. The calculations are shown on Attachment F. Staff has attached Schedule 5 at the end of this recommendation, which provides the specific charges recommended.

The approved rates should be effective for only connections served by the St. Johns Regional WWTP(Blacks Ford) on or after the stamped approval date of the tariff sheets. The tariff sheets should be approved upon staff's verification that the tariff is consistent with the Commission's decision and that the protest period has expired. The tariffs will remain in effect until the St. Johns Regional WWTP (Blacks Ford) has reached capacity, estimated at an additional 1,827 ERC, at that time the charge will cease and the tariff will be canceled. All of Sunray's prior tariff charges for AFPI should be canceled as of that date. Rule 25-30.434(4), Florida Administrative Code, states that if any

connections have been made between the beginning date and the effective date of the charge, no AFPI will be collected from those connections.

UNITED WATER FLORIDA, INC. **ATTACHMENT F**
DOCKET 980214-WS **PAGE 1 OF 3**
ALLOWANCE FOR FUNDS PRUDENTLY INVESTED

QUALIFYING ASSETS DATA			**WASTEWATER TREATMENT AND DISPOSAL**
Net Wastewater Plant			
Plant in Service			$2,969,279
Accumulated Depreciation			(587,950)
Land			407,195
Net Qualifying Assets			$2,788,524
Number of Future Customers (ERC)			1,827
Estimated Annual Growth (ERC)			609
Net Annual Depreciation Expense			
Depreciation Rate of Qualifying Assets			5.56%
Depreciation			$165,092
Land			0
Net Annual Depreciation Expense			$165,092
Annual Property Tax	$29,039		
Allocated to Qualifying Assets:			
Collection	$0	$0	
Pumping	0	0	
Treatment and Disposal	2,969,279	29,039	
Total	$2,969,279	$29,039	$29,039
Taxes: Federal Income Tax Rate			34.00%
State Income Tax Rate			5.50%
Regulatory Assessment Fee			4.50%
Return: Rate of Return			8.13%
Percent of Equity			43.86%
Weighted Cost of Equity			4.20%

UNITED WATER FLORIDA, INC. **ATTACHMENT F**
DOCKET 980214-WS **PAGE 2 OF 3**
ALLOWANCE FOR FUNDS PRUDENTLY INVESTED

CALCULATION OF CARRYING COST PER ERC

	WASTEWATER TREATMENT AND DISPOSAL
Cost of Qualifying Assets:	$2,788,524
Divided By Future ERC:	1,827
Cost/ERC:	$1,526.29
Multiply By Rate of Return:	8.13%
Annual Return Per ERC:	$124.03
Annual Reduction in Return: (Annual Depreciation Expense per ERC Times Rate of Return)	7.34
Federal Tax Rate:	34.00%
Effective State Tax Rate:	3.64%
Total Tax Rate:	37.63%
Effective Tax on Return (Equity % Times Tax Rate)	16.50%
Provision For Tax (Tax on Return/(1-Total Tax Rate))	26.46%
Annual Depreciation Expense:	$165,092
Future ERC's:	1,827
Annual Depreciation Cost per ERC:	$90.36
Annual Property Tax Expense:	$29,039
Future ERC's:	1,827
Annual Property Tax per ERC:	$15.89
Weighted Cost of Equity:	4.20%
Divided by Rate of Return:	8.13%
% of Equity in Return:	51.63%
Other Costs:	$0
Future ERC's:	1,827
Cost per ERC:	$0.00

