BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: Application of
UTILITIES, INC. OF FLORIDA
for a rate increase in Marion,
Orange, Pasco, Pinellas
and Seminole Counties
_____/

Docket No. 020071-WS

Date Filed: June 2, 2003

TESTIMONY
OF
TED L. BIDDY, P.E. / P.L.S.
ON BEHALF OF
THE OFFICE OF PUBLIC COUNSEL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

TESTIMONY AND EXHIBITS

OF TED L. BIDDY, P.E./P.L.S.

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CITIZENS OF THE STATE OF FLORIDA

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June 2, 2003

Q. WHAT IS YOUR NAME AND BUSINESS ADDRESS?

A. My name is Ted L. Biddy. My business address is 2308 Clara Kee Boulevard, Tallahassee, Florida 32303.

Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

A. I am self-employed as a professional engineer and land surveyor.

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE?

A. I graduated from the Georgia Institute of Technology with a B.S. degree in Civil Engineering in 1963. I am a registered professional engineer and land surveyor in Florida, Georgia, Mississippi and several other states. I was the vice president of Baskerville-Donovan, Inc. (BDI) and the regional manager of their Tallahassee Office from April 1991 until February 1998. I left the employment of BDI on September 30, 1998. Before joining BDI in 1991, I had operated my own civil engineering firm for 21 years. My areas of expertise include civil engineering, structural engineering, sanitary engineering, soils and foundation engineering and precise surveying. During my career, I have designed and supervised the master planning, design and construction of thousands of residential, commercial and industrial properties. My work has included: water and wastewater facility design; roadway design; parking lot design; stormwater facilities design; structural design; land surveys; and environmental permitting.

I have served as the principal and chief designer for numerous utility projects. Among my major water and wastewater facilities designs have been a 2,000 acre development in Lake County, FL; a 1,200 acre development in Ocean Springs, MS; a 4-mile water distribution system for Talquin Electric Cooperative, Inc. and a 320-lot subdivision in Leon County, FL. As senior project manager while employed by Baskerville-Donovan, my projects included the complete refurbishment of the water supply and distribution system for the City of Apalachicola; the complete refurbishment of the wastewater collection system and treatment

plant for the City of Apalachicola; water and wastewater system improvements at Carrabelle; water supply and several distribution systems for developments on St. George Island; water and wastewater systems at correctional facilities for the Florida Department of Corrections; and numerous smaller water and wastewater projects.

After leaving the Baskerville-Donovan firm in 1998, I again entered private practice offering my services to the public in the disciplines of Civil, Structural & Forensic Engineering. A resume detailing my background and experience is attached hereto as Exhibit TLB – 1.

Q. WHAT ARE YOUR PROFESSIONAL AFFILIATIONS?

A. I am a member of the Florida Engineering Society, National Society of Professional Engineers, Florida Institute of Consulting Engineers, American Consulting Engineers Council and the American College of Forensic Examiners.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE A STATE OR FEDERAL COURT AS AN ENGINEERING EXPERT WITNESS?

A. Yes, I have had numerous court appearances as an expert witness for cases involving roadways, utilities, drainage, stormwater, water and wastewater facilities designs.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION (PSC OR COMMISSION) FOR USED AND USEFUL ANALYSIS AND OTHER ENGINEERING ISSUES?

A. Yes, I have testified before the PSC for Docket Nos. 940109-WU, 950495-WS, 950387-SU, 951056-WS, 950387-SU, 960329-WS, 960545-WS, 971065-SU, 991643-SU, 991437-WU and 010503-WU on various engineering issues, water quality issues and used and useful analyses.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to offer testimony on the twenty-two systems included in this

case and whether the plant in service amounts shown by Utilities, Inc of Florida (Utilities, Inc. or the Utility) is reasonable and matches the actual physical plant items existing at the twenty-two systems. I will also provide testimony on the correct and appropriate rationale for calculating used and useful percentages for each system (Exhibit TLB-2) and furnish correct used and useful percentage calculations (Exhibit TLB-3).

Q. WHAT DOCUMENTS HAVE YOU REVIEWED AND WHAT INVESTIGATIONS AND ANALYSES HAVE YOU MADE IN PREPARATION FOR YOUR TESTIMONY?

A. I have studied all of the PSC filings by the Utility, including the Minimum Filing Requirements and the direct testimonies and exhibits of the Utility's Engineer Frank Seidman; Accountant Steven Lubertozzi; and Vice-President Donald Rasmussen.

I obtained and studied the Utilities annual reports for 1997, 1998, 1999, 2000 and 2001. I also visited the Orlando and Tampa Offices of the FDEP and copied documents from the Utility systems' files including permits, sanitary reports and other documents of interest. I also received and studied copies of the Utility's responses to many interrogatories and production of documents requests.

I made an inspection trip to Marion, Pinellas, Pasco and Seminole Counties and personally inspected eight of the Utility's larger water systems and four wastewater systems.

I also obtained schedules from the Utility for each system showing the claimed plant in service for each of the 22 systems. These documents were analyzed in detail in comparison to the actual physical facilities existing at each plant site.

I also analyzed the system maps of each system in relation to the number of connected customers and vacant lots and the existence or not of fire flow capacities. In some instances, the Utility furnished corrected and revised system maps after I and the Commission staff

questioned some of the maps.

From the data furnished by the Utility, I analyzed each water system to determine if excessive unaccounted for water had been experienced and analyzed each wastewater system for the presence of excessive inflow and infiltration.

From the data obtained from the Utility and the analyses I performed, I then calculated used and useful percentages for each system.

I also researched prior PSC cases cited by the Utility as supporting the rationale of calculating used and useful percentages using instantaneous flows to see if the PSC had ever allowed such a calculation rationale.

Finally, I prepared the exhibits to my testimony that are attached hereto.

Q. PLEASE DISCUSS YOUR REVIEW AND STUDY OF THE LAST FIVE YEARS ANNUAL REPORTS OF THE UTILITY.

A. In past cases I have been able to determine the improvements in individual systems over the years and to compare the claimed improvements over the last 5 years to actual plant in service as verified by my field inspections. However, in some of the past years, the Utility's annual reports had some individual systems combined. Therefore, it was necessary to request that the Utility furnish a schedule of Plant in Service for each system for the past five years.

I was able to determine a great deal of information from the Utility's 2001 annual report since this calendar year report matched the test year for this rate case and individual system data was furnished in this report. As such, the data reported to the PSC in the annual report of 2001 should essentially match and supplement the test year data as reported in the Minimum Filing Requirements (MFRs).

From the 2001 annual report, I was able to determine the percentages of unaccounted for water in each water system as well as identify which wastewater systems could have excessive

inflow and infiltration in their systems. The annual report also gives the size and capacities of wells and treatment plants, flow records for the 5 year period and average usage per equivalent residential connection (ERC). One can also determine the growth rate of the various systems from the reports.

Q. WHAT IS THE ISSUE CONCERNING PLANT IN SERVICE FOR THE 22 SYSTEMS IN THIS CASE?

A. I routinely check each utility system I investigate for physical presence in the field of major components claimed in plant in service by the Utility. In this case, I generally verified all the water system components for the 17 water systems but have serious questions concerning three out of the five wastewater systems.

Q. WHAT ARE YOUR QUESTIONS CONCERNING THE PLANT IN SERVICE AMOUNTS CLAIMED BY THE UTILITY FOR THE THREE WASTEWATER SYSTEMS?

A. The three wastewater systems in question are the Ravenna Park and the Weathersfield systems in Seminole County and the Summertree system in Pasco County, each of which pump their wastewater to the City of Sanford, the City of Altamonte Springs and Pasco County respectively for treatment and disposal. Since the MFR Schedules A did not contain the detailed breakdown of wastewater plant in service for each individual system, the detailed schedules for wastewater plant in service for the 5 individual wastewater systems were obtained from the Utility by discovery.

The schedules for wastewater plant in service for each of the three systems in question still contain large amounts for treatment plant and disposal equipment. Furthermore, Schedule A-7 of the MFRs shows zero amounts for Non-Used & Useful Plant. Amounts still shown in wastewater plant in service for such items as treatment plant, sewer lagoons, disposal

equipment, buildings, structures and land total $392,822 at Ravenna Park; $149,237 at Weathersfield and $254,432 at Summertree . These three amounts total $796,491.

It appears obvious to me that the amounts shown for these treatment plant related facilities should have been removed by the Utility from plant in service or else shown as 100% Non-Used and Useful. Obviously, these items are no longer in service and are providing no benefit at all to the ratepayers.

I posed the question by interrogatory to the Utility, "Should not all of these facilities related to wastewater treatment now be removed from plant in service or alternatively that these facilities should be considered 0% used and useful?" The Utility's response to the interrogatory question for Ravenna Park and Weathersfield was, "No, the treatment plant, sewer lagoon, buildings and structures should be treated as any other asset that has a depreciable base." The Utility's response to the question for Summertree was, "Per the Utility's plant in service accounts, no plant remains in the sewer plant account for year ended 2001."

Unless there is some accounting magic that I am not familiar with, the Utility is wrong in this matter and has overstated their wastewater plant in service by at least $796,491. I attach hereto, as Exhibit TLB-5, a spreadsheet analysis of plant in service amounts for all water and wastewater systems in this case based on the schedules furnished to me by the Utility for each system. I also attach to Exhibit TLB-5, the individual schedules of plant in service for 2001 as furnished by the Utility for the three wastewater systems in question.

Q. WHAT DID YOUR ANALYSES REVEAL CONCERNING UNACCOUNTED FOR WATER?

A. I analyzed the flow records for each of the 17 water systems by subtracting the Total Water Sold" and other permitted uses such as fire flows, line flushing, etc. from the "Total Water

Pumped" and dividing this difference by the "Total Water Pumped". This value yields the total percentage for unaccounted for water in each system. These calculations revealed that 10 out of the 17 water systems had unaccounted for water during the test year in excess of 10% with one as high as 22%. Historically, of course, unaccounted for water in excess of 10% has been considered by the Commission to be excessive and appropriate to be deducted from the "demand" when calculating the used and useful percentages for a system. The excessive unaccounted for water was deducted from the demand in all of my used and useful calculations contained in Exhibit TLB-3. My calculations of unaccounted for water are included herein as Exhibit TLB-4.

In the MFRs, the Utility shows "Acceptable Unaccounted for Water" as 12.5%. While this percentage may be the Utility's acceptable amount of unaccounted for water, the historical policy of the Commission is a limit of 10% which I held to in my calculations.

Q. WHAT DID YOUR ANALYSES REVEAL CONCERNING EXCESSIVE INFLOW AND INFILTRATION (I/I) IN THE FIVE WASTEWATER SYSTEMS IN THIS CASE?

A. I analyzed each of the five wastewater systems for evidence of I/I. The first test that I applied was to subtract 80 percent of the total water sold from the total amount of wastewater treated. The value obtained was then divided by the total wastewater treated to obtain a percentage that is the approximate I/I. (The 80 percent of total water sold is approximately the amount of water that is returned to the system in the form of wastewater.)

I found that 4 of the 5 wastewater systems had approximate I/I percentages considerably in excess of 10% which is about the limit of I/I that should be allowable. Only the Wis-Bar system was found to have I/I less than 10%.

The Summertree system was found to have 25.62% I/I; the Ravenna Park/Lincoln Heights

system was found to have 21.47% I/I; the Weathersfield system was found to have 11.23% I/I; and the Golden Hill/Crownwood system was found to have 11.43% I/I.

Normally, I would proceed to an analysis of the collection lines themselves to determine the amount of I/I per inch of sewer diameter per mile of sewer and than compare these amounts to accepted allowable criteria. However, in this case, the Utility did not furnish sizes of collection mains or reasonable maps to determine the quantity of sewer lengths. Therefore, in the absence of this information, I considered all I/I above 10% as being excessive.

The calculations in Exhibit TLB-6 show the excessive I/I percentages. However, since 3 of these 4 systems with excessive I/I have no wastewater treatment plant for applying the excessive I/I to the individual treatment plants, I have made the statement and my conclusion is that these excessive I/I percentages should be applied by the accountants to the operational cost of pumping the wastewater to others for treatment and to the cost of purchased treatment. This method of accounting for the excessive I/I seems reasonable.

Q. HOW DID YOU APPLY THE STATUTORY 5 YEARS GROWTH IN YOUR USED AND USEFUL CALCULATIONS?

A. Most of the systems have very small average percentage growths except Summertree in Pasco County and Golden Hills in Marion county, both of which have an annual growth rate of about 3%. Regardless of the small increases in many of the systems, I applied the 5 year growth factor per the statute and the Commission's prior policy of strict consideration of the 5 year rule. In similar fashion, I also applied the negative growth rates of three of the water systems and one wastewater system for the 5 year period. The statutory rule must apply both ways to have any meaning and one's opinion of the statute has no bearing on its applicability.

I used the growth factors as furnished by the Utility in the MFRs or discovery data. The 5 years growth factor is of course applied to the "demand" in the numerator of used and useful

formulas.

Q. HOW DID YOU TREAT FIRE FLOW IN YOUR USED AND USEFUL CALCULATIONS?

A. Fire Flow was recognized where fire flow was actually furnished. If fire flow is actually furnished, I added the fire flow to the "demand" in the numerator of used and useful calculations. Through discovery, I obtained from the Utility the fire flow test data for all the systems where fire flow was claimed. I did not include fire flow in systems where only a small portion of the service area was furnished fire flow with the majority of the service area being composed of small water mains with no fire hydrants. The fire flow test data as furnished by the Utility through Discovery is attached as Exhibit TLB-7.

