MEMORANDUM

February 7, 2000

DIVISION OF RECORDS AND REPORTING TO:

DIVISION OF LEGAL SERVICES (FUDGE, JAEGER) FROM:

RE: DOCKET NO. 990535-WU - REQUEST FOR APPROVAL OF INCREASE IN WATER RATES IN NASSAU COUNTY BY FLORIDA PUBLIC UTILITIES COMPANY (FERNANDINA BEACH SYSTEM).

0248-PAA

Attached is a NOTICE OF PROPOSED AGENCY ACTION ORDER APPROVING INCREASED WATER RATES AND CHARGES AND REQUIRING REPORTS AND COMPLIANCE WITH THE NARUC UNIFORM SYSTEM OF ACCOUNTS, to be issued in the above-referenced docket.

(Number of pages in order - 69)



Attachment

Division of Water and Wastewater (Willis, Bethea, Merchant, cc: Crouch, Binford, Kyle, G.Edwards, Lingo)

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- NASSAV CO. 4 MAIL ROOM

Joc. #01656-00

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Request for approval of increase in water rates in Nassau County by Florida Public Utilities Company (Fernandina Beach System). DOCKET NO. 990535-WU ORDER NO. PSC-00-0248-PAA-WU ISSUED: FEBRUARY 7, 2000

The following Commissioners participated in the disposition of this matter:

JOE GARCIA, Chairman J. TERRY DEASON SUSAN F. CLARK E. LEON JACOBS, JR.

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NOTICE OF PROPOSED AGENCY ACTION ORDER APPROVING INCREASED WATER RATES AND CHARGES AND REQUIRING REPORTS AND COMPLIANCE WITH THE NARUC UNIFORM SYSTEM OF ACCOUNTS

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission that the action discussed herein is preliminary in nature and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code.

CASE BACKGROUND

Florida Public Utilities Company (FPUC or utility) is a class A utility providing electric, gas, and water service to various areas in Florida. The Fernandina Beach division in Nassau County furnished electricity and water service to approximately 12,500 electric customers and 6,400 water customers as of December 31, 1998. In its 1998 annual report, the utility recorded operating

revenues of \$2,160,904 for its water service and a net operating income of \$442,115. FPUC is located in a critical use area as designated by the St. Johns River Water Management District (SJRWMD or District). The Fernandina Beach division is the sole division within the company providing water service. Water rates were last established for this utility in Order No. 17441, issued April 20, 1987, in Docket No. 860662-WU.

On July 19, 1999, FPUC filed its Application for a Rate Increase in Nassau County. However, there were several deficiencies in the Minimum Filing Requirements (MFRs). These deficiencies were corrected, and August 6, 1999 was established as the official filing date. The utility requested that this application be processed using our Proposed Agency Action (PAA) procedure, and did not request interim rates. The utility's rate case is based on the projected test year ending December 31, 2000, with an historical base year of December 31, 1998. We suspended the rates requested by the utility pending final action by Order No. PSC-99-2113-PCO-WU, issued October 25, 1999. The utility is requesting revenues of \$2,893,351. These revenues exceed test year revenues by \$649,855 (28.97%).

As part of the PAA process, our staff held a customer meeting on November 3, 1999, in Fernandina Beach, Florida.

QUALITY OF SERVICE

In accordance with Rule 25-30.433(1), Florida Administrative Code, our evaluation of the overall quality of service provided by the utility is derived from the evaluation of three separate components of water and wastewater operations: quality of the utility's product, operating conditions of the utility's plants and facilities, and customer satisfaction. The rule also states that sanitary surveys, outstanding citations, violations, and consent orders on file with the Department of Environmental Protection (DEP) and County Health Department over the preceding three-year period will be considered. DEP and health department officials' input as well as customer comments will also be considered.

Quality of the Utility's Product

The quality of the utility's product is very good. At the customer meeting held on November 3, 1999 in the Fernandina Beach Recreation Center Auditorium, there was a relatively small representation of the total customer base in attendance (of more

than 6,000 customers, only four customers attended). Only two customers spoke at the customer meeting and only one customer indicated that the water pressure was inadequate and the water was unsafe. The other customer expressed concerns regarding the continued flow of water at the end of the lines.

We find that the finished product meets standards, and note that both staff and DEP engineers concur that the finished product is satisfactory. However, all of the agencies involved have concerns regarding unaccounted for water.

After reviewing the DEP Monthly Operation Reports and the utility's complaint logs, we concluded that the majority of the low water pressure complaints were unfounded. The water pressure tests, which were performed by the utility, indicated the water pressure greatly exceeded the continuous water flow requirement of 20 pounds per square inch (psi) required by DEP. Several customers listed in the complaint log expressed concerns regarding unpleasant odors from the water. While conducting the field investigation, our staff engineer traversed the service area and did not experience unpleasant odors emanating from the finished water product.

Operating Conditions

DEP conducted inspections of FPUC's facilities on October 22, 1996 and again on November 7, 1996. Several minor deficiencies were discovered during those two inspections. These deficiencies have been corrected. On September 3, 1999, our staff engineer in conjunction with Ms. Ryna Miner, an inspector from DEP, conducted a field inspection of the two FPUC facilities. A few minor deficiencies were detected and either have been or will be corrected by the utility in the near future.

Customer Satisfaction

It is evident from lack of adverse commentary given at the customer meeting and several phone calls made to the Commission by representatives of homeowners associations throughout the system that the customers' satisfaction is excellent. At the customer meeting only two customers spoke, which is a small representation of the total population (more than 6,000 customers).

Several customers spoke to our staff by phone prior to the customer meeting and to our staff engineer during the engineering

investigation. Based on our staff's discussion with the customers, it appears that the customers are very pleased with the level of service provided by FPUC. Based on the foregoing, we find that customer satisfaction is excellent.

RATE BASE

Our calculation of the appropriate rate base for the purpose of this proceeding is depicted on Schedules No. 1-A and our adjustments are itemized on Schedule No. 1-B. Those adjustments which are self-explanatory or which are essentially mechanical in nature are reflected on those schedules without further discussion in the body of this Order. The major adjustments are discussed below.

Adjustments to comply with the National Association of Regulatory Utility Commissioners (NARUC) Uniform System of Accounts

In FPUC's most recent water rate case, we found that the utility was not recording CIAC in account 271 in conformity with the NARUC Uniform System of Accounts. Specifically, the utility was netting CIAC against the primary plant account to which it related. In Order No. 17441, issued April 20, 1987, in Docket No. 860662-WU, we stated, "we will require the utility to maintain its accounts and records in accordance with the 1984 NARUC uniform system of accounts." Rule 25-30.115, Florida Administrative Code, specifically requires adherence to the NARUC Uniform System of Accounts. We note that the rule was amended on August 17, 1997, to refer to the 1996 NARUC Uniform System of Accounts, and to set an effective date of January 1, 1998.

During the audit in the current rate case, our auditors found that while the utility did start the CIAC account, many items, especially contributed plant, were recorded as a credit to plant instead of to CIAC. As a result of their examination of the utility's ledgers and tax return information, our auditors concluded that, from 1986 through 1998, a total of \$490,350 of CIAC was incorrectly recorded. In its response to the audit report, dated November 11, 1999, the utility agreed with the audit findings on this matter. Accordingly, the utility shall make the following adjustments to their books and records for the test year ended December 31, 2000:

Utility Plant in Service	\$490 , 350
CIAC	(490,350)
Accumulated Depreciation	(117 , 535)
Accumulated Amortization of CIAC	117,535
Depreciation Expense	11,944
CIAC Amortization Expense	(11,944)

Further, FPUC shall maintain a record of CIAC in conformity with the NARUC Uniform System of Accounts, as required by Rule 25-30.115, Florida Administrative Code. Our staff will monitor the utility's compliance with the rule. If the utility does not comply with the rule by December 31, 2000, a show cause action will be initiated.

Adjustments to the Utility's Projected Plant-in-service, Accumulated Depreciation, Depreciation Expense, and Property Taxes

In Audit Disclosure No. 1, our auditors described three concerns with the utility's projection of allocated common plant. FPUC's projections included \$18,480 allocated to the water division for a trencher/backhoe, beginning January 1, 1999. Company source documentation shows that purchase of this asset was deferred and other items for electric division use only were substituted. The utility also included in its projections transportation equipment estimated to cost \$17,000, of which \$5,610 was allocated to the water division. Source documentation revealed that the actual cost of the equipment in 1999 was \$13,458. Finally, during the staff audit, the utility submitted documentation of its intent to acquire three vehicles in 2000 at a cost of \$15,000 each (of which \$4,950 each was allocated to the water division), and to retire three vehicles. FPUC generally agreed with the findings, and provided supplementary documentation, including а clarification of depreciation rates. As a result, we decreased projected plant by \$16,625, decreased accumulated depreciation by \$634, and decreased depreciation expense by \$776.

After filing the MFRs, the utility notified our staff that permitting problems would delay certain construction projects scheduled for the test year, and provided revised schedules. After review of the new information, we decreased average test year plant-in-service by \$56,026, decreased accumulated depreciation by \$20,909, and increased depreciation expense by \$32,502.

The combination of all of our adjustments to plant-in-service is an increase of \$417,699. Because the utility based its projection of property taxes on the plant-in-service balance, we increased Taxes Other Than Income by \$6,579.

In Audit Disclosure No. 3, our auditors noted that there was an apparent inconsistency from prior practice in the utility's treatment of depreciation expense on transportation equipment, resulting in duplication of charges. FPUC agreed with the finding and submitted revised schedules. Accordingly, we have reduced test year accumulated depreciation and depreciation expense by \$39,400 and \$22,842, respectively.

Margin Reserve

Margin reserve is the concept whereby this Commission recognizes certain costs the utility incurs in providing extra capacity sufficient to meet short-term growth without impairing its ability to provide safe and adequate service to existing customers. Section 367.081(2)(a)2., Florida Statutes, sets out the time period that must be used as well as the maximum growth rate that can be included in the calculation. Section 367.081(2)(a)2., Florida Statutes, states:

2. For purposes of such proceedings, the commission shall consider utility property, including land acquired or facilities constructed or to be constructed within a reasonable time in the future, not to exceed 24 months after the end of the historic test year used to set final rates unless a longer period is approved by the commission, to be used and useful in the public service, if:

a. Such property is needed to serve current customers;

b. Such property is needed to serve customers 5 years after the end of the test year used in the commission's final order on a rate request as provide in subsection (6) at a growth rate for equivalent residential connections not to exceed 5 percent per year; or

> c. Such property is needed to serve customers more than 5 full years after the end of the test year used in the commission's final order on a rate request as provided in subsection (6) only to the extent that the utility presents clear and convincing evidence to justify such consideration.

Prior to the enactment of the current Section 367.081(2)(a)2.b., Florida Statutes, we traditionally used an 18month growth period known as a "margin reserve." However, in accordance with Section 367.081(2)(a)2.b., Florida Statutes, the period needed to serve current customers is five years after the test year. Therefore, we have used a five-year period in the margin reserve calculations as the approved construction period. The growth rate calculated in each margin reserve calculation is less than the maximum allowed of 5% per year.

Plant Margin Reserve:

FPUC, in their application, calculated a margin reserve of 328,320 GPD. However, we did not use the same method utilized by the applicant to calculate margin reserve.

FPUC's calculation:

Margin Reserve = 2 x 456 ERC = 912 ERC = 912 x 360 = 328,320

Our calculation:

Statutory Margin Reserve Period X Growth per year X (max daily consumption/Test year ERC's) = Margin Reserve

Margin Reserve = (5 x 206 x 7,575,140)/6,461 = 1,207,614

PLANT MARGIN	RESERVE				
System Plant	Margin Reserve Period	Growth Per Year	Average Daily Consumption	Test Year ERC's	Margin Reserve
FPUC	5	206	7,575,140	6,461	1,207,614

Distribution System Margin Reserve:

In its application, the utility requested a margin reserve of 912 ERCs for the distribution system. However, FPUC's calculations were based on a summarization of five years of growth which were then averaged. Our practice is to utilize the regression analysis calculation (because a more accurate projection of growth can be achieved). We calculated the margin reserve value to be 1030 lots.

FPUC's calculation:

ERC's = Margin Reserve x Average Growth

912 = 2 years x 456

Our calculation:

Growth in lots served equals:

Statutory Margin Reserve Period

X Regression calculation for customer growth

 $5 \text{ years } x \ 206 = 1030$

DISTRIBUTION SYSTEM MARGIN RESERVE							
System Plant Margin Reserve Period Growth Margin Reserve							
FPUC	5	206	1030				

Unaccounted for Water

Unaccounted for water is the difference between water pumped and treated, and the amount of water sold (revenue producing). Some unaccounted for water is acceptable for line flushing, plant use, etc. An acceptable level of unaccounted for water is 10% of total water pumped. Any amount of unaccounted for water above that level must be justified or it is considered excessive. This standard was applied to the FPUC system which consists of two plants that are interconnected by one distribution system.

FPUC calculates the excessive unaccounted for amount to be three percent or 15,211 GPD. When the total unaccounted gallons, 185,073,000, is divided by the total amount of water pumped, 1,415,345,000 gallons, the result is an adjustment factor of

0.130762 or 13%. However, the excessive amount of unaccounted for water is 3% or .030762.

UNACCOUNTED FOR WATER									
System Plant	Per year Water Pump	Per Year Consumption	Other Usage	Unaccounted For Water	Excessive Unaccounted For Water				
FPUC	1,415,345 M	1,191,060 M	39,212 M	185,073 M	15,211 GPD				

Note: M = thousand gallons

The calculation below reflects the 3% of excessive unaccounted for water and the required adjustments:

(1) Test year purchased power expenses X 0.030762 = adjustment amount

 $$135,739 \times 0.030762 = $4,175.60$

(2) Test year chemical expenses X 0.030762 = adjustment amount

 $$19,636 \times 0.030762 = 604

Therefore, we reduced test year purchased power expenses by \$4,175 and reduced test year chemical expenses by \$604.

FPUC acknowledged the existence of the excessive unaccounted for water situation in their application. The utility stated the reason for the unaccounted for water problems was due to leakage and inaccurate meters which require refurbishment or replacement.

Our staff has communicated with the utility concerning this matter and has reviewed the corrective measures (the utility is working with the Florida Rural Water Association to locate leaks and the utility is increasing their meter replacement program) that are being taken to resolve this situation. We are confident that the applicant will resolve this issue expeditiously.

<u>Used and Useful</u>

We utilized the utility's records for the test year, data from FPUC's application, and data from DEP's files, which confirmed the

accuracy of the data contained in the utility's records. In its application, the utility requested 100% used and useful values for both the water treatment plant and water distribution system. We reviewed the application and discovered some differences in calculation factors. For example, FPUC calculated the margin reserve by using the average method and two years construction time. Our practice is to utilize regression analysis and a five year period as required by statute. The utility's method of calculating the used and useful of the water treatment plant was different from ours; however, the results were similar.

The utility's calculation for the portion of the distribution system that is used and useful, was determined by using the lot count method. Although we also utilized the lot count method, the results were slightly different due to FPUC's margin reserve calculation. Nevertheless, we both arrived at a 100% used and useful for the distribution system.

The following plant used and useful calculations were made using the DEP permitted capacities along with all other corrected data resulting in 100% used and useful for both the plant and distribution systems.