UNITED WATER FLORIDA, INC.
DOCKET 980214-WS
ALLOWANCE FOR FUNDS PRUDENTLY INVESTED

WASTEWATER TREATMENT AND DISPOSAL	1999	2000	2001	2002	2003
CALCULATION OF ANNUAL CARRYING COST PER ERC					
Unfunded Other Costs:	$0.00	$0.00	$0.00	$0.00	$0.00
Unfunded Annual Depreciation:	90.36	90.36	90.36	90.36	90.36
Unfunded Property Tax:	15.89	15.89	15.89	15.89	15.89
Subtotal Unfunded Annual Expense:	$106.26	$106.26	$106.26	$106.26	$106.26
Unfunded Expenses Prior Year:	0.00	106.26	212.51	318.77	425.03
Total Unfunded Expenses:	$106.26	$212.51	$318.77	$425.03	$531.28
Return on Expenses Current Year:	8.63	8.63	8.63	8.63	8.63
Return on Expenses Prior Year:	0.00	8.63	17.27	25.90	34.54
Return on Plant Current Year:	124.03	116.68	109.34	102.00	94.66
Earnings Prior Year:	0.00	124.03	259.42	407.11	568.10
Compound Earnings from Prior Year:	0.00	10.08	21.08	33.08	46.16
Total Compounded Earnings:	$132.66	$268.06	$415.74	$576.73	$752.10
Earnings Expansion Factor for Tax	1.26459	1.26459	1.26459	1.26459	1.26459
Revenue Required to Fund Earnings:	$167.76	$338.98	$525.74	$729.33	$951.09
Revenue Required to Fund Expenses:	106.26	212.51	318.77	425.03	531.28
Subtotal:	$274.02	$551.49	$844.51	$1,154.36	$1,482.37
Regulatory Assessment Fee Factor	1.04712	1.04712	1.04712	1.04712	1.04712
ERC Carrying Cost for 1 Year:	$286.93	$577.48	$884.30	$1,208.75	$1,552.22
CALCULATION OF MONTHLY CARRYING COST PER ERC					
January	$0.00	$311.14	$603.05	$911.34	$1,237.38
February	23.91	335.36	628.62	938.38	1,266.00
March	47.82	359.57	654.18	965.42	1,294.62
April	71.73	383.78	679.75	992.45	1,323.24
May	95.64	407.99	705.32	1,019.49	1,351.86
June	119.56	432.21	730.89	1,046.53	1,380.49
July	143.47	456.42	756.46	1,073.57	1,409.11
August	167.38	480.63	782.03	1,100.60	1,437.73
September	191.29	504.84	807.60	1,127.64	1,466.35
October	215.20	529.05	833.17	1,154.68	1,494.98
November	239.11	553.27	858.73	1,181.72	1,523.60
December	263.02	577.48	884.30	1,208.75	1,552.22

ISSUE 34: What is the appropriate amount by which rates should be reduced four years after the established effective date to reflect the removal of the amortized rate case expense as required by Section 367.0816, Florida Statutes?

RECOMMENDATION: The water and wastewater rates should be reduced as shown on Revised Schedules No. 6-A and 6-B, to remove rate case expense grossed-up for regulatory assessment fees and amortized over a four-year period. The decrease in rates should become effective immediately following the expiration of the four-year recovery period, pursuant to Section 367.0816, Florida Statutes. The utility should be required to file revised tariff sheets and a proposed customer notice setting forth the lower rates and the reason for the reduction not later than one month prior to the actual date of the required rate reduction. (B. DAVIS)

STAFF ANALYSIS: Section 367.0816, Florida Statutes requires that the rates be reduced immediately following the expiration of the four-year period by the amount of the rate case expense previously included in the rates. The reduction will reflect the removal of revenues associated with the amortization of rate case expense and the gross-up for regulatory assessment fees. The reduction in revenues will result in the rates recommended by staff on Revised Schedules Nos. 6-A and 6-B.

The utility should be required to file revised tariff sheets no later than one month prior to the actual date of the required rate reduction. The utility also should be required to file a proposed customer notice setting forth the lower rates and the reason for the reduction.

If the utility files this reduction in conjunction with a price index or pass-through rate adjustment, separate data shall be filed for the price index and/or pass-through increase or decrease and the reduction in the rates due to the amortized rate case expense.

OTHER ISSUES

ISSUE 35: Are the books and records in compliance with Commission rules?

RECOMMENDATION: Yes, the books and records are in substantial compliance with Commission rules. Since the utility installed a new computer program during 1997, this created more audit problems reconciling the MFRs to the books than anticipated. However, the utility should be placed on notice if these reconciling problems recur, that a show cause proceeding will be initiated in the future. (B. DAVIS, MERCHANT)

STAFF ANALYSIS: The staff auditors wrote, in Audit Exception No. 1, that the worksheets and other data supporting the MFR schedules, as provided by UWF, were not provided in a systematic and rational manner as required by Rule 25-30.450, Florida Administrative Code (FAC). In addition, the audit staff was unable to verify the MFR schedules in an expedient manner. They further stated that the utility, in most cases, insufficiently answered audit document requests or was late responding or failed to answer document requests until after the end of audit field work. The auditors believed that a great deal of the problems the utility had in providing documentation was the recent implementation of a new computer system. It appeared that utility personnel experienced difficulties in extracting information, in hard copy form, from the computer. The utility was late responding to approximately 25% of the audit document requests. As a result, the auditors believed that the effectiveness of the audit was reduced. However, the auditors stated an overall opinion in the audit report that the MFRs present fairly, in all material respects, the books and records of UWF.

The utility replied that contrary to the general statements in Exception No. 1, UWF has supported its MFR schedules as required by Rule 25-30.450, FAC. Furthermore, UWF stated that its supporting information is organized in a systematic and rational manner. During the course of this rate case proceeding, UWF claimed to have provided numerous worksheets, responded to extensive audit requests, generated customized reports, and organized and participated in meetings designed to aid the audit staff as well as customized reports from its computer system for the audit staff's use.