Q. WILL YOU NOW ADDRESS THE USED AND USEFUL ISSUES AND THE RATIONALE THAT THE UTILITY USED IN ITS CALCULATIONS?

A. Yes I will.

Q. HOW DID THE UTILITY CALCULATE THE USED AND USEFUL PERCENTAGES FOR THE WATER SUPPLY, PUMPING, TREATMENT AND STORAGE FACILITIES AND DO YOU AGREE WITH THE RATIONALE?

A. The Utility's engineer, Mr. Frank Seidman proposed a novel rationale for these used and useful (U/U) calculations in his testimony and the F schedules of the MFRs he prepared. For most systems he proposes using a demand in the numerator of the U/U formula based on an instantaneous demand that he derives from a table of instantaneous demands charted for various numbers of residences served. The table that Mr. Seidman attaches to his calculations is labeled "Table XXI" from the publication "Community Water Systems Source Book" authored by Joseph S. Ameen, S.M., Sanitary Engineer, Third Edition from the Technical Proceedings, High Point, North Carolina. Mr. Seidman then computes the value of his

numerator in his U/U formula by adding to this peak flow the fire-flow and five years growth and subtracting excessive unaccounted for water.

Mr. Seidman completes his U/U calculation by dividing the numerator as explained above by a denominator equal to a "firm reliable capacity" that he derives either as the high service pumping capacity or the daily flow with the largest well removed.

I do not agree with Mr. Seidman's rationale which is obviously proposed to try to obtain a U/U percentage of 100% for all systems. Both Mr. Seidman's derivations of numerator and denominator in his U/U formula are flawed and should be summarily rejected. Such a formula almost guarantees a 100% U/U percentage because of the huge instantaneous flow that he derives for the numerator in the calculation. His derivation of the capacity used in the denominator is also incorrect. Nothing in Mr. Seidman's rationale recognizes anything connected with the sizing criteria for water plants as mandated by the FDEP.

Without explanation, Mr. Siedman states in his testimony, "Based on the availability of well capacity, storage capacity and high service pumping capacity I made a determination as to whether demand should be evaluated on the basis of maximum day demand or instantaneous demand."

Q. WHAT DID YOU DO TO INVESTIGATE MR. SEIDMAN'S USE OF INSTANTEOUS FLOWS IN THE DEMAND PORTION OF HIS USED AND USEFUL FORMULAS?

A. Office of Public Counsel (OPC) Interrogatory question No. 58 asked the Utility whether the used and useful calculation rationale for water plants using instantaneous flows had ever been used or approved by the Commission in any prior cases and if so, to please specify the cases. The Utility's response cited four cases with discussion of how the Commission dealt with the instantaneous flow issue in each case.

I obtained each of the cases cited by the Utility from the PSC records and analyzed each case.

My analysis of each case is attached hereto as Exhibit TLB-8.

After analyzing each of the four cases cited by the Utility as providing past evidence of the Commission approving instantaneous flow in used and useful calculations, my conclusion is that the Commission has never approved or even commented on any such rationale.

Q. HOW DID THE UTILITY CALCULATE THE USED AND USEFUL PERCENTAGES FOR THE WATER DISTRIBUTION SYSTEMS AND WASTEWATER COLLECTION SYSTEMS AND DO YOU AGREE WITH THE UTILITY'S RATIONALE AND METHODOLOGY?

A. The Utility ignored the long standing and Commission approved rationale and methodology for calculating the used and useful percentages for these systems which is to simply compare total connections (Connected ERCs) to total available connections. (Total available ERCs). This is a very fair rationale and methodology that has been recognized by the Commission for many years.

The Utility did not calculate any U/U percentages for the water systems but simply stated that the water distribution systems had been previously considered 100% U/U in a prior docket and that the system had experienced no significant changes and therefore remained 100% U/U. I do not agree with the Utility that these systems are automatically to be considered 100% U/U because some changes have occurred to each system. The systems are also not built out. The only way to determine the correct U/U percentage is to actually count the connected ERCs and divide that total by the count of available ERCs. I used this long standing and approved rationale and methodology in my U/U calculations included in Exhibit TLB-3.

The Utility also did not bother to calculate a U/U percentage for the wastewater collection systems but instead reasoned that either the system was completely built out or that the system

had been found 100% U/U in a prior case or that the facilities required to deliver wastewater to a City or County for treatment are considered to be 100% U/U. I disagree with the Utility's reasoning because the wastewater systems are not built out and excess capacity does exist in these system. Used and Useful percentages considerably less than 100% are found when the appropriate lot to lot or connected ERCs to total available ERCs rationale or methodology is correctly applied. My calculations in Exhibit TLB-3 demonstrate the correct U/U percentages by applying the Commission's long recognized methodology.

Q. HOW DID THE UTILITY CALCULATE THE USED AND USEFUL PERCENTAGES FOR THE WASTEWATER TREATMENT PLANTS AND DO YOU AGREE WITH THE UTILITY'S RATIONALE AND METHODOLOGY?

A. I have not agreed with any of the Utility's rationales and methodologies of calculating U/U percentages for the items as discussed above and I am also in disagreement with the Utility for the correct method of U/U calculation for wastewater treatment plants. The Utility has simply not used any of the longstanding and Commission recognized and approved methodologies for any of its U/U calculations. It seems that the Utility is intent on breaking new ground and is asking the Commission to change its long standing approved methodologies for U/U calculations.

The one U/U calculation performed for the Crownwood Treatment plant by the Utility's engineer, Frank Seidman was calculated according to his testimony by, "dividing (peak demand – excess inflow & infiltration + property needed to serve five years after the test year) by the rated capacity of the system." This methodology is obviously at odds with the Commission's long standing and approved methodology of dividing the demand (appropriately modified by any excessive I/I and 5 years growth), determined on the same basis as the FDEP permitted capacity. My U/U calculations in Exhibit TLB-3 follow this

correct rationale and methodology.

Just as disturbing as the erroneous calculation of the U/U percentage for the Crownwood Treatment Plant is the Utility's failure to calculate a 0% U/U percentage for the three wastewater treatment plants that transport their wastewater to others for treatment and disposal. The Utility sees no reason to calculate a U/U percentage for these plants since the plants have been taken out of service. But, as I discussed above at length, the individual "Plant in Service Schedules" furnished to OPC in response to interrogatories still show large amounts for various treatment and disposal facilities. Three of these systems still show Plant in Service for wastewater treatment and disposal Facilities totaling $796,491. I contend the obvious, that the Utility can not have it both ways. Either these treatment and disposal facilities must be removed from plant in service or each such plant must be considered 0% used and useful.

Q. DO YOU HAVE ANY PROBLEMS WITH THE PSC STAFF'S FORMULAS ANTICIPATED TO BE USED IN THE CALCULATION OF USED AND USEFUL PERCENTAGES?

A. I have not yet seen Staff's testimony on the used and useful issue or their calculations. But reading one of Staff's interrogatories to the Utility where Staff tells the Utility that they have wrongly used a 24 hour pumping period for their smallest well instead of a 12 hour period as advocated by Staff lets me know that Staff is still promoting an overall water plant "Firm Reliable Capacity."

I do have a basic disagreement with Staff concerning the formula or rationale used to calculate used and useful percentages for water plants. Within the last few years, at the direction of Mr. Bob Crouch, retired PSC Engineering Supervisor, Staff engineers have developed a rationale for calculating the used and useful percentages for a water treatment

plant that combines supply wells, treatment facilities, storage facilities and pumping into one overall plant used and useful percentage. This rationale considers the demand to be the average 5 max days of max month flow, adjusted for five years growth, added to fire flow, and then divided by a firm reliable plant capacity that is developed from the flow of all of the wells for only 12 hours, with the largest well not included, added to the capacity of any storage facility. This hybrid and novel rationale does not follow any FDEP sizing criteria for the various components of a water plant, and the overall plant used and useful percentage obtained is often an inordinately high and unjustifiable percentage. I contend that the sizing criteria required by the regulatory agencies should be utilized in the U/U calculation rationale, since these criteria directly control the size of components required to be installed by the Utility. Sizing any of the plant components grossly larger than required for the demand, with an already built in 5 years growth, is an expense that is unreasonable and the customers should not have to pay for these large components, often installed by the utility for distant future growth. Each water plant component should be separately considered and individual U/U percentages calculated by comparing the demand of the average of 5 max days of the max month to the daily capacity of the component as required by the FDEP. Of course, the demand should still be modified by adding 5 years growth and subtracting any excessive unaccounted for water.

The formula for calculating the used and useful percentage of a water distribution system or wastewater collection system by comparing total connected ERCs to total ERCs available for service in the system is a long established and settled rationale for calculating distribution and collection systems used and useful percentages. Sometimes Staff and I have differences in the count of connected and potential connections but I have no problem with the basic rationale.

I contend that individual U/U percentages should be calculated for each major component of a

water plant and that proper demands and capacities be used and comparisons made with regard to the sizing criteria required by the FDEP for each component. I will explain below the rationales for calculating U/U percentages for the various water plant components with due consideration for the FDEP sizing requirements for the minimum required sizes.

Q. WHAT IS THE PROPER METHOD FOR DETERMINING THE USED AND USEFUL PERCENTAGE FOR SOURCE OF SUPPLY AND PUMPING?

A. The proper method is to evaluate the source of supply and pumping in accordance with the FDEP rule for design of these facilities. This rule is a FDEP design guideline under Chapter 62-500, FAC, which sets forth Section 3.2.1.1 of *Ten States Standards* as the governing rule which is as follows:

> Section 3.2.1.1 of *Ten States Standards* states: "The total developed groundwater source capacity shall equal or exceed the design maximum day demand **and** equal or exceed the design average day demand with the largest producing well out of service." (Firm Reliable Capacity)

From this rule, it is clear that two comparisons are required, namely Total Maximum Day Demand to Total Capacity and the Average Day Demand to the Firm Reliable Capacity. It is obvious that the largest percentage of the two comparisons must be used to satisfy the Ten States Rule.

When computing the maximum day capacity and firm reliable capacity, the well pumping rate should be taken for the full 24 hour period since we are dealing with extreme cases of short duration and well pumps can operate at full flow for these periods. Modern pumps are guaranteed to run continuously for several thousand hours. Rarely are these pumps running continuously except perhaps during peak demand times since controls shut the pumps off for brief periods when enough pressure exists in the distribution system. Therefore, there is no

reason to restrict the flow to a 12 hour period when calculating a firm reliable capacity of a well. The recently changed Staff rationale restricting the flow of the well or wells to 12 hours (with the largest well flow not considered) is simply without merit or reason and is probably due to a misunderstanding of a FDEP rule requiring operating personnel a minimum time on site of 12 hours, which bears no relationship to pump run time.

The demand in these calculations must be modified by three factors. First, by Florida law, a five year growth factor must be added to the demand. Secondly, the appropriate fire flow, if furnished, must also be added to the demand. Finally, the demand flow should be reduced by any excessive unaccounted for water.

Finally, Staff and I have most always disagreed concerning the amount of fire flow to be included in the demand. Staff invariably will include a fire flow of 750 to 1,000 gallons per minute (gpm) for a two hour duration although certainly no fire flow is presently included in many of these small systems. I contend, at most, that the fire flow demand, (as required by local jurisdiction) should be considered and that only if such fire flow is actually furnished.

Q. WHAT USED AND USEFUL PERCENTAGE DO YOU OBTAIN FOR THE SOURCE OF SUPPLY WELLS WHEN YOU USE THE TEN STATES STANDARDS RULE AND HOW DOES THIS COMPARE WITH THE UTILITY'S REQUESTED PERCENTAGE?

A. All of my calculations of used and useful percentages are shown in detail in Exhibit TLB-3. I computed the various flows that are necessary to evaluate the two comparisons required by Section 3.2.1.1 of *Ten States Standards.* The used and useful percentages I calculated varied from a low of 13.2% to a high of 100% compared to a used and useful percentage of 100% calculated by the Utility for all systems.

Q. WHAT IS THE APPROPRIATE METHOD FOR DETERMING THE USED AND

USEFUL PERCENTAGE FOR THE STORAGE FACILITIES FOR THE VARIOUS SYSTEMS?

A. The FDEP recognizes both American Water Works Association (AWWA) and Ten States Standards guidelines for storage facilities and these criteria should both be evaluated for the storage facilities.

As discussed above, AWWA M32 suggests that equalization storage is about 20 to 25 percent of the Average Day Flow(ADF). Fire storage is to be included if fire flow is provided. Emergency storage is an owner's option and is not strictly required. Ten States Standards requires fire flow storage if fire flow is provided. Ten States sets up a minimum storage equal to ADF for systems not providing fire flow. This requirement may be reduced when the source of supply and treatment facilities have sufficient capacity with standby power to supplement peak demands of the system. Emergency storage is not mentioned in this reference.

When the system is furnishing fire flow, a half day ADF of storage is used in the test formula developed below. That amount is more than adequate for peak hour demand storage compared to the 20 to 25 % ADF suggested in the AWWA M32. The one day ADF storage criteria mentioned in Ten States Standards was reduced to one half day because MDF design flow was used for supply wells and all wells are required to have emergency power. Fire storage was used. No emergency storage was included. Considering all of the guidelii s, the following U/U formulas for storage facilities have been developed by OPC.