Water plants: (Plant #1, N. 11th St. & Atlantic Ave. + Plant #2, Ryan Rd.)

Percentage of Plant Used and Useful equals:

(Max. Day + Margin Res.+ Fire Fl. - Excess Unacct. Water) X 100

PLANT USED AND USEFUL PERCENTAGES FOR FPUC								
System Plant(s)	Capacity (GPD)	Maximum Day (GPD)	Fire Flow (GPD)	Margin Reserve (GPD)	Excess Unaccounted Water (GPD)	Used & Useful (%)		
PLANT #1 PLANT #2	8,947,000	7,575,140	580,320	1,201,300	15,211.5	* 100%		

Capacity

* This number has been rounded.

Distribution System: (Plant #1, N. 11th St. & Atlantic Ave. + Plant #2, Ryan Rd. - The two plants are interconnected by the one distribution system).

The distribution system calculation was derived from the lot counts taken from the annual reports.

X 100

Percentage of distribution system Used and Useful equals:

Test year lots + Margin Reserve

Total No. Lots

DISTRIBUTION SYSTEM(S)	USED AND US	SEFUL FOR	FPUC	
Plant(s) Area			Total No. Lots	Used & Useful(%)
PLANT #1 PLANT #2	6,537	1030	7,732	*97.8

* Rounded to 100%

Because of the utility's operating capacity, we find the water treatment plant to be 100% used and useful (Schedule 5-A) and the water distribution system to be 100% used and useful (Schedule 5-B).

<u>CIAC</u>

In Audit Exception No. 2, our auditors found that, in some instances, engineering fees collected from developers were being recorded as advances for construction, but were not being transferred to CIAC when the engineering work was completed. The utility agreed, so we increased CIAC by \$59,018, increased accumulated amortization of CIAC by \$4,321, decreased advances for construction by \$59,018, and decreased net depreciation expense by \$1,357.

The projection of CIAC and the associated accumulated amortization and annual amortization is based on known projects through 1999, adjusted by Consumer Price Index (CPI) and projected growth for the test year ended December 31, 2000. Since we increased the utility's growth factor of 1.0528 to 1.0809, we increased average test year CIAC by \$49,323, increased accumulated amortization of CIAC by \$512, and decreased net depreciation expense by \$1,430.

Other Postretirement Employee Benefits (OPEBs)

Rule 25-14.012(3), Florida Administrative Code, states that:

. . . each 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 benefits other than pensions.

In its MFRs, FPUC did not include a line item in its rate base calculation for unfunded liability for OPEBs. In its response to a staff data request, the utility included details of its postretirement benefit plan, including actuarial calculations of the unfunded liability, which appear to be reasonable. The utility also provided documentation that the unfunded liability is recorded in its books in Account 100.2280.33. This account is included in the accrued insurance liability accounts which are part of FPUC's working capital calculation. Accordingly, we find that the requirement of Rule 25-14.012(3), Florida Administrative Code, has been met, and no further reduction to rate base is required.

Working Capital

In its MFRs, the utility appropriately used the balance sheet method to project working capital for the test year, and projected a balance of \$228,290. As a result of our analysis, we made several adjustments to this amount.

In Schedule A-17 of its MFRs, FPUC included a line item in the amount of \$28,044, described as "other work in process." We determined that this amount is the projected unamortized rate case expense for the test year. This was based on projected rate case expense of \$32,050 and annual amortization of \$8,013. We subsequently adjusted the projected amounts to \$45,988 total expense and \$11,497 annual amortization. As a result, the average unamortized balance for the test year increased to \$40,240.

We also considered whether unamortized rate case expense should be included in the working capital calculation. A review of our recent actions indicates that such inclusion is appropriate. In a case involving Gulf Utility Company, the Office of Public Counsel (OPC) proposed removing unamortized rate case expense from working capital. We disagreed, stating that "(t)his is an improper

mechanism to lower rate case expense. Furthermore, it is consistent to match the unamortized expense with the allowed expense. Because the utility will not receive recovery of all rate case expense until the end of four years, disallowing the unamortized portion would deny recovery of the utility's investment." <u>In Re: Investigation of Rates of Gulf Utility Company</u> in Lee County for Possible Overearnings, and <u>In Re: Application for</u> <u>Increase in Rates and Service Availability Charges in Lee County by</u> <u>Gulf Utility Company</u>, Order No. PSC-97-0847-FOF-WS, issued July 15, 1997, in Dockets Nos. 960234-WS and 960329-WS.

Similarly, we approved inclusion of unamortized rate case expense in working capital in <u>In Re: Application for Increase in</u> <u>Rates in Martin County by Hobe Sound Water Company</u>, Order No. PSC-97-1225-FOF-WU, issued October 10, 1997, in Docket No. 970164-WU. We also allowed FPUC to include unamortized rate case expense in working capital for its Marianna electric division, stating that "... if it is determined that rate case expense is prudent and reasonable, the company should be allowed to earn a return on the unamortized balance." <u>In Re: Application for Rate Increase for</u> <u>Marianna Electric Operations by Florida Public Utilities Company</u>, Order No. PSC-94-0170-FOF-EI, issued February 10, 1994, in Docket No. 930400-EI.

As a result of this analysis, we find that the utility's unamortized rate case expense shall be included as an asset in the working capital calculation. Further, the amount included shall be increased by \$12,196 to reflect the adjustments to rate case expense discussed below.

Our auditors determined that the utility did not include the liability account, "Accrued Taxes - Ad Valorem," in its working capital calculation (Audit Disclosure No. 4). The utility agreed with this disclosure. Including the projected average balance of this account results in a decrease in working capital of \$40,189.

In its MFRs, FPUC projected the balance of the liability account, "Accrued Interest Payable," as \$52,209, using CPI and projected customer growth as the method of projection. In Audit Disclosure No. 5, our auditors noted that the utility's projected Notes Payable balance increased by a substantially larger percentage than did the related Accrued Interest. Our auditors suggested that Accrued Interest would be more appropriately forecast by relating it to the forecast Notes Payable balance. Doing so would increase the projected Accrued Interest Payable

average balance to \$131,176, an increase of \$78,967 over the utility's projection. The utility did not comment on this disclosure. We find that the projection methodology proposed by our auditors is more reasonable than the utility's methodology and, accordingly, reduced working capital by \$78,967.

In its MFRs, the utility projected liabilities related to payroll by using a CPI and projected customer growth factor of 1.0528. In Audit Disclosure No. 6, our audit staff noted that FPUC had projected adding an additional employee in the test year ended December 31, 2000. Using the same projection factor for payroll of existing employees and adding payroll liability related to the additional employee would increase the projected test year payroll tax liability by \$3,053. The utility agreed with this rationale, and accordingly, we reduced working capital by \$3,053.

In its MFRs, the utility included as an asset for the projected test year a net deferred income tax debit of \$69,049. Rule 25-30.433(3), Florida Administrative Code, states:

Used and useful debit deferred taxes shall be offset against used and useful credit deferred taxes in the capital structure. Any resulting net debit deferred taxes shall be included as a separate line item in the rate base calculation. Any resulting net credit deferred taxes shall be included in the capital structure calculation. No other deferred debits shall be considered in rate base when the formula method of working capital is used.

Accordingly, we reduced working capital by \$69,049, and increased deferred income taxes as a separate rate base line item by the same amount.

Finally, the changes in customer growth projections discussed below affected projected average test year balances for many of the accounts used in calculating working capital. Therefore, we recalculated these balances, using the revised projection factors, resulting in a net decrease in working capital of \$2,516.

Our adjustments to working capital are summarized as follows:

Working Capital per MFRs	\$228,290
Reflect Increase in Projected Rate Case Expense	12,196
Include Accrued Taxes-Ad Valorem	(40,189)
Change Method of Projecting Accrued Interest Payable	(78,967)
Adjust Payroll Related Payables to Reflect New Employee	(3,053)
Reclassify Deferred Income Tax Debit as Separate Line Item	(69,049)
Adjust Applicable Accounts for Change in Growth Projection	(2,516)
Working Capital	\$46,712

Rate Base Summary

After considering all the above adjustments, the appropriate projected average rate base for the test year ended December 31, 2000 is \$8,026,640.

COST OF CAPITAL

Our calculation of the appropriate cost of capital, including our adjustments, is depicted on Schedule No. 2. Those adjustments which are self-explanatory or which are essentially mechanical in nature are reflected on that schedule without further discussion in the body of this Order. The major adjustments are discussed below.

Based upon the proper components, amounts and cost rates associated with the capital structure for the projected test year ending December 31, 2000, the resulting weighted average cost of capital is 9.10%. Attached Schedule No. 2 reflects the components, amounts, cost rates and weighted average cost of capital associated with the December 31, 2000, test year capital structure.

We began with the 13-month average capital structure in the MFRs submitted by FPUC. The utility specifically identified investment tax credits and customer deposits in a manner consistent with previous cases. The utility properly removed its investment in Flo-Gas entirely from common equity at the total utility level. Flo-Gas is FPUC's non-regulated propane gas operations. However, as noted in the audit report, dividends on common stock were included in the calculation of equity in the MFR filing. Since

expenses were already adjusted for this amount, and thus retained earnings, this is only a payable account and should not be included in equity. We specifically excluded accrued dividends payable in the amount of \$203,448 from common equity to be consistent with previous cases. As a result of our adjustment, there was a change in the respective percentages of investor supplied sources of capital. The utility's equity ratio decreased to 42.86% from 43.03%.

We agreed with and used the respective cost rates provided by FPUC with the exception of the cost rates for common equity and short-term debt. Based upon the adjustment discussed above and the application of the leverage formula approved in Order No. PSC-99-1224-PAA-WS, issued June 21, 1999, the ROE increased slightly to 9.98% from the 9.97% filed by FPUC.

The utility calculated the cost rate for the short-term debt as 6.49% by using the actual interest expense and the weighted average monthly balance outstanding for short-term debt. This weighted average monthly balance outstanding is calculated by totaling the balance of outstanding short-term debt for each day and then dividing by the number of days in the year.

We calculated a cost rate of 6.50% for short-term debt by using the actual interest expense and the 13-month average balance for short-term debt. We believe that 6.50% is the appropriate cost rate to use for short term debt for the following reasons. First, using the 13-month average balance allows the recovery of only the actual interest expense incurred. Second, this method is consistent with the 13-month average balances reported in the capital structure and rate base. Unless this adjustment is made, applying the cost rate calculated by the utility to the 13-month average balance of short-term debt would result in an underrecovery of interest expense incurred by the utility in year 2000.

Schedule No. 2 shows the components, amounts, cost rates and weighted average cost of capital associated with the projected test year.

NET OPERATING INCOME

Our calculations of net operating income are depicted on Schedule No. 3-A, and our adjustments are itemized on Schedule No. 3-B. Those adjustments which are self-explanatory or which are essentially mechanical in nature are reflected on those schedules

without further discussion in the body of this Order. The major adjustments are discussed below.

Forecasting Methodology and Billing Determinants

Our analysis 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.

<u>Historical Year Billing Determinants</u>

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

<u>FPUC's Projections and Methodologies</u> – FPUC's projections were developed based on a form of an averaging methodology, primarily using a five-year average, discarding the high and low values during the five-year period. The primary database used to develop the projection models included customers served, bills rendered and billed consumption.

(a) <u>FPUC's Customer Growth Projections</u> - To predict customer growth for each customer group (residential, commercial, industrial, public authority, fire hydrants and automatic sprinkler systems), the utility examined the customer growth, by month, for each customer group and meter size during the five-year period of 1994-1998, grouping the data by month. To project the expected growth for each month, the high and the low growth values for each month were disregarded; the remaining three years of growth for each month were then averaged. The utility assumed that this average underlying growth for the respective groups for each month would continue through 1999 and 2000. An example of the utility's customer growth projection methodology is shown below:

<u>Year</u>	<u>Dec. Growth</u>
1994	137
1995	138
1996	162
1997	191
1998	279

To estimate December growth, 279 and 137 were discarded as the high and low values. The average of the remaining three values is 164, which became the projected growth for December 1999 and December 2000. The projected number of bills for each customer class was derived from the number of customers to be served, as all customers are billed monthly.

(b) <u>FPUC's Consumption Projections</u> – To predict consumption for each customer group (residential, commercial, industrial and public authority) the utility calculated the average consumption per customer for each month during the 1994-1998 period. As with the customer growth projections, to project the expected average consumption for each month, the high and the low average consumption values for each month were disregarded; the remaining three years for each month were then averaged. The utility assumed that this average consumption for the respective groups for each month would continue through 1999 and 2000. The utility's customer projections for each month were then multiplied by the respective anticipated average consumption per customer to derive projected monthly consumption per customer group.

<u>Commission's Analysis of FPUC's Projections</u> – Our analysis of FPUC's projections was a multi-step process. First, we examined the utility's selection of averaging techniques to project customer growth. Next, we determined whether FPUC's selected methodologies yielded reasonable results. Third, we developed and examined multiple regression models which included variables that we believed would have an effect on consumption. Finally, a comparison of the customer bills and consumption generated by both the utility's method and our model are compared, and conclusions are drawn. The details of our analysis follow.

(a) <u>Analysis of FPUC's Averaging Methodology to Project</u> <u>Customer Growth</u> — As discussed previously, the utility used a form of an averaging technique to project customer growth. When asked to explain its selection of projection methods, the utility responded:

> We reviewed several projection methods for customers and units as shown in the MFRs as Schedule H-19. With each rate and class of customers we used our best judgment taking into account historical growth and recent trends in service territory and felt the projections used best reflected expectations

> in customers and units as of May 31, 1999. We primarily used a five-year average discarding the high and low to normalize the data. (FPUC's response to Staff's First Data Request, No. 11B)

We do not share the utility's belief that its projection methodology and the resulting projections best reflect the "expectation in customers." Our analysis of the utility's projections revealed anomalies which we believe calls the utility's projections for the residential class into question. The utility's 1998 historical data for the residential class, as well as the utility's residential class projections for the years 1999 and 2000 are shown below.

<u>Residential</u>

	Historical	Proj	ected
	<u>1998</u>	<u>1999</u>	2000
Jan	5,460	5,617	5,768
Feb	5,477	5,632	5,779
Mar	5,501	5,668	5,827
Apr	5,525	5,702	5,871
Мау	5,578	5,739	5,892
Jun	5,607	5,763	5,911
Jul	5,705	5,859	6,005
Aug	5,720	5,889	6,050
Sep	5,752	5,923	6,086
Oct	5,764	5,944	6,116
Nov	5,755	5,931	6,099
Dec	5,754	5,918	6,071

As shown above, 1998 exhibited fairly steady growth during the year, and the number of customers in December 1998 is 5,754. However, during 1999 the utility projects that there will be a substantial reduction in customers such that in the months of

January through May of 1999, the projected number of customers is less than in December 1998. In other words, it takes the first five months of 1999 to reach the number of customers the utility reported in December 1998, essentially projecting no growth until June 1999. Similarly, the number of customers in December 1999 is 5,918. However, for the year 2000 the utility projects that the customer counts for the months of January through June will be less than the December 1999 figure, which is tantamount to projecting no customer growth for the first six months of 2000. Finally, the projected value for January 2000 of 5,768 is only 14 customers greater than the actual number of customers in December 1998.

