

MEMORANDUM

Septmeber 6, 1998

TO: BOB CROUCH, SUPERVISOR OF ENGINEERS *BC*
SECTION - BUREAU OF ECONOMIC REGULATION

FROM: GERALD D. EDWARDS, ENGINEER *GE*

RE: DOCKET NO. 980726-WU; DIXIE GROVES ESTATES, INC. - APPLICATION FOR AN
STAFF-ASSISTED RATE CASE IN PASCO COUNTY - ENGINEERING INVESTIGATION

INTRODUCTION

Consistent with the standard operating procedures of the division, an engineering investigation of the above referenced docket was conducted. The investigation included a field inspection of the utility's service area, water treatment plant and the water distribution system. In addition, an office study of its files, rate application, operation and maintenance expenses, utility plant used and useful, service availability, and other engineering issues pertaining to this utility were reviewed for reasonableness. The on site investigation was completed on August 13, 1998.

1.0 HISTORY

On July 11, 1972, as a resolution of the Pasco County Commission, Dixie Grove came under the jurisdiction of the Florida Public Service Commission (PSC or Commission). On December 19, 1974, the Commission ordered the utility to install meters at its own cost within 90 days, for all customers not receiving metered service, Order No. 6417. In addition, this order established metered rates for the utility. On June 10, 1976, the Commission established rate base, revenues, expenses, and cost of capital, after all meters were installed, Order No. 7268. On November 13, 1980, the utility filed its first application for a staff assisted rate case. After careful review, the utility's application was accepted and processed by the Commission's staff, Docket No. 800712-WU. In addition, Order No. 10535 was issued on January 20, 1982, which established the rate base for the utility. The utility applied for and received price index adjustments in 1983, 1985, and 1996.

2.0 GENERAL INFORMATION

Dixie Groves Estates Inc. (Dixie Groves or utility) is a class "C" water utility, located off Mile Stretch Road, New Port Richey, Florida, which is in Pasco County. Geographically, this service area is physically located in the western central region of Pasco County, and the mailing address is P.O. BOX 845, New Port Richey, Florida 34656-0845. The most convenient route to commute from Tallahassee to the service area is: Take Hwy 19 South to New Port Richey; turn left onto Mile Stretch Road; go approx. 1 mile and turn right onto Arcadia. This utility provides service for approximately three hundred-thirty six (336) single family homes.

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BY REPORTING

On June 9, 1998, the utility submitted an application for a staff assisted rate case and after a standard evaluation of the utility, the application was approved. Mr. Judson F. Potter, a 50 percent (50%) partner, is both president and vice president of the utility; His son, Mr. Matthew A. Potter (50% partner), is the secretary and treasurer. Mr. Matthew Potter's wife maintains the utility's business records at their home and he claims a rental fee of \$50.00 per month, from the utility. In existence since 1957, the utility received a water certificate number WU-056 from the Commission in 1972, the utility is providing water service to approximately 336 connections: Mobile homes, single family homes and a church.

Primarily a permanent occupant-based community, the majority of the customers are full time residential clients (the service area is built out). In addition, the residents are home owners, and all of the utility's customers are individually metered. Dixie Groves bills each customer for water service on a monthly basis. The utility is currently in compliance with the Department of Environmental Protection's (DEP) rules and regulations. The utility is located within the boundary of the Southwest Water Management District. The utility is located in a county which has consumptive usage restrictions (a water use cautionary area).

3.0 PLANT IN SERVICE

3.1 Water Treatment Plant: The utility's water treatment facility consists of: one 4 inch and two 6 inch black iron cased wells, depths of 56ft, 65ft, and 100ft; two 7.5 horsepower pumps capable of 187,200 gallons per day (a 12-hour day). The water is then fed to a 1000 gallon hydro-pneumatic tank. The Department Environmental Regulation rated designed capacity of the plant was not given. The Southwest Water Management District (SWWMD) consumptive use permitted capacity is 39,000 gallons per day per pump (and 52,000 per day per peak month.) The design consists of two similar small water treatment systems. First, well number one and two are housed in the same building; well number one is not operational. Second, well number three is location approximately two streets over, and both wells (number two and three) utilize the same distribution system. Basically, water is pumped from the ground, chlorinated (using liquid chlorine), pressurized, metered, and distributed to the customers. At the time of the engineering field investigation, this facility appeared to be operating properly.

3.2 Water Distribution Systems: The water distribution system comprises: 2880 ft. of 4 inch pipe (transite), 210 ft. of 3 inch pipe, 9970 ft. of 2 inch, and 350 ft. of 1.5 inch pipe (all other pipes are galvanized), a 7.5 and a 10 horsepower pump, two (2) 1000 gallon hydropneumatic tanks. At the time of the engineering investigation, the distribution systems appeared to be operating properly.