For systems without fire flow:

U/U = One Day ADF / Total System Capacity

For systems with fire flow::

U/U = (½ ADF + F.F.) / Total System Capacity

The ADF is, of course, adjusted for 5 years growth and for excessive unaccounted for water.

Q. WHAT USED AND USEFUL PERCENTAGE DID YOU COMPUTE FOR THE STORAGE FACILITIES USING THE METHOD YOU DESCRIBED AND HOW DOES THIS U/U PERCENTAGE COMPARE WITH THE UTILITY'S REQUESTED PERCENTAGE?

A. Using the system's ADF, as adjusted for 5 years growth and excessive unaccounted for water, and fire flow as previously discussed, used and useful percentages of 100% were calculated for the 5 water systems that furnish storage. The utility's calculations show 100% for each of these systems.

My detailed calculation are included in Exhibit TLB-3.

Q. **IN YOUR USED AND USEFUL CALCULATIONS, DID YOU USE MAXIMUM DAY FLOW OR THE AVERAGE OF THE 5 MAXIMUM DAYS OF MAXIMUM MONTH FLOW FOR THE SYSTEM'S MAXIMUM FLOW AND WHY DID YOU USE THIS FACTOR.**

A. It is always better and more representative of the true maximum day flow to use the average of the five maximum days of the maximum month, and that is what I used for the maximum flow. Using the average of the five maximum days of the maximum month rather than the single maximum day of the year lets one avoid such anomalies as fire flow, broken mains or other large leaks.

Q. **WHAT IS THE APPROPRIATE ALLOWANCE FOR UNACCOUNTED FOR WATER FOR THESE WATER SYSTEMS AND WHAT DID YOU USE IN YOUR CALCULATIONS?**

A. A maximum allowance of 10 percent of Average Daily Flow (ADF) is reasonable for unaccounted for water (UFW) for any reasonably maintained water system. In this case, I

found excessive UFW greater than 10% in 10 of the 17 water systems. It should be noted that the Utility's data in the MFRs was faulty for two of the systems with more water shown as sold than pumped.

I applied the excessive percentages of UFW for the 10 systems found with excessive UFW to all calculations of system demand.

Q. WHAT IS THE APPROPRIATE METHOD FOR DETERMINING THE USED AND USEFUL PERCENTAGE FOR THE WATER DISTRIBUTION SYSTEMS AND THE WASTEWATER COLLECTION SYSTEMS?

A. The appropriate method to calculate a fair U/U percentage is to compare Total Connected Equivalent Residential Connections (ERCs) to Total Available ERCs for each system. As I discussed above, I have no differences with the Staff on the calculation rationale.

Q. HOW DID YOU DETERMINE THE TOTAL CONNECTED ERCs AND THE TOTAL AVAILABLE ERCs IN THE VARIOUS SYSTEMS AND WHAT USED AND USEFUL (U/U) PERCENTAGES DID YOU COMPUTE FOR EACH SYSTEM?

A. I counted the total connected ERCs and the total available ERCs of all water distribution systems and wastewater collection systems from the system maps furnished by the Utility in combination with my onsite inspections of a number of systems. OPC had to request corrected system maps for several systems after my inspections revealed a number of errors in the originally furnished maps. The final counts so derived were used in the used and useful calculations shown in Exhibit TLB-3.

The U/U percentages that I calculated for the 17 water distribution systems varied from a low of 73.9% at the Oakland Shores System to a high of 100% at the completely built system of Davis Shores in Orange County. The Utility showed 100% for all systems, although as discussed above, no calculations were performed.

The U/U percentages that I calculated for the 5 wastewater collection systems varied from a low of 51.47% at the Golden Hills/Crownwood System to a high of 97.20% at the Wis-Bar System. The Utility showed 100% for all systems but no calculations were performed in support of the claimed percentages.

Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?

A. Yes, it does.

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CIVIL, STRUCTURAL and FORENSIC ENGINEERING, INVESTIGATIONS, STUDIES, REPORTS

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EXHIBIT TLB – 1

TED L. BIDDY RESUME

TED L. BIDDY, P.E., P.L.S.
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CIVIL and FORENSIC ENGINEERING, INVESTIGATIONS, STUDIES, REPORTS

EDUCATION:

Topographic Surveying
The Engineer's School
Ft. Belvoir, Va, 1957

Bachelor of Science, Civil Engineering
Georgia Institute of Technology, 1963

Graduate Studies, Geodesy
Georgia Institute of Technology, 1963

REGISTRATIONS:

Professional Engineer, Florida No. 17656
Professional Engineer, Georgia No. 12609
Professional Engineer, Mississippi No. 3984
Professional Engineer, Louisiana No. 18431
Professional Engineer, South Dakota No. 4747
Professional Engineer, Nebraska No. E-6974
Professional Engineer, Missouri
Professional Land Surveyor, Florida No. 2658
Professional Land Surveyor, Georgia No. 1421
Professional Land Surveyor, Mississippi No. 1429

FIELDS OF COMPETENCE:

Project Management
Forensic Engineering
Civil Engineering
Structural Engineering
Sanitary Engineering
Soils & Foundations Engineering
Highway Engineering
Construction Contract Administration
Surveying
Environmental Permitting

AFFILIATIONS:

Florida Engineering Society
American Consulting Engineers Council
Florida Society of Surveyors & Mappers
American College of Forensic Examiners

EXPERIENCE :

My 38 years career has been divided into four periods of professional experience as follows:

- 4/1//63 – 9/1/69 During the first 6.5 years following graduation from Georgia Tech, I worked for the Jackson, Mississippi Southern Division of the national consulting firm of Michael Baker, Jr., Inc. The work area included Georgia, North Carolina, Tennessee, Kentucky, Arkansas, Louisiana, Alabama, Florida and Mississippi. I began with the Baker firm as a design engineer and was a project engineer/manager when I left the firm in 1969. My experience with this firm included major agricultural industrial complexes; airports; industrial parks; marinas; subdivisions; water & wastewater systems; warehouses; ship terminals; and surveying. My final position with the Baker firm was that of Port & Harbor Engineer for the firm's Southern Division.

- 9/1/69 – 4/1/91 During the next 21.5 years, I operated my own consulting firm throughout the Southeast U. S. from offices located in Jackson, Mississippi and Tallahassee, Florida. I served as chief operating officer with full responsibility for all engineering operations. During this period, the firm varied in size from 10 to 50 employees and performed over 1500 projects for a wide variety of clients. My experience during this period included the following areas:
    - Corps of Engineering Survey Contracts
    - National Ocean Survey Tidal Datum & Tidal Gage Contracts
    - Major River Barge Terminal
    - Large Warehouse Projects
    - Large & Small Subdivisions
    - Surveying & Platting
    - Bridges
    - Cofferdams, Bulkheads & Waterfront Structures
    - Water Supply & Distribution Systems
    - Wastewater Collection & Treatment
    - Roadways
    - Rail Spurs
    - Buildings
    - Marinas
    - Master Planning
    - Stormwater, Drainage & Flooding Studies
    - Industrial Parks
    - Feasibility Studies & Engineering Reports
    - Expert Court Testimony
    - Local, State & Federal Agencies Permitting
    - Forensic Engineering

- 4/1/91 – 10/1/98 During these 7 ½ years I worked in the Tallahassee Regional office of the consulting firm of Baskerville-Donovan, Inc.(BDI). I began with BDI as a Senior Civil Engineer, was promoted to Regional Manager in September, 1991 and held this position until February, 1998. During this period I was made a vice-president of BDI. During this period the Tallahassee Regional office of BDI grew from a 6-man office to a 30 man plus office and from annual revenues of $250,000 to in excess of $3,000,000. New clients obtained included the City of Tallahassee; Leon County; FSU; FDEP Parks & Recreation; FDOT; Fl. Office of Public Counsel; Fl Game & Fresh Water Fish Commission; and the cities of Apalachicola, Carrabelle and Sopchoppy. A relevant sample of the projects for which I served as Senior Project Manager/Director during this period is as follows:

CLIENTS	**PROJECTS**
City of Tallahassee	Four Lane Widening of East Park Ave., Appleyard Dr., Conner Blvd., Richview Rd., Mission Rd And Lipona Rd..
City of Tallahassee	New Animal Shelter
City of Tallahassee	Water & Wastewater System Expansions
City of Tallahassee	Stormwater Improvements at several Locations
Leon County	Rehabilitation of Lake Munson Dam
Leon County	Four Lane Widening of Buck Lake Rd..
Leon County	Design of County SAFE Roads Program including Old Magnolia Rd., Rococo Rd., Cypress Landing Rd., Proctor Rd., Nabb Rd., & Swatts Rd.
Leon County	Design of County Parks at Woodville, Fl., Ft. Braden & Chaires
Leon County	Miscellaneous ROW & Acquisition Surveys
Florida State University	Environmental Audits
Florida State University	Site Engineering & Permitting for Campus expansion areas
Florida State University	Acquisition Surveys for Campus Expansion
Florida State University	Design of Bridge & Roadway Repairs
FDEP Parks & Recreation	Surveys for Henderson Beach Park
FDOT	PD&E Studies of U. S. Hwy 98 and State Rd. No. 79

FDOT	Design of U. S. 98 improvements
FDOT	Design of 5.5 miles of State Road No. 79, a four lane divided roadway
Office of Public Counsel	Studies and Expert Testimony for Several water & sewer rate cases before the Fl Public Service Comm.
Fl. Game & Fresh Water Fish Commission Fl Department of Corrections	Design of Water Control Structure & Dam at Lake Miccosukee Water & Wastewater Treatment Systems at several correctional Facilities
City of Apalachicola	Design & Permitting for new Wastewater Collection System, Treatment Plant, Water Supply and Distribution System
City of Carrabelle	Design of Water Distribution and Wastewater Collection System
St. George Is. Utilities	Design & permitting of new water Supply well and improvements to Treatment, Storage and Distribution Systems
Casa Del Mar Subdivision	Design of Major Subdivision on St. George Island
Tallahassee Developments	Design & permitting for numerous Residential & Commercial Developments in Leon County
Expert Witness Services	Studies and Expert Witness Services for various cases

- 10/1/98 – Present. After leaving the Baskerville-Donovan firm on September 30, 1998, I again entered private practice offering my services to the public in the fields of Civil, Structural & Forensic Engineering. The primary focus of my practice is studies, investigations, evaluations, reports, engineering designs and the offering of expert witness services. The following is a listing of the clients I presently serve and the professional services that I furnish to them.

CLIENTS	**PROJECTS**
Foley & Lardner Law Firm	Study, evaluation and expert testimony for structural engineering case
Alsobrook & Dove Law Firm	Studies, investigations, reports and

	Expert witness services for two cases
John Barley & Assocs. Law Firm	Studies, investigations, reports and Expert Witness services for one case
Fl. Office of Public Counsel	Studies, investigations and expert Witness services for 18 Utility rate cases
DiversiTech	Structural evaluation & retrofit designs for 3-story, 65 year old building in Quincy, Fl
Sweetbay Subdivision	Site Plan review, concurrency and Environmental Permitting
Meredith Lumber & Northstar	Design of retaining walls for Pensacola Street Realignment project
The Allen Morris Co.	Structural analysis of 10th floor roof Deck for inserts for new roof
Sawgrass Association	Studies & Forensic engineering for Wastewater Treatment Facilities & Environmental analysis of lake system.
Tarragon Realty Advisors	Structural analyses and retrofit designs for cure for wall movements for three story apartment building.
The Wetlands Company	Structural analysis & retrofit design to cure foundation problems at plant in Thomasville, Ga.
Mitch Covington	Structural analyses & retrofit designs to cure foundation & structural defects.
Miracle Hill Nursing Home	Studies, report and expert testimony of design and construction deficiencies at new Nursing Home Facility
Bouchelle Island	Design & Construction Administration for 2,800 ft. long Breakwater
Missouri Office of the Public Counsel	Investigations, report and expert witness services for 2 major cases
Miracle Hill Nursing Home	Design of Parking Facilities.
L & W Engineering, Inc.	Structural design of Large Retaining Wall and Bridge.

EXHIBIT TLB – 2

USED AND USEFUL CALCULATION RATIONALE

Exhibit TLB-2

USED AND USEFUL CALCULATION RATIONALE

1. Water Distribution Systems and Sewage Collection Systems

It is the long established and settled policy of the Public Service Commission that the rationale for calculation of Used and Useful percentages for distribution systems and collection systems should compare the total connected Equivalent Residential Connections in a system to the total available Equivalent Residential Connections in the system. Therefore the formula for Used and Useful calculations for these systems may be expressed as follows:

U/U = (Total Connected ERCs + 5 yrs. Growth) / Total Available ERCs

The five years growth factor is, of course, a requirement of Florida law.

There should never be a difference in the count of total connected ERCs since this is a number that can be obtained from the Utility's records of connected customers and converted to equivalent residential connections.

However, often there is a difference in count of total available equivalent residential connections in the overall system. Many times the Utilities will tend to minimize the total available connections in order to obtain as high a Used and Useful percentage as possible.

