State of Florida

Public Service Commission

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

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

DATE: OCTOBER 22, 1998

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

FROM: DIVISION OF WATER AND WASTEWATER (DEWBERRY, FUCHS, GILCHRIST, RIEGER, LINGO)
DIVISION OF LEGAL SERVICES (FERGUSON)

RE: DOCKET NO. 980441-WS - APPLICATION FOR STAFF-ASSISTED RATE CASE BY ORCHID SPRINGS DEVELOPMENT CORP. WATER & SEWER. COUNTY: POLK

AGENDA: 11/03/98 - REGULAR AGENDA - PROPOSED AGENCY ACTION EXCEPT ISSUES 20 & 22 - INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: 15-MONTH EFFECTIVE DATE: AUGUST 11, 1999 (SARC)

SPECIAL INSTRUCTIONS: NONE

FILE NAME AND LOCATION: S:\PSC\WAW\WP\980441WS.RCM

LOTUS FILE NAME: R:\ORCHID.WK4

DOCKET NO. 980441-WS
DATE: October 22, 1998

CASE BACKGROUND

Orchid Springs Development Corporation Water and Sewer (Orchid Springs or utility) is a Class C water and wastewater utility located in Polk County. Polk County became jurisdictional in May 1996. On February 5, 1997, Orchid Springs filed its application for a grandfather certificate to provide water and wastewater service. The utility has been in existence since 1969 providing water and wastewater service. After reviewing the territory description, it became apparent that a small portion of the stated territory was actually being served by Garden Grove Water Company. On April 15, 1998, Orchid Springs filed documentation to delete a portion of its service area and transfer that parcel to Garden Grove Water Company, Inc. By Order No. PSC-98-0918-FOF-WS, issued July 7, 1998, in Docket No. 970158-WS, Orchid Springs Development Corporation Water and Sewer was granted certificates nos. 600-W and 516-S.

On March 31, 1998, Orchid Springs filed an application for a staff-assisted rate case (SARC) and paid the appropriate filing fees. Staff has selected a historical test year ended March 31, 1998. In the preparation for this report, staff has audited the utility's records for compliance with Commission rules and orders and determined all components necessary for rate setting. The staff engineer has also conducted a field investigation of the utility's plants and service area. A review of the utility's operation expenses, maps, files, and rate applications was also performed to obtain information about the physical plant operating costs.

Orchid Springs' customer base includes residential, multi-residential and general service customers. During the test year, the utility provided water service to approximately 308 customers and wastewater service to approximately 303 customers. The utility's adjusted test year revenue is $48,519 for water and $95,852 for wastewater. Its adjusted operating expenses are $71,317 for water and $97,844 for wastewater. The adjusted test year loss is $22,440 for water and $940 for wastewater.

This utility is located in a water use caution area (WUCA). The Southwest Florida Water Management District (SWFWMD) declared portions of Polk and Highlands Counties a WUCA in 1989 and SWFWMD has declared the Highlands Ridge WUCA a Critical Water Supply Problem Area.

On September 2, 1998, a customer meeting was held in the utility's service area to allow customers to address quality of

service and other issues about utility service. Approximately 25 customers attended the meeting and 9 customers addressed concerns. The concerns addressed included the utility's billing procedures that is provided by Bay Tree Management Company, paying for the use of washers located in condominiums laundry rooms, sediment in the water, and water pressure. In addition, 2 letters were received addressing concerns about the utility's billing procedures through Bay Tree Management Company and paying for the use of washers located in the condominiums' laundry rooms. One customer also requested that the Commission approve phase-in rates for this rate case due to the amount of the recommended increase.

Billing procedures are addressed in Issue 21, water sediment and pressure is addressed in Issue 1. The utility provided staff with a copy of an agreement between Bay Tree Management Company and the condominium association. This agreement gives Bay Tree the authority to charge for laundry service for the use of washers in the condominiums' laundry rooms. This service is not under the Commission's jurisdiction. The customer that addressed the concern about paying for the use of washers was informed of same.

DISCUSSION OF ISSUES

Quality of Service

ISSUE 1: Is the Quality of Service provided by Orchid Springs Development Corporation Water and Sewer to its customers satisfactory?

RECOMMENDATION: Yes, the quality of service provided by Orchid Springs Development Corporation Water and Sewer to its customers is satisfactory. (FUCHS)

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

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

Quality of Utility's Product

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

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

The primary drinking water standards include maximum contaminant levels (MCLs) for harmful contaminants. These MCLs are not to be exceeded, unless specified otherwise by a DEP variance or exemption. Some examples of primary contaminants are arsenic, lead, trihalomethanes, coliform bacteria, and radium. Secondary drinking water standards generally contain MCLs which regulate the aesthetic qualities of the water, such as color corrosivity, odor, and hardness. Additionally, each utility must periodically test for several unregulated contaminants, which the EPA considers potentially harmful. These contaminants are still under investigation.

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

Orchid Springs Development Corporation Water and Sewer has no current DEP, Health Department, or EPA violations with either the water or wastewater facilities.

Operational Condition of the Utility's Plant or Facilities

The operational conditions of the utility's treatment and distribution/collection systems must also be evaluated to determine the overall quality of service provided by the utility. Evaluation of these systems includes a review of the utility's compliance with Department of Environmental Protection standards of operation as well as an analysis of proper system design. For example, among other standards of evaluation, water treatment plants and distribution systems are reviewed for compliance with permit standards and minimum operator requirements as well as standards regarding the location of wells with regard to potential sources of pollution. Wastewater treatment plants and collection systems are reviewed for compliance with permit standards, minimum operator requirements, and lift station location and reliability among other standards. The Utility is in compliance with all operational regulations. During a site inspection performed by a staff engineer the week of May 18, 1998, all facilities were found to be in proper maintenance and operational condition.

Customer Satisfaction

The final component of the overall quality of service which must be assessed is the level of customer satisfaction which results from the utility's relations with its customers. A qualitative evaluation of these relations includes a review of proper notification requirements between the utility and its customers as well as a review of action taken by the utility regarding customer complaints. For example, utility policies are reviewed in order to insure that customers have been properly notified of scheduled service interruptions.

As stated in the case background, a customer meeting was held September 2, 1998. Approximately 25 persons attended. Of those, 9 people testified. One customer complained about water quality and one complained about low pressure. The staff engineer visited the homes of the two complainants. Water pressure, at the time of the visit of both homes, was well above FDEP's minimum requirement of 20 pounds per square inch. The complainant with the quality and

rusty water complaint may have a plumbing problem due to 28 year old galvanized pipe in her home, which is in need of replacement. The customer has had a small part of the plumbing replaced as the result of a pinhole in one pipe.

The remaining seven complaints concerned bills submitted by the real estate management firm of the condominiums. The condominium association has management contracts with Orchid Springs. The Orchid Springs Development Corporation, which is an umbrella company, owns several condominiums in the service area. These condominiums are managed under contracts with the company.

The Utility has made a concerted effort to prevent quality of service problems and to promptly correct any complaints that arise. Staff recommends the Commission find the quality of service provided by Orchid Springs Development Corporation Water and Sewer to its customers to be satisfactory.

Rate Base

ISSUE 2: Should there be an adjustment to rate base or expenses due to the wastewater treatment plant being oversized?

RECOMMENDATION: No. (FUCHS)

STAFF ANALYSIS: While the existing 300,000 gallons per day (GPD) wastewater treatment plant is considerably larger than required to accommodate existing flows, there appears to be no significant savings to be gained by downsizing the existing plant. It is obvious that building a 300,000 GPD plant today would be an imprudent decision. However, the Orchid Springs plant was originally designed and built in 1972 and expanded to its present size in 1978. At that time, the developer purchased land and had a reasonable expectation that he would be permitted to develop a much larger area. After the expansion of the plant, more stringent environmental regulations and restrictions on development of protected land were enacted by the State of Florida. Among the more significant of those regulations is the Warren Henderson Act of 1984, which is well past the time the plant was enlarged. Research done by the staff reveals that the apparent beginnings of more strict DEP enforcement of regulations and restrictions on wetlands development coincides with the adoption of the Henderson Act.

Existing flows handled by the Orchid Springs wastewater treatment plant (WWTP) range from 60,000 to 75,000 GPD. This plant is comprised of five 60,000 GPD sections. One section cannot provide sufficient capacity to handle existing flows. The plant could safely be downsized to 120,000 GPD, or two sections. Staff has done a cost-benefit analysis to establish the effect on current expenses if the plant is operated as a 300,000 GPD plant or downsized to a capacity of 120,000 GPD.

Since the plant will be pumping the same number of gallons regardless of capacity, electrical expense should remain the same. Two remaining tanks would be operated for longer periods than the five currently in service. Chemical expenses should remain approximately the same or increase slightly due to increased holding time in the Chlorine contact chamber.

Differences between the two configurations are:

1) If the plant is downsized, sludge hauling expense will increase by $6,000 annually due to inability of the operator to recycle the sewage repeatedly, which dramatically reduces the sludge volume.

2) If the plant is left in its current state, periodic maintenance will be required on the additional 3 tanks.

According to the plant operator, the tanks need to be sandblasted and painted inside and out at 10 year intervals. The cost is $10,000 per tank. That calculates to $1,000 annually per tank or $3,000 annually for the three additional tanks. Annual maintenance required is spot painting and aerator repair. Aerators are the blower nozzles in the tanks. There are 42 aerator nozzles in the 3 tanks and the cost averages about $30 each to clean and repair. Aerator maintenance will be $1,260 annually ($30 X 42 nozzles). Annual spot sanding and painting is $650 per tank or $1,950 per year for the 3 tanks. Adding the three annualized tank expenses of $3,000 for sandblasting plus $1,250 for aerator repairs and $1,950 for annual spot painting equals $6,210. Since the increased sludge hauling expense will be an additional $6,000, it appears that the difference in operating expense is insignificant. (See chart below)

The plant, as configured, was totally depreciated by 1997, therefore there is no impact on ratebase. Since the operating expense differences are estimated to be only $210, Staff recommends no adjustment to rate base or operating expense be imposed.

ANNUALIZED EXPENSE COMPARISON

300,000 GPD		120,000 GPD	
Sandblast & paint 3 tanks 10 years (annualized)	$3,000	Additional expense for Sludge hauling	$6,000
Mtce. on aerator nozzles	$1,260		
Annually required touch-up painting	$1,950		
Total annualized tank mtce.	$6,210		$6,000

ISSUE 3: What should be the Used and Useful percentage for the water and the wastewater systems?

RECOMMENDATION: The water treatment and distribution system and wastewater treatment and collection system should be considered 100% used and useful. (FUCHS)

STAFF ANALYSIS: The water system consists of two interconnected water treatment plants and an associated distribution system. The wastewater system consists of a 300,000 GPD capacity treatment plant and its associated collection system.

Water Treatment Plants

Water plant #1, installed in 1973, is a 10 inch diameter well, 600 feet deep with a 20 HP Goulds 375 gallons per minute (GPM) submersible pump. The water is treated by a Wallace and Tiernan V100 chlorination unit at a normal setting of up to 30 pounds of Chlorine per day then pumped into a 5,000 gallon glass lined, steel hydropneumatic tank for pressurization. The system has a backup generator for emergency power consisting of a Kohler 6 cylinder Ford industrial engine fueled by natural gas. The emergency generator needs repair or replacement.

Water plant #2, installed in 1967, is a 6 inch diameter well, 450 feet deep with a 15 HP Goulds 300 GPM submersible pump. The water is treated by a Wallace and Tiernan V100 chlorination unit at normal setting of up to 20 pounds per day then pumped into a 10,000 gallon glass lined, steel hydropneumatic tank for pressurization.