United Water Management and Services Company (UWM&S) greatly improved its computer system in 1997 by installing an Integrated

Financial Management System (IFM System). UWM&S previously used technologically antiquated mainframe computer systems which were primarily batch systems with little or no on-line capability to query data bases or develop ad hoc queries. The previous systems were lacking integration and required manual manipulation of data. The replacement of the old systems dramatically reduced the risk of disruption due to Year 2000 problems. Companies are increasingly needing to rely on the use of electronic media for their record keeping and the use of such electronic media record keeping leads to improved decision making.

In Order No. PSC-97-0618-FOF-WS, Docket No. 960451-WS, issued on May 30, 1997, the Commission found that UWF's records did not comply with the NARUC USOA Class A Water and Wastewater instructions 2.A. and 24.C. The utility was directed to comply with the NARUC USOA by maintaining continuing property records. UWF believed that the utility's investment in the new computer system improved record keeping by replacing hand summarized plant records in the 300 series accounts. UWF now has an electronic sub-ledger that maintains detailed records of plant by 300 accounts.

UWF and UWM&S claim to have devoted a great deal of time and effort to aid the audit staff. They made their onsite personnel available for consultation by the audit staff during the field audit of UWF. UWM&S also sent several representatives to the local office in order to aid the audit staff. Also, the utility prepared and made several presentations to demonstrate the computer system's capabilities and the means for obtaining useful reports. The utility does not believe that there were any specific audit document requests which were insufficiently answered, nor does Exception No. 1 of the Audit Report identify any such request.

The utility believed that one source of difficulty for the audit staff was that, because the transition to the new computer system occurred in the base year, additional work was required to track information from the old computer system through the new computer system. However, UWF believed that this difficulty had been addressed by both the audit staff and the utility by their agreement to focus on the reconciliation of 1997 year end balances instead of monthly balances.

Another primary problem in connection with the audit was a question of documentation format. The information sought to be reviewed by the audit staff is contained in the computer data base which provides information in a format consistent with the use of such information today. However, UWF believed that the audit staff is accustomed to reviewing data provided in a different format. In

order to convert the information to the format requested by the audit staff, the utility had to query the data base for information and create new reports, which took additional time. UWF believed that despite the large number of requests, the extensive analysis required to answer many of the requests, and the short turnaround time for responding (e.g., two days), the information was provided in a timely manner.

In Audit Exception No. 2, the staff auditors further wrote that Commission Order No. PSC-97-0618-FOF-WS, issued May 30, 1997, in Docket No. 960451-WS, ordered the utility to:

> comply with Rule 25-30.115(1), Florida Administrative Code, by either keeping its accounts in accordance with the National Association of Regulatory Commissioners' (NARUC) Uniform System of Accounts, or by providing a reliable conversion chart which will map its own accounts to those prescribed by NARUC.

The auditors further stated that the USOA required by rule 25-30.115(1), FAC also requires:

1) Each utility shall keep its books of account, and all other books, records, and memoranda which support the entries in such books of accounts so as to be able to furnish readily full information as to any item included in any account. Each entry shall be supported by such detailed information as will permit a ready identification, analysis, and verification of all facts relevant thereto. (Instruction 2)

2) Each ... account shall be subdivided as shown in the plant account matrix (i.e., use NARUC Accounts 301-348 to subdivide the 101 plant account) (Instruction 32)

The auditors stated that the utility provided the audit staff with a report presented in the plant account matrix format. This report contained ending balances for NARUC Accounts 301-348. For the test year ended December 31, 1997, the audit staff was able to agree the ending balances reflected in the utility report to the utility's plant Account 101, reflected in the general ledger. However, the audit staff had an extremely difficult time agreeing the books and records to the MFRs because of the different balances for plant in service and plant additions which were reflected in the various reports received from the utility.

The utility replied that UWF complies with the USOA, and disputes these allegations. UWF acknowledged that the transition

from one computer system to another created some difficulties because of the audit staff's unfamiliarity with the new system. The utility believed that it made every effort to familiarize the audit staff with the new system and to provide access to and assistance from utility personnel who were trained in its uses. UWF believed that the "different balances ... in the various reports" were the direct result of the utility providing revised reports to comply with the auditors requests for different information in different formats.

Staff has reviewed the utility's responses and we believe that it has adequately explained the problems that occurred during the audit. Further, despite the Audit Exceptions 1 and 2, the audit staff stated an overall opinion that UWF's MFRs present fairly in all material respects the utility's books and records. While staff agrees that problems existed during the audit, those problems arose because UWF was improving its future record keeping ability as well as unfamiliarity with the new computer and its output. Staff believes that the problems occurred during the audit of the historical base year and many did not materially or directly impact the projections for the 1999 test year. Staff does not expect that these types of reconciling problems will recur in the future. However, if these reconciling problems recur, the utility should be placed on notice that a show cause proceeding will be initiated in the future. Based on the above, staff believes that the books and records are in substantial compliance with Commission rules and that no action should be taken at this time.