Therefore, we find that the utility's residential customer projections should not be relied upon. Although these anomalies are not present in the other customer classes' projections, the methodology itself (averaging after discarding the high and low values) ignores any trends in the data that might otherwise result in greater or lesser figures than those projected.

In the alternative, simple linear regression can more accurately quantify a relationship between time and growth and therefore would more reliably reflect positive or negative trends in customer growth than would simple averaging. To illustrate this concept, Attachment A contains comparisons, both in numerical and graphical forms, of each customer class' customer growth projection based on the utility's averaging versus simple linear regression. In each projection, not only is the simple linear regression line a better fit to the actual data than the utility's relatively flat average line, but the regression yielded greater projected growth in customers than did the utility's method. We have consistently used regression to project customer growth. (See Order No. PSC-97-0618-FOF-WS, issued May 30, 1997 in Docket No. 960451-WS; Order No. PSC-99-0513-FOF-WS, issued March 12, 1999 in Docket No. 980214-WS.)

Based on the foregoing, and in the absence of any compelling documentation or evidence to the contrary, we find that simple linear regression is the appropriate methodology to project customer growth. The resulting customers, bills and consumption generated by our projections are included as Attachment D, and a comparison of the resulting projected bills and consumption, based on both FPUC's and our methodologies and adjustments, is presented on Attachment F.

(b) <u>Analysis of FPUC's Methodology to Project</u> <u>Consumption</u> – As discussed previously, to predict consumption for each customer group (residential, commercial, industrial and public authority) the utility calculated the average consumption per customer for each month during the 1994-1998 period. As with the customer growth projections, to project the expected average consumption for each month, the high and the low average consumption values for each month were disregarded; the remaining three years for each month were then averaged. The utility assumed that this average consumption for the respective groups for each month would continue through 1999 and 2000. The utility's customer projections for each month were then multiplied by the respective anticipated average consumption per customer to derive projected monthly consumption per customer group.

We disagree with the utility's projection methodologies. As previously discussed, we find that the customer growth projections, especially the residential projections, should not be relied upon. Since the consumption projections are built upon the customer projections, we also disagree with the resulting consumption projections as well.

Since we believe that weather conditions had an impact on consumption, we selected multiple regression analysis as the consumption projection methodology, which enables analysis of the impact of weather conditions on water demand. The next step in developing our model was to identify those weather variables which may reasonably be expected to influence consumption. We believe total monthly rainfall, total days of rainfall per month and average monthly temperature are three such variables.

In addition, we also examined the possibility that other weather variables might impact consumption. Since temperature influences the extent that rainfall decreases consumption, a single variable that incorporates the effects of both temperature and rainfall might also be relevant. The moisture deficit variable (MDV) incorporates average daily temperature for the month and total rainfall for the month. The MDV is virtually identical to the net irrigation requirement (NIR) variable, which we recognized in Order No. PSC-96-1320-FOF-WS, issued October 30, 1996, as having a positive correlation to consumption in the majority of months analyzed. To determine whether the moisture deficit variable should be used in the projection models, we calculated two MDVs for each month from January 1994 through December 2000; the results of which are shown on Attachment B.

Attachment C describes the variables included in each of our models and the resulting R^2 scores for each customer class. R^2 is a measure of how much variation in the dependent variable can be explained by the combination of the independent variables. All other things being equal, the higher the R^2 value, the better the projection model. As indicated on that attachment, a model which considered the number of bills (based on a five-year regression) and an adjusted MDV yielded the highest R^2 scores for the residential and public authority classes, while the model that considered the number of bills, average monthly temperature and total monthly rainfall produced the highest R^2 scores for the commercial and industrial classes.

Page one of Attachment D contains our projected bills and consumption, before adjustments, for the test year ending December 31, 2000. Pages two through five of the attachment show comparisons, by customer class, of each class' historical average consumption per customer versus our projected values.

<u>Conclusions: Forecasting Methodology</u> – 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 or FPUC's modified averaging approach. Furthermore, we believe our multiple regression models to project consumption, using the variables shown in Attachment C, are more appropriate and reliable models of projecting consumption than the method used by the utility.

Based on the foregoing, we find that linear regression is the appropriate method of projecting customer growth and consumption. Our projections, before adjustments, are on Attachment D.

2000 Projections of Revenues and Expenses

Since our customer growth and consumption projections are different than FPUC's projections, several other projections will correspondingly change. To show projected test year revenue at the current rates, we first removed the utility's requested increase in revenue calculated at the requested rates, as found on MFR Schedule B-1. As discussed below, we also removed the franchise tax revenue from the test year. This results in a decrease in revenue of \$771,755 [\$649,855 + \$121,900] to reflect an adjusted test year revenue of \$2,121,596 before our projection change or any revenue increase.

We have revised the projections to reflect the appropriate number of water customers, bills, and consumption. Using these projections, we have recalculated the test year operating revenue. Based on this recalculation, test year revenue shall be increased by \$289,602. These calculations result in test year projected operating revenue at the current rates of \$2,411,198 as shown on attached Schedule 3-A.

The projections for chemical expense and purchased power expense are dependent on the projected consumption as shown on MFR Schedule No. B-5. Based on our revised methodology and projected consumption, purchased power expense shall be increased by \$31,400 (after application of the unaccounted for water adjustment). Chemical expense shall be increased by \$3,200 (after application of the unaccounted for water adjustment).

The uncollectible accounts projection is based on the projection of revenue as shown on MFR Schedule No. B-3, customer growth, and inflation. Based on our increase in revenue and revised customer growth projection, the uncollectible accounts expense increased by \$900.

The utility used customer growth and inflation to project some of the components of Operation and Maintenance (O&M) expense and Taxes Other Than Income (TOTI). Based on our revised projected customer growth, O&M expense increased in total by \$77,000 and TOTI increased by \$7,432. The total increase for O&M expense reflects the increases of individual components of O&M expense discussed above.

ADJUSTMENTS TO O&M EXPENSES

Reclassification of legal expenses

In Audit Disclosure 14, our auditors discussed the Fernandina Beach Electric Division Surveillance audit. That audit found that in 1998 the utility had classified legal fees of \$7,797 as an electric division expense. In the electric division audit, the utility explained that when an employee was promoted to lead waterman in the Fernandina Water division, the union filed a grievance. The fees were actually a water division expense. The utility did not include the legal fees in the present water rate case. In the water division audit, it was our auditors' opinion that this expense may be non-recurring and may need to be amortized over five years.

In its response to Audit Disclosure 14, the utility stated that it believed that the legal fees should be increased to allow for this missing expense. The utility further stated that although this particular legal fee may have been non-recurring, it is normal to expect recurring legal fees relating to employee concerns. The utility believes that the entire expense should be trended using the customer growth and inflation factors to allow for recovery of future legal expenses in the year 2000.

We agree that a utility should expect legal fees relating to employee concerns. Since these legal fees were associated with a specific employee grievance, we find that the expense is nonrecurring. We believe that normal recurring legal fees relating to employee concerns will not be as large as this expense. According to Rule 25-30.433(8), Florida Administrative Code, non-recurring expenses shall be amortized over a 5-year period unless a shorter or longer period of time can be justified. Therefore, we are amortizing the legal fee amount over 5 years. We have increased contractual services - legal by \$1,822 [(7,797/5) x 1.0809 x 1.0809] to escalate the 1998 amount for 2 years to reflect the projected test year 2000.

Removal of Transportation Expense Related to the Electric Division

In Audit Disclosure 15, our auditors found that the utility included \$15,069 for digger trucks and bucket trucks as a water transportation expense. Our auditors stated that bucket trucks are normally used for installing and repairing electric lines and digger trucks are used for digging holes and then placing poles in the ground. Our auditors believe that \$15,069 should be removed from water O&M expenses.

In its response to the audit, the utility disagreed with this disclosure. It claimed that the expense should not be removed due to the nature of the clearing account. All company transportation expenses are charged to the clearing account and then spread to expense and capital accounts based on actual hours vehicles were used by each division and what they were used for. The utility stated that expenses charged to the water division represent a fair allocation of expenses when reviewed overall.

Upon our analysis of the MFRs filed in FPUC's last water rate case, the utility had a note that stated that the water operations do not receive any benefit from these large bucket trucks. On its operating income statement, the utility made a specific adjustment

to remove the associated costs from the test year. We agree with our auditors that these trucks should not be included in the clearing account to then be spread across all of the company's divisions. Further, this treatment is consistent with the utility's treatment in its last water rate case. Therefore, we have removed this expense and reduced O&M expenses by \$15,069.

Projected Purchased Power Expense and Chemical Expense

FPUC projected its purchased power expense by assuming that 20% of the 1998 base year cost of purchased power would be fixed and the remaining 80% would be adjusted by the corresponding change in gallons of water sold. The base year cost for purchased power was \$135,739. Accordingly, \$27,148 was the amount assumed to be fixed costs. FPUC then multiplied the remaining 80% by 92.13%, which corresponded to FPUC's projected decrease in water sold from 1998 to 2000 (1,095,049,000 gallons for the year 2000 divided by 1,188,536,000 for 1998 = 92.13%). The total of the fixed and variable amounts is \$127,198 (\$27,148 + \$100,050), which was rounded to \$127,200. The utility's calculation follows:

- (1) 20% of \$135,735 (1998 amount) = \$27,148
- (2) {1,095,049,000 (2000)/1,188,536,000 (1998)} X (\$135,739 x 80%) = \$100,050
- (3) \$27,148 + \$100,050 = \$127,198, rounded to \$127,200.

To project purchased power expense for projected test year 2000, we used the same methodology as the utility, with one change. In our calculation, we used the amount of water pumped instead of the amount sold to adjust for the variable 80% portion of the 1998 expense. Unless specific known changes are projected, we believe that the change in purchased power expense correlates more directly with how much water is treated than with how much is sold. Accordingly, in the denominator, we used the utility's water pumped for 1998. In the numerator, we used a projected amount of water pumped for the test year 2000. We calculated the projected 2000 amount of water pumped by first deducting unaccounted for water from the amount of water pumped for 1998. Then, we took the adjusted amount of water pumped for 1998 and multiplied that figure by the percentage increase in consumption. As discussed above, the total consumption will increase, instead of the utility's projected Based on our calculations, the projected amount of decrease. purchased power shall be \$154,425.

FPUC calculated projected chemical expense by using customer growth and inflation factors for 1999 and 2000, or 1.053 applied to the 1998 chemical cost and then rounded it to the nearest \$100. The utility did not make any changes to chemical expense for the projected change in consumption or water pumped.

To project chemical expense for the test year 2000, we used a compound factor which was a product of the increase in consumption (based on our projection) and the inflation factor for the projected test year 2000. First, we reflected an adjustment to chemical expense for the historical year 1998 due to inflation for intermediate year 1999. Then, we multiplied the compound factor times the adjusted chemical expense. We believe that the use of chemicals in a water system is variable based on the amount of water treated in any given year. In addition to changes in treated water amounts, the cost of chemicals will increase generally in line with the increase in customer growth and inflation. As such, we believe that chemicals should be projected based on a combination of changes in gallons of water treated, customer growth and inflation. We find that the amount of chemical expense is \$24,396.

Rate Case Expense

The utility included a \$32,050 estimate in the MFRs for current rate case expense. As part of our analysis, we 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 PAA process is \$45,988. The components of the estimated rate case expense are as follows:

	MFR	RE	VISED ESTIMATE	
	ESTIMATED	<u>ACTUAL</u>	<u>ESTIMATED</u>	TOTAL
Legal	\$15,500	\$ 2,635	\$12,865	\$15,500
Travel	2,900	854	2,500	3,354
MFR Preparation	6,190	6,559	4,700	11,259
Office expense	150	198	200	398
Filing Fee	4,500	4.500	0	4,500
Advertising	500	0	252	252
Notices	<u>2,310</u>	<u>7,1</u>	<u>3,580</u>	<u>10,725</u>
Current Rate Case Expense	\$32,050	\$21,891	\$24,097	\$45,988
Unamortized Prior Rate Case Expense	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Rate Case Expense	<u>\$32,050</u>	<u>\$21,891</u>	<u>\$24,097</u>	<u>\$45,988</u>
Annual Amortization	<u>\$ 8,013</u>			<u>\$11,497</u>

The revised total rate case expense requested in this docket is \$45,988, which is an annual expense of \$11,497 for four years. We have examined the requested actual expenses, supporting documentation, and estimated expenses as listed above for the current rate case and found them to be prudent.

There was an increase in the utility's requested rate case expenses. The majority of the increase was due to the following factors: (1) the utility hired temporary help to assist FPUC employees in providing information for the audit staff and for the discovery requests and (2) the cost of mailings to the customers was more than projected due to the weight of the notices. We found these increases to be prudent. The fact that FPUC completes the majority of the duties in-house supports the need for additional staff during the rate case. Also, the fact that the utility had not filed a rate case since 1986 explains the underestimated cost of customer notices.

Based on the data provided by the utility, we adjusted rate case expense by \$3,485.

Payroll Taxes

In Audit Disclosure 17, our auditors found that the utility did not adjust payroll taxes to reflect an additional employee that had been included in the utility's projected salary expense. Our

auditors stated that an adjustment of \$5,519 should be made to the payroll taxes projection associated with the projected salary increase for a new employee. The utility agreed with this disclosure.

We agree that this adjustment is appropriate to reflect proper matching of payroll taxes with salaries. Accordingly, we increased payroll taxes by \$5,519.

Franchise Fees and Associated Revenue

In its application, the utility included franchise fees and related revenues in above-the-line income. The amount of franchise fees and revenues in the unadjusted test year were \$121,900. After the utility reflected its total revenue request, the amount of franchise fees and revenues were \$157,149.

According to Rule 25-30.335(6), Florida Administrative Code, the utility may not incorporate any municipal or county franchise fees into the amount indicated as the cost of service. To remove these amounts from the utility's revenue requirement, we have removed the total amount of \$157,149 from both revenues and taxes other than income.

Our revenue adjustment is made of two parts. First, we removed \$121,900 from test year unadjusted revenues. Secondly, the remaining \$35,249 balance was included in the utility's requested revenue increase, which was also removed (\$614,606 + \$35,249 = \$649,855).

Test Year Operating Income

Based on our adjustments herein, we find that the test year operating income before any provision for increased revenues is \$504,324.

REVENUE REQUIREMENT

FPUC requested an annual revenue requirement of \$2,893,351. These revenues exceed test year revenues by \$649,855 (28.97%).

Based upon our adjustments to rate base, cost of capital, and operating income, we approve rates that are designed to generate a revenue requirement of \$2,791,850. These revenues exceed our test year revenues by \$380,652 (15.79%) as shown on attached Schedule

No. 3-A. This increase will allow the utility the opportunity to recover its expenses and earn a 9.10% return on its investment in rate base.

In its application, FPUC grossed-up its revenue requirement by bad debt expense, as well as the regulatory assessment fees (RAFs), and income taxes. A gross-up for bad debt expense is not normally done in water and wastewater rate cases, although it is a standard practice in the electric, gas, and telephone industries. However, in this case, we find that this factor is appropriate as it is a common assumption that bad debt expense will change proportionately with revenue.