NOTE: This system records shows 51% of the water pumped is unaccounted for.

4.0 ORIGINAL COST

This is the second staff-assisted rate case filed by Dixie Groves Estates, Inc. The first staff-assisted rate case (docket number 800712-W) was filed on November 13, 1980 and during the proceeding the cost of plant-in-service was determined to be \$53,190.

5.0 OPERATIONAL AND MAINTENANCE EXPENSES

- 5.1 Manager and Staff Salaries - Mr. Judson Potter is 50% owner and the manager. As manager, Mr. Potter has the responsibility of delivering the deposits, public relations with the utility's customers, preparing application work, etc. Mr. Potter's base salary is \$2400 per year. In addition, Mr. Potter receives a \$600 per year officer's salary. Mr. Matthew Potter's wife is the secretary, billing and collection clerk. Her salary is \$1,000 per month (\$12,000 per year). Mr. Matthew Potter is the accountant for the utility, and on average he receives an accounting fee of approximately \$1,900. (Acct. No. 703)
- 5.2 Operator's Salary - H2O was employed by the utility to provide the following services to the utility: The official documentation of the plant's operation, collecting samples for testing, and general maintenance of the plant. H2O has appointed Mr. Rich Graziano, a class "A" operator No. A-4589, to operate and maintain the system. H2O does not have a contractual agreement with the utility and cost of their services, reflecting from the invoices, vary each month. (Acct. No. 703)
- 5.3 Purchased Power - Dixie Groves purchases power from Florida Power Corp. (FPC). The utility plant has two meters: (1) Meter number 006630072, provides power for wells number 1 & 2; (2) meter number 002631021, provides power for well number 3. FPC bills each meter separately, monthly. The annual electrical expense for the test year was \$1,824.14 and this appears to be reasonable. (Acct. No. 715)
- 5.4 Chemicals - The chlorination media is liquid chlorine. The utility purchased seven shipments of chlorine during the test year at a total cost of \$614.25. In addition, DEP requires this utility to treat for corrosion by adding Aqua Mag, and the cost of this chemical during the test year was \$1,264. These costs, for chemicals used during the test year, appear reasonable and should be allowed. (Acct. No. 618)
- 5.5 Samples and Testing - During the 1997-1998 test year, all DEP required testing and sampling appears reasonable and should be allowed.

Water Testing

Bacteriological	4-samples monthly	2-raw well (2 & 3) 1-distribution
Chlorides	Every 3 months	1-distribution sample
TDS	Every 3 months	2-raw well (2 & 3)
Sulfate	Every 3 months	2-raw well (2 & 3)
Volatiles Organics	Every 3 years	1-due in 2000
Pesticides & PCB's	Every 3 years	1-due in 2000
Nitrate/Nitrite	Every year	2-due in 1998
Primary Inorganics	Every 3 years	2-due in 2000
Asbestos	Every 9 years	1-due in 2000
Secondary Contaminants	Every 3 years	2-due in 2000
Radiochemicals	Every 3 years	2-due in 2000
Group II Unregulated	Every 3 years	2-due in 2000
Group I Unregulated	Due upon DEP request	
Group II Unregulated	Due upon DEP request	

The above referenced tests are required by DEP. However, the cost of the testing was not itemized in the invoices of the companies that is/were providing operational services to this utility, cost of testing is inclusive in services. (Account #630)

- 5.6 Other Services - Dixie Groves purchases services for several other companies: Advisor Enterprises, Inc. reads meters (\$300 per month), install meter, repair, and preforms other odd jobs. Baker Bros. is employed to preform lawn care services. During the test year, Baker Bros. received \$140 from the utility for services render. (Account #630)
- 5.7 General Maintenance and Repairs - During the test year, the utility incurred general maintenance and repair expenses in the form of transmission line replacements, meter installations/replacements, lawn service, and miscellaneous supplies. A review of all general expenses incurred by the utility appears reasonable and should be allowed.
- 5.8 Other Operating Expenses - The engineering staff has discussed the allocations of other expenses such as office space and supplies, fees and duties, transportation, bookkeeping, telephone, and general salaries with the auditor. These expenses should be detailed in his report.

6.0 USED AND USEFUL

6.1 Water Treatment Plant - Used and Useful computations for this utility indicate the water treatment plant is operating at (TBD %) (Attachment "B" Sheet 1 of 2).