DEP requires utilities serving 350 persons or more or those having more than 150 connections to have 2 wells, pursuant to Rule 62-555.315(1), Florida Administrative Code.

There is no excessive unaccounted for water for this system. Attachment A shows the calculations for the used and useful percentage for the water treatment plant.

Water Distribution System

According to the plans and records reviewed, the distribution system is a composite network of approximately 22,650 linear feet of PVC pipe consisting of 3,960 feet of 8 inch pipe, 5,520 feet of 6 inch pipe, 6,120 feet of 4 inch pipe, 7,050 feet of 2 inch pipe, 4 eight inch gate valves, 20 four inch gate valves, 11 fire hydrants and various fitting of mixed sizes. The existing distribution system appears adequately designed and constructed to serve the customers of Orchid Springs Development Corp. Water and Sewer Company.

Wastewater Treatment Plant

The wastewater plant is an extended aeration treatment type consisting of one 60,000 GPD capacity Marlof concrete plant, installed in 1972, and four 60,000 GPD capacity steel tanks, installed in 1978. It is permitted by DEP at 95,000 GPD maximum month average daily flow with average annual daily flows in the 60,000 to 70,000 GPD range. As discussed in Issue 2, this system, as configured at 300,000 GPD capacity, is greatly oversized for the needs of the customer base. However, since it is fully depreciated and has zero dollar effect on ratebase, Staff is recommending no changes in configuration. Effluent is treated by a Wallace and Tiernan V100 chlorinator unit set at 25 pounds per day before being sent to the two evaporation/ percolation ponds, totaling approximately 3.25 acres and a spray irrigation field adjacent to the ponds. Attachment B shows the used and useful calculations for the wastewater treatment plant. Staff is recommending 100% used and useful since the plant is totally depreciated and perk ponds are at capacity.

Wastewater Collection System

According to the records reviewed, the collection system is a network of approximately 18,020 linear feet of PVC pipe, 32 manholes and 4 lift stations.

The gravity portion of the system is PVC pipe consisting of 140 feet of 10 inch, 7,220 feet of 8 inch, 6,020 feet of 6 inch and 4,640 feet of 4 inch pipe. Also included in the collection system are force mains consisting of 3,400 linear feet of 4" PVC pipe.

The wastewater collection system was constructed with appropriately-sized gravity lines and prudent placement of lift stations. As with the water system described above, the Utility could not provide adequate and sufficient service with any less of a collection system. The existing collection system appears to adequately designed and constructed to serve the current customer base.

This system is totally built out having experienced zero growth for several years. No future growth is planned or expected, therefore, staff recommends the Commission find the water and wastewater systems 100% used and useful in this proceeding.

ISSUE 4: Does the Utility have excessive unaccounted for water?

RECOMMENDATION: No. At this time there is no evidence of excessive unaccounted for water. (FUCHS)

STAFF ANALYSIS: According to flow figures submitted by Orchid Springs with its application, total gallons of water pumped in the most recent 12 month period was 34.7 million gallons and total unaccounted for water was 12,000 gallons. Commission practice has been to permit approximately 10% unaccounted for water as acceptable.

ISSUE 5: Does the Utility have excessive infiltration/inflow (I&I) in the wastewater collection system?

RECOMMENDATION: No. There is no evidence of an inflow or infiltration problem in the collection system. (FUCHS)

STAFF ANALYSIS: Infiltration and inflow is caused by groundwater seeping into collection lines and rainwater flowing into lift stations. The problem can be exacerbated by leaking seals and broken lines. Industry standards calculate 80% of water sold will be returned to wastewater treatment plants. Utility flow records indicate that flows are well within those parameters.

Staff recommends no penalty be assessed due to excessive inflow and infiltration.

ISSUE 6: Should a margin reserve be granted?

RECOMMENDATION: No, a margin reserve was not requested. (FUCHS)

STAFF ANALYSIS: The Utility did not request a margin reserve. Since the plant is built out, and staff has recommended it be 100% used and useful, no margin reserve is necessary.

ISSUE 7: Does the utility own the land on which its water and wastewater systems are located and, if so, what is the appropriate value for each system?

RECOMMENDATION: Yes, the utility, through its parent company, owns the land on which its water and wastewater systems are located. The estimated land value is $480 for water and $58,860 for wastewater. If the utility can provide proof that staff's estimated land value is less than the original cost of land when first dedicated to utility service, it should be allowed to adjust land value in a future rate case. (DEWBERRY, FERGUSON)

STAFF ANALYSIS: The utility is a wholly owned subsidiary of its parent company, Orchid Springs Development Corporation. During this rate case proceeding, the utility provided copies of warranty deeds showing that Orchid Springs Development Corporation owns the land on which the utility's systems are located. Therefore, through its parent, the utility owns the land on which its water and wastewater systems are located.

In addition to copies of warranty deeds, the utility provided copies of mortgages and canceled checks for mortgage payments to assist in determining land value. However, these documents did not provide enough information to determine land value. These documents included all land owned by the development company, including non-utility land.

The utility informed staff that the water plant is located on .08 acre of land. The wastewater system is located on 9.81 acres of land. The land for water was dedicated to utility service around 1969. The land for wastewater was dedicated around 1973 and 1978. Staff suggested that the utility contact the Polk County Property Appraiser's office to find out if the appraiser's office could provide assessed values for land per acre in and around the utility's plant site for the period 1969-1978. Staff also suggested that if the utility provided the tax identification number to the Commission, then staff would contact the Polk County Property Appraiser's office to determine the appraised value of the land. The utility president, Mr. Al Cassidy, stated that he would contact the Property Appraiser's office in lieu of staff's suggestion. The utility stated that the appraiser's office could not provide this information prior to 1980.

It is the applicant's burden to prove the original cost of the appropriate value of assets included in the applicants's rate base by substantial and competent evidence and that such costs are

reasonable. Royal Palm Beach Utilities, Co., Order No. 7020, issued November 1975, in Docket No. 750128-WS; Florida Power Corporation v. Cresse, 413 So. 2d 1187, 1191 (1982). However, staff believes a land value should be allowed in this rate case and has estimated a cost of $6,000 per acre. Staff recommends an estimated land value of $480 for water and $58,860 for wastewater. If the utility can provide proof that staff's estimated land value is less than the original cost of land when first dedicated to utility service, it should be allowed to adjust land value in a future rate case.

ISSUE 8: What is the average test year rate base for this utility?

RECOMMENDATION: The average test year rate base is $44,711 for water and $163,565 for wastewater. (DEWBERRY, FUCHS)

STAFF ANALYSIS: Rate base has never been established for this utility by the Florida Public Service Commission (PSC). During the staff audit, it was discovered that the utility did not have original cost documentation for plant. Therefore, an original cost study was completed by the staff engineer to determine the appropriate plant value.

Staff has selected a historical test year ended March 31, 1998 for this rate case. Rate base components have been calculated using the original cost study for plant balance through March 31, 1998. In addition, pro forma plant has also been added. A discussion of each component of rate base follows:

Utility Plant in Service - The utility recorded utility plant in service (UPIS) of $140,878 for water and $215,388 for wastewater. UPIS has been increased by $76,101 for water and by $375,773 for wastewater to reflect plant balances of $216,979 for water and $591,161 for wastewater based on the original cost study ending March 31, 1998.

The Department of Environmental Protection (DEP) required the utility to make some plant improvements to its water and wastewater system totaling $27,181 for water and $76,228 for wastewater. The utility provided estimated costs for these improvements. The staff engineer reviewed these costs and determined them reasonable. UPIS has been increased by $27,181 for water and by $76,228 for wastewater.

Total adjustments for UPIS is $103,282 for water and $452,001 for wastewater. The recommended balance for UPIS is $244,160 for water and $667,389 for wastewater.

Contribution in Aid of Construction (CIAC): The utility has not recorded an amount of CIAC on its books. Rule 25-30.570, Florida Administrative Code states:

> "If the amount of CIAC has not been recorded on the utility's books and the utility does not submit competent substantial evidence as to the amount of CIAC, the amount of CIAC shall be imputed to be the amount of plant costs charged to the cost of land sales for tax purposes if

> available, or the proportion of the cost of the facilities and plant attributable to the water transmission and distribution system and the sewage collection system." (emphasis added)

Staff has determined that the utility's parent company, Orchid Springs Development Corporation, files a consolidated tax return. These returns include the utility operation. Staff has reviewed the tax returns for the years 1995 and 1996. These returns indicated a lump sum amount for inventory. Staff requested, and received, a breakdown of the inventory listed on these returns. The breakdown of inventory did not include any amounts for distribution or collection lines. Therefore, staff has determined that the cost of the lines were not capitalized by the utility's parent company. This indicates that the developer applied the cost of the transmission and collection lines to Cost of Goods Sold, and has recovered these costs through real estate transactions.

As stated earlier, staff performed an original cost study in this case. Therefore, staff has made an adjustment to impute CIAC to include the value of the utility's water transmission and distribution and wastewater collection system. Staff recommends CIAC of $171,516 for water and $302,109 for wastewater. CIAC balances at the beginning and end of the test year remained constant; therefore there is no averaging adjustment.

Accumulated Depreciation: The utility did not record any accumulated depreciation on its books during the test year. Consistent with Commission practice, staff has calculated accumulated depreciation using the prescribed rates in Rule 25-30.140, Florida Administrative Code. Staff's calculated accumulated depreciation at March 31, 1998 is $147,693 for water and $472,359 for wastewater. Staff's calculated accumulated depreciation on pro forma plant required by DEP is $1,382 for water and $3,536 for wastewater. The averaging adjustment is $2,837 for water and $6,005 for wastewater. Staff's recommended average accumulated depreciation is $146,238 for water and $469,890 for wastewater.

Amortization of CIAC: Amortization of CIAC has been calculated using the same prescribed rates used for depreciation for the utility's water transmission and distribution systems and the wastewater collection system. Staff's calculated amortization of CIAC at March 31, 1998 is $111,931 for water and $202,797 for wastewater. The averaging adjustment is $2,427 for water and

$4,009 for wastewater. Staff's recommended average amortization of CIAC is $109,504 for water and $198,788 for wastewater.

Working Capital Allowance: Consistent with Rule 25-30.443, Florida Administrative Code, staff recommends that the one-eighth of operation and maintenance expense formula approach be used for calculating working capital allowance. Applying that formula, staff recommends a working capital allowance of $8,321 for water and $10,527 for wastewater (based on O&M of $66,565 for water and $84,214 for wastewater). The utility recorded working capital of $9,175 for water and $12,838 for wastewater. Working capital has been decreased by $854 for water and $2,311 for wastewater to reflect one-eighth of staff's recommended O&M expenses.

Rate Base Summary: Based on the foregoing, staff recommends that the appropriate balances for test year rate base are $44,711 for water and $163,565 for wastewater.

Rate base is shown on Schedule Nos. 1 and 1A. Related adjustments are shown on Schedule No. 1B.

Cost of Capital

ISSUE 9: What is the appropriate rate of return on equity and the appropriate overall rate of return for the utility?

RECOMMENDATION: The appropriate return on equity is 8.74% with a range of 7.74% - 9.74%, and the appropriate overall rate of return is 8.84% with a range of 8.01% to 9.68%. (DEWBERRY)

STAFF ANALYSIS: The utility's capital components are included in its parent company's capital structure. Therefore, the utility's parent company's capital structure has been used to determine the utility's return on equity and its overall rate of return.