RATES AND RATE STRUCTURE

Modification of the Utility's Customer Classification

As part of its filing, the utility proposed to shift all 3" 4" residential customers (representing master-metered and customers, contractors and developers) to the general service category, stating that those customers would be better served in the general service class. As part of our review of this issue, we examined the 1998 customer list and discovered that, in addition to the 3" and 4" residential customers to be shifted, there were numerous additional 5/8", 1" and 2" customers who were classified as residential customers, but who are more properly classified under the general service category. The additional customers to be shifted were mainly businesses, condo/homeowner associations, and several churches. Since general service customers are (typically) subject to an inclining-block rate structure, not all misclassifications were corrected to appropriately design the inclining-block rate structure.

We questioned the utility regarding the misclassified customers. The utility responded that, absent different water rates for residential and general service customers, it is possible that the utility had not always maintained the appropriate distinctions between customer classes. The utility agreed with us that the misclassifications should be corrected before implementing the new rates.

Our analysis of the 1998 customer list and billing analysis indicated that the following residential bills and consumption shall be classified as general service:

Residential

<u>Meter Size</u>	Bills	\underline{CCF}
5/8"	780	92,944
1"	408	14,378
2"	115	10,798
3"	88	19,926
4 ''	<u>17</u>	<u>336</u>
	1,408	138,382

We believe it is inappropriate to shift these billing determinants in 1998 before projecting customer bills and consumption for 1999 and 2000, as these units contributed to the actual data history in their respective classes. Therefore, we find that the actual data history should be left intact when preparing the projections. Only after the projections are complete should the billing determinants (factored up for projected growth) be shifted. This results in a shift of 1,553 bills and 160,668 hundred cubic feet (CCF). The utility shall make the appropriate reclassifications before the new rates go into effect.

Conservation Rate Structure

The utility's current rate structure consists of a traditional base facility and uniform consumption charge rate structure. The utility has proposed a three-tier inclining block rate structure applicable to the residential class, with usage blocks set: (1) at 0-5,999 CCF per month; (2) at 6,000 - 20,000 CCF; and (3) for consumption in excess of 20,000 CCF. The utility has proposed maintaining its base facility and uniform consumption charge rate structure for the general service class. The SJRWMD advocates this rate structure change, because the entire District has been designated a water resource caution area, and for over the past five years the District has advocated rate structures that provide pricing incentives to conserve.

There are several steps involved in evaluating and calculating an inclining-block rate structure including (but not limited to) determining: 1) the appropriate "conservation adjustment," if any; 2) the appropriate usage block rate factors; and 3) the appropriate

usage blocks. We agree in part and disagree in part with the utility's proposed rate structure and methodology of calculating its requested rates.

Conservation Adjustment

Our initial area of disagreement with the utility's rate design proposal is that it shifts a portion of the revenue recovery burden from the consumption charge to the base facility charge (BFC). An analysis of MFR Schedule E-2, page 3, indicates that the utility's current rate structure recovers \$823,967 (or approximately 38%) from the BFC, while the remaining \$1,331,160 (or approximately 62%) is recovered through the CCF charge. However, page 1 of Schedule E-2 indicates that the proposed revenue recovery burden has shifted slightly, with 41% being recovered from the BFC and 59% being recovered through the CCF charge.

To evaluate the need for a conservation adjustment in this case, we calculated (based on our revenue requirement) cost-based rates of \$9.51 for the BFC for a 5/8" x 3/4" meter and \$0.97 for the general service CCF charge. The relatively low CCF rate as compared to the BFC is due in part to the relatively high consumption levels of FPUC's residential customers. Therefore, to mitigate this disparity, as well as shift more of the burden of cost recovery to the CCF charge to promote conservation, some "conservation adjustment" is appropriate. In addition, a shift is necessary to ensure that the initial block rate is no less than the utility's current charge of \$0.84 per CCF. However, the utility's proposal contemplates that all general service customers would pay \$1.09 per CCF. We believe that the overall rate increase should be enough to promote some conservation by the general service customers.

We contemplated making a 20% conservation adjustment before designing the rates. However, this would have resulted in the BFC being less than the current BFC of \$8.20. We do not believe it would be appropriate to make a conservation adjustment of that magnitude, as we believe it is important for revenue stability purposes that the BFC not be less than the current rate. We then tried a lesser adjustment of 15%; however, it still yielded a BFC less than current. At a 10% adjustment, our BFC (before a repression adjustment) of \$8.56 is greater than the current rate while shifting over \$100,000 in cost recovery to the CCF charge. Therefore, we have used a conservation adjustment of 10%.

<u>Selection of the Appropriate Usage Blocks and Usage Block Rate</u> <u>Factors</u>

The utility has proposed three usage blocks of 0-5 CCF, 6-20 CCF, and 20+ CCF, in conjunction with its requested usage block rate factors of 1.0, 1.5 and 2.0 - that is, the rate in the second usage block is 1.5 times the rate in the initial block, and the rate in the third block is 2.0 times the initial block rate.

When asked to explain the basis for selecting its proposed usage blocks, the utility responded:

The basis for selecting the proposed usage blocks was information provided by the SJRWMD. They desired that we utilize "stepped" rates similar to the City of Jacksonville Beach. "Stepped" rates promote water conservation and are therefore promoted by the District. The blocks were determined by using the Jacksonville Beach rates and converting gallons to CCFs.

We examined the utility's historical residential consumption data for the calendar year ended December 31, 1998, as part of our review of the utility's request to implement a three-tiered inclining-block rate structure. Our analysis reveals that approximately 32% of total bills are captured in the proposed first usage block, while 76% of total bills are captured within the first two proposed blocks, and the third usage block accounts for the remaining 24% of total residential bills. The percentage of bills captured in each usage block lead us to implement a three-tier structure.

We do not believe, however, that the first block captures an appropriate portion of the utility's residential population. For revenue stability purposes, we believe that the first usage block should capture at least 50% of the bills. Therefore, we also examined two other combinations of usage blocks: 1) 0-10 CCF, 10-20 CCF and 20+ CCF; and 2) 0-10 CCF, 10-25 CCF and 25+ CCF. These combinations were selected in large part because the initial block of 0-10 CCF captures 53% of the residential bills.

The next step in our analysis was to incorporate different usage block rate factors into our calculations. We selected seven different combinations of rate factors, in conjunction with different usage blocks, to calculate the resulting consumption charge rates based on our revenue requirement. Consumption charges

(charges excluding the BFC) were then calculated at different usage levels, and the resulting increases in those bills over the current rates were also calculated. We also calculated the total change in price (BFC plus CCF charges). This analysis is shown on Attachment E.

Based on our analysis on Attachment E, we disregarded all combinations of usage blocks and rate factors that resulted in rates for the initial block that were less than \$0.70. As shown on pages one through three, in columns (f) through (i) of Attachment E, all customers at 5 CCF of consumption would experience total price reductions, and, in several cases, these total price reductions would be experienced by customers with consumption of 25 CCF. We believe that the rate factors in columns (f) through (i) send the opposite price signal of what we are trying to achieve.

The remaining usage block groups (in column (a) of Attachment E) and rate factor combinations (in columns (c) through (e)) were then evaluated both in terms of the price change achieved when compared across rate factors at different consumption levels (page 4) and when compared across usage groups (page 5). As shown on page 4, the rate factors of 1.0, 1.25 and 1.5 clearly scored more instances of greater price changes (16) than when compared to the other two rate factor combinations. As shown on page 5, however, there is virtually no difference between usage blocks in terms of achieving greater price changes at the given consumption levels.

Our final step in evaluating the remaining combinations was to group the results from pages 4 and 5 together. As shown on page 6, rate factors of 1.0, 1.25 and 1.5 clearly scored higher (24) than the two remaining rate factor combinations; therefore, we shall use these as our rate factors. To select the appropriate usage blocks, we noticed that the price signals in the first group (0-5 CCF, 6-20 CCF and 20+ CCF) did not target customers at consumption levels of greater than 25 CCF. We believe customers at consumption levels of greater than 25 CCF should receive the strongest price signals to conserve, and, therefore, we do not find that these usage blocks are appropriate.

The remaining two groups of usage blocks provide incentive to customers to conserve at virtually all of our listed consumption levels. However, we have selected the usage blocks of 0-10 CCF, 10-25 CCF and 25+ CCF as our blocks because customers receive the proper pricing signals at all consumption levels except at 50 CCF.

Based on the analysis discussed above, we find that usage blocks of 0-10 CCF, 10-25 CCF and 25+ CCF, with a rate for the second block that is 1.25 times that of the initial block rate, and a rate for the third block that is 1.5 times the initial block rate are appropriate.

The permanent rates requested by the utility are designed to produce revenues of \$2,893,351 for water service. The requested revenues represent an increase of \$650,476, or 29%. Our increase in revenue requirement is \$380,652, or approximately 16%. The final rates approved for the utility are designed to produce revenues of \$2,733,930 (excluding miscellaneous service charge revenues).

Approximately 33% (or \$909,734) of the revenue requirement is recovered through the BFC. The fixed costs are recovered through the BFC based on the projected number of factored ERCs. The remaining 67% of the revenue requirement (or \$1,824,197) represents revenues collected through the consumption charge based on the projected number of factored CCF.

The utility shall file revised tariff sheets and a proposed customer notice to reflect the Commission-approved rates. The approved rates shall be effective for service rendered on or after the stamped approval date of the revised tariff sheets pursuant to Rule 25-40.475(1), Florida Administrative Code. The rates shall not be implemented until our staff has approved the proposed customer notice, and the notice has been received by the customers. The utility shall provide proof of the date notice was given no less than 10 days after the date of the notice.

A comparison of the utility's original rates, requested rates and our rates is shown on Schedule No. 4.

Repression Adjustment

As shown in column (c) on page 3 of Attachment E, the anticipated total price changes, based on our usage blocks and rate factors, range from increases of 3.3% at 5 CCF to 12.9% at 25 CCF. Based on this analysis, we do not believe that these nominal price increases necessitate a repression adjustment in either the 0-10 CCF or the 10-25 CCF usage blocks.

However, for bills with consumption above 25 CCF, the increase in the customers' bill will range from 13.0% to 40.0%; therefore,

we believe a repression adjustment in this usage block is warranted. However, we have no historical data of other utilities converting from a uniform consumption charge to a three-tier inclining-block consumption charge to use as a point of reference in determining an appropriate adjustment. Based on our analysis of utilities in our database, we do know, however, that for utilities that did not experience a change in rate structure in rate proceedings, an average price increase of approximately 30% resulted in an approximate 6.5% reduction in consumption. In addition, when a price change is coupled with a change in rate structure, the repression tends to be greater than when considering price changes with no rate structure changes.

The customers who use greater than 25 CCF will not only face price changes ranging from 13% to 40%, but will pay consumption charges from three different usage blocks. We believe this pricing signal will lead to greater consumption reductions than would otherwise be expected. Considering that a 6.5% reduction in consumption could be expected if there was no change in rate structure, we used 6.5% as the floor for our adjustment in this case. Although we have limited data, we believe a repression adjustment of 10% for consumption in the 25+ CCF usage block is reasonable. Therefore, the appropriate repression adjustment is a reduction in consumption of 27,617 CCF, and the resulting consumption to be used to calculate consumption charges is 1,750,691 CCF.

The effects of all adjustments are combined with our projections and appear on Attachment F. As shown on the attachment, the effects of our linear regression models for the different customer classes, plus our repression adjustment and the shift of residential bills and consumption to the general service class, resulted in projections for bills that were approximately 4.36% greater and consumption that was approximately 23.78% greater than the utility's respective projections. Therefore, we adjusted the utility's projected bills by 3,455 and adjusted the utility's projected consumption by an additional 336,336 CCF.

To monitor the effects of this rate proceeding on consumption, the utility shall prepare monthly reports detailing the number of bills rendered, the consumption billed (by usage block for the residential class) and the revenue billed. These reports shall be provided, by customer class and meter size, on a quarterly basis for a period of two years, beginning with the first billing period after the increased rates go into effect.

Private Fire Protection Rates

In its MFRs, the utility has proposed rates for Automatic Sprinkler System Service (private fire protection) for meter sizes of 2", 4", 6", 8" and 10". The utility proposed rates for General Service for meter sizes of 5/8", 1", 2", 3" and 4". The rates proposed for Automatic Sprinkler System Service for 2" and 4" meters are approximately one-third of the rates proposed for the corresponding General Service meter sizes.

Rule 25-30.465, Florida Administrative Code, states that:

The rate for private fire protection service shall be a charge based on the size of the connection rather than the number of fixtures connected. The rate shall be one-twelfth the current base facility charge of the utility's meter sizes, unless otherwise supported by the utility.

FPUC has not provided any support for deviating from this rule. Accordingly, we find that the rates for Automatic Sprinkler System Service shall be recalculated and set equivalent to one-twelfth the General Service base facility charges. In addition, we find that water base facility charges shall be set for 6", 8" and 10" General Service meter sizes, so that the corresponding Automatic Sprinkler System Services rates for those meter sizes may be calculated in accordance with the rule.

Miscellaneous Service Charges

Section 367.081, Florida Statutes, provides us with the authority to approve the fixing and the changing of rates charged by utility companies under our jurisdiction. Specifically, Rule 25-30.345, Florida Administrative Code, addresses service charges for utilities. Pursuant to this rule, a utility may charge a reasonable fee to defray the cost of installing and removing facilities and materials. In addition, the utility may have other customer service charges in accordance with their approved tariff.

Rule 25-30.460, Florida Administrative Code, defines in detail the four categories of miscellaneous service charges. The utility is proposing an increase in its initial connection charge, normal reconnection charge, violation reconnection charge and the premises visit (in lieu of disconnection) charge. A comparison of the various charges is shown below.

	<u>Current Ra</u>	<u>Current Rates</u>		Rates
Type of Service	Business Hours	After Hours	Business Hours	After Hours
Initial Connection	\$5.00	\$5.00	\$12.00	\$12.00
Normal Reconnection	\$8.00	\$8.00	\$12.00	\$12.00
Violation Reconnection	\$8.00	\$12.00	\$12.00	\$18.00
Premises Visit	\$4.00		\$8.00	

The utility's current miscellaneous service charges were effective on April 20, 1987 and have not been updated. The underlying costs for any function that one could envision being required to provide these services (customer service representative taking order, data processing inputting information, field personnel reading meters, etc.) have almost certainly increased since 1987. As demonstrated by the price index increase option provided to a jurisdictional utility, this Commission recognizes that general operating costs increase from year to year. FPUC included in its MFRs the calculations used to determine the proposed miscellaneous service charges. We have reviewed the calculations and find that the proposed charges are prudent and reasonable.

We find that the current miscellaneous service charges shall be updated to reflect the costs associated with the service provided. Also, if the utility files revised tariff sheets within thirty days of the issuance date of this Order, our staff shall approve the revised tariff sheets administratively upon verification that the tariffs are consistent with our decision.

If the revised tariff sheets are filed and approved, the revised miscellaneous service charges shall be implemented on or after the stamped approval date of the tariff sheets pursuant to Rule 25-30.475(2), Florida Administrative Code, provided customers have received notice. The utility shall provide proof that the customers have received notice within ten days after the date of the notice.