Counts of total available ERCs should be made for all areas where distribution water mains and collection system sewers have been constructed and should include all single and multifamily areas and any commercial areas located along these utility lines. Each vacant area should be counted for a future connection or connections based upon the number of allowable new structures which may be constructed in keeping with approved subdivision plats, allowable densities from zoning, etc. The existing development pattern and density adjacent to vacant areas can usually be relied upon in determining how many future connections may be developed in a vacant area.

In this case, I counted the number of connections from system maps furnished by the utility and then counted the total available connections by considering the vacant areas shown by the utility on the system maps with the same density of development as adjacent developed areas.

Strangely, the Utility's engineer did not calculate Used and Useful percentages for the water distribution systems and the sewage collection systems. Instead, he refers to prior Dockets to try to justify a 100% used and useful percentage for each system. Such an incomplete analysis does not take into account expansions in the systems, possible past errors of calculations and other factors which may affect the used and useful percentages.

The Utility's claim for 100% used and useful percentages for all systems is simply not true and should be rejected. The correct Used and Useful percentages for each distribution and collection system are shown in Exhibit TLB-3 in which I have calculated the percentages based on the long established Public Service Commission methodology as discussed above

2. Water Supply and Treatment Plants

The sizing of the various components of a Water Supply and Treatment Plant is strictly and exclusively controlled by the Florida Department of Environmental Protection (FDEP). Therefore, it seems obvious to me that the sizing criteria as enforced by the FDEP must be considered in any rationale for calculating the used and usefulness of any system.

The FDEP sizing criteria for all components of a Water Supply and Treatment Plant are very conservative and the required sizing of each component takes into account the most extreme conditions and includes built in redundancies to safeguard the components from overload.

I contend that individual Used and Useful (U/U) percentages should be calculated for each major component of a water supply and treatment plant and that the proper demands as determined by FDEP sizing criteria plus 5 years growth as required by Florida law be compared to actual existing sizes of components.

This methodology is fair to the Utility since the actual size of components installed should reasonably match the FDEP sizing criteria plus some growth allowance. The methodology is also fair to the ratepayers since the rationale will yield lower U/U percentages for inordinately oversized components which are not needed to serve the ratepayers. The methodology should also serve to discourage a utility from intentionally over-sizing a component of the water plant simply to create larger rate base.

The U/U rationale I propose for the major components of a Water Supply and Treatment Plant is as follows:

A. Source of Supply and Pumping (Wells & Springs)

The proper method of calculating a U/U percentage for this component is to evaluate the Source of Supply and Pumping in accordance with the FDEP rule for design of these facilities in comparison to actual sizes installed. The FDEP sizing rule is a FDEP design guideline under Chapter 62-500, FAC which sets forth Section 3.2.1.1 of the Recommended Standards for Waterworks Facilities as published by the Great Lakes – Upper Mississippi River Board of State and Provincial Heath and Environmental Managers, known in the industry simply as *The Ten States Standards* .

Section 3.2.1.1 of *Ten States Standards* states: "The total developed groundwater source capacity shall equal or exceed the design maximum day

demand **and** equal or exceed the design average day demand with the largest producing well out of service." (Firm Reliable Capacity)

From this rule it is clear that two comparisons are required, namely Total Maximum Day Demand (MDF) to Total Capacity and the Average Day Demand (ADF) to the Firm Reliable Capacity (FRC). It is also obvious that the larger percentage of the two comparisons must be used to satisfy the *Ten States Rule.*

The demands in these calculations must be modified by three factors. First, by Florida law, a five year growth factor must be added to the demand. Secondly, the appropriate fire flow (FF), if furnished, must be added to the demand. Finally, the demand should be reduced by any excessive unaccounted for water (UFW). Fire Flow should only be included in the demand if fire flow is actually furnished.

The wells Total Capacity and the Firm Reliable Capacity should both be taken as the full 24 hour pumping rate, because we are dealing with extreme cases of short duration and well pumps can operate at full flow for these periods. Modern pumps are guaranteed to run continuously for several thousand hours. Rarely would these pumps be running continuously except perhaps during peak demand times since controls shut the pumps off for brief periods when enough pressure exists in the distribution system. Therefore, there is no reason to restrict the flows to some artificial 12-hour, 16 hr or other pumping time period shorter than 24 hours when calculating the capacity.

The two formulas for U/U calculation of Source of Supply and Pumping, based on the above are as follows:

U/U = (MDF + FF + 5 Yrs. GROWTH – Excess UFW) / TOTAL CAPACITY

OR

U/U = (ADF + FF + 5 Yrs. GROWTH – EXCESS UFW) / FRC

WHERE

U/U = USED & USEFUL PERCENTAGE

MDF = MAXIMUM DAILY FLOW

FF = FIRE FLOW (If Furnished)

ADF = AVERAGE DAILY FLOW

UFW = UNACCOUNTED FOR WATER

FRC = FIRM RELIABLE CAPACITY

The U/U percentages for the Source of Supply and Pumping (Wells) for each of the water systems in this case are shown in Exhibit TLB-3 in which I have calculated the percentages based upon the rationale discussed above.

B. Storage Facilities

The FDEP recognizes both American Water Works Association (AWWA) and Ten States Standards guidelines for storage facilities sizing. Therefore, both of these criteria must be evaluated for storage facilities.

AWWA Manual 32 suggests that equalization storage be provided in an amount equal to 20 to 25 percent of Average Day Flow (ADF). Fire Storage is to be included if fire flow is provided. Emergency storage is an owner's option and not a requirement. The *Ten States Standards* requires fire flow storage if fire flow is furnished. *Ten States* calls for a minimum storage equal to ADF for systems not providing fire flow. This storage requirement may be reduced when the source of supply and treatment facilities have sufficient capacity with standby power to supplement peak demands of the system. Emergency storage is not mentioned in *Ten States.*

When a system is furnishing fire flow, a one half day ADF is used in the U/U formula developed below. That amount is more than adequate for peak hour demand storage compared to the 20 to 25 percent of ADF suggested in the AWWA M32. The one day ADF storage criteria mentioned in *Ten States Standards* was reduced to one half day because MDF design flow was used for supply wells and all wells are required to have emergency power. No emergency storage was included. Fire Flow was included for all systems having fire flow.

Considering all the FDEP guidelines as discussed above, the following U/U formulas have been developed.

For Systems without Fire Flow

U/U = One Day ADF / Total System Capacity

For Systems with Fire Flow

U/U = (1/2 ADF + FF) / Total System Capacity

The ADF is, of course, adjusted for the statutory 5 years growth and by any excessive unaccounted for water.

Most systems in this case do not have adequate storage and few furnish fire flow.

C. Water Treatment Plant

The FDEP requires that Water Treatment Plants be designed for Maximum Day Flow plus whatever other demands are on the system. Therefore, to calculate a proper Used and Useful percentage, the Maximum Day Demand modified by other factors such as fire flow, 5 yrs. Growth and excessive unaccounted for water should be compared to the Maximum Capacity.

The Maximum Day Flow should be determined from the utility's records as the average of the five maximum flow days of the maximum month. Using the average of the five maximum days of the maximum month rather than the single maximum day of the year avoids such anomalies as fire flow, broken mains or other large leaks. The average max five days of max month flow is always better and more representative of the true maximum day flow rather than the maximum flow day of the year.

The formula for U/U percentage for the water treatment plant may be expressed as follows:

U/U = (Avg. 5 Max. Days Flow + FF +5 yrs. Growth – Excess UFW) / Max. Capacity

When high service pumping exists, also compare to firm reliable capacity.

3. Wastewater Treatment Plant

The PSC has a long established and settled policy for the rationale to be used in determining the U/U percentage for wastewater treatment plants. This rationale is to compare the flow rate of the plant to the FDEP permitted flow rate with the plant flow rate being on the same basis as the basis shown in the FDEP permit. In other words, if the FDEP permit basis is annual average daily flow (AADF), then the test year AADF should also be used. This rationale insures that both the numerator and denominator of the U/U formula are arrived at from the same basis and that like quantities are being compared. Comparing flows arrived at from a different basis would be mathematically meaningless.

The U/U formula can be expressed as follows:

U/U = (Test Year Flow + 5 yrs Growth) / FDEP Permitted Flow

The test year flow should also be adjusted for any excessive inflow and infiltration.

Normally the treatment plant and its effluent disposal facility have the same capacities. However, if the effluent disposal facilities provides for reuse, then by Florida law, all such reuse facilities are to be considered 100% used and useful.

EXHIBIT TLB – 3

USED & USEFUL CALCULATIONS

EXHIBIT TLB-3

USED & USEFUL CALCULATIONS

I. MARION COUNTY – GOLDEN HILLS/CROWNWOOD SYSTEMS

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY: 330 GPM + 440 GPM = 770 GPM
MDF = 770 GPM = 1,108,800 GPD (24 HRS. PUMPING)

1.1.2 FIRM RELIABLE CAPACITY: 330 GPM WITH THE 440 GPM WELL OUT OF SERVICE.
FRC = 330 GPM = 475,200 GPD (24 HRS PUMPING)

1.1.3 PER MFRS
ADF = 163,005 GPD
M5DADF = 350,800 GPD

1.1.4 EXCESS UNACCOUNTED FOR WATER (UFW)
TOTAL UFW = 22.21% (SEE EXHIBIT TLB-4)
ALLOWABLE UFW = 10%
EXCESS UFW = 22.21% - 10% = 12.21%
ADF EXCESS UFW = 12.21% X 163,005 GPD = 19,903 GPD
M5DADF EXCESS UFW = 12.21% X 350,800 GPD = 42,833 GPD

1.1.5 FIRE FLOW (FF)
FF = 500 GPM FOR 2 HRS. DURATION
FF = 500 X 60 X 2 = 60,000 GALS

1.1.6 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = 2.95%
FIVE YEARS GROWTH = 5 X 2.95% = 14.75%
GROWTH FOR 5DMDF = 14..75% X 350,800 GPD = 51,743 GPD
GROWTH FOR ADF = 14.75% X 163,005 GPD = 24,043 GPD

1.1.7 USED & USEFUL CALCULATIONS

$$U/U = \frac{MDF + FF + 5YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{350{,}800 + 60{,}000 + 51{,}743 - 42{,}833}{1{,}108{,}800} = 37.85\%$$

OR

$$U/U = \frac{ADF + FF + 5\ YEARS\ GROWTH - EXCESS\ UFW}{FRC}$$

$$U/U = \frac{163{,}005 + 60{,}000 + 24{,}043 - 19{,}903}{475{,}200} = 47.80\%$$

LARGEST PERCENTAGE CONTROLS, U/U = 47.80%

1.2 WATER TREATMENT PLANT

SYSTEM HAS NO STORAGE EXCEPT HYDROPNEUMATIC TANKS AND NO HIGH SERVICE PUMPING. THEREFORE THE USED AND USEFUL PERCENTAGE FOR THE OVERALL WATER TREATMENT PLANT SHOULD BE TAKEN AT 47.80% TO MATCH THE U/U PERCENTAGE FOR THE WELLS. THE ONLY FACILITIES INVOLVED ARE THE CHLORINATION FACILITIES AT EACH WELL.

1.3 WATER DISTRIBUTION SYSTEM

$$U/U = \frac{CONNECTED\ ERCS + 5\ YRS\ GROWTH}{TOTAL\ AVAILABLE\ ERCS}$$

COUNT PER ORIGINAL SYSTEM DRAWING SUBMITTED BY UTILITY:

COMMERCIAL CONNECTIONS	=	3
SINGLE FAMILY RESIDENCES	=	313
VACANT RESIDENTIAL	=	108
MULTIFAMILY ERCS	=	26
VACANT MULTIFAMILY ERCS	=	30
IRRIGATION ERCS	=	8
QUAD CONNECTED ERCS	=	72
VACANT QUAD ERCS	=	40

SUMMARY:	CONNECTED ERCS	=	422
	TOTAL AVAILABLE ERCS	=	600

REVISED COUNT PER REVISED SYSTEM DRAWING
SUBMITTED BY UTILITY:

AVG. CONNECTED ERCS	=	456 (EX. FS-2)
TOTAL AVAILABLE ERCS	=	590

1.3.1 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = 2.95%
5 YRS. GROWTH = 5 X 2.95% = 14.75%

1.3.2 U/U CALCULATION:

$$U/U = \frac{456 + 14.75\% \times 456}{590} = 88.64\%$$

2. WASTEWATER SYSTEM

2.1 MFR DATA

TREATMENT PLANT PERMITTED CAPACITY = 40,000 GPD
BASED UPON MAX THREE MOS. ADF,(TMADF)

TMADF = 25,282 GPD (SCHEDULE F-6)

5 YRS. GROWTH = 2,178 GPD DUE TO BULK CUSTOMER BEING ADDED DURING TEST YEAR. (SCHEDULES F-8 & F-10)

EXCESSIVE INFLOW & INFILTRATION (I/I)

COLLECTION SYSTEM DATA WAS NOT FURNISHED ON SYSTEM MAPS FURNISHED. THEREFORE, AN ALLOWABLE I/I OF 10% OF THE TMADF WAS ADOPTED AS THE ALLOWABLE I/I. THE REPORTED I/I BY THE UTILITY WAS 11/43%. THEREFORE, THE EXCESS I/I IS TAKEN AS 1.43%.