The utility's parent company's capital structure includes common equity of $242,520, which represents 83.33% of total capital. The cost of common equity has been established using the leverage formula that will be in effect at the time of the Commission's decision. Using the current leverage formula approved in Docket No. 980006-WS by Order No. PSC-98-0903-FOF-WS, the rate of return on common equity should be 8.74% with a range of 7.74% - 9.74%.

The utility's capital structure also includes long term debt totaling $41,068 at a cost of 9.50%, and $4,935 at a cost of 10.00%. The total percentage of long term debt is 15.81%. The capital structure also includes customer deposits of $2,527 at a cost of 6.00%.

The utility's capital structure has been reconciled with the recommended rate base for water and wastewater. Applying the cost of each capital component times the pro rata share of each component results in an overall rate of return of 8.84% with a range of 8.01% - 9.68%. Staff recommends an overall rate of return of 8.84%.

The return on equity and overall rate of return are shown on Schedule No. 2.

Net Operating Income

ISSUE 10: What is the appropriate test year revenue for each system?

RECOMMENDATION: The appropriate test year revenue should be $48,519 for water and $95,852 for wastewater. (DEWBERRY)

STAFF ANALYSIS: The utility recorded test year revenue of $45,257 for water and $92,849 for wastewater. The utility's customer base includes single family homes, duplexes, apartments, condominiums, irrigation metering, and general service customers. A billing analysis was submitted by the utility to provide the number of bills and consumption for the test year. A review of the billing analysis appeared erroneous and staff requested additional billing information. The most recent billing information received included two irrigation meters that were not billed during the test year because the meters were not functioning. The utility informed staff that the meters are now functioning. Staff annualized revenues for water using the number of bills determined from the most recent information. Some consumption was estimated based on the average usage of like meter sizes.

In addition, the utility was advised by staff to install a 5/8" x 3/4" meter at its swimming pool and club house. These customers were not billed during the test year. However, these two customers and estimated consumption has been included in the annualized revenue. Staff's calculated annualized revenue is $48,519 for water. Water revenue has been increased by $3,262 for water to reflect staff's calculated annualized revenue.

The utility charged its wastewater customers a flat rate of $15.88 per unit for wastewater. Based on staff's audit, the number of units that the utility billed for wastewater during the test year was 503. The utility recorded wastewater revenue of $92,849. Staff's calculated annualized revenue is $95,852 for wastewater. based on the number of units billed times the existing flat rate. Wastewater revenue has been increased by $3,003 to reflect annualized revenue for wastewater.

Test year revenue should be $48,519 for water and $95,852 for wastewater.

Test year revenue is shown on Schedule Nos. 3 and 3A. The adjustments are shown on Schedule No. 3B.

ISSUE 11: What is the appropriate amounts for operating expense for each system?

RECOMMENDATION: The appropriate amounts for operating expense should be $72,203 for water and $97,518 for wastewater. (DEWBERRY, FUCHS)

STAFF ANALYSIS: The components of the utility's operating expenses include operation and maintenance expenses, depreciation expense (net of related amortization of CIAC), and taxes other than income taxes. The utility's test year operating expenses have been traced to invoices. Adjustments have been made to reflect unrecorded test year expenses and to adjust annual operating cost on a going forward basis.

In Issue 15, staff is recommending a 7% repression adjustment to gallonage consumption for rate setting purposes. Since this adjustment reduces the number of gallons of water consumption and wastewater treated, purchased power and chemical expenses have been reduced accordingly.

Operation and Maintenance Expenses (O&M): The utility charged $73,404 to water O&M and $102,705 to wastewater O&M during the test year. A summary of adjustments that were made to the utility's recorded expenses follows:

Purchased Power (615/715) - The utility recorded a purchased power expense of $1,605 for water and $13,827 for wastewater during the test year. This expense has been increased by $1,539 for water and decreased by $1,120 for wastewater to reflect the annual amount for each system per audit. It has also been decreased by $220 for water and by $889 for wastewater to reflect the repression adjustments. The recommended purchased power allowance is $2,924 for water and $11,818 for wastewater.

Chemicals (618/718) - The utility recorded $551 for water and wastewater each in this expense. These balances have been increased by $1,673 and $2,685, for water and wastewater, respectively to reflect a reclassification from account nos. 636 and 736. It has been decreased by $255 for water and by $909 for wastewater to reflect the appropriate annual amount. It has also been decreased by $138 for water and by $163 for wastewater to reflect the repression adjustment. The total adjustment for this expense is an increase of $1,280 for water and $1,613 for wastewater. Total recommended chemical expense is $1,831 for water and $2,164 for wastewater.

Contractual Services - Professional (630/730) - During the test year the utility incurred some legal and survey costs associated with a dispute with an adjoining golf course about water flooding problems and the resolution of a territory boundary with another PSC jurisdictional utility. The utility recorded $7,185 for water and $8,297 for wastewater in this expense. These totals include legal and surveying costs of $6,782 for water and $7,894 for wastewater. This expense has been increased by $996 for water and wastewater each to reflect a reclassification of surveying and engineering costs from account nos. 665 and 765. The total legal, surveying and engineering cost included in this expense is $7,778 for water and $8,890 for wastewater. Staff believes these expenses are non-recurring in nature and has amortized them over 5 years. This expense has been decreased by $6,223 for water and by $7,112 for wastewater to reflect non-recurring expenses amortized over 5 years.

As addressed in Issue 20, staff is recommending that the utility be required to maintain its books and records in conformity with the National Association of Regulatory Commission's (NARUC) Uniform System of Accounts (USOA) and reconcile its books with the Commission's order. Staff recommends an accounting allowance of $3,500 amortized over 5 years and allocated 50% for water and wastewater each for setting up the utility's books and reconciling the utility's books with the Commission's order. This expense has been increased by $350 for water and wastewater each.

The utility provided staff with an invoice dated April 23, 1998 listing surveying costs totaling $4,228 for wastewater. The utility requested that this cost be included in this rate case. The expense appears to be prudent and reasonable. Staff has amortized this expense over 5 years and has increased this expense by $846 for wastewater. The total adjustment for contractual professional expense is a decrease of $4,877 for water and a decrease of $4,920 for wastewater.

Contractual Services - Management (631/731) - The utility recorded $27,118 in this expense for water and wastewater each. Cassidy Organization, Inc., a related company, provides management services for the utility. The management service includes an allowance for a full time secretary, an officer's service, an office manager's services, and a part-time accountant. The staff audit provided duties performed for each service.

A review of the secretary's duties per audit justifies a full-time position. The secretary earns $26,000 annually. The utility recorded $12,922 in this expense for water and wastewater each.

This expense has been increased by $78 for water and wastewater each to reflect an annual allowance of $26,000, $13,000 for water and wastewater each.

During the test year, the utility recorded an annual officer's allowance for Mr. Al Cassidy of $9,360 for water and wastewater each. In this application, the utility is requesting an annual allowance of $22,100 for water and wastewater each, or $44,200 total allowance for the president. This equates to $85 an hour for 10 hours a week. Based on the amount of time devoted to utility business and the duties performed and the services provided by other individuals, staff believes that the requested annual allowance for the president is excessive. A search of the Florida Division of Corporations database reveals that Mr. Cassidy is also active in 9 other Florida corporations including: Orchid Springs Development Corporation; The Cassidy Organization, Inc.; Cassidy & Associates, Inc.; and Cassidy Realty, Inc. Mr. Cassidy's other businesses also require his devotion. The courts have enunciated a minimum threshold standard that the Commission must consider when determining whether an officer's salary is excessive or unreasonable. Pursuant to Sunshine Utilities of Central Florida, Inc., v. Florida Public Service Commission, 624 So. 2d 306, 311 (Fla. 1st DCA 1993), "[i]n determining whether an executive's salary is reasonable compared to salaries paid to other company executives, the comparison must, at the minimum, be based on a showing of similar duties, activities, and responsibilities in the person receiving the salary." *citing* Metropolitan Dade County Water & Sewer Bd. v. Community Utils. Corp, 200 So. 2d 831, 833 (Fla. 3d DCA 1967).

Staff originally reviewed the requested salaries to determine the reasonableness of the hourly rates. The hourly rates were also compared to hourly utility salaries included in a 1981 survey indexed forward to 1998 dollars. This strict comparison indicated that the hourly rate requested for the president appeared excessive. As mentioned earlier, a meeting was held with the attorney for the utility, with Mr. Cassidy participating by telephone. The utility requested that staff consider the duties of the officer, the efficiency with which the utility is being run by Mr. Al Cassidy, as well as the low rates of the utility. The utility believes that due to the fact that Mr. Cassidy has run the utility in an efficient and prudent manner, that he should be compensated for this. During the meeting, the utility's attorney stated that the utility may be willing to accept an annual allowance in the amount of $28,000. This is considerably lower than the original amount requested.

Staff further reviewed the duties and responsibilities of Mr. Cassidy and the efficiency of the utility. Staff believes that a strict comparison of hourly rates should not be used for Orchid Springs. Mr. Al Cassidy's responsibilities include: day-to-day activities; on site review of the systems to maintain efficient level of services; make decisions on operating and capital expenditures; approve all payables; review finances; and handle all regulatory matters. This includes maintaining liaisons with the Department of Environmental Protection, Southwest Florida Water Management District, and the Public Service Commission. Based upon duties performed and the efficiency of management provided, staff recommends an annual allowance of $25,000 for the president's service with a 50% allowance to water and wastewater each. Therefore, this expense has been increased by $3,140 for water and wastewater each to reflect this recommended annual allowance. It should be noted that this allowance will be reviewed in future rate case filings by the utility to determine if any circumstances have changed.

Also during the test year, the utility recorded an annual manager's allowance for Mr. Peter Cassidy of $3,900 in this expense for water and wastewater each. Staff also reviewed the manager's responsibilities and duties to determine a reasonable amount for an annual allowance. The utility's manager is responsible for coordinating, planning, and conducting weekly mowing of all areas where needed, spraying chemicals, coordinating labor for various duties such as repairs, maintaining the spray irrigation systems, and coordinating monthly readings of all water meters. This includes supervision of six employees of Cassidy Organization, Inc. Based on the responsibilities and duties performed staff recommends a managers allowance of $15,000 annually with 50% allocation to water and wastewater each. Therefore this expense has been increased by $3,600 for water and wastewater each to reflect an annual allowance for the managers services.

The utility recorded a part-time annual accountants allowance of $936 for water and wastewater each. Based on the duties performed by the accountant no adjustments have been made. The total adjustment for contractual management services is an increase of $8,318 for water and wastewater each.

Contractual Services Testing (635/735) - The utility did not record any testing expenses. After the staff audit was completed the utility provided staff with the required annual DEP testing expenses for water and wastewater. The staff engineer determined that the cost are appropriate. This expense has been increased by

$653 for water and by $1,550 for wastewater to reflect annual DEP required testing expense. A schedule of testing expenses follows:

Description	Water Frequency	Annual Cost
Primary Inorganics	$ 175 every 3 yrs	$ 58
Radiologicals	35 every 3 yrs	12
Volatile Organics	75 every 3 yrs	25
Unregulated Contaminants		
group 1	790 every 3 yrs	263
group 2	195 every 3 yrs	65
Pesticides & PCBs	488 every 3 yrs	163
Lead & Copper	200 every 3 yrs	67
TOTAL	$1,958	$ 653

Description	Wastewater Frequency	Annual Cost
Sludge Analysis	Annually	$ 350
TSS,CBOD,Fecal&Nitrate	Annually	1,200
TOTAL		$1,550

Contractual Services - Other (636/736) - The utility recorded $18,656 in this expense for water and $34,733 for wastewater. These expenses include an allowance for an operator of $7,476 for water and $23,403 for wastewater. These amounts include the hours spent conducting operator services and the cost of chemicals, chlorine and testing. The utility requested an hourly allowance of $15 for the operator. Staff believes this hourly rate is reasonable and recommends an annual allowance of $17,820, $5,400 for water and $12,420 for wastewater. The recommended allowance includes only the hours spent conducting operator services. It does not include the cost of chemicals chlorine and testing, which is included in other line items. This expense has been decreased by $2,076 for water and by $10,983 for wastewater to reflect staff's recommended allowance.