CLOSING DOCKET

If no timely protest is received upon the expiration of the protest period, this Order shall become final and effective upon the issuance of a Consummating Order and this docket shall be closed. Our staff will nevertheless monitor the utility's compliance with Rule 25-30.115, Florida Administrative Code, as addressed above.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that Florida Public Utilities Company's application for increased water rates is granted to the extent set forth in the body of this Order. It is further

ORDERED that Florida Public Utilities Company shall make the adjustments to the CIAC account detailed in the body of this Order to conform with the NARUC Uniform System of Accounts. It is further

ORDERED that each of the findings made in the body of this Order is hereby approved in every respect. It is further

ORDERED that all matters contained herein, whether set forth in the body of this Order or in the attachments and schedules attached hereto, are incorporated herein by reference. it is further

ORDERED that the utility reclassify bills and hundred cubic feet (CCF) from the residential to the commercial class before the new rates go into effect. It is further

ORDERED that the increased rates and charges approved herein shall be effective for service rendered on or after the stamped approval date on the revised tariff sheets, pursuant to Rule 25-30.475(1), Florida Administrative Code, provided customers have received notice. It is further

ORDERED that Florida Public Utilities Company shall provide proof of the date notice was given within 10 days after the date of the notice. It is further

ORDERED that this Order shall become final and effective upon the issuance of a Consummating Order unless an appropriate

petition, in the form provided by Rule 28-106.201, Florida Administrative Code, is received by the Director, Division of Records and Reporting, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on the date set forth in the "Notice of Further Proceedings" attached hereto. It is further

ORDERED that the utility prepare monthly reports detailing the number of bills rendered, consumption billed (by usage block for the residential class) and the revenue billed. These reports shall be provided, by customer class and meter size, on a quarterly basis for a period of two years, beginning with the first billing period after the increased rates go into effect. It is further

ORDERED that if no timely protest is received to the proposed agency action, no further action will be necessary and, upon the expiration of the protest period, this Order shall become final and effective upon the issuance of a Consummating Order and the docket shall be closed.

By ORDER of the Florida Public Service Commission this <u>7th</u> day of <u>February</u>, <u>2000</u>.

BLANCA S. BAYÓ, Director Division of Records and Reporting

By: Kainfler

Kay Flynn, Chief Bureau of Records

(SEAL)

JKF

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing that is available under Section 120.57, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing will be granted or result in the relief sought.

Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The action proposed herein is preliminary in nature. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, in the form provided by Rule 28-106.201, Florida Administrative Code. This petition must be received by the Director, Division of Records and Reporting, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on <u>February 28, 2000</u>.

In the absence of such a petition, this order shall become final and effective upon the issuance of a Consummating Order.

Any objection or protest filed in this docket before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

FLORIDA PUBLIC UTILITIES COMPANY				SCHEDULE NO.	1-A
SCHEDULE OF WATER RATE BASE				DOCKET 99053	
TEST YEAR ENDED 12/31/2000	TEST YEAR PER	UTILITY	ADJUSTED	COMMISSION	
DESCRIPTION	UTILITY	ADJUST- MENTS	TEST YEAR	ADJUST- MENTS	
1UTILITY PLANT-IN-SERVICE	\$14,162,200		\$14,544,505		\$14,962,204
2 UTILITY PLANT-IN-SERVICE-COMMON	\$0	\$218,686	\$218,686	\$0	\$218,686
3 LAND & LAND RIGHTS	\$1,717	\$22,670	\$24,387	\$0	\$24,387
4 LAND & LAND RIGHTS-COMMON	\$0	\$14,703	\$14,703	\$0	\$14,703
5 NON-USED & USEFUL COMPONENTS	\$0	\$0	\$0	\$0	\$0
6 ACCUMULATED DEPRECIATION	(\$3,063,781	(\$182,253)	(\$3,246,034	(\$56 , 592)	(\$3,302,626
7 ACCUM DEPRECIATION-COMMON	\$0	(\$68,954)	(\$68,954)	\$0	(\$68,954)
8 CIAC	(\$3,603,453	\$0	(\$3,603,453	(\$598,691)	(\$4,202,144
9 AMORTIZATION OF CIAC	\$654,597	\$0	\$654,597	\$122,368	\$776 , 965
10 CWIP	\$245,538	(\$245,538)	\$0	\$0	\$0
11 ADVANCES FOR CONSTRUCTION	(\$571 , 360)	\$0	(\$571 , 360)	\$59,018	(\$512,342)
12 UNFUNDED POST-RETIRE. BENEFITS	\$0	\$0	\$0	\$0	\$0
13 DEFERRED INCOME TAXES	\$0	\$0	\$0	\$69,049	\$69,049
14 WORKING CAPITAL ALLOWANCE RATE BASE	<u>\$228,290</u> <u>\$8,053,748</u>	<u>\$0</u> <u>\$141,619</u>	<u>\$228,290</u> <u>\$8,195,367</u>		<u>\$46,712</u> <u>\$8,026,640</u>

SCHED. NO. 1-B DOCKET 990535-WU PAGE 1 OF 1
WATER
(72,651) <u>490,350</u> <u>417,699</u>
21,543 (117,535) <u>39,400</u> <u>(56,592)</u>
(59,018) (490,350) <u>(49,323)</u> <u>(598,691)</u>
117,535 4,321 <u>512</u> <u>122,368</u>
<u>59,018</u>
<u>69,049</u>
12,196 (40,189)
(78,967)
(3,053)
(69,049) <u>(2,516)</u> (181,578)

FLORIDA PUBLIC UTILITIES COMPANY CAPITAL STRUCTURE

TEST YEAR ENDED 12/31/2000

SCHEDULE NO. 2

DOCKET 990535-WU

		SPECIFIC	<u></u>	CAPITAL			
		ADJUST-	PRO RATA	RECONCILED			
	TOTAL	MENTS	ADJUST-	TO RATE		COST	WEIGHTED
DESCRIPTION	CAPITAL	(EXPLAIN)	MENTS	BASE	RATIO	RATE	COST
PER UTILITY 2000 - 13 MONTH AVE	RAGE						
1 LONG TERM DEBT	\$2,705,430	\$49,255	\$0	\$2,754,685	33.61%	9.91%	3.33
2 SHORT-TERM DEBT	\$1,655,306	\$30,137	\$0	\$1,685,443	20.57%	6.49%	1.33
3 PREFERRED STOCK	\$70 , 786	\$1,289	\$0	\$72 , 075	0.88%	4.75%	0.04
4 COMMON EQUITY	\$3,347,172	\$60,938	\$0	\$3,408,110	41.59%	9.97%	4.15
5 CUSTOMER DEPOSITS	\$177 , 772	\$0	\$0	\$177 , 772	2.17%	6.30%	0.14
6 DEFERRED INCOME TAXES	\$0	\$0	\$0	\$0	0.00%	0.00%	0.00
7 DEFERRED INVESTMENT TAX	\$383	\$0	\$0	\$383	0.00%	0.00%	0.00
8 DEFERRED ITC'S-WTD. COST	\$96,889	\$0	\$0	\$96,899	1.18%	9.16%	0.11
9 OTHER	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>0.00</u> %	0.00%	0.00
10 TOTAL CAPITAL	\$8,053,748	<u>\$141,619</u>	<u>\$0</u>	\$8,195,367	100.00%		9.10
PER COMMISSION 2000 - 13-MONTH				AD 704 500		0 010	2 24
11 LONG TERM DEBT	\$2,705,430	\$8,556	(\$9,458)		33.69%	9.91%	
12 SHORT-TERM DEBT	\$1,655,306	\$4,667	(\$5,785)	\$1,654,189	20.61%	6.50% 4.75%	1.34 0.04
13 PREFERRED STOCK	\$70,786	\$0	(\$247)	\$70,539	0.88%		
14 COMMON EQUITY	\$3,347,172	(\$13,224)	(\$11,618)	\$3,322,330	41.39%	9.98% 6.30%	
15 CUSTOMER DEPOSITS	\$177,772	\$0	\$0	\$177,772	2.21%		
16 DEFERRED INCOME TAXES	\$0	\$0	\$0 \$0	\$0	0.00%	0.00%	
17 DEFERRED ITC'S-ZERO COST	\$383	\$0	\$0	\$383	0.00%	0.00% 9.17%	0.00
18 DEFERRED ITC'S-WTD. COST	\$96,899	\$0	\$0	\$96,899	1.21%	9.1/8	
19 OTHER 17 TOTAL CAPITAL	<u>\$0</u>	<u>\$0</u>	$(\hat{s}_{27}, \underline{107})$	<u>\$0</u>	0.00%	0.00%	<u>0.00</u> 9.10
17 TOTAL CAPITAL	<u>\$8,053,748</u>	<u>\$0</u>	<u>(\$27,107)</u>	<u>\$8,026,641</u>	<u>100.00%</u>	UTCU	5.10
					LOW	<u>HIGH</u>	
		RETURN ON EQUI			8.98%	<u>10.988</u>	
		OVERALL RATE C	F RETURN		8.69%	<u>9.52%</u>	

	FLORIDA PUBLIC UTILITIES COMPANYSCHEDULE NO. 3-ASTATEMENT OF WATER OPERATIONSDOCKET 990535-WUTEST YEAR ENDED 12/31/2000DOCKET 990535-WU							
	DESCRIPTION	TEST YEAR PER UTILITY	UTILITY ADJUST- MENTS	ADJUSTED TEST YEAR PER UTILITY	COMMISSION ADJUST- MENTS	COMMISSION ADJUSTED TEST YEAR	REVENUE INCREASE	REVENUE REQUIREMENT
1 OP	ERATING REVENUES	<u>\$2,242,875</u>	\$650,476	<u>\$2,893,351</u>	(\$482,153)	\$2,411,198	<u>\$380,652</u> 15.79%	<u>\$2,791,850</u>
0P 2	ERATING EXPENSES: OPERATION & MAINTENANC	E\$1,066,013	\$10,820	1,076,833	61,074	1,137,907	\$811	1,138,718
3	DEPRECIATION	\$336,283	\$18,814	355,097	6,097	361,194		361,194
4	AMORTIZATION	\$0	\$0	0	0	0		0
5	TAXES OTHER THAN INCOM	E \$453,156	\$64,492	517,648	(166,863)	350,785	17,129	367,915
6	INCOME TAXES	<u>(\$11,013)</u>	<u>\$209,354</u>	<u>\$198,341</u>	<u>(\$141,353)</u>	<u>\$56,988</u>	<u>\$136,489</u>	<u>\$193,</u> 476
7 то	TAL OPERATING EXPENSES	<u>\$1,844,439</u>	<u>\$303,480</u>	<u>\$2,147,919</u>	(\$241,045)	<u>\$1,906,874</u>	<u>\$154,429</u>	<u>\$2,061,303</u>
8 O P	ERATING INCOME	<u>\$398,436</u>	<u>\$346,996</u>	<u>\$745,432</u>	(\$241,108)	<u>\$504,324</u>	<u>\$226,224</u>	<u>\$730,548</u>
9 RA	TE BASE	<u>\$8,053,748</u>		<u>\$8,195,367</u>		<u>\$8,026,640</u>		<u>\$8,026,640</u>
10 RA	TE OF RETURN	4.95%		9.10%		6.28%		<u>9.10%</u>

FLORIDA PUBLIC UTILITIES COMPANY ADJUSTMENTS TO OPERATING INCOME TEST YEAR ENDED 12/31/2000	SCHED. NO. 3-B DOCKET 990535-WU PAGE 1 OF 1
EXPLANATION	WATER
OPERATING REVENUES 1 Remove requested final revenue increase 2 Remove franchise fees on test year revenue 3 To adjust revenue for change in growth projection meth. Total	(649,855) (121,900) <u>289,602</u> (482,153)
OPERATION & MAINTENANCE EXPENSE 1 Remove bad debt expense for revenue increase 2 To adjust purchase power for unaccounted for water adj.	(1,384) (4,175)
3 To adjust chemicals for unaccounted for water adj. 4 Reclassify legal fees from electric division 5 Remove transportation expense for electric division 6 To adjust rate case expense 7 To adjust O&M exps. for change in growth projection meth. Total	(604) 1,822 (15,069) 3,485 <u>77,000</u> <u>61,074</u>
DEPRECIATION EXPENSE-NET 1 To adjust for changes in utility's projections 2 To correct CIAC recorded as reduction to plant-netted 3 To reclassify CIAC from Adv. for Construction 4 To remove depreciation on transportation equip. 5 To adjust CIAC for change in growth projection methodology Total	31,726
TAXES OTHER THAN INCOME 1 RAFs on revenue adjustments above 2 To remove franchise tax fees from above the line expenses 3 To adjust payroll taxes to reflect add'l. employee. 4 To adjust for changes in utility's plant balance 5 To adjust TOTI for change in growth projection meth. Total	(29,243) (157,149) 5,519 6,579 <u>7,432</u> (166,863)
<u>INCOME TAXES</u> To adjust to test year income tax expense	(141,353)

FLORIDA PUBLIC UTIL WATER MONTHLY SERVI TEST YEAR ENDED 12/	CE RATES			SCHEDULE NO. 4 DOCKET 990535-WU PAGE 1 OF 1	J
	Rates Prior to <u>Filing</u>		Utility Requested <u>Final*</u>		<u>Final</u>
<u>Residential</u>					
Base Facility Charge					
5/8"	\$8.20		\$10.45		\$8.57
1"	\$18.54		\$23.62		\$21.43
2"	\$56.51		\$72.00		\$68.56
3"	\$111.70		\$142.32		\$128.55
4 ''	\$208.33		\$265.43		\$214.25
Charge Per CCF	\$0.84	0-5 CCFs	\$0.62	0-10 CCFs	\$0.87
		6-20 CCFs	\$0.93	10-25 CCFs	\$1.09
		>20 CCFs	\$1.28	>25 CCFs	\$1.31
<u>General Service (Cor</u>		ial, and Publ	.ic_Authority	<u>)</u>	
Base Facility Charge					
5/8"	\$8.20		\$10.45		\$8.57
1"	\$18.54		\$23.62		\$21.43
2"	\$56.51		\$72.00		\$68.56
3"	\$111.70		\$142.32		\$149.98
4 ''	\$208.33		\$265.43		\$257.10
6"					\$535.63
8"					\$771.30
10"					\$1,242.65
Charge Per CCF	\$0.84		\$1.09		\$1.04
Fire Hydrant Service	2				
4 ''	\$70.29		\$89.56		\$81.39
5"	\$107.11		\$136.47		\$124.02
6"	\$145.07		\$184.83		\$167.97
Automatic Sprinkler					
Base Facility Charge			604 50		
2"	\$19.09		\$24.32		\$5.71
4 '' 6 ''	\$70.29		\$89.56		21.43
6"	\$145.07		\$184.83		44.64
8"	\$185.32		\$236.12		64.28
10"	\$265.82		\$338.68		103.55
		Typical	<u>l Residential</u>	<u>Bills</u>	
5/8" x 3/4"					
Meter Size	610 70		610 01		611 10
3,000 Gallons 8,000 Gallons	\$10.72 \$14.92		\$12.31 \$17.89		\$11.18 \$17.29
22,000 Gallons	\$26.68		\$38.61		\$37.39
The utility did not		rates.			