ISSUE 36: Should this docket be closed?

RECOMMENDATION: Yes. This docket should be closed if no person, whose interests are substantially affected by the proposed action, files a protest within the 21 day protest period, and upon the utility's filing of and staff's approval of revised tariff sheets and customer notice. (REYES)

STAFF ANALYSIS: If a protest is not received within 21 days of issuance of the Proposed Agency Action order, the order will become final. The docket may be closed upon the utility's filing of and staff's approval of revised tariff sheets and customer notice.

ACCOUNTING SCHEDULES

UNITED WATER FLORIDA, INC.
SCHEDULE OF WATER RATE BASE
TEST YEAR ENDED 12/31/99

REVISED SCHEDULE NO. 1-A
DOCKET 980214-WS
JANUARY 22, 1999

	DESCRIPTION	TEST YEAR PER UTILITY	UTILITY ADJUSTMENTS	ADJUSTED TEST YEAR PER UTILITY	STAFF ADJUSTMENTS	STAFF ADJUSTED TEST YEAR
1	UTILITY PLANT IN SERVICE	$69,607,255	$0	$69,607,255	$0	$69,607,255
2	LAND & LAND RIGHTS	922,868	0	$922,868	0	$922,868
3	NON-USED & USEFUL COMPONENTS	0	0	$0	0	$0
4	ACCUMULATED DEPRECIATION	(12,922,828)	0	($12,922,828)	0	($12,922,828)
5	CIAC	(26,888,792)	0	($26,888,792)	(61,739)	($26,950,531)
6	AMORTIZATION OF CIAC	6,616,037	0	$6,616,037	2,111	$6,618,148
7	CWIP	0	0	$0	0	$0
8	ACQUISITION ADJUSTMENTS - NET	366,947	0	$366,947	0	$366,947
9	ADVANCES FOR CONSTRUCTION	(259,716)	0	($259,716)	0	($259,716)
10	UNFUNDED POST-RETIRE. BENEFITS	(329,204)	0	($329,204)	(214,280)	($543,484)
11	WORKING CAPITAL ALLOWANCE	935,163	0	$935,163	(258,949)	$676,214
	RATE BASE	$38,047,730	$0	$38,047,730	($532,856)	$37,514,874

UNITED WATER FLORIDA, INC.
SCHEDULE OF WASTEWATER RATE BASE
TEST YEAR ENDED 12/31/99

REVISED SCHEDULE NO. 1-B
DOCKET 980214-WS
JANUARY 22, 1999

	DESCRIPTION	TEST YEAR PER UTILITY	UTILITY ADJUSTMENTS	ADJUSTED TEST YEAR PER UTILITY	STAFF ADJUSTMENTS	STAFF ADJUSTED TEST YEAR
1	UTILITY PLANT IN SERVICE	$111,996,158	$0	$111,996,158	$0	$111,996,158
2	LAND & LAND RIGHTS	4,163,244	0	$4,163,244	0	$4,163,244
3	NON-USED & USEFUL COMPONENTS	0	0	$0	(2,945,936)	($2,945,936)
4	ACCUMULATED DEPRECIATION	(27,616,719)	0	($27,616,719)	0	($27,616,719
5	CIAC	(40,849,312)	0	($40,849,312)	(33,039)	($40,882,351)
6	AMORTIZATION OF CIAC	13,609,392	0	$13,609,392	1,665	$13,611,057
7	CWIP	0	0	$0	0	$0
8	ACQUISITION ADJUSTMENTS - NET	475,777	0	$475,777	0	$475,777
9	ADVANCES FOR CONSTRUCTION	(67,149)	0	($67,149)	0	($67,149)
10	UNFUNDED POST-RETIRE. BENEFITS	(614,930)	0	($614,930)	(351,263)	($966,193)
11	WORKING CAPITAL ALLOWANCE	1,662,511	0	$1,662,511	(460,352)	$1,202,159
	RATE BASE	$62,758,972	$0	$62,758,972	($3,788,925)	$58,970,047