This expense has also been decreased by $1,673 for water and by $2,685 for wastewater to reflect a reclassification to account nos. 618 and 718 respectively.

Cassidy Organization, Inc., a related party, provides contractual maintenance and repair service and meter reading for the utility. The annual contractual amount is $16,224 annually. This includes the services of six employees. During the test period, the utility recorded a $9,507 for water and $8,645 for wastewater for this service totaling $18,152. Therefore, this expense has been decreased by $1,395 for water and by $533 for wastewater to reflect the contractual amount of $16,224 with an allocation of $8,112 for water and wastewater each. The total

adjustment for contractual other is a decrease of $5,144 for water and $14,201 for wastewater.

Transportation Expense (650/750) - The utility recorded $4,607 for water and $498 for wastewater for this expense. Staff has decreased this amount by $2,085 for water to remove a non-utility expense per audit.

Regulatory Commission Expense (655/755) - The utility recorded $4,295 for water and $6,400 for wastewater in this expense. This expense has been decreased by $996 for water and wastewater to reflect a reclassification to account nos. 631 and 731. It has also been decreased by $2,113 for water and wastewater to remove a prior period expense per the audit.

This expense has been increased by $1,298 for water and wastewater to correct a journal entry made by the utility. This adjustment corrects the amount of Regulatory Assessment Fees paid to the PSC. It has been decreased by $2,082 for water and by $4,187 for wastewater to reflect a reclassification of regulatory assessment fees to taxes other than income.

The utility paid a $1,000 filing fee for water and wastewater. The utility's recorded expense include a consultant fee for this rate case of $402 for water and wastewater each. In addition invoices for legal services have been submitted totaling $3,396, $1,698 for water and wastewater each. The legal cost are reasonable for services provided and should be included in the utility's rate case expense. The total rate case expense is $3,100 for water and wastewater each. This expense has been amortized over four years allowing $775 annually for water and wastewater each. This expense has been increased by $373 for water and wastewater each. The total adjustment for this expense is a decrease of $3,520 for water and $5,625 for wastewater.

Miscellaneous Expense (675/775) - The utility recorded $4,155 for water and $6,206 for wastewater in this expense. This expense has been decreased by $275 for water and by $111 for wastewater to reflect DEP permit costs amortized over 5 years. It has also been decreased by $2,395 for wastewater to remove a non-utility expense per the audit.

In addition this expense has been decreased by $928 for water and wastewater each to reflect billing software cost amortized over 5 years, increased by $352 for water and by $803 for wastewater to reflect annual billing costs. Annual electricity expense for the office has been decreased by $272 for water and by $245 for

wastewater to reflect the appropriate annual amount. Telephone expense has also been decreased by $548 for water and wastewater to reflect the appropriate amount.

The utility requested that the cost for painting fire hydrants, the top of a clarifier, one tank, and miscellaneous repairs be included in this rate case. The total cost for these improvements is $1,940 for water and $8,536 for wastewater. The expenses have been amortized over 5 years allowing $388 for water and $1,707 for wastewater. This expense has been increased by $388 for water and by $1,707 for wastewater. The total adjustment for miscellaneous expense is a decrease of $1,283 for water and by $1,717 for wastewater.

Operation and Maintenance Expenses (O & M) Summary: Total operation and maintenance adjustments are a decrease of $6,839 for water and a decrease of $18,491 for wastewater. Staff recommends operation and maintenance expenses of $66,565 for water and $84,214 for wastewater. Operation and maintenance expenses are shown on Schedule Nos. 3C and 3D.

Depreciation Expense (net of related amortization of CIAC): The utility did not record any water or wastewater depreciation expense for the test year. Applying the prescribed depreciation rates to the appropriate used and useful plant in service account balances results in depreciation expense of $7,056 for water and $15,413 for wastewater. These totals include depreciation on pro forma plant. Amortization of CIAC is $4,854 for water and $8,016 for wastewater. Therefore, the net depreciation expense is $2,202 for water, and $7,397 for wastewater.

Taxes Other Than Income: This expense has been increased by $2,082 for water and $4,187 for wastewater to reflect reclassifications of regulatory assessment fees from regulatory commission expense. This expense has been increased by $101 for water and $126 for wastewater to reflect the appropriate regulatory assessment fees on test year revenue. Staff has adjusted this account by $9 for water and by $868 for wastewater to reflect staff's calculated property taxes based on recommended land value. The total adjustment is an increase of $2,192 for water and an increase of $5,181 for wastewater.

Income Tax Expense: The utility, under the ownership of the parent company, is an 1120 corporation. A review of the parent company's 1996 tax return shows previous years' tax carry forward loss of $54,243. Based on this carry forward loss position, the utility

will not incur any income tax expense. Therefore, staff recommends no income tax expense for the utility.

Operating Revenues: Revenues have been increased by $27,638 for water and $16,133 for wastewater to reflect the increase in revenue required to cover expenses and allow the recommended rate of return on investment for water and wastewater.

Taxes Other Than Income Taxes: This expense has been increased by $1,244 for water and $726 for wastewater to reflect the regulatory assessment fee of 4.5% on the increase in revenue.

Operating Expenses Summary: The application of staff's recommended adjustments to the utility's test year operating expenses results in staff's recommended operating expenses of $72,203 for water and $97,518 for wastewater.

Operating expenses are shown on Schedules Nos. 3 and 3A. Adjustments are shown on Schedule No. 3B.

ISSUE 12: What is the appropriate revenue requirement?

RECOMMENDATION: The appropriate revenue requirement is $76,157 for water and $111,985 for wastewater. (DEWBERRY)

STAFF ANALYSIS: The utility should be allowed an annual increase in revenue of $27,638 (56.96%) for water and $16,133 (16.83%) for wastewater. This will allow the utility the opportunity to recover its operating expenses and earn a 8.84% return on its investment. The calculations are as follows:

	Water	Wastewater
Adjusted Rate Base	$ 44,711	$ 163,565
Rate of Return	x .0884	x .0884
Return on Investment	$ 3,955	$ 14,467
Adjusted Operation Expenses	66,565	84,214
Net Depreciation Expense	2,202	7,397
Taxes Other Than Income Taxes	3,436	5,907
Revenue Requirement	$ 76,157	$ 111,985
Annual Revenue Increase	$ 27,638	$ 16,133
Percentage Increase	56.96%	16.83%

The revenue requirements and resulting annual increases are shown on Schedules Nos. 3 and 3A.

Rates and Charges

ISSUE 13: What is the appropriate conservation rate structure for this utility?

RECOMMENDATION: The appropriate conservation rate structure for the water customers is a continuation of the current base facility and gallonage charge rate structure. Currently, the wastewater customers are being charged a flat rate. Therefore, it is recommended that the base facility and gallonage charge be implemented for the wastewater customers, as well. (GILCHRIST, RIEGER)

STAFF ANALYSIS: As stated in the case background, this utility is located in a water use caution area (WUCA). The Southwest Florida Water Management District (SWFWMD) declared portions of Polk and Highlands Counties a WUCA in 1989 and SWFWMD has declared the Highlands Ridge WUCA a Critical Water Supply Problem Area. Staff contacted the SWFWMD and was informed that utilities that are granted permits for an annual average quantity of 100,000 gallons per day or greater and that are in the WUCA are required to implement the following conservation measures including:

(1) Calculate and report the gross per-capita water usage.

(2) Adopt a water conservation oriented rate structure.

(3) Implement water audit programs to identify what is causing unaccounted water and alert the utility to possibility of significant losses in the distribution system.

(4) Submit annual Residential Water Use Reports which identify residential water use by type of dwelling unit.

The SWFWMD advised staff that the utility is current on submitting its reports and are in compliance with the conservation measures referenced above.

The utility's current rate structure for its water customers consists of a base facility and gallonage charge rate structure which applies to both the residential and general service customers and the wastewater customers are being charged a flat rate. Therefore, staff is recommending that the current base facility and gallonage charge rate structure be implemented for the wastewater customers, as well. Since meters have already been installed, the

conversion of the wastewater customers from flat rate to a base facility and gallonage charge should be relatively easy. The rate structure should apply to both the residential and general service customers.

Under the current rate structure, the total average consumption per bill is 7,484 gallons which is below the 10,000 gallon threshold that determines whether a more aggressive conservation-oriented rate structure is appropriate. Further, the residential customers with a 5/8" x 3/4" inch meter use an average of 4,878 gallons, which is 92% of all the consumption used by the residential customers. SWFWMD allows a per capita rate of 140 gallons for this utility. The utility's current gallons per capita (gpdc) is 135 gallons, which is below the target designated by the SWFWMD, further supporting that a more aggressive conservation-oriented rate structure is not necessary.

Based on the reasons above, staff is recommending that the base facility gallonage charge rate structure be continued for the utility's water customers and the base facility and gallonage charge rate structure be implemented for the wastewater customers, as well. The conservation measures taken by the utility appear to be working because water usage for the utility is low and could possibly be lower once the base facility gallonage rate structure is implemented for the wastewater customers.

ISSUE 14: What is the appropriate residential gallonage cap for wastewater service?

RECOMMENDATION: The appropriate residential gallonage cap for wastewater service should be 10,000 gallons for residential customers only using the base facility charge rate structure at this time. If usage change, this gallonage cap will be re-examined in the next rate case. (DEWBERRY)

STAFF ANALYSIS: The recommended rates for wastewater service should include a base charge for all residential customers regardless of meter size with a cap of 10,000 gallons of usage per month on which the gallonage charge may be billed. There is no cap on usage for general service wastewater bills. The differential in the gallonage charge for residential and general service wastewater customers is designed to recognize that a portion of a residential customer's water usage will not be returned to the wastewater system.

The current Commission standard in setting residential wastewater rates is that only 80% of residential water usage is returned to the system as wastewater. The remaining 20% is attributed to outside uses such as lawn irrigation.

Generally, the Commission sets monthly caps of 6,000 gallons, 8,000 gallons, or 10,000 gallons per month. When determining the appropriate cap, a comparison of the consolidated factors at the various levels is performed. Because 10,000 gallons is the highest cap staff would consider setting in this case, the consolidated factor gallons at that level become the 100% marker. The utility's billing analysis shows that 77.40% of the utility's customers require treatment at the 10,000 gallons level, 71.65% of its customers require treatment at the 8,000 gallons level and 56.70% of customers require treatment at the 6,000 gallons level. Decreasing the gallonage cap has the effect of lowering the maximum bill and increasing the cost per 1,000 gallons. The utility currently charges its customers a flat rate for wastewater. Therefore high users have not been paying their fair share for wastewater treatment. In this case, residential customers with 1" meters use approximately 18,750 gallons of water per month with approximately 15,000 gallons of water returned to the wastewater treatment. Residential customers with 5/8" x 3/4" meters average use is 4,878 per month with approximately 3,902 gallons per month returning to the system as wastewater. Approving a cap of less than 10,000 gallons per month would lower the maximum bill but

increase the gallonage charge. This would cause the low end user to subsidize high end users. Therefore, staff recommends a gallonage cap of 10,000 gallons per month for wastewater residential customers at this time. If usage patterns change, this gallonage cap will be re-examined in the next rate case.