SCHEDULE 5-A

USED AND USEFUL DATA WATER TREATMENT PLANT Docket No. 990535-WU Utility FLORIDA PUBLIC UTILITIES CO. Date SEPT. 1999 <u>* 8,947,000</u> gallons per day, 1) Capacity of Plant _____7,575,140 _____ gallons per day 2) Maximum Daily Flow 6,266,348 gallons per day 3) Average Daily Flow _____ gallons per day 4) Fire Flow Capacity _____580,320 _____ gallons per day a) Needed Fire Flow 1,207,614 gallons per day 5) Growth a) Test Year Customers in ERC's - Begin 6,385 End 6,537 Av. 6,461 b) Customer Growth Using Regression Analysis in ERC's for Most Recent 5 Years Including Test Year _____206___ ERC's c) Statutory Growth Period _____ 5 ___ Years (b) x (c) x (a) =1,207,614 gallons per day Margin Reserve Excessive Unaccounted for Water 15,211.5 gallons per day 6) a) Total Amount 65,916.4 gallons per day 13 % of Av. Daily Flow b) Reasonable Amount 50,704.9 gallons per day 10 % of Av. Daily Flow c) <u>Excessive</u> Amount <u>15,211.</u>5 gallons per day <u>3</u>% of Av. Daily Flow PERCENT USED AND USEFUL FORMULA $\left[\begin{array}{ccc} (2+5)+4a-6 \\ 1 \end{array} \right] = 100$ % Used and Useful

_____ Engineer

^{* &}quot;DEP operation permit is for 10.2M GPD. The difference is represented by one deep well that has lost significant yield and is considered emergency use."

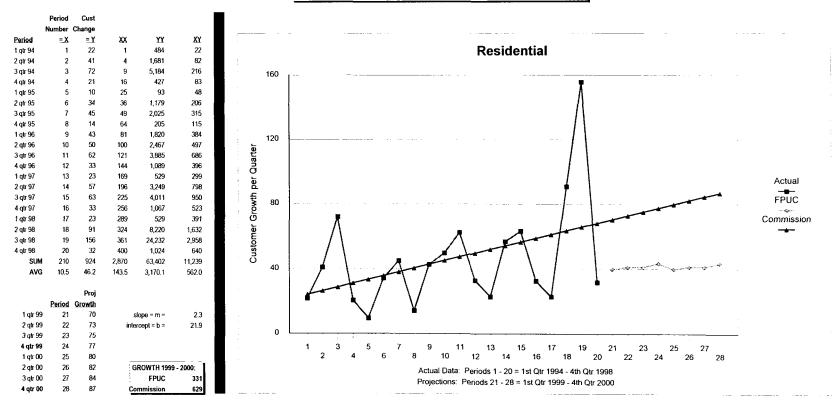
SCHEDULE 5-B

WATER DISTRIBUTION SYSTEM USED AND USEFUL DATA Docket No. 990535-WU Utility FLORIDA PUBLIC UTILITIES CO . Date SEPT. 1999 1) Capacity _____7,732 _____ Lots (Number of potential customers without expansion) 2) Number of TEST YEAR Connections _______ Lots a) Begin Test Year _____ 6,385 ____ Lots b) End Test Year _____ 6,537 Lots c) Average Test Year 6,461 Lots 3) Growth _____ 1030 ____ Lots a) Customer Growth Using Regression Analysis in Lots for Most Recent 5 Years Including Test Year 206 Lots c) Statutory Growth period ______ 5____ Years (a) x (b) = <u>1030</u> Lots Margin Reserve PERCENT USED AND USEFUL FORMULA (2 + 3)1 = ___*100 % Used and Useful Engineer

*This number reflects rounding.

> ATTACHMENT A Page) of 5

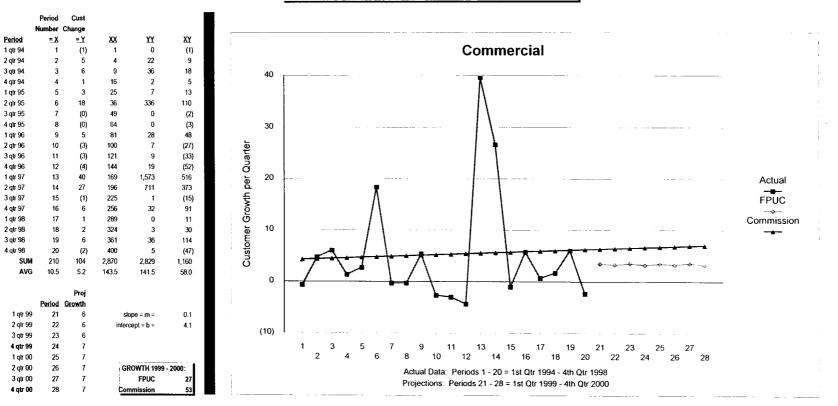
FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000



RESIDENTIAL CLASS: QUARTERLY CUSTOMER GROWTH PROJECTIONS

> ATTACHMENT A Page **2** of 5

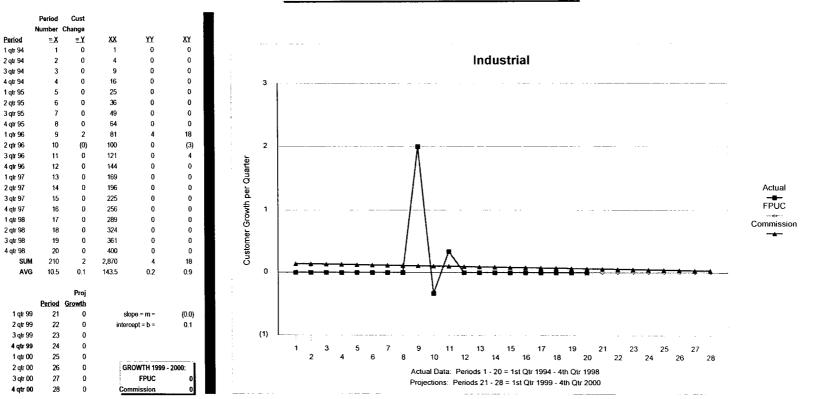
FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000



COMMERCIAL CLASS: QUARTERLY CUSTOMER GROWTH PROJECTIONS

> ATTACHMENT A Page **3** of 5

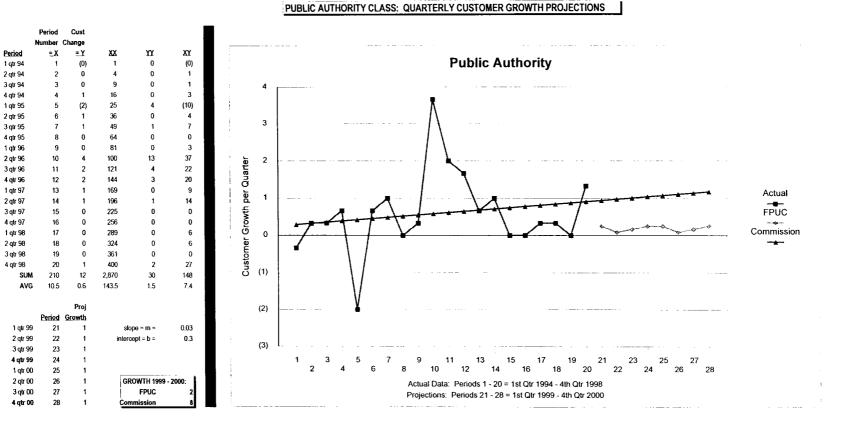
FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000



INDUSTRIAL CLASS: QUARTERLY CUSTOMER GROWTH PROJECTIONS

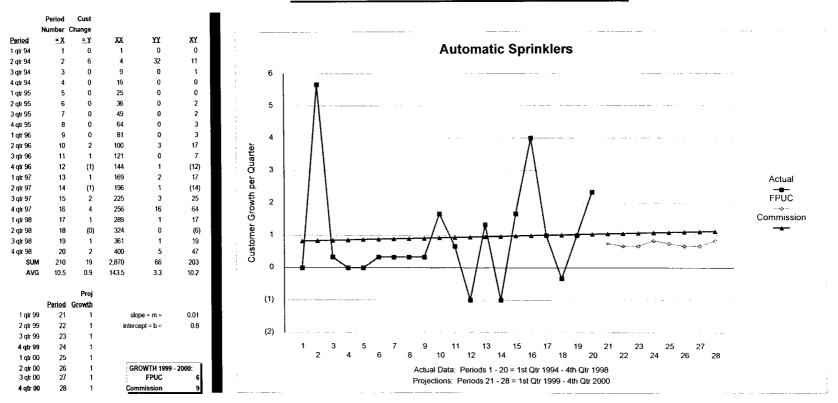
> ATTACHMENT A Page 4 of 5

FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000



> ATTACHMENT A Page 5 of 5

FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000



AUTOMATIC SPRINKLER CLASS: QUARTERLY CUSTOMER GROWTH PROJECTIONS

(1): Excluding fire hydrants.

Sources: MFR Schedule H-19; FPUC's 12/13/99 and 12/14/99 responses to Staff's Informal Data Request 11/15/99.

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FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

MOISTURE DEFICIT VARIABLES

		(2)	(b)	(c)	(d)	(e)	(f) = (e) - (d)	(g) = 0 if (f) <≖0, else (f)
YEAR	MONTH	AVG TEMP	TOTAL RAINFALL	MOISTURE DEFICIT	EFP= EFFECTIVE PRECIPITATION	PET■POTENTIAL EVAPO- <u>TRANSPIRATION</u>	ACTUAL MOISTURE DEFICIT VARIABLE	MOISTURE DEFICIT
1994	January	50.6	8.0	25.5	3.5	1.2	(2.3)	0.0
1004	February	58.0	1.2	25.2	1.2	1.9	0.6	0.6
	March	63.5	2.7	30.9	2.4	3.0	0.6	0.6
		69.1	1.4	33.3	1.4	4.1	2.7	2.7
	April	73.8	2.2	36.9	2.0	5.4	3.3	3.3
	May	80.2	5.2	37.2	3.4	6.7	3.2	3.3
	June			37.8	2.8		4,0	
	July	80.5	3.4			6.8		4.0
	August	80.1	2.2	35.4	2.0	6.3	4.3	4.3
	September	77.5	4.5	31.2	3.3	5.1	1.9	1.9
	October	71.6	13.2	28.8	3.5	3.9	0.4	0.4
	November	66.8	4.4	25.2	3.2	2.8	(0.4)	0.0
	December	57.5	5.1	24.6	3.4	1.8	(1.7)	0.0
1995	January	52.5	3.1	25.5	2.6	1.3	(1.3)	0.0
	February	54.4	1.8	25.2	1.8	1.5	(0.3)	0.0
	March	63.0	3.5	30.9	2.9	2.9	0.1	0.1
	April	68.1	2.0	33.3	1.9	3.9	2.0	2.0
	May	76.6	3.0	36.9	2.6	5.9	3.3	3.3
	June	79.2	10.8	37.2	3.5	6.5	3.0	3.0
	July	83.1	4.8	37.8	3.4	7.3	4.0	4.0
	August	83.3	20.1	35.4	3.5	6.9	3.4	3.4
	September	79.3	16.3	31.2	3.5	5.4	1.9	1.9
	October	73.2	3.7	28.8	2.9	4.1	1.2	1.2
	November	58.4	2.5	25.2	2.3	1.9	(0.4)	0.0
	December	51.1	1.6	24.6	1.6	1.2	(0.4)	0.0
1996	January	51.2	1.4	25.5	1.4	1.2	(0.2)	0.0
	February	56.0	1.6	25.2	1.6	1.6	0.1	0.1
	March	56.7	6.8	30.9	3.5	2.1	(1.4)	0.0
	April	64.6	2.6	33.3	2.4	3.4	1.0	1.0
	May	75.3	0.7	36.9	0.7	5.7	4.9	4.9
	June	78.4	7.0	37.2	3.5	6.3	2.8	2.8
	July	81.3	3.3	37.8	2.8	7.0	4.2	4.2
	August	79.4	4.1	35.4	3.1	6.2	3.0	3.0
	September	78.1	8.0	31.2	3.5	5.2	1.7	1.7
	October	70.5	12.7	28.8	3.5	3.7	0.2	0.2
	November	60.9	2.2	25.2	2.1	2.2	0.1	0.1
		55.4	2.8	24.6	2.5	1.6	(0.9)	0.0
4007	December	54.8	2.8	25.5	2.5	1.6	(0.9)	0.0
1997	January	59.2	1.4	25.2	1.4	2.0	0.6	
	February	67.4		30.9	1.4	3.5		0.6
	March		1.9				1.7	1.7
	April	66.2	5.0	33.3	3.4	3.6	0.2	0.2
	May	71.3	2.8	36.9	2.5	4.9	2.5	2.5
	June	76.2	5.4	37.2	3.5	5.9	2.4	2.4
	July	81.0	8.6	37.8	3.5	6.9	3.4	3.4
	August	80.4	5.8	35.4	3.5	6.4	2.9	2.9
	September	79.0	5.8	31.2	3.5	5.4	1.9	1.9
	October	70.9	5.7	28.8	3.5	3.8	0.3	0.3
	November	60.7	2.2	25.2	2.1	2.1	0.1	0.1
	December	54.8	12.3	24.6	3.5	1.5	(2.0)	0.0
1998	January	56.3	3.4	25.5	2.8	1.7	(1.1)	0.0
	February	56.9	10.1	25.2	3.5	1.7	(1.8)	0.0
	March	57.2	2.6	30.9	2.3	2.2	(0.1)	0.0
	April	67.6	3.8	33.3	3.0	3.8	0.8	0.8
	Мау	76.8	0.7	36.9	0.7	5.9	5.3	5.3



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FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

MOISTURE DEFICIT VARIABLES

		(2)	(b)	(c)	(d)	(e)	(f) = (e) - (d)	(g) = 0 if (f) <= 0, else (f)
						PET = POTENTIAL		
YEAR	MONTH	AVG TEMP	TOTAL RAINFALL	MOISTURE DEFICIT	EFP= EFFECTIVE PRECIPITATION	EVAPO- TRANSPIRATION	ACTUAL MOISTURE	MOISTURE DEFICIT VARIABLE ALL >= 0
1644	June	84.5	2.0	37.2	1.9	7.5	5.6	5.6
	July	83.2	12.2	37.8	3.5	7.4	3.9	3.9
	August	81.1	7.8	35.4	3.5	6.5	3.0	3.0
	September	79.3	4.5	31.2	3.3	5.4	2.1	2.1
	October	73.6	0.7	28.8	0.7	4.2	3.5	3.5
	November	67.5	0.7	25.2	0.7	2.9	2.3	2.3
	December	60.9	0.6	24.6	0.6	2.1	1.5	1.5
1999	January	55.0	4.3	25.5	3.2	1.6	(1.6)	0.0
	February	57.6	2.7	25.2	2.4	1.8	(0.6)	0.0
	March	62.0	3.9	30.9	3.1	2.8	(0.3)	0.0
	April	66.5	2.9	33.3	2.5	3.7	1.1	1.1
	May	74.2	2.6	36.9	2.3	5.5	3.1	3.1
	June	80.4	5.8	37.2	3.5	6.7	3.2	3.2
	July	82.6	5.9	37.8	3.5	7.3	3.8	3.8
	August	81.3	6.3	35.4	3.5	6.5	3.0	3.0
	September	78.8	6.8	31.2	3.5	5.3	1.8	1.8
	October	71.5	7.2	28.8	3.5	3.9	0.4	0.4
	November	62.8	2.0	25.2	1.9	2.4	0.5	0.5
	December	55.4	3.1	24.6	2.7	1.6	(1.1)	0.0
2000	January	55.0	4.3	25.5	3.2	1.6	(1.6)	0.0
	February	57.6	2.7	25.2	2.4	1.8	(0.6)	0.0
	March	62.0	3.9	30.9	3.1	2.8	(0.3)	0.0
	April	66.5	2.9	33.3	2.5	3.7	1,1	1.1
	May	74.2	2.6	36.9	2.3	5.5	3.1	3.1
	June	80.4	5.8	37.2	3.5	6.7	3.2	3.2
	July	82.6	5.9	37.8	3.5	7.3	3.8	3.8
	August	81.3	6.3	35.4	3.5	6.5	3.0	3.0
	September	78.8	6.8	31.2	3.5	5.3	1.8	1.8
	October	71.5	7.2	28.8	3.5	3.9	0.4	0.4
	November	62.8	2.0	25.2	1.9	2.4	0.5	0.5
	December	55.4	3.1	24.6	2.7	1.6	(1.1)	0.0

SOURCES: a), b) FPUC response to Staff's First Data Request, Exhibit G.

a), b) Thore response to during the balance cannot be an experimental control of the second and Roland W. Wentworth and Roland C. Steiner, "Forecasting Short-Term Revenues for Water and Sewer Utilities," Journal of the American Water Works Association, September 1982.
b) EFFECTIVE PRECIPITATION (IN INCHES):

	IFAP <= 1* EFP = AP
	If 1* < AP < 6*: EFP ■ (-0.1 x (APxAP)) + (1.2 x AP) -0.1
	If AP => 6*. EFP = 3.5
	AP = the actual precipitation for the month in inches.
e}	POTENTIAL EVAPOTRANSPIRATION (IN INCHES):
,	PET = (0.0209974 x ((0.0918425 x (degrees F - 32))^1 44)) x (Fm)
	degrees F ■ average daily temperature for the month (see column (a) above).
	Fm = a factor specific to each calendar month (see column (c) above).
fl	Moisture deficit is equal to potential evapotransipration (PET) minus effective precipitation (EFP). In order to calculate monthly moisture deficit, PET is
	calculated according to the method of Thornthwaite and Mather, and EFP is calculated according to the method of Linsley and Franzini.