EXCESS I/I = 1.43% X 25,282 GPD = 362 GPD

2.2 WASTEWATER TREATMENT PLANT U/U PERCENTAGE

$$U/U = \frac{\text{TMADF + 5 YRS. GROWTH - EXCESS I/I}}{\text{PERMITTED CAPACITY (BASED ON TMADF)}}$$

$$U/U = \frac{25,282 + 2,178 - 362}{40,000} = 67.75\%$$

2.3 WASTEWATER COLLECTION SYSTEM DATA

AVAILABLE ERCS = 136
AVG. CONNECTED ERCS = 70 (EXHIBIT FS-2)
AVERAGE ANNUAL GROWTH = 0%

2.4 WASTEWATER COLLECTION SYSTEM U/U PERCENTAGE

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS. GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

$$U/U = \frac{70 + 0}{136} = 51.47\%$$

II. PINELLAS COUNTY – LAKE TARPON WATER SYSTEM

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY; 1 WELL @ 500 GPM
MDF = 720,000 GPD (24 HRS. PUMPING)
INTERCONNECTION WITH PINELLAS COUNTY FOR BACKUP

1.1.2 FIRM RELIABLE CAPACITY: TAKE AS 720,000 GPD BECAUSE OF INTERCONNECT.

1.1.3 PER MFRS
ADF = 78,115 GPD
M5DADF = 306,940 GPD

1.1.4 EXCESS UNACCOUNTED FOR WATER (UFW)
TOTAL UFW = 20.6% (SEE EXHIBIT TLB-4)
ALLOWABLE UFW = 10%
EXCESS UFW = 20.6% - 10% = 10.6%
ADF EXCESS UFW = 10.6% X 78,115 GPD = 8,280 GPD
M5DADF EXCESS UFW = 10.6% X 306,940 GPD = 32,536 GPD

1.1.5 FIRE FLOW: NOT REQUESTED FOR THIS SYSTEM WITH SMALL WATER MAINS AND NO FIRE HYDRANTS THROUGHOUT MOST OF SYSTEM.

1.1.5 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = 0.56%
FIVE YEARS GROWTH = 5 X 0.56% = 2.80%
GROWTH FOR 5DMDF = 2.80% X 306,940 GPD = 8,594 GPD

GROWTH FOR ADF = 2.80% X 78,115 = 2,187 GPD

1.1.6 USED & USEFUL CALCULATIONS

$$U/U = \frac{MDF + FF + 5\ YRS\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{306,940 + 0 + 8,594 - 32,536}{720,000} = 39.31\%$$

OR

$$U/U = \frac{ADF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{FRC}$$

$$U/U = \frac{78,115 + 0 + 2,187 - 8,280}{720,000} = 10.0\%$$

LARGEST PERCENTAGE CONTROLS, U/U = 39.31%

1.2 WATER TREATMENT PLANT

SYSTEM HAS NO STORAGE EXCEPT A HYDROPNEUMATIC TANK AND NO HIGH SERVICE PUMPING. THEREFORE THE USED AND USEFUL PERCENTAGE FOR THE OVERALL WATER TREATMENT PLANT SHOULD BE TAKEN AT 39.31% TO MATCH THE U/U PERCENTAGE FOR THE WELL. THE ONLY FACILITIES INVOLVED ARE THE CHLORINATION FACILITIES AT THE WELL.

1.3 WATER DISTRIBUTION SYSTEM

COUNTS FROM SYSTEM MAP:
TOTAL AVAILABLE CONNECTIONS = 556 ERCS
AVG.CONNECTED ERCS = 511 (EXHIBIT-FS-2)

1.3.1 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = 0.56%
5 YRS GROWTH = 0.56% X 5 = 2.80%
5 YRS CONNECTION GROWTH = 2.80% X 511 = 14 ERCS

1.3.2 U/U CALCULATION

$$U/U = \frac{CONNECTED\ ERCS + 5\ YRS\ GROWTH}{TOTAL\ AVAILABLE\ ERCS}$$

$$U/U = \frac{511 + 14}{556} = 94.42\%$$

III. PASCO COUNTY – WIS BAR SYSTEMS

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY – NONE, ALL TREATED WATER PURCHASED FROM HOLIDAY GARDENS

1.1.2 FIRM RELIABLE CAPACITY – NONE

1.1.3 PER MFRS:
ADF = 10,595 GPD
MDF = 12,065 GPD

1.1.4 EXCESS UFW
UFW = 2.44%
EXCESS UFW = NONE

1.1.5 FIRE FLOW (FF0
NONE REQUESTED BY UTILITY. FIRE FLOW TESTS AT 3 OUT OF 4 HYDRANTS LESS THAN 500 GPM.

1.1.6 FIVE YEARS GROWTH
ANNUAL GROWTH = 0%

1.1.7 USED & USEFUL CALCULATION

NOT APPLICABLE – NO WELLS

1.2 WATER TREATMENT PLANT – NOT APPLICABLE, ALL WATER PURCHASED FROM HILIDAY GARDENS.

1.3 WATER DISTRIBUTION SYSTEM

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS. GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

COUNT PER SYSTEM MAP
TOTAL AVAILABLE ERCS = 144
AVG. CONNECTED ERCS = 140 (MFR SCHEDULE F-9)

1.3.1 FIVE YEARS GROWTH
NONE CLAIMED, 0%

1.3.2 U/U CALCULATION

$$U/U = \frac{140 + 0}{144} = 97.2\%$$

2. WASTEWATER SYSTEM

2.1 MFR DATA

TREATMENT & DISPOSAL PURCHASED FROM PASCO COUNTY.

2.2 WASTEWATER TREATMENT PLANT U/U
N/A – PURCHASED TREATMENT

2.3 WASTEWATER SYSTEM GROWTH
0%

2.4 WASTEWATER COLLECTION SYSTEM U/U PERCENTAGE

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS. GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

$$U/U = \frac{140 + 0}{144} = 97.2\%$$

IV. PASCO COUNTY – BUENA VISTA WATER SYSTEM

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY: 75 GPM + 45 GPM + 300 GPM
TOTAL = 420 GPM = 604,800 GPD (24 HRS. PUMPING0

1.1.2 FIRM RELIABLE CAPACITY: 120 GPM WITH THE 300 GPM WELL OUT OF SERVICE.
FRC = 120 GPM = 172,800 GPD (24 HRS. PUMPING)

1.1.3 PER MFRS
ADF = 146,951 GPD
M5DADF = 238,640 GPD

1.1.4 EXCESS UNACCOUNTED FOR WATER (UFW)
TOTAL UFW = 10.5% (SEE EXHIBIT TLB-4)
ALLOWABLE UFW = 10%
EXCESS UFW 10.5% - 10% = 0.5%
ADF EXCESS UFW = 0.5% X 146,951 GPD = 735 GPD

M5DADF EXCESS UFW = 0.5% X 238,640 = 1,193 GPD

1.1.5 FIRE FLOW (FF)

FF = 500 GPM FOR 5 HRS DURATION

FF = 500 X 60 X 2 = 60,000 GPD

1.1.6 FIVE YRS. GROWTH

NO ANNUAL GROWTH CLAIMED BY UTILITY, 0%

1.1.7 USED & USEFUL CALCULATIONS

$$U/U = \frac{MDF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{238,640 + 60,000 + 0 - 1,193}{604,800} = 49.2\%$$

OR

$$U/U = \frac{ADF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{FRC}$$

$$U/U = \frac{146,951 + 60,000 + 0 - 735}{172,800} = 100\%$$

LARGEST PERCENTAGE CONTROLS, U/U = 100%

1.2 WATER TREATMENT PLANT

SYSTEM HAS NO STORAGE EXCEPT HYDROPNEUMATIC TANKS AND NO HIGH SERVICE PUMPING. THEREFORE THE USED AND USEFUL PERCENTAGE FOR THE OVERALL WATER TREATMENT PLANT SHOULD BE TAKEN AT 100% TO MATCH THE U/U PERCENTAGE FOR THE WELLS. THE ONLY FACILITIES INVOLVED ARE THE CHLORINATION FACILITIES AT EACH WELL.

1.3 WATER DISTRIBUTION SYSTEM

$$U/U = \frac{CONNECTED\ ERCS + 5\ YRS.\ GROWTH}{TOTAL\ AVAILABLE\ ERCS}$$

FROM MFRS: AVERAGE TEST YEAR ERCS =1,109 (SCHEDULE F9)
COUNT FROM SYSTEM MAP FURNISHED
AVAILABLE ERCS = 1129

1.3.1 FIVE YEARS GROWTH

0%

1.3.2 U/U CALCULATION

$$U/U = \frac{1{,}109 + 0}{1{,}129} = 98.2\%$$

V. PASCO COUNTY – SUMMERTREE SYSTEMS

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY: 120GPM + 550GPM + 300GPM + 300GPM
TOTAL CAPACITY = 1,270 GPM = 1,828,800 GPD (24 HRS. PUMP)

1.1.2 FIRM RELIABLE CAPACITY: WITH 550 GPD WELL OUT OF SERVICE.
FRC = 120 GPM + 300 GPM + 300 GPM = 720 GPM
FRC = 1,036,800 GPD (24 HRS. PUMPING)

1.1.3 PER MFRS
ADF = 153,079 GPD
M5DADF = 273,840 GPD

1.1.4 EXCESS UNACCOUNTED FOR WATER (UFW)
TOTAL UFW = 16.2 % (SEE EXHIBIT TLB-4)
ALLOWABLE UFW = 10%
EXCESS UFW = 16.2 - 10 = 6.2%
ADF EXCESS UFW = 6.2% X 153,079 GPD = 9,491 GPD
M5DADF EXCESS UFW = 6.2% X 273,840 = 16,978 GPD

1.1.5 FIRE FLOW (FF)
FF = 1,000 GPM FOR 2 HRS DURATION
FF = 1,000 X 60 X 2 = 120,000 GPD

1.1.6 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = 2.86 %
FIVE YRS. GROWTH = 5 X 2.86% = 14.3%
GROWTH FOR 5DMDF = 14.3% X 273,840 = 39,159 GPD
GROWTH FOR ADF = 14.3% X 153,079 = 21,890 GPD
5 YR/ CONNECTION GROWTH (PER MRF SCHEDULE F-9)
AVG. 829 ERCS X 14.3% = 119 ERCS

1.1.7 USED & USEFUL CALCULATIONS

$$U/U = \frac{MDF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{273,840 + 120,000 + 39,159 - 16,978}{1,828,800} = 22.7\%$$

OR

$$U/U = \frac{ADF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{FRC}$$

$$U/U = \frac{153,079 + 120,000 + 21,890 - 9,491}{1,036,800} = 27.5\ \%$$

LARGEST PERCENTAGE CONTROLS, U/U = 27.5%

1.2 WATER TREATMENT PLANT

SYSTEM HAS NO STORAGE EXCEPT HYDROPNEUMATIC TANKS AND NO HIGH SERVICE PUMPING. THEREFORE THE USED AND USEFUL PERCENTAGE FOR THE OVERALL WATER TREATMENT PLANT SHOULD BE TAKEN AT 27.5% TO MATCH THE U/U PERCENTAGE FOR THE WELLS. THE ONLY FACILITIES INVOLVED ARE THE CHLORINATION FACILITIES AT EACH WELL.

1.3 WATER DISTRIBUTION SYSTEM

$$U/U = \frac{CONNECTED\ ERCS + 5\ YRS.\ GROWTH}{TOTAL\ AVAILABLE\ ERCS}$$

EQUIVALENT ERCS DURING TEST YEAR = 1,796
(829 SINGLE FAMILY CONNECTIONS PLUS 967 GENERAL SERVICE IRRIGATION CONNECTIONS, PER MFR SCHEDULE F-9)
PER COUNT FROM SYSTEM MAP FURNISHED:
TOTAL AVAILABLE ERCS = 1,519 + 967 = 2,486
(DETERMINED FROM ANSWER TO INTERROGATORY FOR PARCEL 4 & 1A AS TO NUMBER OF UNITS BEING DEVELOPED AND APPLYING THIS APPROXIMATE DENSITY TO VACANT AREAS WITH WATER MAINS EXISTING)

$$U/U = \frac{1,796 + 119}{2,486} = 77.0\%$$

2. WASTEWATER SYSTEM

2.1 MFR DATA

TREATMENT & DISPOSAL OF WASTEWATER PURCHASED FROM PASCO COUNTY.

AVG. ANNUAL GROWTH = 3.07%
FIVE YR. GROWTH = 5 X 3.07 = 15.35%
TEST YR. ERCS = 869
FIVE YR. GROWTH = 15.35% X 869 = 133 ERCS

2.2 WASTEWATER TREATMENT USED & USEFUL PERCENTAGE

NOT APPLICABLE, PURCHASE TREATMENT, ANY WASTEWATER PLANT EXISTING MUST NOW BE CONSIDERED AS 0% USED AND USEFUL.