ISSUE 15: Is repression of consumption likely to occur in this instance, and, if so, what are the appropriate consumption adjustments?

RECOMMENDATION: Yes, repression of consumption is likely to occur in this instance. The appropriate consumption adjustments are reductions of 1,935,220 gallons for the water system and 1,810,340 gallons for the wastewater system. (LINGO)

STAFF ANALYSIS: This case represents only the third instance in which Staff has contemplated making a repression adjustment to billed consumption. Therefore, in order to present a thorough analysis, a discussion of the merits of repression adjustments in general is warranted, as well as a discussion of Staff's recommended adjustment.

General Discussion Regarding Repression and Price Elasticity

The term "price elasticity" refers to the relationship between water use and water price. Price elasticity measures the percentage change in the quantity demanded resulting from a one percent change in price, all other factors held constant. For example, if a water price increase of one percent leads to a 0.2 percent reduction in water use, price elasticity would be -0.2. (In other words, there is an inverse relationship between price and the quantity demanded -- this is the first law of demand). The term "repression" refers to the expected reduction in quantity demanded resulting from an increase in price.

Consider the following example:

Assume: A 10% increase in price
Price elasticity = -0.3
Then: Resulting price = 110%
Reduction in demand = 3% (10% x -0.3)
Resulting demand = 97%
Resulting revenue increase = 6.7%
(110% price x 97% demand)

The above example illustrates that ignoring price elasticity in rate design analysis creates the potential for both revenue instability and revenue shortfalls. Furthermore, if rate structure is substantially modified or if a large rate increase is implemented, revenue shortfalls can be especially problematic.

The approximate preliminary increases in average customer bills in this case, before any adjustments for repression, were a 56% increase in water rates and a 49% increase in wastewater rates. Furthermore, as discussed in Issue 13, Staff recommends changing the utility's wastewater rate structure from a flat rate structure to the Commission-preferred BFC/gallonage charge rate structure. The magnitude of the water and wastewater system rate increases, coupled with the recommended change in the wastewater system rate structure, lead us to believe it is appropriate to consider making repression adjustments in this proceeding.

Staff's Recommended Repression Adjustment

In an attempt to quantify the relationship between revenue increases and consumption impacts, Staff has created a database of all water utilities that were granted rate increases or decreases (excluding indexes and pass-throughs) between January 1, 1990 and December 31, 1995 (including those that were granted concomitant wastewater rate increases). This database contains utility-specific information from the applicable orders, tariff pages, and the utilities' annual reports for the years 1989 - 1995. A summary of the contents of the database is listed below:

Data Obtained from:

Orders

1. The dollar amount of the revenue requirement increase for the water system (and for the wastewater system, if applicable).

2. The utility's rate structure(s) and rates before and after the rate proceeding.

Annual Reports

1. The number of water gallons sold for the years 1989 - 1995.

2. The number of year-end water system meter equivalents for the years 1989 - 1995.

Tariff Pages

1. The effective date of the revised rates.

Resulting Calculations:

1. The revenue requirement percentage increase (decrease) for the water system (and for the wastewater system, if applicable).

2. The annual dollar amount of the water system revenue requirement increase (decrease) per meter equivalent (and for the wastewater system, if applicable).

3. The average monthly water consumption per meter equivalent for the years 1989 - 1995.

4. The percentage change in the average monthly water consumption per meter equivalent from the prior year for the years 1990 - 1995.

5. The average monthly water bill for both the year prior to and the year subsequent to the rate change. The average monthly bills are based on the average monthly consumption per meter equivalent in the year prior to the rate change.

Several utilities were excluded from the analysis, typically due to the lack (or unreliability) of consumption data. Data from the remaining 67 utilities forms the basis for our analysis.

Staff's analysis in this case was performed using two different bases of comparison. The first basis of comparison used Orchid Springs' preliminary rate increase to the water system (before a repression adjustment) of 56%. This preliminary rate increase was compared to other utilities in the database which, as in Orchid Springs' case, underwent no change in the BFC/gallonage water system rate structure. Staff then isolated four utilities in the database which had experienced similar percentage increases in the average monthly bills. The change in average monthly consumption per meter equivalent (ME) for these four isolated utilities was (12%), (12%), (6%), and 1%. The utility with a 1% increase in average consumption appears to be anomalous, as the other utilities all exhibited fairly significant consumption reductions caused by the rate increases ranging from 6% to 12%. Next, Staff compared Orchid Springs' average consumption per ME to the remaining three utilities; the utility which most closely matched Orchid Springs' average consumption exhibited a 6% consumption reduction. Based on this analysis, a 6% consumption reduction (before consideration of the wastewater system rate structure change or rate increase) would appear to be a conservative prediction of Orchid Springs' anticipated consumption reduction.

The second basis of comparison used Orchid Springs' annual revenue requirement increase for the water system, which was $71/ME. The remaining steps using this basis of comparison follow

those described in the preceding paragraph. The $71/ME increase was then compared to similar increases in annual revenue requirement per ME of other utilities in the database which underwent no change in the BFC/gallonage water rate structure. Again, there were four utilities which experienced similar increases; the changes in average monthly consumption per ME for these four utilities were (10%), (5%), (1%), and 3%. Staff believes the utility with the 3% increase in average consumption is anomalous also, as the other three utilities all exhibited consumption reductions. Staff then compared Orchid Springs' average consumption per meter equivalent to the remaining three utilities; the utility which most closely matched Orchid Springs' average consumption exhibited a 5% consumption reduction. Using this basis of analysis, a 5% consumption reduction (before consideration of the wastewater system rate structure change or rate increase) would appear to be a conservative prediction of Orchid Springs' anticipated consumption reduction.

However, there are factors which leads staff to believe that it is reasonable to expect a consumption reduction of greater than 5%-6%. As alluded to previously, a substantial rate structure modification or a large rate increase tend to increase the reduction in consumption, thereby making revenue shortfalls especially problematic. In this instance, the wastewater system annual revenue requirement increase is $49/ME. However, the wastewater residential price increase based on 5,000 gallons of consumption is 51%, and the increase based on 10,000 gallons of consumption is 128%. These substantial price increases are a result of Staff's recommended change from the flat rate structure to the BFC/gallonage charge rate structure. Furthermore, neither of the two utilities which most closely matched Orchid Springs' water system increases and average consumption pattern underwent concomitant wastewater system rate increases. Although arguably subjective, staff therefore believes that, because of the circumstances stated, it is reasonable and appropriate to anticipate a consumption reduction of a somewhat greater magnitude than 5%-6%. Based on the foregoing, Staff recommends a slightly greater consumption reduction of 7%.

As discussed above, this case represents only the third instance in which Staff recommends that a repression adjustment be made, and, as such, staff has no established, previously-approved methodology to calculate an appropriate adjustment. Until staff has approved methodologies in place, staff believe it is appropriate to err on the side of caution when considering the magnitude of our recommended adjustments. Based on this analysis, staff believes a conservative prediction of Orchid Springs'

anticipated consumption reduction is 7% for the water system. This anticipated consumption reduction will also affect the billed gallons for the wastewater system. In this case, as the ratio of wastewater billed gallons to water billed gallons is 93.5%, it is reasonable to also adjust wastewater consumption to reflect 93.5% of the recommended 1,935,220 gallons reduction in water consumption. Therefore, Staff recommends repression adjustments of 1,935,220 gallons to water consumption and 1,810,340 gallons to wastewater consumption.

ISSUE 16: What are the recommended rates for this utility?

RECOMMENDATION: The recommended rates should be designed to produce revenue of $76,157 for water and $111,985 for wastewater using the base facility charge rate structure. The approved rates should be effective for service rendered on or after the stamped approval date on the tariff sheets pursuant to Rule 25-30.475(1), Florida Administrative Code, provided the customers have received notice. The rates may not be implemented until proper notice has been received by the customers. The utility should provide proof of the date notice was given within 10 days after the date of the notice. (DEWBERRY)

STAFF ANALYSIS: The utility's customer base includes single family residences, multi-family residences, general service customers and irrigation meters. It was discovered during the preliminary analysis for this case that the original billing analysis did not include all of the utility's customers. The utility has since provided a new billing analysis, which has been used, along with additional adjustments to include customers that were not billed during the test year. Estimated consumption for those customers that were not billed have also been included. The utility's existing rates were approved by Polk county. A schedule of the utility's existing rates and staff's recommended rates follows:

MONTHLY WATER RATES
Residential, Multi-Residential and General Service

Base Facility Charge Meter Sizes:	Existing Rates	Staff's Recommended Rates
5/8" x 3/4"	$ 6.01	$ 8.10
3/4"	9.02	12.16
1"	15.03	20.26
1 ½"	30.05	40.52
2"	48.08	64.84
3"	96.16	129.68
4"	150.25	202.62
6"	N/A	405.24
Gallonage Charge		
Per 1,000 Gallons	$.72	$ 1.47

MONTHLY WASTEWATER RATES
Residential

Base Facility Charge

Meter Sizes:	Existing Flat Rate	Staff's Recommended Rates
All meter sizes	$ 15.88 (per unit)	$ 11.79
Gallonage Charge: Per 1,000 Gallons (10,000 Gallons max)	N/A	$ 2.58

Multi-Residential And General Service

Meter Sizes:	Current Flat Rates	Staff's Recommended Rates
5/8" x 3/4"	$ 15.88 (per unit)	$ 11.79
3/4"	15.88 (per unit)	17.68
1"	15.88 (per unit)	29.47
1 ½"	15.88 (per unit)	58.94
2"	15.88 (per unit)	94.30
3"	15.88 (per unit)	188.60
4"	15.88 (per unit)	294.68
6"	15.88 (per unit)	589.36
Gallonage Charge per 1,000 gallons	N/A	$ 3.09

Based on the consumption used for setting rates for a customer with a 5/8" x 3/4" during the test year, the average number of gallons billed is 4,878 gallons per month.

A schedule of an average bill based on existing and recommended rates follows:

Water

Average bill using recommended rates	$15.27
Average bill using existing rates	(9.52)
Increase in bill	$ 5.75
Percentage increase in bill	60.40% ($5.75/$9.52)

	Wastewater
Average bill using recommended rates	$ 24.38
Average bill using existing rates	(15.88)
Increase in bill	$ 8.50
Percentage increase in bill	53.53%($8.50/$15.88)

The percentage increase in the wastewater bill is not in line with the percentage increase in the recommended revenue increase due to the change from a flat rate structure, which is constant, to a base facility charge rate structure.

The recommended rates are designed to produce revenue of $76,156 for water and $111,985 for wastewater using the base facility charge rate structure. The approved rates should be effective for service rendered on or after the stamped approval date on the tariff sheets pursuant to Rule 25-30.475(1), Florida Administrative Code. The rates may not be implemented until proper notice has been received by the customers. The utility should provide proof of the date notice was given within 10 days after the date of the notice.

ISSUE 17: What is the appropriate amount by which rates should be reduced four years after the established effective date to reflect the removal of the amortized rate case expense as required by Section 367.0816, Florida Statutes?