ATTACHMENT C

FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

WATER CONSUMPTION FORECASTS: ANALYSIS OF DIFFERENT REGRESSION MODELS

		R-SQUARED SCORES OF EACH MODEL					
	Variables Considered in <u>Each Model</u>	<u>Residential</u>	<u>Commercial</u>	Industrial	Public <u>Authority</u>		
MODEL 1	No. of bills based on 5-yr regression	32.0%	36.9%	17.7%	0.0%		
MODEL 2							
	No. of bills based on 5-yr regression Average monthly temperature	72.2%	74.5%	45.1%	Illogical Result		
MODEL 3			æ:::::::::::::::::::::::::::::::::::::		***************************************		
	No. of bills based on 5-yr regression						
	Average monthly temperature		·		- <u>`</u>		
	Total rainfall during month	73.0%	75.1%	45.3%	Illogical Result		
MODEL 4							
	No. of bills based on 5-yr regression						
	Average monthly temperature	72.6%	75.0%	45.2%	Illogical Result		
	Total days of rainfall during month						
MODEL 5							
	No. of bills based on 5-yr regression						
	Total rainfall during month	33.1%	43.8%	21.5%	1.3%		
MODEL 6							
	No. of bills based on 5-yr regression						
	Moisture deficit variable	76.2%	69.8%	34.9%	Illogical Result		
MODEL 7							
	No. of bills based on 5-yr regression						
	Adjusted moisture deficit variable	77.1%	71.4%	32.2%	2.8%		

SOURCES: FPUC's 12/13/99 and 12/14/99 responses to Staff's Informal Data Request 11/15/99.

ATTACHMENT D

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FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

COMMISSION-APPROVED PROJECTED BILLS AND CONSUMPTION FOR THE PROJECTED TEST YEAR ENDING DECEMBER 31, 2000 (1)

	WATER				
			GENERAL	EIRE	AUTOMATIC
PROJECTIONS FOR 1999:		RESIDENTIAL	SERVICE (2)	HYDRANT	SPRINKLER
(1)	Bills rendered in 1998	67,598	6,427	204	570
(2)	Increase in customers projected for 1999	296	30	1	4
(3)	Projected increase in bills rendered in 1999	3,294	297	1	53
(4) = (1) + (3)	Projected bills rendered in 1999	70,892	6,724	205	623
(5)	Consumption 1998 (000)	1,097,148	487,567		
(6)	Increase in consumption projected for 1999	54,659	(8,607)		
(7) = (5) + (6)	Projected consumption 1999	1,151,807	478,960		
PROJECTIONS FOR 2000:					
(1)	Bills rendered in 1999	70,892	6,724	205	623
(2)	Increase in customers projected for 2000	333	32	1	4
(3)	Projected increase in bills rendered in 2000	3,778	376	1	50
(4) = (1) + (3)	Projected bills rendered in 2000	74,670	7,100	206	673
(5)	Consumption 1999	1,151,807	478,960		
(6)	Increase in consumption projected for 2000	131,487	16,054		
(7) = (5) + (6)	Projected consumption 2000	1,283,294	495,014		

(1) Before Commission-approved shift of residential customers to the general service category and before Commission-approved repression adjustment.

(2) General service includes commercial, industrial and public authority.

Source: FPUC's 12/13/99 and 12/14/99 responses to Staff's Informal Data Request 11/15/99.

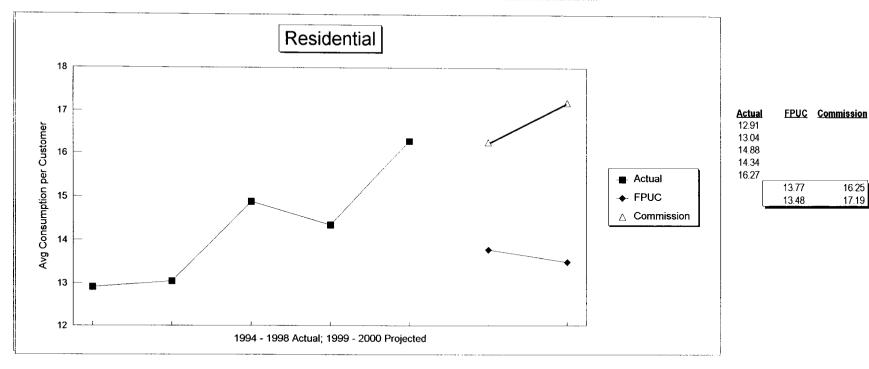
ATTACHMENT D

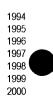
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FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

COMMISSION-APPROVED PROJECTED BILLS AND CONSUMPTION: AVERAGE CONSUMPTION PER BILL

RESIDENTIAL CLASS: AVG CONSUMPTION PER CUSTOMER BEFORE CUSTOMERS SHIFT ADJUSTMENT





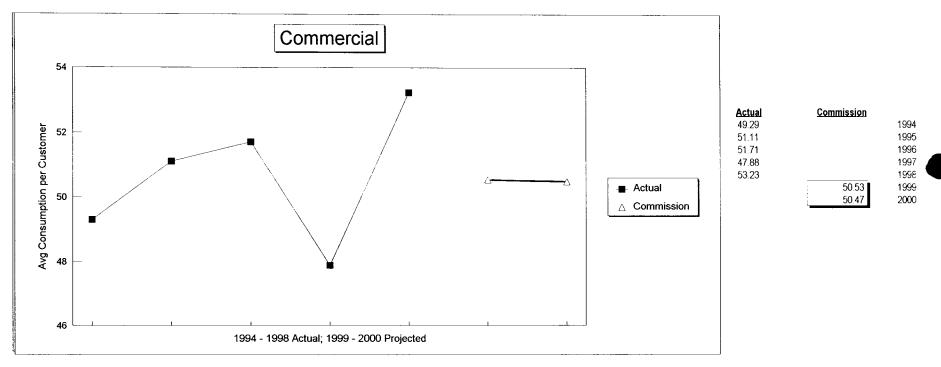
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FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

COMMISSION-APPROVED PROJECTED BILLS AND CONSUMPTION: AVERAGE CONSUMPTION PER BILL

COMMERCIAL CLASS: AVG CONSUMPTION PER CUSTOMER BEFORE CUSTOMERS SHIFT ADJUSTMENT



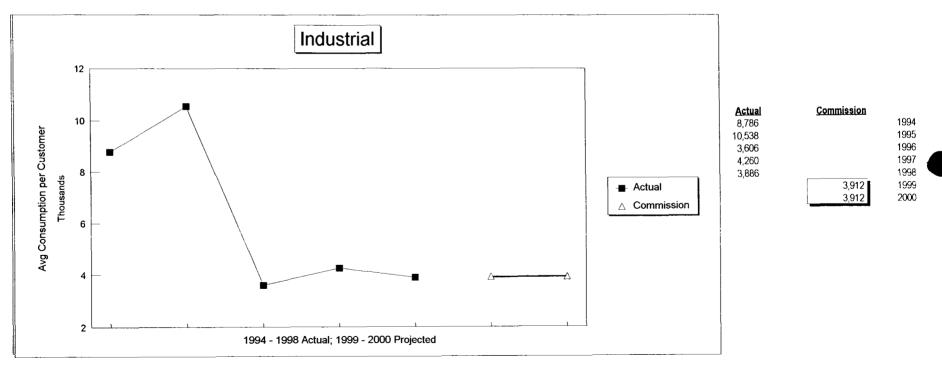
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FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

COMMISSION-APPROVED PROJECTED BILLS AND CONSUMPTION: AVERAGE CONSUMPTION PER BILL

INDUSTRIAL CLASS: AVG CONSUMPTION PER CUSTOMER BEFORE CUSTOMERS SHIFT ADJUSTMENT



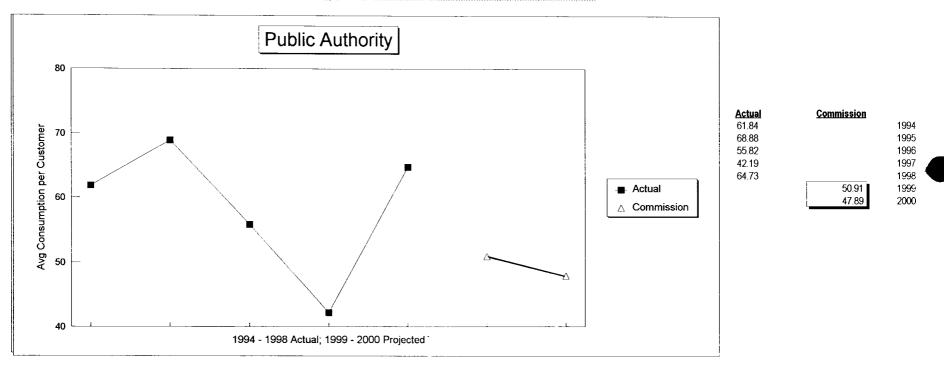
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FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

COMMISSION-APPROVED PROJECTED BILLS AND CONSUMPTION: AVERAGE CONSUMPTION PER BILL

PUBLIC AUTHORITY CLASS: AVG CONSUMPTION PER CUSTOMER BEFORE CUSTOMERS SHIFT ADJUSTMENT



FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

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	SELECT	ON OF CON	IMISSION-AP	PROVED US	AGE BLOCK	S AND RATE	FACTORS	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
			CONSUMPT	ION CHARGES I	BASED ON DIFFI	ERENT RATE FA	CTORS	
USAGE								
BLOCKS	Current	<u>1.0 / 1.25 / 1.5</u>	<u>1.0 / 1.25 / 1.75</u>	<u>1.0 / 1.25 / 2.0</u>	1.0 / 1.25 / 3.0	1.0/1.5/2.0	<u>1.0/1.5/3.0</u>	1.0/2.0/3.0
	Rates		00.70		00.50			
0-5 CCF	\$0.84	\$0.81 1.01	\$0.76 0.95	\$0.72	\$0.59 0.74	\$0.68 1.02	\$0.56 0.84	\$0.50
6 - 20 CCF 20 + CCF	0.84 0.84	1.22	1.33	1.44	1.77	1.02	1.68	1.00 1.50
20 + CCF	0.04	1.22	1.00	1	1.77	1.50	1.00	1.50
Consump	Consump <u>Charges</u>							
(<u>CCF)</u> 5	\$4.20	\$4.05	\$3.80	\$3.60	\$2.95	\$3.40	\$2.80	\$2.50
10	8.40	9.10	8.55	8.10	6.65	8.50	7.00	7.50
15	12.60	14,15	13.30	12.60	10.35	13.60	11.20	12.50
20	16.80	19.20	18.05	17,10	14.05	18.70	15.40	17.50
25	21.00	25.30	24.70	24.30	22.90	25.50	23.80	25.00
30	25.20	31.40	31.35	31,50	31.75	32.30	32.20	32.50
50	42.00	55.80	57.95	60.30	67.15	59.50	65.80	62.50
75	63.00	86.30	91.20	96.30	111.40	93.50	107.80	100.00
Consump (CCCF) 5 10 15 20 25 30 50 75		-3.6% 8.3% 12.3% 14.3% 20.5% 24.6% 32.9% 37.0%	-9 5% 1.8% 5.8% 7.4% 17.6% 24.4% 38.0% 44.8%	CHANGES IN (-14.3% -3.6% 0.0% 1.8% 15.7% 25.0% 43.6% 52.9%	-29.8% -20.8% -17.9% -16.4% 9.0% 26.0% 59.9% 76.8%	-19.0% 1.2% 7.9% 11.3% 21.4% 28.2% 41.7% 48.4%	-33.3% -16.7% -11.1% -8.3% 13.3% 27.8% 56.7% 71.1%	-40.5% -10.7% -0.8% 4.2% 19.0% 29.0% 48.8% 58.7%
Curr_BFC \$8.20 Consump	<u>Rec BFC</u> \$8.56			CHANG	ES IN TOTAL PR	ICE		
(CCF) 5		1.7%	-0.3%	-1.9%	-7.2%	-3.5%	-8.4%	10.99/
5 10		6.4%	3.1%	0.4%	-8.4%	-3.5%	-6.3%	-10.8% -3.3%
15		9.2%	5.1%	1.7%	-9.1%	6.5%	-5.0%	1.3%
20		11.0%	6.4%	2.6%	-9.6%	9.0%	-4.2%	4.2%
25		16.0%	13.9%	12.5%	7.7%	16.6%	10.8%	14.9%
30		19.6%	19.5%	19.9%	20.7%	22.3%	22.0%	22.9%
50		28.2%	32.5%	37.2%	50.8%	35.6%	48.1%	41.6%
75		33.2%	40.1%	47.3%	68.5%	43.3%	63.4%	52.5%

FLORIDA PUBLIC UTILITIES COMPANY ~ FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