2.3 WASTEWATER SYSTEM GROWTH
133 ERCS

2.4 WASTEWATER COLLECTION SYSTEM U/U PERCENTAGE

TOTAL AVAILABLE ERCS = 1,519 (BY ESTIMATING FROM SYSTEM MAP)

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

$$U/U = \frac{869 + 133}{1,519} = 65.96\%$$

VI. PASCO COUNTY – ORANGEWOOD SYSTEM

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY: 325GPM + 225GPM + 150GPM + 150GPM = 850GPM
850 X 60 X 24 = 1,224,000 GPD (24 HRS. PUMPING)

1.1.2 FIRM RELIABLE CAPACITY; WITH 325GPM WELL OUT OF SERVICE'
FRC = 225 + 150 + 150 = 525 GPM
FRC = 525 X 60 X 24 = 756,000 GPD

1.1.3 PER MFRS

ADF = 104,244 GPD
M5DADF = 156,380 GPD
AVG. CONNECTED ERCS = 576 EXHIBIT FS-2)

1.1.4 EXCESS UNACCOUNTED FOR WATER (UFW0

TOTAL UFW = 17.5%
ALLOWABLE UFW = 10%
EXCESS UFW = 17.5 - 10 = 7.5%
ADF EXCESS UFW = 7.5% X 104,244 = 7,818 GPD
M5DADF EXCESS UFW = 7.5% X 156,380 = 11,728 GPD

1.1.5 FIRE FLOW (FF)

FF = 500 GPM FOR 2 HRS. DURATION (CLAIMED BY UTILITY)
FIRE FLOW IS FURNISHED AT ONLY ONE FIRE HYDRANT AT FRONT OF DEVELOPMENT. ALL INTERIOR WATER MAINS ARE SMALLER THAN 6 INCHES WITH NO FIRE HYDRANTS. THEREFORE NO FIRE FLOW SHOULD BE RECOGNIZED FOR ORANGEWOOD.

1.1.6 FIVE YEARS GROWTH

AVG. ANNUAL GROWTH = 0.57%
FIVE YRS. GROWTH = 5 X 0.57% = 2.85%
GROWTH FOR M5DADF = 2.85% X 156,380 = 4,457 GPD
GROWTH FOR ADF = 2.85 X 104,244 = 2,971 GPD
5 YR. CONNECTION GROWTH:
576 X 2.85% = 16 ERCS

1.1.7 USED & USEFUL CALCULATIONS

$$U/U = \frac{MDF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{156,380 + 0 + 4,457 - 11,728}{1,224,000} = 12.2\%$$

OR

$$U/U = \frac{ADF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{FRC}$$

$$U/U = \frac{104,244 + 0 + 2,971 - 7,818}{756,000} = 13.2\%$$

LARGEST PERCEMTAGE CONTROLS, U/U = 13.2%

1.2 WATER TREATMENT PLANT

SYSTEM HAS NO STORAGE EXCEPT HYDROPNEUMATIC TANKS AND NO HIGH SERVICE PUMPING. THEREFORE THE USED AND USEFUL PERCENTAGE FOR THE OVERALL WATER TREATMENT PLANT SHOULD BE TAKEN AT 13.2% TO MATCH THE U/U PERCENTAGE FOR THE WELLS. THE ONLY FACILITIES INVOLVED ARE THE CHLORINATION FACILITIES AT EACH WELL.

1.3 WATER DISTRIBUTION SYSTEM

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

EQUIVALENT ERCS DURING TEST YEAR = 576

PER COUNT FROM SYSTEM MAP FURNISHED:
TOTAL AVAILABLE ERCS = 658

$$U/U = \frac{576 + 16}{658} = 89.97\%$$

VII. ORANGE COUNTY – CRESCENT HEIGHTS WATER SYSTEM

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY: NONE, ALL WATER PURCHASED FROM ORLANDO UTILITIES COMMISSION.
1.1.2 FIRM RELIABLE CAPACITY – NOT APPLICABLE

1.2 WATER TREATMENT PLANT: - NOT APPLICABLE

1.3 WATER DISTRIBUTION SYSTEM

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS. GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

AVG. ANNUAL GROWTH = 0.37%
5 YRS GROWTH = 5 X 0.37 = 1.85%
CONNECTED ERCS IN TEST YR. = 272 (EXHIBIT FS-2)
5 YRS. ERC GROWTH = 1.85% X 272 = 5 ERCS
TOTAL AVAILABLE ERCS = 334 (BY COUNT FROM SYSTEM MAP)

$$U/U = \frac{272 + 5}{334} = 82.93\%$$

VIII. ORANGE COUNTY – DAVIS SHORES WATER SYSTEM

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY: NONE, ALL WATER PURCHASED FROM ORANGE COUNTY.
1.1.2 FIRM RELIABLE CAPACITY – NOT APPLICABLE

1.2 WATER TREATMENT PLANT: NOT APPLICABLE

1.3 WATER DISTRIBUTION SYSTEM

$$U/U = \frac{\text{CONNECTED ERCS = 5 YRS. GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

CONNECTED ERCS = 44
AVAILABLE ERCS = 44

U/U = 100%, SYSTEM BUILT OUT

IX. SEMINOLE COUNTY – WEATHERSFIELD SYSTEMS

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY: 550 GPM + 1,000 GPM = 1,550 GPM
MDF = 1,550 GPM = 2,232,000 GPD (24 HRS. PUMPING)

1.1.2 FIRM RELIABLE CAPACITY: 550 GPM WITH THE 1,000 GPM WELL OUT OF SERVICE.
FRC = 550 GPM = 792,000 GPD (24 HRS PUMPING)

1.1.3 PER MFRS
ADF = 320,751 GPD
M5DADF = 481,800 GPD

1.1.4 EXCESS UNACCOUNTED FOR WATER (UFW)
TOTAL UFW = 10.2% (SEE EXHIBIT TLB-4)
ALLOWABLE UFW = 10%
EXCESS UFW = 10.2% - 10% = 0.2%

ADF EXCESS UFW = 0.2% X 320,751 GPD = 642 GPD
M5DADF EXCESS UFW = 0.2% X 481,800 GPD = 964 GPD

1.1.5 FIRE FLOW (FF)

FF = 1,250 GPM FOR 2 HRS. DURATION
FF = 1,250 X 60 X 2 = 150,000 GALS

1.1.6 FIVE YEARS GROWTH

AVG. ANNUAL GROWTH = -1.53%
FIVE YEARS GROWTH = 5 X -1.53% = -7.65%
GROWTH FOR 5DMDF = -7.65% X 481,800 GPD = -36,858 GPD
GROWTH FOR ADF = -7.65% X 320,751 GPD = 24,537 GPD
AVG. TEST YR. ERCS = 1,178 (EXHIBIT FS-2)
GROWTH IN ERCS = 1,178 X –7.65% = -90 ERCS

1.1.7 USED & USEFUL CALCULATIONS

$$U/U = \frac{MDF + FF + 5YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{481,800 + 150,000 - 36,858 - 964}{2,232,000} = 26.6\%$$

OR

$$U/U = \frac{ADF + FF + 5\ YEARS\ GROWTH - EXCESS\ UFW}{FRC}$$

$$U/U = \frac{320,751 + 150,000 - 24,537 - 642}{792,000} = 56.3\%$$

LARGEST PERCENTAGE CONTROLS, U/U = 56.3%

1.2 WATER TREATMENT PLANT

1.2.1 USED & USEFUL CALCULATION

$$U/U = \frac{MDF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{MAXIMUM\ CAPACITY}$$

FROM MFRS:

TREATMENT CAPACITY = 1500 GPM = 2,160,000 GPD

$$U/U = \frac{481,800 + 150,000 - 36,858 - 964}{2,160,000} = 27.5\%$$

1.3 HIGH SERVICE PUMPING

FROM MFRS:
HIGH SERVICE PUMPING: 500 GPM + 700 GPM = 1,200 GPM
1,200 GPM = 1,728,000 GPD

FRC = 500 GPM = 720,000 GPD

$$U/U = \frac{MDF + FF + 5YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{481,800 + 150,000 - 36,858 - 964}{1,728,000} = 34.4\%$$

OR

$$U/U = \frac{ADF + FF + 5\ YEARS\ GROWTH - EXCESS\ UFW}{FRC}$$

$$U/U = \frac{320,751 + 150,000 - 24,537 - 642}{720,000} = 61.9\%$$

LARGEST PERCENTAGE CONTROLS, U/U = 61.9%

1.4 WATER STORAGE FACILITIES

$$U/U = \frac{1/2\ ADF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

PER MFRS:
TOTAL STORAGE CAPACITY = 100,000 GALS.

$$U/U = \frac{\frac{1}{2} \times 320,751 + 150,000 - 24,537 - 642}{100,000} = 100\%$$

1.5 WATER DISTRIBUTION SYSTEM

1.5.1 SYSTEM MAP COUNTS

TOTAL AVAILABLE ERCS = 1214
AVG. TEST YR. ERCS = 1178

$$U/U = \frac{CONNECTED\ ERCS + 5\ YRS.\ GROWTH}{TOTAL\ AVAILABLE\ ERCS}$$

$$U/U = \frac{1178 - 90}{1,214} = 89.62\%$$

2. WASTEWATER SYSTEM

2.1 MFR DATA

TREATMENT & DISPOSAL PURCHASED FROM CITY OF ALTAMONTE SPRINGS.

AVERAGE TEST YEAR CUSTOMERS = 1169 (FRANK SEIDMAN TESTIMONY, EXHIBIT FS-2)

2.2 WASTEWATER TREATMENT PLANT U/U
N/A – PURCHASED TREATMENT, ANY EXISTING WASTEWATER TREATMENT AND DISPOSAL FACILITIES MUST BE CONSIDERED 0% USED AND USEFUL.

2.3 WASTEWATER SYSTEM GROWTH

PER MFRS:
AVG. ANNUAL GROWTH = -0.85%
FIVE YRS. GROWTH = 5 X -.85% = -4.25%
ERC GROWTH = -4.25% X 1169 = -50 ERCS

2.4 WASTEWATER COLLECTION SYSTEM U/U PERCENTAGE

AVAILABLE ERCS = 1214 (BY COUNT FROM SYSTEM MAP FURNISHED)

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS. GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

$$U/U = \frac{1,169 - 50}{1214} = 92.2\%$$

X. SEMINOLE COUNTY - OAKLAND SHORES

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY: 1 WELL @ 400 GPM
MDF = 576,000 GPD (24 HRS. PUMPING)
INTERCONNECTION WITH CITY OF ALTAMONTE SPRINGS FOR BACKUP.

1.1.2 FIRM RELIABLE CAPACITY: TAKE AS 576,000 GPD BECAUSE OF AUTOMATIC INTERCONNECT.

1.1.3 PER MFRS
ADF = 82,636 GPD
M5DADF = 146,400 GPD

1.1.4 EXCESS UNACCOUNTED FOR WATER (UFW)
(SEE EXHIBIT TLB-4)
N/A – FAULTY DATA

1.1.5 FIRE FLOW (FF)
UTILITY REQUESTS 600 GPM FOR TWO HRS. DURATION. FIRE FLOW NOT FURNISHED EXCEPT FOR 3 FIRE HYDRANTS COVERING A PORTION OF SYSTEM. FIRE FLOW SHOULD NOT BE ALLOWED.

1.1.6 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = -4.53% (MFR SCHEDULE F-9)
FIVE YEARS GROWTH = 5 X -4.53% = -22.65%
GROWTH FOR 5DMDF = -22.65% X 146,400 GPD = -33,159 GPD
GROWTH FOR ADF = -22.65% X 82,636 GPD = -18,717 GPD
TEST YR. ERCS = 224 (FROM MFRS & FRANK SEIDMAN EXHIBIT FS-2)
GROWTH IN ERCS = 224 X –22.65% = -51 ERCS

1.1.7 USED & USEFUL CALCULATIONS

$$U/U = \frac{MDF + FF + 5YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{146{,}400 + 0 - 33{,}159 - 0}{576{,}000} = 19.7\%$$

OR

$$U/U = \frac{ADF + FF + 5\ YEARS\ GROWTH - EXCESS\ UFW}{FRC}$$

$$U/U = \frac{82{,}636 + 0 - 18{,}717 - 0}{576{,}000} = 11.1\%$$

LARGEST PERCENTAGE CONTROLS, U/U = 19.7%

1.2 WATER TREATMENT PLANT

1.2.2 USED & USEFUL CALCULATION

$$U/U = \frac{MDF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{MAXIMUM\ CAPACITY}$$

FROM MFRS:
TREATMENT CAPACITY = 500 GPM = 720,000 GPD

$$U/U = \frac{146{,}400 + 0 - 33{,}159 - 0}{720{,}000} = 15.7\%$$

1.3 HIGH SERVICE PUMPING

FROM MFRS:
HIGH SERVICE PUMPING: 250 GPM + 250 GPM = 500 GPM
500 GPM = 720,000 GPD

FRC = 250 GPM = 360,000 GPD

$$U/U = \frac{\text{MDF + FF + 5YRS. GROWTH - EXCESS UFW}}{\text{TOTAL CAPACITY}}$$

$$U/U = \frac{146{,}400 + 0 - 33{,}159 - 0}{720{,}000} = 15.7\%$$

OR

$$U/U = \frac{\text{ADF + FF + 5 YEARS GROWTH - EXCESS UFW}}{\text{FRC}}$$

$$U/U = \frac{82{,}636 + 0 - 18{,}717 - 0}{360{,}000} = 17.8\%$$

LARGEST PERCENTAGE CONTROLS, U/U = 17.8%

1.4 WATER STORAGE FACILITIES

$$U/U = \frac{\text{ADF + FF + 5 YRS. GROWTH - EXCESS UFW}}{\text{TOTAL CAPACITY}}$$