RECOMMENDATION: The water and wastewater rates should be reduced as shown on Schedules 4 and 4A, to remove rate case expense grossed-up for regulatory assessment fees and amortized over a four-year period. The decrease in rates should become effective immediately following the expiration of the four year rate case expense recovery period, pursuant to Section 367.0816, Florida Statutes. The utility should be required to file revised tariffs and a proposed customer notice setting forth the lower rates and the reason for the reduction no later than one month prior to the actual date of the required rate reduction. (DEWBERRY)

STAFF ANALYSIS: Section 367.0816, Florida Statutes requires that the rates be reduced immediately following the expiration of the four year period by the amount of the rate case expense previously included in the rates. The reduction will reflect the removal of revenues associated with the amortization of rate case expense and the gross-up for regulatory assessment fees which is $775 annually for water and $775 annually for wastewater. Using the utility's current revenues, expenses, capital structure and customer base the reduction in revenues will result in the rate decreases as shown on Schedules Nos. 4 and 4A.

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

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

ISSUE 18: What are the appropriate customer deposits for this utility?

RECOMMENDATION: The appropriate customer deposits should be the recommended charges as specified in the staff analysis. The utility should file revised tariff sheets, which are consistent with the Commission's vote. Staff should be given administrative authority to approve the revised tariff sheets upon staff's verification that the tariffs are consistent with the Commission's decision. If revised tariff sheets are filed and approved, the customer deposits should become effective for connections made on or after the stamped approval date of the revised tariff sheets, if no protest if filed. (DEWBERRY)

STAFF ANALYSIS: By Order No. PSC-98-0918-FOF-WS, issued July 7, 1998, in Docket No. 970158-WS, the Commission approved customer deposits for this utility. Rule 25-30.311, Florida Administrative Code, provides guidelines for collecting, administering and refunding customer deposits. It also authorizes customers deposits to be calculated using an average monthly bill for a 2-month period. Staff has calculated customer deposits based on recommended rates and an average monthly bill for a 2-month period. A schedule of the utility's existing and staff's recommended deposits follows:

Water
Residential, Multi-Residential and General Service

Meter Size	Existing	Staff's Recommended
5/8" x 3/4"	$35.00	$35.00
All over 5/8 x 3/4"	35.00	(2 x average bill)

Wastewater

Meter Size	Existing	Staff's Recommended
5/8" x 3/4"	$35.00	$50.00
All over 5/8" x 3/4"	35.00	(2 x average bill)

The utility should file revised tariff sheets, which are consistent with the Commission's vote. Staff should be given administrative authority to approve the revised tariff sheets upon staff's verification that the tariffs are consistent with the Commission's decision. If revised tariff sheets are filed and approved, the customer deposits should become effective for connections made on or after the stamped approval date of the revised tariff sheets, if no protest if filed.

ISSUE 19: Should the utility be authorized to collect miscellaneous charges, and if so, what are the appropriate charges?

RECOMMENDATION: Yes, the utility should be authorized to collect miscellaneous service charges and the appropriate charges should be the recommended charges specified in the staff analysis. The utility should file revised tariff sheets which are consistent with the Commission's vote. Staff should be given administrative authority to approve the revised tariff sheets upon staff's verification that the tariffs are consistent with the Commission's decision. If revised tariff sheets are filed and approved, the miscellaneous service charges should become effective for connections made on or after the stamped approval date of the revised tariff sheets, if no protest if filed. (DEWBERRY)

STAFF ANALYSIS: By Commission Order No. PSC-98-0918-FOF-WS, issued July 7, 1998, in Docket No. 970158-WS, the utility was authorized to collect miscellaneous service charges that were approved by Polk County. Staff recommends that the utility be authorized to collect charges consistent with Rule 25-30.460, Florida Administrative Code, and Commission practice. The recommended charges are designed to defray the costs associated with each service and place the responsibility of the cost on the person creating it rather than on the rate paying body as a whole. A schedule of the utility's existing charges and staff's recommended charges follows:

Existing Charges
Water and Wastewater

Initial Connection	$15.00
Normal Reconnection	$15.00
Violation Reconnection	$15.00
Premises Visit	$15.00

Staff's Recommended Charges

	Water	Wastewater
Initial Connection	$15.00	$15.00
Normal Reconnection	$15.00	$15.00
Violation Reconnection	$15.00	Actual Cost
Premises Visit (in lieu of disconnection)	$15.00	$15.00

When both water and wastewater services are provided, staff believes that only a single charge is appropriate unless circumstances beyond the control of the utility require multiple actions.

Definition of each charge is provided for clarification:

Initial Connection - this charge would be levied for service initiation at a location where service did not exist previously.

Normal Reconnection - this charge would be levied for transfer of service to a new customer account, a previously served location or reconnection of service subsequent to a customer requested disconnection.

Violation Reconnection - this charge would be levied prior to reconnection of an existing customer after disconnection of service for cause according to Rule 25-30.320(2), Florida Administrative Code, including a delinquency in bill payment.

Premises Visit Charge (in lieu of disconnection) - this charge would be levied when a service representative visits a premises for the purpose of discontinuing service for non-payment of a due and collectible bill and does not discontinue service, because the customer pays the service representative or otherwise makes satisfactory arrangements to pay the bill.

The utility should file revised tariff sheets which are consistent with the Commission's vote. Staff should be given administrative authority to approve the revised tariff sheets upon staff's verification that the tariffs are consistent with the Commission's decision. If revised tariff sheets are filed and approved, the miscellaneous service charges should become effective for connections made on or after the stamped approval date of the revised tariff sheets, if no protest if filed.

Other

ISSUE 20: Should the utility be ordered to show cause, in writing, within 21 days, why it should not be fined for violation of Rule 25-30.115, Florida Administrative Code?

RECOMMENDATION: No. A show cause proceeding should not be initiated. However, the utility should be required to maintain its books and records in conformity with NARUC USOA and should be required to submit a statement from its accountant by March 31, 1999, along with its 1998 annual report, stating that its books are in conformity with NARUC USOA and have been reconciled with the Commission's order. (FERGUSON, DEWBERRY)

STAFF ANALYSIS: Based on the audit, it appears that the utility's books are not maintained in conformity with NARUC System of Accounts. Rule 25-30.115(1), Florida Administrative Code, requires that:

> Water and wastewater utilities shall, effective January 1, 1986, maintain its accounts and records in conformity with the 1984 NARUC Uniform System of Accounts adopted by the National Association of Regulatory Utility Commissioners.

Section 367.161, Florida Statutes, authorizes the Commission to assess a penalty of not more than $5,000 per day for each offense, if a utility is found to have knowingly refused to comply with, or to have willfully violated any Commission rule, order, or provision of Chapter 367, Florida Statutes. Orchid Springs has apparently violated Rule 25-30.115, Florida Administrative Code. While we have no reason to believe that the utility intended to violate this rule, its act was "willful" in the sense intended by Section 367.161, Florida Statutes. See Order No. 24306, issued April 1, 1991, in Docket No. 890216-TL, wherein the Commission, having found that the company had not intended to violate the rule, nevertheless found it appropriate to order it to show cause why it should not be fined, stating that "[i]n our view, 'willful' implies an intent to do an act, and this is distinct from an intent to violate a statute or rule." Id. at 6. Additionally, "[i]t is a common maxim, familiar to all minds that 'ignorance of the law' will not excuse any person, either civilly or criminally." Barlow v. United States, 32 U.S. 404,411 (1833). Thus, any intentional act, such as the utility's failing to maintain its books and records in conformity with NARUC USOA, would meet the standard for a "willful violation."

However, Staff does not recommend that the Commission initiate a show cause proceeding at this time. First, the utility was granted grandfather certificates by Order No. PSC-98-0918-FOF-WS, issued July 7, 1998, in Docket No. 970158-WS. This is the utility's first rate case before the Commission. Therefore, staff believes that the utility should be given time and an accounting allowance for setting up the utility's books to conform with NARUC USOA and to reconcile the utility's books with the Commission's order.

Staff has recommended a $3,500 accounting allowance amortized over 5 years allowing $700 annually with a $350 allocation to water and wastewater in Issue 11. This will provide funds to set up the utility's books to conform with NARUC USOA and will allow reconciliation with the Commission's order.

In consideration of the foregoing, staff recommends that the Commission not initiate a show cause proceeding. However, the utility should be required to maintain its books and records in conformity with NARUC USOA and should be required to submit a statement from its accountant by March 31, 1999, along with its 1998 annual report, stating that its books are in conformity with NARUC USOA and have been reconciled with the Commission's order.

ISSUE 21: What are the appropriate billing procedures and billing format for this utility?

RECOMMENDATION: The utility should follow the guidelines of Rule 25-30.335, Florida Administrative Code, for billing procedures. The utility should bill its customers of record on a separate bill that list the utility's name and charges for utility services only. The utility should also be placed on notice that non-payment for non-utility services will not result in discontinuance of water and/or wastewater service. (DEWBERRY)

STAFF ANALYSIS: On September 2, 1998 a customer meeting was held in the utility's service area to allow customers to discuss concerns about the utility's operation. During the meeting and in a letter received from a customer, the utility's billing procedure was addressed. One customer stated that she never received a bill from the utility. Staff contacted the utility and discussed the utility's billing procedure. Staff was informed that Bay Tree Management Company provides billing service for the utility and bills utility customers of record and individual units for condominium associations using the same billing format.

One customer submitted a copy of a bill for staff's review. This bill was for a condominium resident that was not a utility customer of record. The condominium is master metered and is the utility's customer of record. However, during the customer meeting, an individual utility customer presented staff with a utility bill. The utility service was billed by Bay Tree Management Company, not Orchid Springs Utility. It was confirmed by the utility that utility customer bills include a header listing Bay Tree Management Company only and does not include the utility's name.

Rule 25-30.335, Florida Administrative Code, provides in part:

> (1) Except as provided in this rule, a utility shall render bills to customers at regular intervals, and each bill shall indicate: the billing period covered; the applicable rate schedule; beginning and ending meter reading; the amount of the bill; the delinquent date or the date after which the bill becomes past due; and the authorized late payment charge.

Staff recommends that the utility follow the guidelines of Rule 25-30.335, Florida Administrative Code, for billing procedure.

The utility should bill its customers of record on a separate bill that includes the utility's name and charges for utility services only. The utility should also be placed on notice that non-payment for non-utility services will not result in discontinuance of water and/or wastewater service.

ISSUE 22: Should the recommended rates be approved for the utility on a temporary basis, subject to refund, in the event of a protest filed by a party other than the utility?

RECOMMENDATION: Yes, the recommended rates should be approved for the utility on a temporary basis, subject to refund, in the event of a protest filed by a party other than the utility. If the recommended rates are approved on a temporary basis, the rates collected by the utility shall be subject to the refund provisions discussed below in the staff analysis. In addition, after the increased rates are in effect, pursuant to Rule 25-30.360(6), Florida Administrative Code, the utility should file reports with the Division of Water and Wastewater no later than 20 days after each monthly billing. These reports should indicate the amount of revenue collected under the increased rates. (DEWBERRY, FERGUSON)

STAFF ANALYSIS: This recommendation proposes an increase in water and wastewater rates. A timely protest might delay what may be a justified rate increase resulting in an unrecoverable loss of revenue to the utility. Therefore, in the event of a protest filed by a party other than the utility, staff recommends that the recommended rates be approved as temporary rates. The recommended rates collected by the utility shall be subject to the refund provisions discussed below.