(2)	(b)	(c)	(d)	(e)	(f)	(a)	(h)	<i>(</i> 1)
(a)	(u)	(6)	(a)	(e)	(1)	(g)	(h)	(i)
			CONSUMPT	ION CHARGES	BASED ON DIFFI	ERENT RATE FA	CTORS	
JSAGE BLOCKS	Current	1.0 / 1.25 / 1.5	<u>1.0 / 1.25 / 1.75</u>	1.0 / 1.25 / 2.0	1.0 / 1.25 / 3.0	1.0/1.5/2.0	1.0/1.5/3.0	1.0 / 2.0 / 3
	<u>Rates</u>							
-10 CCF	\$0.84	\$0.84	\$0.79	\$0.74	\$0.60	\$0.71	\$0.58	\$0.5
0 - 20 CCF	0.84	1.05	0.99	0.93	0.75	1.07	0.87	1.1
0 + CCF	0.84	1.26	1.38	1.48	1.80	1.42	1.74	1.6
Consump	Consump							
(CCF)	Charges							
5	\$4.20	\$4.20	\$3.95	\$3.70	\$3.00	\$3.55	\$2.90	\$2.7
10	8.40	8.40	7.90	7.40	6.00	7.10	5.80	5.5
15	12.60	13.65	12.85	12.05	9.75	12.45	10.15	11.0
20	16.80	18.90	17.80	16.70	13.50	17.80	14.50	16.5
25	21.00	25.20	24.70	24,10	22.50	24.90	23.20	24.7
30	25.20	31.50	31.60	31.50	31 50	32.00	31.90	33.0
50	42.00	56.70	59.20	61,10	67.50	60.40	66.70	66.0
75	63.00	88.20	93.70	98,10	112 50	95.90	110.20	107.3
Consump				CHANGES IN (CONSUMPTION	CHARGES		
(CCF)		0.007	0.004	44.004	00.004			
5		0.0%	-6.0%	-11.9%	-28.6%	- 15.5%	-31.0%	-34.5
10		0.0%	-6.0%	-11.9%	-28.6%	-15.5%	-31.0%	-34.5
15		8.3%	2.0%	-4.4%	-22.6%	-1.2%	-19.4%	-12.7
20		12.5%	6.0%	-0.6%	-19.6%	6.0%	-13.7%	-1.8
25		20.0%	17.6%	14.8%	7.1%	18.6%	10.5%	17.9
30		25.0%	25.4%	25.0%	25.0%	27.0%	26.6%	31.09
50		35.0%	41.0%	45.5%	60.7%	43.8%	58.8%	57.19
75		40.0%	48.7%	55.7%	78.6%	52.2%	74.9%	70.2
Curr_BFC	Rec BFC			CHANGE	ES IN TOTAL PR	ICE		
\$8.20	\$8.56							
Consump (CCF)								
5		2.9%	0.9%	-1.1%	-6.8%	-2.3%	-7.6%	-8.8
10		2.2%	-0.8%	-3.9%	-12.3%	-5.7%	-13.5%	-15.3
15		6.8%	2.9%	-0.9%	-12.0%	1.0%	-10.0%	-6.0
20		9.8%	5.4%	1.0%	-11.8%	5.4%	-7.8%	0.2
25		15.6%	13.9%	11.8%	6.4%	14.6%	8.8%	14.19
30		19.9%	20.2%	19.9%	19.9%	21.4%	21.1%	24.4
		20.00/	25.00/	20.00/	64 60/			

38.8%

49.8%

51.5%

70.0%

37.4%

46.7%

49.9%

66.8%

48.5%

62.7%

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ORDER NO. PSC-0 DOCKET NO. 990535-WU PAGE 64

50

75

30.0%

35.9%

35.0%

43.6%

FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

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	SELECTI	ON OF CON	IMISSION-AF	PROVED US	AGE BLOCK	S AND RATE	E FACTORS	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
			CONSUMPT	ION CHARGES	BASED ON DIFFE	ERENT RATE FA	CTORS	
USAGE								
BLOÇKŞ	Current <u>Rates</u>	<u>1.0 / 1.25 / 1.5</u>	<u>1.0 / 1.25 / 1.75</u>	<u>1.0 / 1.25 / 2.0</u>	<u>1.0/1.25/3.0</u>	<u>1.0 / 1.5 / 2.0</u>	1.0/1.5/3.0	<u>1.0 / 2.0 / 3.0</u>
0-10 CCF	\$0.84	\$0.85	\$0.81	\$0.77	\$0.65	\$0.73	\$0.62	\$0.57
10 - 25 CCF	0.84	1.06	1.01	0.96	0.81	1.10	0.93	1.14
25 + CCF	0,84	1.28	1.42	1.54	1.95	1.46	1.86	1.71
Consump	Consump							
(CCF)	<u>Charges</u>	a. (05						
5	\$4.20	\$4.25	\$4.05	\$3.85	\$3.25	\$3.65	\$3.10	\$2.85
10	8.40	8.50	8.10	7.70	6.50	7.30	6.20	5.70
15	12.60	13.80 19.10	13.15 18.20	12.50 17.30	10.55 14.60	12.80 18.30	10.85 15.50	11.40
20	16.80 21.00	24.40	23.25	22.10	14.60		20.15	17.10
25 30	21.00	30.80	30.35	29.80	28.40	23.80 31.10	20.15	22.80
30 50	42.00	56.40	58.75	29.80 60.60	28.40 67.40	60.30	29.45 66.65	31.35 65.55
75	42.00 63.00	88.40	94.25	99.10	116.15	96.80	113.15	65.55 108.30
Consump (CCF) 5 10 15 20 25 30 50 75		1.2% 1.2% 9.5% 13.7% 16.2% 22.2% 34.3% 40.3%	-3.6% -3.6% 4.4% 8.3% 10.7% 20.4% 39.9% 49.6%	CHANGES IN (-8.3% -0.8% 3.0% 5.2% 18.3% 44.3% 57.3%	CONSUMPTION (-22.6% -22.6% -16.3% -13.1% -11.2% 12.7% 60.5% 84.4%	-13.1% -13.1% 1.6% 8.9% 13.3% 23.4% 43.6% 53.7%	-26.2% -26.2% -13.9% -7.7% -4.0% 16.9% 58.7% 79.6%	-32.1% -32.1% -9.5% 1.8% 8.6% 24.4% 56.1% 71.9%
Curr_BFC \$8.20	<u>Rec BFC</u> \$8.56			CHANG	ES IN TOTAL PR	ICE		
Consump								
(CCF) 5		3.3%	1.7%	0.1%	-4.8%	-1.5%	-6.0%	-8.0%
5 10		2.8%	0.4%	-2.0%	-4.0% -9.3%	-4.5%	-0.0%	-8.0% -14.1%
15		7.5%	4.4%	1.3%	-8.1%	2.7%	-6.7%	-14.1% -4.0%
20		10.6%	7.0%	3.4%	-7.4%	7.4%	-3.8%	-4.0% 2.6%
20 25		12.9%	8.9%	5.0%	-6.8%	10.8%	-3.6%	2.0% 7.4%
25 30		17.8%	16.5%	14.9%	-0.0%	18.7%		
		29.4%	34.1%	37.8%	51.3%	37.2%	13.8% 49.8%	19.5%
50 75		29.4% 36.2%	44.4%	51.2%	75.2%	48.0%		47.6%
75		30.270	44.470	J1.270	10.270	40.0%	70.9%	64.1%



FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

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(a)	(b)	(c)		(8)	m	(C)	(n)	(1)
		.,	(d)	(e)	(f)	(g)	(h)	(i)
		PRICE CH	ANGE COMPAR	RISONS ACROSS	DIFFERENT R/	ATE FACTORS	6	
							the Same Usage Block	
GE	Consump						ateat Price Change Oc	curs
CKS	(CCF)	<u>1.0 / 1.25 / 1.5</u>	<u>1.0 / 1.25 / 1.75</u>	1.0/1.25/2.0		<u>1.0 / 1.25 / 1.5</u>	<u>1.0 / 1.25 / 1.75</u>	1.0 / 1.25 /
	5	1.7%	-0.3%	-1.9%		x		
CF	10	6.4%	3.1%	0.4%		x		
CCF	15	9.2%	5.1%	1.7%		x		
CCF	20	11.0%	6.4%	2.6%		x		
	25	16.0%	13.9%	12.5%		x		
	30	19.6%	19.5%	19.9%				x
	50	28.2%	32.5%	37.2%				×
	75	33.2%	40.1%	47.3%				×
	5	2.9%	0.9%	-1.1%		x		
CCF	10	2.2%	-0.8%	-3.9%		x		
0 CCF	15	6.8%	2.9%	-0.9%		x		
CCF	20	9.8%	5.4%	1.0%		×		
	25	15.6%	13.9%	11.8%		x		
	30	19.9%	20.2%	19.9%			x	
	50	30.0%	35.0%	38.8%				x
	75	35.9%	43.6%	49.8%				x
	5	3.3%	1.7%	0.1%		x		
CF	10	2.8%	0.4%	-2.0%		x		
5 CCF	15	7.5%	4.4%	1.3%		x		
CF	20	10.6%	7.0%	3.4%		x		
	25	12.9%	8.9%	5.0%		x		
	30	17.8%	16.5%	14.9%		x		
	50	29.4%	34.1%	37.8%				x
	75	36.2%	44.4%	51.2%				x

SCORES: 16 1 7

FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

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								•
	SELECI		IMISSION-AF	PROVED US	AGE BLUCI	15 ANU KA	IE FACTOR	5
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
		PRICE CH	ANGE COMPAR	SONS ACROSS	DIFFERENT U	SAGE BLOCKS	5	
USAGE	Consump						the Same Rate Factor ateat Price Change Oc	
BLOCKS	(CCF)	1.0 / 1.25 / 1.5	1.0 / 1.25 / 1.75	1.0 / 1.25 / 2.0		1.0 / 1.25 / 1.5	1.0 / 1.25 / 1.75	<u>1.0 / 1.25 / 2.0</u>
BLOCKS	5	1.7%	-0.3%	-1.9%		1.07 1.20 [1.0	1.9.1.1.69.1.1.1.9	1.07 1.497 4.9
0-5 CCF	10	6.4%	3.1%	0.4%		x	x	x
5 - 20 CCF	15	9.2%	5,1%	1.7%		x	x	x
20 + CCF	20	11.0%	6.4%	2.6%		×		
	25	16.0%	13.9%	12.5%		x	x	x
	30	19.6%	19.5%	19.9%				x
	50	28.2%	32.5%	37.2%				
	75	33.2%	40.1%	47.3%				
	5	2.9%	0.9%	-1.1%				
0-10 CCF	10	2.2%	-0.8%	-3.9%				
10 - 20 CCF	15	6.8%	2.9%	-0.9%				
20 + CCF	20	9.8%	5.4%	1.0%				
	25	15.6%	13.9%	11.8%			x	
	30	19.9%	20.2%	19.9%		x	x	x
	50	30.0%	35.0%	38.8%		x	x	x
	75	35.9%	43.6%	49.8%				
	5	3.3%	1.7%	0.1%		x	×	x
0-10 CCF	10	2.8%	0.4%	-2.0%				
10 - 25 CCF	15	7.5%	4.4%	1.3%				
25 + CCF	20	10.6%	7.0%	3.4%			x	x
	25	12.9%	8.9%	5.0%				
	30	17.8%	16.5%	14.9%				
	50	29.4%	34.1%	37.8%				
	75	36.2%	44.4%	51.2%		x	x	x
					SCORES:	8	9	9

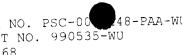
SELECTION OF COMMISSION-APPROVED USAGE BLOCKS AND RATE FACTORS (f) (h) (b) (c) (d) (e) (g) (i) (a) SELECTION OF COMMISSION-APPROVED USAGE BLOCKS AND RATE FACTORS Scores for Scores for Scores for Usage Block Rate Factor Usage Block Rate Factor Usage Block Rate Factor USAGE Consump 1.0/1.25/1.5 1.0/1.25/1.5 1.0/1.25/1.75 1.0/1.25/1.75 1.0/1.25/2.0 1.0/1.25/2.0 (CCF) BLOCKS 5 х 0-5 CCF 10 х x х x 5 - 20 CCF 15 х x х х 20 + CCF 20 х x 25 x x х х 30 х х 50 х 75 v 5 х 0-10 CCF 10 х 15 10 - 20 CCF ¥ 20 + CCF 20 х 25 х 30 х х х X 50 х x 75 5 х х X ¥ 10 0-10 CCF х 10 - 25 CCF 15 x 20 25 + CCF x х ¥ 25 х 30 х 50 75 х 16 я 9 7 9 SCORES 1 TOTAL SCORES: 24 10 16

new rate is less than the current rate in that usage block. 1.0 / 1.25 / 1.5 = usage block differentials of 1.0 for the first usage block, 1.25 times the initial block rate for the second usage block, and 1.5 times the initial block rate for the third usage block. 1.0 / 1.25 / 1.75 = usage block differentials of 1.0 for the first usage block, 1.25 times the initial block rate for the second usage block, and 1.75 times the initial block rate for the third usage block. 1.0 / 1.25 / 2.0 = usage block differentials of 1.0 for the first usage block, 1.25 times the initial block rate for the second usage block, and 2.0 times the initial block rate for the third usage block. 1.0 / 1.25 / 3.0 = usage block differentials of 1.0 for the first usage block, 1.25 times the initial block rate for the second usage block, and 3.0 times the initial block rate for the third usage block. 1.0 / 1.5 / 2.0 = usage block differentials of 1.0 for the first usage block, 1.5 times the initial block rate for the second usage block, and 2.0 times the initial block rate for the third usage block. 1.0 / 1.5 / 3.0 = usage block differentials of 1.0 for the first usage block, 1.5 times the initial block rate for the second usage block, and 3.0 times the initial block rate for the third usage block. 1.0 / 2.0 / 3.0 = usage block differentials of 1.0 for the first usage block, 2.0 times the initial block rate for the second usage block, and 3.0 times the initial block rate for the third usage block.

FPUC's 12/13/99 and 12/14/99 responses to Staff's Informal Data Request 11/15/99. Source:

FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

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ATTACHMENT F

FLORIDA PUBLIC UTILITIES COMPANY -- FERNANDINA BEACH WATER DIVISION PROJECTED TEST YEAR ENDING DECEMBER 31, 2000

COMPARISON OF FINAL PROJECTED BILLS AND CONSUMPTION: FPUC v. COMMISSION

WATER SYSTEM

						Differ	ence:
		Projections per Utility (000 in CCF)		Projections per Commission (1) (000 in CCF)		Commission in Excess of FPUC	
							(000 in CCF)
		Bills Billed		Bills Billed		Bills	Billed
		Rendered	<u>Consump</u>	Rendered	Consump	Rendered	<u>Consump</u>
Metered Sales:	Class 3 = Residential	71,475	917,419	73,117	1,095,009	1,642	177,590
	Class 4 = General Service (2)	<u>6,839</u>	<u>496,936</u>	<u>8,653</u>	655,682	<u>1,814</u>	158,746
	Subtotal	78,314	1,414,355	81,770	1,750,691	3,456	336,336
Other Services:	Fire Hydrants	206		206		0	
	Automatic Sprinklers	674		<u>673</u>		(1)	
	Subtotal	880		879		(1)	
TOTALS FOR MONTHLY SERVICE:		79,194	1,414,355	82,649	1,750,691	3,455 4.36%	336,336 23.78%

(1) After Commission-approved repression adjustment and an additional shift of residential bills and consumption to the general service class.

(2) General service includes commercial, industrial and public authority.

Sources: MFRs Schedule E-2; FPUC's response to Staff's First Data Request No. 11, and 12/13/99 and 12/14/99 responses to Staff's Informal Data Request 11/15/99.