PER MFRS:
TOTAL STORAGE CAPACITY = 16,800 GALS.

$$U/U = \frac{82{,}636 + 0 - 18{,}717 - 0}{16{,}800} = 100\%$$

1.5 WATER DISTRIBUTION SYSTEM

1.5.1 SYSTEM MAP COUNTS

TOTAL AVAILABLE ERCS = 234
AVG. TEST YR. ERCS = 224 (EXHIBIT FS-2)

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS. GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

$$U/U = \frac{224 - 51}{234} = 73.9\%$$

XI. SEMINOLE COUNTY – LITTLE WEKIVA

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY; 1 WELL @ 65 GPM
MDF = 93,66 GPD (24 HRS. PUMPING)

1.1.2 FIRM RELIABLE CAPACITY: NONE

1.1.3 PER MFRS
ADF = 16,425 GPD
M5DADF = 29,200 GPD

1.1.4 EXCESS UNACCOUNTED FOR WATER (UFW)
TOTAL UFW = 13.04% (SEE EXHIBIT TLB-4)
ALLOWABLE UFW = 10%
EXCESS UFW = 13.04% - 10% = 3.04%
ADF EXCESS UFW = 3.04% X 16,425 GPD = 499 GPD
M5DADF EXCESS UFW = 3.04% X 29,200 GPD = 888 GPD

1.1.5 FIRE FLOW: NOT REQUESTED FOR THIS SYSTEM WITH SMALL WATER MAINS AND NO FIRE HYDRANTS THROUGHOUT MOST OF SYSTEM.

1.1.6 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = 0%

1.1.7 USED & USEFUL CALCULATIONS

U/U = 100%, ONLY ONE WELL, NO BACK-UP

1.2 WATER TREATMENT PLANT

SYSTEM HAS NO STORAGE EXCEPT A HYDROPNEUMATIC TANK AND NO HIGH SERVICE PUMPING. THEREFORE THE USED AND USEFUL PERCENTAGE FOR THE OVERALL WATER TREATMENT PLANT SHOULD BE TAKEN AT 100% TO MATCH THE U/U

PERCENTAGE FOR THE WELL. THE ONLY FACILITIES INVOLVED ARE THE CHLORINATION FACILITIES AT THE WELL.

1.3 WATER DISTRIBUTION SYSTEM

COUNTS FROM SYSTEM MAP:
TOTAL AVAILABLE CONNECTIONS = 73 ERCS
CONNECTED ERCS = 61

1.3.1 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = 0%

1.3.2 U/U CALCULATION

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

$$U/U = \frac{61 + 0}{73} = 83.6\%$$

XII. SEMINOLE COUNTY – PARK RIDGE

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY; 1 WELL @ 300 GPM
MDF = 432,000 GPD (24 HRS. PUMPING)

1.1.2 FIRM RELIABLE CAPACITY: NONE

1.1.3 PER MFRS
ADF = 21,718 GPD
M5DADF = 39,000 GPD

1.1.4 EXCESS UNACCOUNTED FOR WATER (UFW)
TOTAL UFW = 0
FAULTY DATA FURNISHED BY UTILITY

1.1.5 FIRE FLOW: NOT REQUESTED FOR THIS SYSTEM WITH SMALL WATER MAINS AND NO FIRE HYDRANTS THROUGHOUT MOST OF SYSTEM.

1.1.6 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = -0.48%
FIVE YRS. GROWTH = 5 X –0.48% = - 2.4%
FIVE YRS. ERC GROWTH = - 2.4% X 98 = - 2
MDF 5YRS. GROWTH = - 2.4% X 39,000 = - 936 GPD
ADF 5YRS. GROWTH = - 2.4% X 21,714 = - 521 GPD

1.1.7 USED & USEFUL CALCULATIONS

U/U = 100%, ONLY ONE WELL, NO BACK-UP

1.2 WATER TREATMENT PLANT

U/U = 100%

1.3 HIGH SERVICE PUMPING

HIGH SERVICE PUMPS: 2 @ 250 GPM = 500 GPM
MDF = 500 X 60 X 24 = 720,000 GPD
FRC = 250 X 60 X 24 = 360,000 GPD

$$U/U = \frac{MDF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{39,000 + 0 - 936 - 0}{720,000} = 5.3\%$$

OR

$$U/U = \frac{ADF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{FRC}$$

$$U/U = \frac{21,718 + 0 - 521 - 0}{360,000} = 5.9\%$$

LARGEST PERCENTAGE CONTROLS, U/U = 5.9%

1.4 STORAGE

U/U = 100% (BY INSPECTON)

1.5 WATER DISTRIBUTION SYSTEM

COUNTS FROM SYSTEM MAP:
TOTAL AVAILABLE CONNECTIONS = 116 ERCS
CONNECTED ERCS = 98 (EXHIBIT FS-2)

1.5.1 FIVE YEARS GROWTH
- 2.4% X 98 = 2 ERCS

1.5.2 U/U CALCULATION

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

$$U/U = \frac{98 - 2}{116} = 82.8\%$$

XIII. PHILLIPS SYSTEM

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY; 1 WELL @ 110 GPM
MDF = 158,400 GPD (24 HRS. PUMPING)

1.1.2 FIRM RELIABLE CAPACITY: NONE

1.1.3 PER MFRS
ADF = 25,422 GPD
M5DADF = 47,000 GPD
AVG. CONNECTED ERCS = 74 (EXHIBIT FS-2)

1.1.4 EXCESS UNACCOUNTED FOR WATER (UFW)
TOTAL UFW = 16.8%
EXCESS UFW = 16.8% - 10% = 6.8%
M5DADF EXCESS UFW: 6.8% X 47,000 = 3,196 GPD
ADF EXCESS UFW: 6.8% X 25,422 = 1,729 GPD

1.1.5 FIRE FLOW: NOT REQUESTED FOR THIS SYSTEM WITH SMALL WATER MAINS AND NO FIRE HYDRANTS THROUGHOUT MOST OF SYSTEM.

1.1.6 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = 1.58%
FIVE YRS. GROWTH = 5 X 1.58% = 7.9%
FIVE YRS. ERC GROWTH = 7.9% X 74 = 6 ERCS
MDF 5YRS. GROWTH = 7.9% X 47,000 = 3,713 GPD
ADF 5YRS. GROWTH = 7.9% X 25,422 = 2,008 GPD

1.1.7 USED & USEFUL CALCULATIONS

U/U = 100%, ONLY ONE WELL, NO BACK-UP

1.2 WATER TREATMENT PLANT

U/U = 100%

1.3 WATER DISTRIBUTION SYSTEM

COUNTS FROM SYSTEM MAP:
TOTAL AVAILABLE CONNECTIONS = 97 ERCS
CONNECTED ERCS = 74 (EXHIBIT FS-2)

1.3.1 U/U CALCULATION

$$U/U = \frac{\text{CONNECTED ERCS + 5 YR. GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

$$U/U = \frac{74 + 6}{97} = 82.5\%$$

XIV CRYSTAL LAKE SYSTEM

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY; 1 WELL @ 240 GPM
MDF = 345,600 GPD (24 HRS. PUMPING)
AUTOMATIC INTERCONNECT WITH CITY OF SANFORD

1.1.2 FIRM RELIABLE CAPACITY: TAKE AS 345,600 GPD

1.1.3 PER MFRS
ADF = 38,751 GPD
M5DADF = 67,600 GPD
AVG. CONNECTED ERCS = 165 (EXHIBIT FS-2)

1.1.4 EXCESS UNACCOUNTED FOR WATER (UFW)
TOTAL UFW = 3.2%
EXCESS UFW = NONE

1.1.5 FIRE FLOW: NOT REQUESTED FOR THIS SYSTEM WITH SMALL WATER MAINS AND NO FIRE HYDRANTS THROUGHOUT SYSTEM.

1.1.6 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = 1.53%
FIVE YRS. GROWTH = 5 X 1.53% = 7.65%
FIVE YRS. ERC GROWTH = 7.65% X 165 = 13
MDF 5YRS. GROWTH = 7.65% X 67,600 = 5,171 GPD
ADF 5YRS. GROWTH = 7.65% X 38,751 = 2,964 GPD

1.1.7 USED & USEFUL CALCULATIONS

U/U = 100%, ONLY ONE WELL, NO BACK-UP

1.2 WATER TREATMENT PLANT

U/U = 100%

1.3 WATER DISTRIBUTION SYSTEM

COUNTS FROM SYSTEM MAP:
TOTAL AVAILABLE CONNECTIONS = 212 ERCS
CONNECTED ERCS = 165 (EXHIBIT FS-2)

1.3.1 U/U CALCULATION

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

$$U/U = \frac{165 + 13}{212} = 84.0\%$$

XV. RAVENNA PARK/LINCOLN HEIGHTS SYSTEMS

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY: 200 GPM + 240 GPM = 440 GPM
MDF = 440 GPM = 633,600 GPD (24 HRS. PUMPING)

1.1.2 FIRM RELIABLE CAPACITY: 200 GPM WITH THE 240 GPM WELL OUT OF SERVICE.
FRC = 200 GPM = 288,000 GPD (24 HRS PUMPING)

1.1.3 PER MFRS
ADF = 91,052 GPD

M5DADF = 142,600 GPD

1.1.4 EXCESS UNACCOUNTED FOR WATER (UFW)
TOTAL UFW = 10.8% (SEE EXHIBIT TLB-4)
ALLOWABLE UFW = 10%
EXCESS UFW = 10.8% - 10% = 0.8%
ADF EXCESS UFW = 0.8% X 91,052 GPD = 728 GPD
M5DADF EXCESS UFW = 0.8% X 142,600 GPD = 1,141 GPD

1.1.5 FIRE FLOW (FF)
NONE REQUESTED, NO FIRE HYDRANTS, SMALL LINES

1.1.6 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = 1.63%
FIVE YEARS GROWTH = 5 X 1.63% = 8.15%
GROWTH FOR M5DADF = 8.15% X 142,600 GPD = 11,622 GPD
GROWTH FOR ADF = 8.15% X 91,052 GPD = 7,421 GPD

1.1.7 USED & USEFUL CALCULATIONS

$$U/U = \frac{MDF + FF + 5YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{142,600 + 0 + 11,622 - 1,141}{633,600} = 24.2\%$$

OR

$$U/U = \frac{ADF + FF + 5\ YEARS\ GROWTH - EXCESS\ UFW}{FRC}$$

$$U/U = \frac{91,052 + 0 + 7,421 - 728}{288,000} = 33.9\%$$

LARGEST PERCENTAGE CONTROLS, U/U = 33.9%

1.2 WATER TREATMENT PLANT

440 GPM CASCADE AERATION: CAPACITY = 633,600 GPD

$$U/U = \frac{MDF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{MAXIMUM\ CAPACITY}$$

$$U/U = \frac{142,600 + 0 + 11,622 - 1,141}{633,600} = 24.2\%$$

1.3 WATER STORAGE FACILITIES

$$U/U = \frac{ADF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{91{,}052 + 7{,}421 - 728}{20{,}000} = 100\%$$

1.4 HIGH SERVICE PUMPS

FROM MFRS:
HIGH SERVICE PUMPS = 2 @ 250 GPM = 500 GPM
500 GPM = 720,000 GPD
FRC = 250 GPD = 360,000 GPD

$$U/U = \frac{MDF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{142{,}600 + 0 + 11{,}622 - 1{,}141}{720{,}000} = 21.3\%$$

OR

$$U/U = \frac{ADF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{FRC}$$

$$U/U = \frac{91{,}052 + 0 + 7{,}421 - 728}{360{,}000} = 27.2\%$$

GREATER PERCENTAGE CONTROLS, U/U = 27.2%

1.5 WATER DISTRIBUTION SYSTEM

AVG. CONNECTED ERCS = 335 (EXHIBIT FS-2)

$$U/U = \frac{CONNECTED\ ERCS + 5\ YRS\ GROWTH}{TOTAL\ AVAILABLE\ ERCS}$$

COUNT PER ORIGINAL SYSTEM DRAWING SUBMITTED BY UTILITY:

COMMERCIAL CONNECTIONS	=	5
SINGLE FAMILY RESIDENCES	=	383
SCHOOL (4" METER)	=	10
TOTAL AVAILABLE ERCS	=	397

1.3.1 FIVE YEARS GROWTH

5 YRS. GROWTH = 8.15% X 335 = 27 ERCS

1.3.3 U/U CALCULATION:

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS. GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

$$U/U = \frac{335 + 27}{397} = 91.2\%$$

2. WASTEWATER SYSTEM

2.1 MFR DATA

TREATMENT & DISPOSAL PURCHASED FROM CITY OF SANFORD

AVERAGE TEST YEAR CUSTOMERS = 233 (FRANK SEIDMAN TESTIMONY, EXHIBIT FS-2)

2.2 WASTEWATER TREATMENT PLANT U/U

N/A – PURCHASED TREATMENT, ANY EXISTING WASTEWATER TREATMENT AND DISPOSAL FACILITIES MUST BE CONSIDERED 0% USED AND USEFUL.