6.2 Water Distribution System - The distribution system is built out. Therefore, staff engineering has concluded that the water distribution system is operating at a performance of 100%. The quality of used and useful. (Attachment "B" Sheet 2 of 2).

Note: All of the mains have been installed.

7.0 QUALITY OF SERVICE

A review of the Department of Environmental Protection's records has revealed that the water treatment facility is in compliance with the appropriate environmental regulations. Although the quality of service provided to its customers appears satisfactory, a full determination of the quality of water service can not be determined until after the December 2, 1998, customer meeting.

8.0 UNACCOUNTED FOR WATER

A review of the utility's records, (annual reports) which displayed the amount of water treated (by the plant) vs. the amount of water purchased (by the customers) and the quantity of the water released during the initiation of the line flushing program, revealed that 50 percent (50%) of the total water purchase pumped was unaccounted for. Currently, the utility's conclusion concerning the water loss is speculative, Dixie Groves believes the unaccounted for water maybe the result of old defective meters. The utility has taken steps (by employing the Florida Rural Water Association to perform a leak test) to try to resolve this situation.

9.0 METER REPLACEMENT

The meters are old and measurement accuracies are in question, most of the customer meters in service need to be replaced. The utility is in the process of replacing its older meters, and anticipates that this program will continue until all connections have new or rebuilt meters in place. During the test year, the utility replaced several meters. The staff engineer believes this expense (the cost of replacing the meters) should be allowed as an ongoing expense and put in Operation and Maintenance Expense account. (Account 630)

10.0 VALVE REPLACEMENT

The distribution system is more than 23 years old. There are some components that are in need of being replaced and the utility is in the process of initiating a gate valve replacement program. The staff engineer concludes that because the average service life of the gate valves is twenty years all of the gate valves should be replaced as soon as possible.

11.0 DEPRECIATION

The depreciation of utility assets should conform with the Commission's policy as outlined in Chapter 25-30.140 F.A.C. No adjustments are recommended at this time.

12.0 CONSTRUCTION WORK IN PROGRESS

During the investigation, there was not construction work in progress. Therefore, the engineering staff recognizes no adjustment to be addressed.

13.0 RECOMMENDATIONS

13.1 Meter Replacement program - It is recommended that old meters be replaced or repaired and the cost be allowed for the meter replacement program. (Paragraph 9.0)

13.2 Valve Replacement - Because the average service life of gate valves is approximately twenty years and according to records these valves have been in operation for more than twenty years, It is recommended that the valves be replaced as soon as possible. (Paragraph 10.0)

13.3 USED AND USEFUL - Water treatment Plant - The water treatment should be considered (TBD %)used and useful. (Paragraph 6.1)

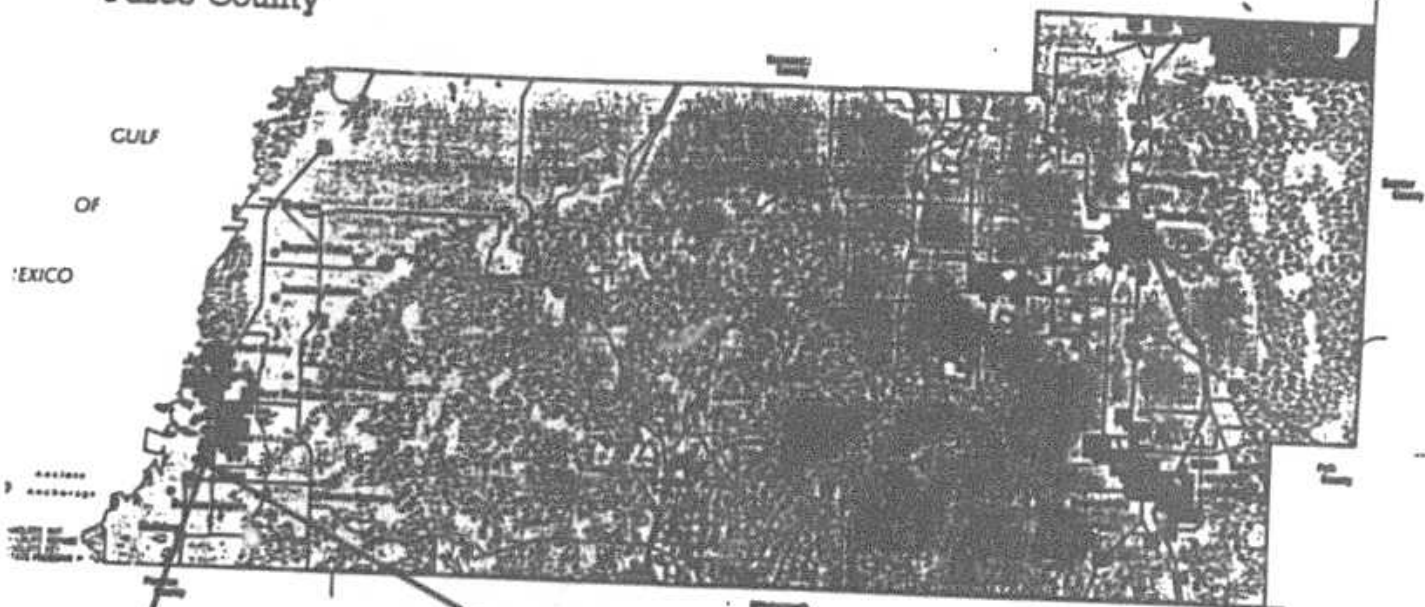
Water Distribution System - The water distribution system should be considered 100% used and useful. (Paragraph 6.2)