The utility should be authorized to collect the temporary rates upon the staff's approval of security for both the potential refund and a copy of the proposed customer notice. The security should be in the form of a bond or letter of credit in the amount of $30,259. Alternatively, the utility could establish an escrow agreement with an independent financial institution.

If the utility chooses a bond as security, the bond should contain wording to the effect that it will be terminated only under the following conditions:

1) The Commission approves the rate increase; or

2) If the Commission denies the increase, the utility shall refund the amount collected that is attributable to the increase.

If the utility chooses a letter of credit as a security, it should contain the following conditions:

1) The letter of credit is irrevocable for the period it is in effect.

2) The letter of credit will be in effect until final Commission order is rendered, either approving or denying the rate increase.

If security is provided through an escrow agreement, the following conditions should be part of the agreement:

1) No refunds in the escrow account may be withdrawn by the utility without the express approval of the Commission.

2) The escrow account shall be an interest bearing account.

3) If a refund to the customers is required, all interest earned by the escrow account shall be distributed to the customers.

4) If a refund to the customers is not required, the interest earned by the escrow account shall revert to the utility.

5) All information on the escrow account shall be available from the holder of the escrow account to a Commission representative at all times.

6) The amount of revenue subject to refund shall be deposited in the escrow account within seven days of receipt.

7) This escrow account is established by the direction of the Florida Public Service Commission for the purpose(s) set forth in its order requiring such account. Pursuant to Cosentino v. Elson, 263 So.2d 253 (Fla. 3d DCA 1972), escrow accounts are not subject to garnishments.

8) The Director of Records and Reporting must be a signatory to the escrow agreement.

In no instance should the maintenance and administrative costs associated with the refund be borne by the customers. These costs are the responsibility of, and should be borne by, the utility. Irrespective of the form of security chosen by the utility, an

account of all monies received as result of the rate increase should be maintained by the utility. This account must specify by whom and on whose behalf such monies were paid. If a refund is ultimately required, it should be paid with interest calculated pursuant to Rule 25-30.360(4), Florida Administrative Code.

The utility should maintain a record of the amount of the bond, and the amount of revenues that are subject to refund. In addition, after the increased rates are in effect, pursuant to Rule 25-30.360(6), Florida Administrative Code, the utility should file reports with the Division of Water and Wastewater no later than 20 days after each monthly billing. These reports should indicate the amount of revenue collected under the increased rates.

ISSUE 23: Should this docket be closed?

RECOMMENDATION: No. Upon expiration of the protest period, this docket should remain open for 15 months from the date of the Commission's vote to allow staff to verify completion of pro forma plant improvements. (DEWBERRY, FUCHS, FERGUSON)

STAFF ANALYSIS: Pro forma plant of $27,181 for water and $76,228 for wastewater have been included in the calculation of rates. All improvements are scheduled to be completed by November, 1999. Therefore staff recommends that this docket should remain open, after the expiration of the protest period, for 15 months from the date of the Commission's vote to allow staff to verify completion of pro forma plant improvements.

ORCHID SPRINGS WATER AND SEWER
TEST YEAR ENDING MARCH 31, 1998
SCHEDULE OF WATER RATE BASE

SCHEDULE NO. 1
DOCKET NO. 980441-WS

	BALANCE PER UTILITY	STAFF ADJUST. TO UTIL. BAL.		BALANCE PER STAFF
UTILITY PLANT IN SERVICE	$ 140,878	$ 103,282	A	$ 244,160
LAND/NON-DEPRECIABLE ASSETS	0	480	B	480
NON-USED AND USEFUL PLANT	0	0		0
CIAC	0	(171,516)	C	(171,516)
ACCUMULATED DEPRECIATION	0	(146,238)	D	(146,238)
AMORTIZATION OF CIAC	0	109,504	E	109,504
WORKING CAPITAL ALLOWANCE	9,175	(854)	F	8,321
WATER RATE BASE	$ 150,053	$ (105,342)		$ 44,711

ORCHID SPRINGS WATER AND SEWER
TEST YEAR ENDING MARCH 31, 1998
SCHEDULE OF WASTEWATER RATE BASE

SCHEDULE NO. 1A
DOCKET NO. 980441-WS

	BALANCE PER UTILITY	STAFF ADJUST. TO UTIL. BAL.		BALANCE PER STAFF
UTILITY PLANT IN SERVICE	$ 215,388	$ 452,001	A	$ 667,389
LAND/NON-DEPRECIABLE ASSETS	0	58,860	B	58,860
NON-USED AND USEFUL PLANT	0	0		0
CIAC	0	(302,109)	C	(302,109)
ACCUMULATED DEPRECIATION	0	(469,890)	D	(469,890)
AMORTIZATION OF CIAC	0	198,788	E	198,788
WORKING CAPITAL ALLOWANCE	12,838	(2,311)	F	10,527
WASTEWATER RATE BASE	$ 228,226	$ (64,661)		$ 163,565

ORCHID SPRINGS WATER AND SEWER
TEST YEAR ENDING MARCH 31, 1998
ADJUSTMENTS TO RATE BASE

SCHEDULE NO. 1C
DOCKET NO. 980441-WS

		WATER	WASTEWATER
A.	UTILITY PLANT IN SERVICE		
	1. To reflect year end plant.	$ 76,101	$ 375,773
	2. To include DEP required pro forma plant.	27,181	76,228
		$ 103,282	$ 452,001
B	LAND		
	1. To reflect estimated land value	$ 480	$ 58,860
C.	CIAC		
	1. To reflect imputed CIAC.	$ (171,516)	$ (302,109)
	ACCUMULATED DEPRECIATION		
D.	1. To reflect year end accumulated depreciation..	$ (147,693)	$ (472,359)
	2. To reflect depreciation on DEP required pro forma plant.	(1,382)	(3,536)
	3. To reflect averaging adjustment.	2,837	6,005
		$ (146,238)	$ (469,890)
	AMORTIZATION OF CIAC		
E.	1. To reflect imputed amortization of CIAC.	$ 111,931	$ 202,797
	2. To reflect averaging adjustment.	(2,427)	(4,009)
		$ 109,504	$ 198,788
	WORKING CAPITAL ALLOWANCE		
F.	1. To reflect 1/8 of test year O & M expenses.	$ (854)	$ (2,311)

ORCHID SPRINGS WATER AND SEWER
TEST YEAR ENDING MARCH 31, 1998
SCHEDULE OF CAPITAL STRUCTURE

SCHEDULE NO. 2
DOCKET NO. 980441-WS

	PER UTILITY	SPECIFIC ADJUSTMENTS	BALANCE BEFORE PRO RATA ADJUSTMENTS	PRO RATA ADJUSTMENTS	BALANCE PER STAFF	PERCENT OF TOTAL	COST	WEIGHTED COST
COMMON EQUITY	$ 242,520	$ 0	$ 242,520	$ (68,972)	$ 173,548	83.33%	8.74%	7.28%
LONG TERM DEBT	6,503	0	6,503	(1,849)	4,654	2.23%	9.50%	0.21%
LONG TERM DEBT	19,794	0	19,794	(5,629)	14,165	6.80%	9.50%	0.65%
LONG TERM DEBT	14,771	0	14,771	(4,201)	10,570	5.08%	9.50%	0.48%
LONG TERM DEBT	4,935	0	4,935	(1,404)	3,531	1.70%	10.00%	0.17%
CUSTOMER DEPOSITS	2,527	0	2,527	(719)	1,808	0.87%	6.00%	0.05%
TOTAL	$ 291,050	$ 0	$ 291,050	$ (82,774)	$ 208,276	100.00%		8.84%

RANGE OF REASONABLENESS	LOW	HIGH
RETURN ON EQUITY	7.74%	9.74%
OVERALL RATE OF RETURN	8.01%	9.68%

ORCHID SPRINGS WATER AND SEWER
TEST YEAR ENDING MARCH 31, 1998
SCHEDULE OF WATER OPERATING INCOME

SCHEDULE NO. 3
DOCKET NO. 980441-WS

	TEST YEAR PER UTILITY	STAFF ADJ. TO UTILITY		STAFF ADJUSTED TEST YEAR	ADJUST. FOR INCREASE		TOTAL PER STAFF
OPERATING REVENUES	$ 45,257	$ 3,262	A	$ 48,519	$ 27,638	E	$ 76,157
					56.96%		
OPERATING EXPENSES:							
OPERATION AND MAINTENANCE	73,404	(6,839)	B	66,565	0		66,565
DEPRECIATION (NET)	0	2,202	C	2,202	0		2,202
AMORTIZATION	0	0		0	0		0
TAXES OTHER THAN INCOME	0	2,192	D	2,192	1,244	F	3,436
INCOME TAXES	0	0		0	0		0
TOTAL OPERATING EXPENSES	$ 73,404	$ (2,445)		$ 70,959	$ 1,244		$ 72,203
OPERATING INCOME/(LOSS)	$ (28,147)			$ (22,440)			$ 3,955
WATER RATE BASE	$ 150,053			$ 44,711			$ 44,711
RATE OF RETURN	-18.76%			-50.19%			8.84%

ORCHID SPRINGS WATER AND SEWER
TEST YEAR ENDING MARCH 31, 1998
SCHEDULE OF WASTEWATER OPERATING INCOME

SCHEDULE NO. 3A
DOCKET NO. 980441-WS

	TEST YEAR PER UTILITY	STAFF ADJ. TO UTILITY		STAFF ADJUSTED TEST YEAR	ADJUST. FOR INCREASE		TOTAL PER STAFF
OPERATING REVENUES	$ 92,849	$ 3,003	A	$ 95,852	$ 16,133	E	$ 111,985
					16.83%		
OPERATING EXPENSES:							
OPERATION AND MAINTENANCE	102,705	(18,491)	B	84,214	0		84,214
DEPRECIATION (NET)	0	7,397	C	7,397	0		7,397
AMORTIZATION	0	0		0	0		0
TAXES OTHER THAN INCOME	0	5,181	D	5,181	726	F	5,907
INCOME TAXES	0	0		0	0		0
TOTAL OPERATING EXPENSES	$ 102,705	$ (5,913)		$ 96,792	$ 726		$ 97,518
OPERATING INCOME/(LOSS)	$ (9,856)			$ (940)			$ 14,467
WASTEWATER RATE BASE	$ 228,226			$ 163,565			$ 163,565
RATE OF RETURN	-4.32%			-0.57%			8.84%