UNITED WATER FLORIDA, INC.
ADJUSTMENTS TO RATE BASE
TEST YEAR ENDED 12/31/99

REVISED SCHEDULE NO. 1-C
DOCKET 980214-WS
JANUARY 22, 1999

	EXPLANATION	WATER	WASTEWATER
	UTILITY PLANT IN SERVICE	$0	$0
	LAND & LAND RIGHTS	$0	$0
	NON-USED & USEFUL COMPONENTS		
1	Non-Used and Useful Treatment Plant (Issue 5)	$0	($2,969,279)
2	Non-Used and Useful Land (Issue 6)	0	(407,195)
3	Non-Used and Useful Accumulated Depreciation (Issue 5)	0	587,950
4	Imputed CIAC on Margin Reserve (Issue 7)	0	(160,102)
5	Accum. Amort. of CIAC on Margin Reserve (Issue 7)	0	2,690
	Total	$0	($2,945,936)
	CIAC		
	Revised Growth Projections (Issue 15)	($61,739)	($33,039)
	AMORTIZATION OF CIAC		
	Revised Growth Projections (Issue 15)	$2,111	$1,665
	UNFUNDED POST-RETIRE. BENEFITS		
	Unfunded liability for Other Postretirement Employee Benefits (Issue 9)	($214,280)	($351,263)
	WORKING CAPITAL ALLOWANCE		
	Allowance for working capital (Issue 8)	($258,949)	($460,352)

UNITED WATER FLORIDA, INC.
CAPITAL STRUCTURE
TEST YEAR ENDED 12/31/99

REVISED SCHEDULE NO. 2
DOCKET 980214-WS
JANUARY 22, 1999

DESCRIPTION	TOTAL CAPITAL	SPECIFIC ADJUSINVESTM	PRO RATA ADJUSTMENTS	CAPITAL RECONCILED TO RATE BASE	RATIO	COST RATE	WEIGHTED COST
PER UTILITY 1999 - 13-MONTH AVERAGE							
1 LONG TERM DEBT	$0	$51,921,823	$0	$51,921,823	51.51%	7.69%	3.96%
2 SHORT-TERM DEBT	0	0	0	0	0.00%	0.00%	0.00%
3 PREFERRED STOCK	0	141,837	0	141,837	0.14%	5.00%	0.01%
4 COMMON EQUITY	101,555,266	(55,759,312)	0	45,795,954	45.43%	10.18%	4.62%
5 CUSTOMER DEPOSITS	6,000	(292)	0	6,000	0.01%	7.00%	0.00%
6 DEFERRED INCOME TAXES	1,799,426	0	0	1,799,663,426	0.0179	0.00%	0.00%
7 DEFERRED ITC'S-ZERO COST	0	0	0	0	0.00%	0.00%	0.00%
8 DEFERRED ITC'S-WTD. COST	1,141,663	0	0	1,141,663	1.13%	8.84%	0.10%
9 OTHER	0	0	0	0	0.00%	0.00%	0.00%
10 TOTAL CAPITAL	$104,502,355	($3,695,652)	$0	$100,806,703	100.00%		8.69%
PER STAFF 1999 - 13-MONTH AVERAGE							
11 LONG TERM DEBT	$0	$51,516,076	($2,320,365)	$49,195,711	50.99%	7.69%	3.92%
12 SHORT-TERM DEBT	0	0	0	0	0.00%	0.00%	0.00%
13 PREFERRED STOCK	0	143,926	(6,483)	137,443	0.14%	5.00%	0.01%
14 COMMON EQUITY	101,555,266	(57,264,298)	(19,949,350)	42,296,033	43.84%	9.57%	4.19%
15 CUSTOMER DEPOSITS	6,000	0	0	6,000	0.01%	7.00%	0.00%
16 DEFERRED INCOME TAXES	1,799,426	1,908,644	0	3,708,070	3.84%	0.00%	0.00%
17 DEFERRED ITC'S-ZERO COST	0	1,141,663	0	1,141,663	1.18%	0.00%	0.00%
18 DEFERRED ITC'S-WTD. COST	1,141,663	(1,141,663)	0	0	0.00%	0.00%	0.00%
19 OTHER	0	0	0	0	0.00%	0.00%	0.00%
17 TOTAL CAPITAL	$104,502,355	($3,695,652)	($4,321,783)	$96,484,920	100.00%		8.12%
					LOW	**HIGH**	
				RETURN ON EQUITY	8.57%	10.57%	
				OVERALL RATE OF RETURN	7.68%	8.56%	