Note: This utility is, currently, experiencing approx. 50 percent unaccounted for water.

13.4 UNACCOUNTED FOR WATER - The utility should not be allowed to receive 100 percent used and useful rating for the plant until the problem is resolved. In addition, the utility should be required to identify and resolve the situation concerning unaccounted for water.

GDE (980726R.GDE)
cc: Division of Water and Wastewater (Casey, Crouch, Rendell - (lis))
Division of Legal Services (Reyes)

Pasco County



DIXIE GROVES ESTATES, INC.

PASCO COUNTY
FLORIDA



WATER TREATMENT PLANT

Attachment B 1 of 2
USED AND USEFUL DATA

Docket No. 980726-WU Utility DIXIE GROVES ESTATES, INC. Date SEPT. 1998

- **
- 1) Capacity of Plant 80,000 gallons per day
 - 2) Maximum Daily Flow 130,000 gallons per day
 - 3) Average Daily Flow 69,125 gallons per day
 - 4) Fire Flow Capacity N/A gallons per day
 - a) Needed Fire Flow N/A gallons per day
 - 5) Margin Reserve -0- gallons per day

*Not to exceed 20% of present customers

a) Test Year Customers in ERC's - Begin 336 End 336.5 Av. 336

b) Customer Growth Using Regression Analysis in ERC's for Most Recent 5 Years Including Test Year *** 6.6 ERC's

c) Construction Time for Additional Capacity 1.5 Years

(b) $x \odot x \left[(a) \frac{2}{1} \right] = \underline{N/A} gallons per day Margin Reserve$

6) Excessive Unaccounted for Water 27,311 gallons per day

a) Total Amount 34,351 gallons per day % of Av. Daily Flow

b) Reasonable Amount 8,003 gallons per day 10 % of Av. Daily Flow

c) Excessive Amount 27,311 gallons per day 40 % of Av. Daily Flow

PERCENT USED AND USEFUL FORMULA

$$\left[\frac{(b + 5) + 4a - 6}{1} \right] = \underline{\hspace{2cm}} \text{ \% Used and Useful}$$

** This is the SWWMD permitted capacity and not DEP's.

*** The utility's records show 22 new connections were added in one year, after more than twenty years of zero growth. In addition, the records indicate no growth since the year the 22 new connections were added.

Engineer

WATER DISTRIBUTION SYSTEM

Attachment B 2 of 2
USED AND USEFUL DATA

Docket No. 980726-WU Utility DIXIE GROVES ESTATES INC. Date SEPT. 1998

- 1) Capacity 336 ERC's (Number of potential customers without expansion)
- 2) Number of TEST YEAR Connections 336 ERC's day
- a) Begin Test Year 336 ERC's
- b) End Test Year 336.5 ERC's
- c) Average Test Year 336 ERC's
- 3) Margin Reserve 0 ERC's
*Not to exceed 20% of present customers
- a) Customer Growth Using Regression Analysis in ERC's for Most Recent 5 Years Including Test Year 6.6 ERC's
- c) Construction Time for Additional Capacity 0 Years
- (a) x (b) = 0 ERC's Margin Reserve

PERCENT USED AND USEFUL FORMULA

$$\frac{(2 + 3)}{1} = \underline{100} \% \text{ Used and Useful}$$

The utility's records show 22 new connections were added in one year, after more than twenty years of zero growth. In addition, the records indicate no growth since the year the 22 new connections were added.



Engineer

ENGINEERING REPORT
DOCKET NO. 980726-WU
September 6, 1998

DIXIE GROVES ESTATES, INC.

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