ORCHID SPRINGS WATER AND SEWER
TEST YEAR ENDING MARCH 31, 1998
ADJUSTMENTS TO OPERATING INCOME

SCHEDULE NO. 3B
DOCKET NO. 980441-WS

	WATER	WASTEWATER
A. OPERATING REVENUE		
1. To reflect annualized revenue based on existing rates.	$ 3,262	$ 3,003
B. OPERATION AND MAINTENANCE EXPENSES		
1. Purchased Power		
a. To reflect annual purchased power expense.	$ 1,539	$ (1,120)
b. Repression adjustment	(220)	(889)
	$ 1,319	$ (2,009)
2. Chemicals		
a. To reflect a reclassification of chemical expense from acct. nos. 636 736.	$ 1,673	2,685
b. To reflect annual chemical expense.	(255)	$ (909)
c. Repression adjustment	(138)	(163)
	$ 1,280	$ 1,613
3. Contractual Sevices - Professional		
a. Reclassification of engineering and accounting expenses from acct. nos. 665 &765	$ 996	$ 996
b. To reflect non-recurring costs amortized over five years	(5,223)	(7,112)
c. Accounting cost for NARUC set up and comm. order reconciliation	350	350
d. To reflect post test year surveying costs amortized over five years	0	846
	$ (4,877)	$ (4,920)
4. Contractual Sevices - Management		
a. To reflect annual contractual allowance for full time secretary.	$ 78	$ 78
b. To reflect annual contractual allowance for president	3,140	3,140
To reflect annual contractual allowance for manager	3,600	3,600
	$ 6,818	6,818
5 Contractual Services-Testing		
a. To reflect annual DEP required testing expense.	$ 653	$ 1,550
6. Contractual Services-Other		
a. To reflect contractual operator allowance	$ (2,076)	$ (10,983)
b. Reclassification to acct. nos. 618 & 718.	(1,673)	(2,685)
c. To reflect contractual repair and maintenance annual allowance	(1,395)	(533)
	$ (5,144)	$ (14,201)
7. Transportation Expense		
a. To remove non-utility expenses	$ (2,085)	$ 0
8. Regulatory Comm. Expense		
a. Reclassification of engineering expense to acct. 631 & 731	$ (996)	$ (996)
b. To remove a prior poeriod expense	(2,113)	(2,113)
c. To correct a journal entry made by utility	1,298	1,298
d. To reflect reclassification of regulatory assessment fees to taxes other than income.	(2,082)	(4,187)
e. To reflect rate case filing fee amortized over five years.	373	373
	$ (3,520)	$ (5,625)
9. Miscellaneous Expense	$	
a. To reflect DEP permit costs amortized over five years	(275)	$ (111)
b. To remove a non-utility expense	0	(2,395)
c. To reflect billing software expense amortized over five years.	(928)	(928)
d. To reflect annual postage cost	352	803
e. To reflect annual electricity expense for the office	(272)	(245)
f. To reflect annual telephone expense	(548)	(548)
g. To reflect painting costs amortized over five years.	388	1,707
	$ (1,283)	$ (1,717)
TOTAL O & M ADJUSTMENTS	$ (6,839)	$ (18,491)
C DEPRECIATION EXPENSE		
1. To reflect test year depeciation	$ 7,056	$ 15,413
2. To reflect test year amortization of CIAC	(4,854)	(8,016)
	$ 2,202	7,397
D TAXES OTHER THAN INCOME		
1. Reclassification from acct. nos.665 &765.	$ 2,082	$ 4,187
2. To adj. reg. fees on adjusted test year revenue.	101	126
3. To reflect property taxes based on estimated value	9	868
	$ 2,192	$ 5,181
E. OPERATING REVENUES		
1. Recommended increase in revenue	$ 27,638	$ 16,133
F. TAXES OTHER THAN INCOME		
1. To reflect regulatory assessment fees on recommended revenue increase.	$ 1,244	$ 726

ORCHID SPRINGS WATER AND SEWER
TEST YEAR ENDING MARCH 31, 1998
ANALYSIS OF WATER OPERATION AND
MAINTENANCE EXPENSE

SCHEDULE NO. 3C
DOCKET NO. 980441-WS

	TOTAL PER UTIL.	STAFF ADJUST.	TOTAL PER STAFF
(601) SALARIES AND WAGES - EMPLOYEES	$ 0	$ 0	$ 0
(603) SALARIES AND WAGES - OFFICERS	0	0	0
(604) EMPLOYEE PENSIONS AND BENEFITS	0	0	0
(610) PURCHASED WATER	0	0	0
(615) PURCHASED POWER	1,605	1,319	2,924
(616) FUEL FOR POWER PRODUCTION	0	0	0
(618) CHEMICALS	551	1,280	1,831
(620) MATERIALS AND SUPPLIES	564	0	564
(630) CONTRACTUAL SERVICES - PROFESSIONAL	7,185	(4,877)	2,308
(631) CONTRACTUAL SERVICES - MANAGEMENT	27,118	6,818	33,936
(635) CONTRACTUAL SERVICES - TESTING	0	653	653
(636) CONTRACTUAL SERVICES - OTHER	18,656	(5,144)	13,512
(640) RENTS	3,000	0	3,000
(650) TRANSPORTATION EXPENSE	4,607	(2,085)	2,522
(655) INSURANCE EXPENSE	1,668	0	1,668
(665) REGULATORY COMMISSION EXPENSE	4,295	(3,520)	775
(670) BAD DEBT EXPENSE	0	0	0
(675) MISCELLANEOUS EXPENSES	4,155	(1,283)	2,872
	$ 73,404	$ (6,839)	$ 66,565

ORCHID SPRINGS WATER AND SEWER
TEST YEAR ENDING MARCH 31, 1998
ANALYSIS OF WASTEWATER OPERATION AND MAINTENANCE EXPENSE

SCHEDULE NO. 3D
DOCKET NO. 980441-WS

	TOTAL PER UTIL.	STAFF ADJUST.	TOTAL PER STAFF
(701) SALARIES AND WAGES - EMPLOYEES	$ 0	$ 0	$ 0
(703) SALARIES AND WAGES - OFFICERS	0	0	0
(704) EMPLOYEE PENSIONS AND BENEFITS	0	0	0
(710) PURCHASED SEWAGE TREATMENT	0	0	0
(711) SLUDGE REMOVAL EXPENSE	1,100	0	1,100
(715) PURCHASED POWER	13,827	(2,009)	11,818
(716) FUEL FOR POWER PRODUCTION	0	0	0
(718) CHEMICALS	551	1,613	2,164
(720) MATERIALS AND SUPPLIES	699	0	699
(730) CONTRACTUAL SERVICES - PROFESSIONAL	8,297	(4,920)	3,377
(731) CONTRACTUAL SERVICES - MANAGEMENT	27,118	6,818	33,936
(735) CONTRACTUAL SERVICES - TESTING	0	1,550	1,550
(736) CONTRACTUAL SERVICES - OTHER	34,733	(14,201)	20,532
(740) RENTS	3,000	0	3,000
(750) TRANSPORTATION EXPENSE	498	0	498
(755) INSURANCE EXPENSE	276	0	276
(765) REGULATORY COMMISSION EXPENSES	6,400	(5,625)	775
(770) BAD DEBT EXPENSE	0	0	0
(775) MISCELLANEOUS EXPENSES	6,206	(1,717)	4,489
	$ 102,705	$ (18,491)	$ 84,214

RECOMMENDED RATE REDUCTION SCHEDULE

ORCHID SPRINGS WATER AND SEWER
TEST YEAR ENDING MARCH 31, 1998

SCHEDULE NO. 4
DOCKET NO. 980441-WS

CALCULATION OF RATE REDUCTION AMOUNT
AFTER RECOVERY OF RATE CASE EXPENSE AMORTIZATION PERIOD OF FOUR YEARS

MONTHLY WATER RATES

RESIDENTIAL, MULTI-RESIDENTIAL AND GENERAL SERVICE		MONTHLY RECOMMENDED RATES	MONTHLY RATE REDUCTION
BASE FACILITY CHARGE:			
Meter Size:			
5/8"X3/4"	$	8.10	0.09
3/4"		12.16	0.13
1"		20.26	0.22
1-1/2"		40.52	0.43
2"		64.84	0.69
3"		129.68	1.38
4"		202.62	2.16
6"		405.24	4.32
RESIDENTIAL, MULTI-RESIDENTIAL AND GENERAL GENERAL SERVICE GAL. CHARGE PER 1,000 GALLONS	$	1.47	0.02

RECOMMENDED RATE REDUCTION SCHEDULE

ORCHID SPRINGS WATER AND SEWER
TEST YEAR ENDING MARCH 31, 1998

SCHEDULE NO. 4A
DOCKET NO. 980441-WS

CALCULATION OF RATE REDUCTION AMOUNT
AFTER RECOVERY OF RATE CASE EXPENSE AMORTIZATION PERIOD OF FOUR YEARS

MONTHLY WASTEWATER RATES

RESIDENTIAL, MULTI-RESIDENTIAL AND GENERAL SERVICE		MONTHLY RECOMMENDED RATES	MONTHLY RATE REDUCTION
BASE FACILITY CHARGE:			
Meter Size:			
5/8"X3/4"	$	11.79	0.09
3/4"		17.68	0.13
1"		29.47	0.21
1-1/2"		58.94	0.43
2"		94.30	0.68
3"		188.60	1.37
4"		294.68	2.14
6"		589.36	4.27
RESIDENTIAL GALLONAGE CHARGE PER 1,000 GALLONS (10,000 GALLON MAX. PER MONTH)	$	2.58	0.02
MULTI-RESIDENTIAL AND GENERAL SERVICE GALLONAGE CHARGE PER 1,000 GALLONS	$	3.09	0.02

ATTACHMENT A

USED AND USEFUL DATA

WATER TREATMENT PLANT

Docket No. **980441-WS** Utility **Orchid Springs Water & Sewer**

1) Capacity of Plant
= 650 GPM

2) Maximum Daily Flow
= 81 GPM

3) Average Daily Flow
= 66 GPM

4) Fire Flow Capacity
= 500 GPM

5) Margin Reserve (not to exceed 20% of Average GPM):

a) Average number of customers = N/A
b) Average Customer Growth in ERC's for most Recent 5 Years = _____
c) Construction Time for Additional Capacity = _____ Years

$$\text{Margin Reserve} = 5b \times 5c \times \left(\frac{2}{5a}\right) = \text{N/A GPM}$$

6) Excessive Unaccounted for Water = N/A GPM

a) Total Amount -0- GPM = N/A % of Av. GPM Flow
b) Reasonable Amount -0- GPM = N/A % of Av. GPM Flow

PERCENT USED AND USEFUL FORMULA

$$\left[\frac{2 + 4 + 5 - 6}{1}\right] = 89.4\ \%$$ Used and Useful *

* The water treatment plant should be considered 100% used and useful. The company is required by DEP rules to have two wells due to the number of connections. DEP Rule 62-555.315(1) F.A.C. states:

> "62-555.315 Drinking Water Supply Wells or Test Wells That May Later Be Used for Drinking Water Supply -- Number, Construction, Clearing, Drilling Samples, and Abandonment.
>
> (1) Number of wells required -- A minimum of two drinking water supply wells shall be provided for all community water systems that will serve 350 or more persons or have more than 150 connections."

Orchid Springs has over 500 connections and is built out. Therefore the staff engineer recommends the water treatment plant be considered to be 100% used and useful.

ATTACHMENT B

USED AND USEFUL DATA

WASTEWATER TREATMENT PLANT

Docket No. **980441-WS** Utility **Orchid Springs Development Corp.**

1) Capacity of Plant per day — 95,000 gallons

2) Maximum Month Average Daily Flow — 70,000 gallons per day

3) Margin Reserve (Not to exceed 20% of present customers)

a) Average number of customers in ERC's — N/A ERC's

b) Customer yearly customer growth in ERC's for Most Recent 5 Years Including Test Year — N/A ERC's

c) Construction Time for Additional Capacity — N/A Years

$$(b) \times © \times \left[\frac{3}{(a)} \right] = \text{N/A} \text{ gallons per day}$$

4) Excessive Infiltration N/A gallons per day

a) Total Amount N/A gallons per day N/A % of Av. Daily Flow

b) Reasonable Amount N/A gallons per day N/A % of Av. Daily Flow

c) Excessive Amount N/A gallons per day N/A % of Av. Daily Flow

PERCENT USED AND USEFUL FORMULA

2/1 = 74 % Used and Useful *

* Since the service area is and has been built out for several years and the disposal ponds are at capacity thus not permitting increases in effluent flows, the staff engineer recommends this plant permitted by DEP at 95,000 GPD, maximum month average daily flows, be considered 100% used and useful.