UNITED WATER FLORIDA, INC.
STATEMENT OF WATER OPERATIONS
TEST YEAR ENDED 12/31/99

REVISED SCHEDULE NO. 3-A
DOCKET 980214-WS
JANUARY 22, 1999

	DESCRIPTION	TEST YEAR PER UTILITY	UTILITY ADJUSTMENTS	ADJUSTED TEST YEAR PER UTILITY	STAFF ADJUSTMENTS	STAFF ADJUSTED TEST YEAR	REVENUE INCREASE	REVENUE REQUIREMENT
1	OPERATING REVENUES	$10,443,674	$2,204,773 21.11%	$12,648,447	($1,427,987)	$11,220,460	$1,016,461 9.06%	$12,236,921
	OPERATING EXPENSES:							
2	OPERATION AND MAINTENANCE	$5,032,685	$13,721	$5,046,406	($20,419)	$5,025,987	6,326	$5,032,313
3	DEPRECIATION	$1,830,458	$0	$1,830,458	(1,408)	1,829,050		1,829,050
4	AMORTIZATION	$29,717	$0	$29,717	0	29,717		29,717
5	TAXES OTHER THAN INCOME	$1,267,618	$99,215	$1,366,833	(64,259)	1,302,574	45,741	$1,348,315
6	INCOME TAXES	$281,528	$787,158	$1,068,686	($480,948)	$587,456	$362,881	$950,619
7	**TOTAL OPERATING EXPENSES**	$8,442,006	$900,094	$9,342,100	($567,316)	$8,774,784	$414,947	$9,190,013
8	**OPERATING INCOME**	$2,001,668	$1,304,679	$3,306,347	($860,671)	$2,445,676	$601,514	$3,046,907
9	**RATE BASE**	$38,047,730		$38,047,730		$37,514,874		$37,514,874
10	**RATE OF RETURN**	5.26%		8.69%		6.52%		8.12%

UNITED WATER FLORIDA, INC.
STATEMENT OF WASTEWATER OPERATIONS
TEST YEAR ENDED 12/31/99

REVISED SCHEDULE NO. 3-B
DOCKET 980214-WS
JANUARY 22, 1999

	DESCRIPTION	TEST YEAR PER UTILITY	UTILITY ADJUSTMENTS	ADJUSTED TEST YEAR PER UTILITY	STAFF ADJUSTMENTS	STAFF ADJUSTED TEST YEAR	REVENUE INCREASE	REVENUE REQUIREMENT
1	OPERATING REVENUES	$18,708,229	$3,067,140 16.39%	$21,775,369	($961,259)	$20,814,110	($157,794) -0.78%	$20,656,316
	OPERATING EXPENSES							
2	OPERATION AND MAINTENANCE	$8,882,392	19,087	$8,901,479	54,308	$8,955,787	(1,105)	$8,954,682
3	DEPRECIATION	3,411,342	0	$3,411,342	(171,581)	3,239,761		$3,239,761
4	AMORTIZATION	43,399	0	$43,399	0	43,399		$43,399
5	TAXES OTHER THAN INCOME	2,076,125	138,021	$2,214,146	(72,296)	$2,141,850	($7,101)	$2,134,749
6	INCOME TAXES	656,203	1,095,045	$1,751,248	($200,702	$1,550,103	(56,270)	$1,494,276
7	**TOTAL OPERATING EXPENSES**	15,069,461	1,252,153	$16,321,614	($390,714)	$15,930,900	($64,475)	$15,866,865
8	**OPERATING INCOME**	$3,638,768	$1,814,987	$5,453,755	($570,545)	$4,883,210	($93,318)	$4,789,449
9	**RATE BASE**	$62,758,972		$62,758,972		$58,970,047		$58,970,047
10	**RATE OF RETURN**	5.80%		8.69%		8.28%		8.12%

UNITED WATER FLORIDA, INC.
ADJUSTMENTS TO OPERATING INCOME
TEST YEAR ENDED 12/31/99

REVISED SCHEDULE NO. 3-C
DOCKET 980214-WS
JANUARY 22, 1999

	EXPLANATION	WATER	WASTEWATER
	OPERATING REVENUES		
	Revised Growth Projections (Issue 15)		
1	Remove Requested Final Revenue Increase	($2,204,773)	($3,067,140)
2	Revised Growth Projections-Staff Methodology	776786	2105881
	Total	($1,427,987)	($961,259)
	OPERATION & MAINTENANCE EXPENSE		
1	Unaccounted For Water (Issue 4)		
	Purchased Water	($9,058)	$0
	Purchased Power	(9,941)	0
	Chemicals	(3,533)	0
	Revised Growth Projections (Issue 15)		
2	Sludge Hauling	0	114,617
3	Purchased Power	57,012	193,748
4	Chemicals	20,509	24,703
5	Uncollectibles	4,834	14,741
	Purchased Sewage Treatment (Issue 16)		
6	Correct MFR Error	0	(116,197)
7	Forecasted Quantity and Rates	0	(33,317)
8	Other Postretirement Employee Benefits (Issue 17)	(26,402)	(46,938)
9	Uncollectible Accounts (Issue 18)	(26,000)	0
10	Lobbying (Issue 19)	(11,269)	(6,586)
11	Public Service Tax (Issue 20)	(15,487)	(48,480)
12	Rate Case Expense (Issue 21)	(23,616)	(41,983)
	Total	($42,951)	$54,308
	DEPRECIATION EXPENSE-NET		
	Depreciation on Non-Used and Useful Plant (Issue 5)	$0	($165,092)
	Amortization Imputed CIAC (Issue 7)	0	(5,379)
	Revised Growth Projections CIAC Amortization (Issue 15)	(1,408)	(1,110)
	Total	($1,408)	($171,581)
	TAXES OTHER THAN INCOME		
1	RAFs on Revenue Adjustments Above	($64,259)	($43,257)
2	Property Tax on Non-Used and Useful Property (Issue 5)	0	(29,039)
	Total	($64,259)	($72,296)
	INCOME TAXES		
	Adjust to Test Year Income Tax Expense (Issue 23)	($480,948)	($200,702)

UNITED WATER FLORIDA, INC. | **REVISED SCHEDULE NO. 4-A**
MONTHLY WATER SERVICE RATES | **DOCKET 980214-WS**
TEST YEAR ENDED 12/31/99 | **JANUARY 22, 1999**

Class	Rates Prior to Filing	Utility Requested Final	Staff Recommended Final
Residential, General Service and Multi-Family			
Base Facility Charge:			
Meter Size:			
5/8"	$8.08	$9.66	$7.92
3/4"	$11.69	$14.04	$11.48
1"	$20.74	$25.01	$20.35
1-1/2"	$46.66	$56.45	$45.70
2"	$82.94	$100.45	$81.26
3"	$186.68	$226.29	$182.95
4"	$331.78	$402.27	$325.20
6"	$746.60	$905.39	$731.73
8"	$1,327.01	$1,609.53	$1,300.54
Quantity Charge:			
per 1,000 Gallons	$1.36	$1.65	$1.40
per 100 Cu Ft	$1.01	$1.23	$1.05
Private Fire Protection			
Base Facility Charge:			
Meter Size:			
2"	$6.91	$8.38	$6.77
3"	$15.56	$18.86	$15.25
4"	$27.65	$33.51	$27.10
6"	$62.22	$75.42	$60.98
8"	$110.58	$134.05	$108.38
10"	$172.84	$209.52	$169.40
12"	$248.87	$301.67	$243.91
Typical Monthly Residential Costs			
5/8" Meter Size			
3,000 Gallons	$12.16	$14.61	$12.12
5,000 Gallons	$14.88	$17.91	$14.92
10,000 Gallons	$21.68	$26.16	$21.92

UNITED WATER FLORIDA, INC.
MONTHLY WASTEWATER SERVICE RATES
TEST YEAR ENDED 12/31/99

REVISED SCHEDULE NO. 4-B
DOCKET 980214-WS
JANUARY 22, 1999

Class	Rates Prior to Filing	Utility Requested Final	Staff Recomm. Final
Residential			
Base Facility Charge:			
All Water Meter Sizes:	$11.34	$13.23	$12.86
Quantity Charge:			
per 1,000 Gallons (9,000 gallon per month cap)	$3.34	$3.89	$3.23
per 100 Cu Ft (1,200 cu ft per month cap)	$2.50	$2.91	$2.42
General Service			
Base Facility Charge:			
Water Meter Size:			
5/8"	$12.92	$15.13	$12.86
3/4"	$18.69	$21.85	$18.65
1"	$33.16	$38.71	$33.05
1-1/2"	$74.61	$87.01	$74.20
2"	$132.64	$154.62	$131.94
3"	$298.53	$347.91	$297.07
4"	$530.57	$618.18	$528.03
6"	$1,193.95	$1,391.03	$1,188.14
8"	$2,122.13	$2,472.36	$2,098.59
Quantity Charge:			
per 1,000 Gallons	$4.01	$4.67	$3.87
per 100 Cu Ft	$3.00	$3.49	$2.89
Jacksonville University			
Base Facility Charge:			
Water Meter Size:			
3"	$298.53	$347.91	$297.07
4"	$530.57	$618.18	$528.03
6"	$1,193.95	$1,391.03	$1,188.14
Quantity Charge:			
per 1,000 Gallons	$4.13	$4.81	$4.04
Unmetered Accounts			
Residential Accounts	$36.21	$42.21	$36.91
Non-residential Accounts	$37.76	$43.99	$36.83
Typical Monthly Residential Costs			
5/8" water meter:			
3,000 Gallons	$21.36	$24.90	$22.55
5,000 Gallons	$28.04	$32.68	$29.01
9,000 Gallons	$41.40	$48.24	$41.93

(Wastewater Gallonage Cap - 9,000 Gallons per Month)

UNITED WATER FLORIDA, INC. **REVISED SCHEDULE NO. 5**
ALLOWANCE FOR FUNDS PRUDENTLY INVESTED **DOCKET 980214-WS**
TEST YEAR ENDED 12/31/99 **DECEMBER 3, 1989**

MONTH	1999	2000	2001	2002	2003
WASTEWATER TREATMENT AND DISPOSAL					
January	$0	$311	$603	$911	$1,237
February	24	335	628	938	1,265
March	48	359	654	965	1,294
April	72	384	679	992	1,323
May	96	408	705	1,019	1,351
June	120	432	731	1,046	1,380
July	143	456	756	1,073	1,408
August	167	480	782	1,100	1,437
September	191	505	807	1,127	1,466
October	215	529	833	1,154	1,494
November	239	553	858	1,181	1,523
December	263	577	884	1,208	1,551

NOTES:

1. The amounts indicated above are per ERC. (ERC = 280 gpd)

2. The number of remaining ERC's is 1827.

3. If the number of remaining ERC's has not connected by December 31, 2003, the maximum charge of $1,551 remains in effect after December 31, 2003.

4. When the number of remaining ERC's have connected, the charge will cease.

UNITED WATER FLORIDA, INC. REVISED SCHEDULE NO. 6
MONTHLY WASTEWATER GUARANTEED REVENUE CHARGES DOCKET 980214-WS
TEST YEAR ENDED 12/31/99 JANUARY 22, 1999

Class	Staff Recommended Final

Applicable Only To Those Customers Added to the
St. Johns Regional Wastewater Treatment Plant (Blacks Ford)

Residential, General Service and Multi-Family

Guaranteed Revenue Charge (Same as Base Facility Charge):

Water Meter Size:	
5/8"	$12.86
3/4"	$18.65
1"	$33.05
1-1/2"	$74.20
2"	$131.94
3"	$297.07
4"	$528.03
6"	$1,188.14
8"	$2,098.59

Note: Guaranteed revenues are monthly charges collected after payment of service availability and AFPI charges up to the point that utility service is rendered.

UNITED WATER FLORIDA, INC. **REVISED SCHEDULE NO. 7-A**
WATER SERVICE RATES **DOCKET 980214-WS**
4 YEAR RATE REDUCTION **DECEMBER 3, 1998**
TEST YEAR ENDED 12/31/99

Class	Approved Final Rates	Decrease
Residential, General Service and Multi-Family		
Base Facility Charge:		
Meter Size:		
5/8"	$7.91	($0.02)
3/4"	$11.47	($0.03)
1"	$20.33	($0.05)
1-1/2"	$45.64	($0.11)
2"	$81.16	($0.21)
3"	$182.72	($0.46)
4"	$324.78	($0.82)
6"	$730.80	($1.84)
8"	$1,298.90	($3.28)
Quantity Charge:		
per 1,000 Gallons	$1.40	$0.00
per 100 Cu Ft	$1.05	$0.00
Private Fire Protection		
Base Facility Charge:		
Meter Size:		
2"	$6.76	($0.01)
3"	$15.23	($0.04)
4"	$27.07	($0.07)
6"	$60.90	($0.15)
8"	$108.24	($0.27)
10"	$169.19	($0.43)
12"	$243.60	($0.61)
Typical Residential Bills		
5/8" Meter Size:		
3,000 Gallons	$12.11	($0.02)
5,000 Gallons	$14.91	($0.02)
10,000 Gallons	$21.91	($0.02)

UNITED WATER FLORIDA, INC. — REVISED SCHEDULE NO. 7-B
WASTEWATER SERVICE RATES — DOCKET 980214-WS
4 YEAR RATE REDUCTION — JANUARY 21, 1999
TEST YEAR ENDED 12/31/99

Class	Approved Final Rates	Decrease
Residential		
Base Facility Charge:		
All Water Meter Sizes:	$12.86	($0.04)
Quantity Charge:		
per 1,000 Gallons		
(9,000 gallon per month cap)	$3.23	$0.01
per 100 Cu Ft		
(1,200 cu ft per month cap)	$2.42	$0.00
General Service		
Base Facility Charge:		
Water Meter Size:		
5/8"	$12.86	($0.04)
3/4"	$18.65	($0.06)
1"	$33.05	($0.10)
1-1/2"	$74.20	($0.23)
2"	$131.94	($0.41)
3"	$297.07	($0.93)
4"	$528.03	($1.64)
6"	$1,188.14	($3.70)
8"	$2,098.59	($6.53)
Quantity Charge:		
per 1,000 Gallons	$3.87	$0.01
per 100 Cu Ft	$2.89	$0.01
Jacksonville University		
Base Facility Charge:		
Water Meter Size:		
3"	$297.07	($0.93)
4"	$528.03	($1.64)
6"	$1,188.14	($3.70)
Quantity Charge:		
per 1,000 Gallons	$4.03	($0.15)
Unmetered Accounts		
Residential Accounts	$36.91	$0.04
Non-residential Accounts	$36.83	$0.02
Typical Residential Bills		
5/8" water meter:		
3,000 Gallons	$22.55	($0.01)
5,000 Gallons	$29.01	$0.01
10,000 Gallons	$45.16	$0.06

(Wastewater Gallonage Cap - 9,000 Gallons per Month)