2.3 WASTEWATER SYSTEM GROWTH

PER MFRS:

AVG. ANNUAL GROWTH = 2.51%
FIVE YRS. GROWTH = 5 X 2.51% = 12.55%
ERC GROWTH = 12.55% X 233 = 29 ERCS

2.4 WASTEWATER COLLECTION SYSTEM U/U PERCENTAGE

AVAILABLE ERCS = 294 (BY COUNT FROM SYSTEM MAP FURNISHED)

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS. GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

$$U/U = \frac{233 + 29}{294} = 89.1\%$$

XVI. BEAR LAKE SYSTEM

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY: 1 WELL @ 220 GPM
MDF = 316,800 GPD (24 HRS. PUMPING)

FIRM RELIABLE CAPACITY: NONE

1.1.8 PER MFRS
ADF = 60,515 GPD
M5DADF = 94,400 GPD

1.1.9 EXCESS UNACCOUNTED FOR WATER (UFW)
TOTAL UFW = 5.6% (SEE EXHIBIT TLB-4)
ALLOWABLE UFW = 10%
EXCESS UFW = NONE

1.1.10 FIRE FLOW (FF)
NONE REQUESTED, NO FIRE HYDRANTS, SMALL LINES

1.1.11 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = 0.13%
FIVE YEARS GROWTH = 5 X 0.13% = 0.65%
GROWTH FOR M5DADF = 0.65% X 94,400 GPD = 614 GPD
GROWTH FOR ADF = 0.65% X 60,515 GPD = 393 GPD

1.1.12 USED & USEFUL CALCULATIONS

U/U = 100%

1.2 WATER TREATMENT PLANT

200 GPM CASCADE AERATION: CAPACITY = 288,000 GPD

$$U/U = \frac{MDF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{MAXIMUM\ CAPACITY}$$

$$U/U = \frac{94,400 + 0 + 614 - 0}{288,000} = 32.8\%$$

1.3 WATER STORAGE FACILITIES

$$U/U = \frac{ADF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{60{,}515 + 393 - 0}{13{,}800} = 100\%$$

1.4 HIGH SERVICE PUMPS

FROM MFRS:
HIGH SERVICE PUMPS = 2 @ 200 GPM = 400 GPM
400 GPM = 576,000 GPD
FRC = 200 GPD = 288,000 GPD

$$U/U = \frac{MDF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{94{,}400 + 0 + 614 - 0}{576{,}000} = 16.5\%$$

OR

$$U/U = \frac{ADF + FF + 5\ YRS.\ GROWTH - EXCESS\ UFW}{FRC}$$

$$U/U = \frac{60{,}515 + 0 + 614 - 0}{288{,}000} = 21.2\%$$

GREATER PERCENTAGE CONTROLS, U/U = 21.2%

1.5 WATER DISTRIBUTION SYSTEM

AVG. CONNECTED ERCS = 220 (EXHIBIT FS-2)

$$U/U = \frac{CONNECTED\ ERCS + 5\ YRS\ GROWTH}{TOTAL\ AVAILABLE\ ERCS}$$

COUNT PER ORIGINAL SYSTEM DRAWING SUBMITTED BY UTILITY:

COMMERCIAL CONNECTIONS	=	7
SINGLE FAMILY RESIDENCES	=	231
TOTAL AVAILABLE ERCS	=	238

5 YRS. GROWTH: 0.65% X 220 = 1

$$U/U = \frac{220 + 1}{238} = 92.9\%$$

XVII. JANSEN SYSTEM

1. WATER SYSTEM

1.1 SOURCE OF SUPPLY AND PUMPING

1.1.1 TOTAL WELL CAPACITY: 240 GPM + 190 GPM = 430 GPM
MDF = 430 GPM = 619,200 GPD (24 HRS. PUMPING)

1.1.2 FIRM RELIABLE CAPACITY: 190 GPM WITH THE 240 GPM WELL OUT OF SERVICE.
FRC = 190 GPM = 273,600 GPD (24 HRS PUMPING)

1.1.3 PER MFRS
ADF = 77,827 GPD
M5DADF = 137,000 GPD

1.1.4 EXCESS UNACCOUNTED FOR WATER (UFW)
TOTAL UFW = 1.5% (SEE EXHIBIT TLB-4)
ALLOWABLE UFW = 10%
EXCESS UFW = NONE

1.1.5 FIRE FLOW (FF)
NONE REQUESTED AND NONE FURNISHED

1.1.6 FIVE YEARS GROWTH
AVG. ANNUAL GROWTH = 1.04%
FIVE YEARS GROWTH = 5 X 1.04% = 5.2%
GROWTH FOR 5DMDF = 5.2% X 137,000 GPD = 7,124 GPD
GROWTH FOR ADF = 5.2% X 77,827 GPD = 4,047 GPD

1.1.7 USED & USEFUL CALCULATIONS

$$U/U = \frac{MDF + FF + 5YRS.\ GROWTH - EXCESS\ UFW}{TOTAL\ CAPACITY}$$

$$U/U = \frac{137,000 + 0 + 7,124 - 0}{619,200} = 23.3\%$$

OR

$$U/U = \frac{ADF + FF + 5\ YEARS\ GROWTH - EXCESS\ UFW}{FRC}$$

$$U/U = \frac{77,827 + 0 + 4,047 - 0}{273,600} = 29.9\%$$

LARGEST PERCENTAGE CONTROLS, U/U = 29.9%

1.2 WATER TREATMENT PLANT

SYSTEM HAS NO STORAGE EXCEPT HYDROPNEUMATIC TANKS AND NO HIGH SERVICE PUMPING. THEREFORE THE USED AND USEFUL PERCENTAGE FOR THE OVERALL WATER TREATMENT PLANT SHOULD BE TAKEN AT 29.9% TO MATCH THE U/U PERCENTAGE FOR THE WELLS. THE ONLY FACILITIES INVOLVED ARE THE CHLORINATION FACILITIES AT EACH WELL.

1.3 WATER DISTRIBUTION SYSTEM

$$U/U = \frac{\text{CONNECTED ERCS + 5 YRS GROWTH}}{\text{TOTAL AVAILABLE ERCS}}$$

COUNT PER ORIGINAL SYSTEM DRAWING SUBMITTED BY UTILITY:

SINGLE FAMILY RESIDENCE ERCS = 271
CONNECTED ERCS = 248 (EXHIBIT FS-2)

1.3.1 FIVE YEARS GROWTH
5.2% X 248 = 13

1.3.3 U/U CALCULATION:

$$U/U = \frac{248 + 13}{271} = 96.3\%$$

EXHIBIT TLB – 3A

SUMMARY OF USED & USEFUL CALCULATIONS

SUMMARY OF USED AND USEFUL CALCULATIONS									EXHIBIT TLB-3, PAGE 1A	
	Marion Co. Golden Hills/ Crownwood	Pnnellas Co. Lake Tarpon	Pasco Co. Wis-Bar	Pasco Co. Buena Vista	Pasco Co. Summer-tree	Pasco Co. Orange-wood	Orange Co. Crescent Heights	Orange Co Davis Shores	Seminole Co. Weathers-field	Seminole Co. Oakland Shores
WATER SYSTEMS										
Source of Supply & Pumping	47.80%	39.31%	N/A	100%	27.50%	13.20%	N/A	N/A	56.30%	19.70%
Water Treatment Plant	47.80%	39.31%	N/A	100%	27.50%	13.20%	N/A	N/A	27.50%	15.70%
High Service Pumping									61.90%	17.80%
Storage Facilities									100%	100%
Water Distribution System	88.64%	94.42%	97.20%	98.20%	77.00%	89.97%	82.93%	100%	89.60%	73.90%
WASTEWATER SYSTEMS										
Treatment Plant	67.75%		N/A		N/A				N/A	
Collection System	51.47%		97.20%		65.96%				92.20%	

	Seminole Co Little Wekiva	Seminole Co Park Ridge	Seminole Co. Phillips	Seminole Co. Crystal Lake	Seminole Co. Ravenna Prk Lincoln Hts.	Seminole Co. Bear Lake	Seminole Co. Jansen
WATER SYSTEMS							
Source of Supply & Pumping	100%	100%	100%	100%	33.90%	100%	29.90%
Water Treatment Plant	100%	100%	100%	100%	24.20%	32.80%	29.90%
High Service Pumping		5.90%			27.20%	21.20%	
Storage Facilities		100%			100%	100%	
Water Distribution System	83.60%	82.80%	82.50%	84.00%	91.20%	92.90%	96.30%
WASTEWATER SYSTEMS							
Treatment Plant					N/A		
Collection System					89.10%		

EXHIBIT TLB - 4
UNACCOUNTED FOR WATER

EXHIBIT TLB-4

CALCULATION OF UNACCOUNTED FOR WATER IN UTILITIES, INC. OF FLORIDA
17 WATER SYSTEMS IN DOCKET NO. 020071-WS

1. Marion County – 1 system (Golden Hills/Crownwood/Marion)

2001 Water Balance

Total Water Pumped	=	59,497,000 gals.
Total Water Sold	=	45,432,000 gals.
Difference	=	14,065,000 gals
Other Uses (By Utility)	=	853,000 gals
Difference	=	13,212,000 gals

Unaccounted for Water (UFW) = 13,212,000/59,497,000 = 22.21%

Excessive UFW = 12.21% = 7,262,300 gals = 19,897 GPD

2. Orange County (Two systems)

A. Crescent Heights System

2001 Water Balance

Total Water Pumped	=	27,329,000 gals
Total Water Sold	=	24,517,000 gals
Difference	=	2,812,000 gals

UFW = 2,812,000/27,329,000 = 10.29%

All water purchased from Orlando Utilities Commission

B. Davis Shores System

2001 Water Balance

Total Water Pumped & Purchased	=	4,328,000 gals
Total Water Sold	=	4,235,000 gals
Difference	=	93,000 gals

UFW = 93,000/4,328,000 = 2.15%

3. Pasco County (4 Systems)

A. Orangewood System

Total Water Pumped	=	38,017,000 gals
Total Water Sold	=	31,334,000 gals
Difference	=	6,683,000 gals
Other Uses (By Utility)	=	47,000 gals
Difference	=	6,636,000 gals

UFW = 6,636,000/38,017,000 = 17.5%

Excessive UFW = 7.5% = 2,851,300 gals. = 7,812 GPD

B. Summertree System

Total Water Pumped	=	55,874,000 gals
Total Water Sold	=	46,572,000 gals
Difference	=	9,302,000 gals
Other Uses (By Utility)	=	243,000 gals
Difference	=	9,059,000 gals

UFW = 9,059,000/55,874,000 = 16.2%

Excessive UFW = 6.2% = 3,471,600 gals = 9,511 GPD

C. Buena Vista System

Total Water Pumped	=	53,637,000 gals
Total Water Sold	=	47,858,000 gals
Difference	=	5,779,000 gals
Other Uses (By Utility)	=	124,000 gals
Difference	=	5,655,000 gals

UFW = 5,655,000/53,637,000 = 10.5%

Excessive UFW = 0.5% = 291,300 gals = 798 GPD

D. Wis-Bar System

Total Water Pumped & Purchased	=	3,858,000 gals
Total Water Sold	=	3,764,000 gals
Difference	=	94,000 gals

UFW = 94,000/3,858,000 = 2.44%

All water purchased from Holiday Gardens

4. Pinellas County (1 system – Lake Tarpon)

Lake Tarpon System

Total Water Pumped	=	28,512,000 gals
Total Water Sold	=	22,611,000 gals
Difference	=	5,901,000 gals
Other Uses (By Utility)	=	20,000 gals
Difference	=	5,881,000 gals

UFW = 5,881,000/28,512,000 = 20.6%

Excessive UFW = 10.6% = 3,029,800 gals = 8,301 GPD

5. Seminole County (9 systems)

A. Bear Lake System

Total Water Pumped	=	22,088,000 gals
Total Water Sold	=	20,862,000 gals
Difference	=	1,226,000 gals

UFW = 1,226,000/22,088,000 = 5.6%

B. Crystal Lake System

Total Water Pumped	=	14,144,000 gals
Total water Sold	=	13,273,000 gals
Difference	=	871,000 gals
Other Uses (By Utility)	=	415,000 gals
Difference	=	456,000 gals

UFW = 456,000/14,144,000 = 3.2%

C. Jansen System

Total Water Pumped	=	28,407,000 gals
Total Water Sold	=	27,887,000 gals
Difference	=	520,000 gals
Other Uses (By Utility)	=	84,000 gals
Difference	=	436,000 gals

UFW = 436,000/28,407,000 = 1.5%

D. Little Wekiva System

Total Water Pumped	=	5,995,000 gals
Total Water Sold	=	5,213,000 gals
Difference	=	782,000 gals

UFW = 782,000/5,995,000 = 13.04%

Excessive UFW = 3.04% = 182,500 gals = 500 GPD

E. Oakland Shores System

Total Water Pumped	=	29,187,000 gals
Total Water Sold	=	30,162,000 gals
Difference	=	-975,000 gals

Obviously faulty data since more water sold than pumped and/or purchased

F. Park Ridge System

Total Water Pumped	=	7,409,000 gals
Total Water Sold	=	7,927,000 gals
Difference	=	-518,000 gals

Obviously faulty data since more water sold than pumped and/or purchased

G. Phillips System

Total Water Pumped	=	9,279,000 gals
Total Water Sold	=	7,599,000 gals
Difference	=	1,680,000 gals
Other Uses (By Utility)	=	124,000 gals
Difference	=	1,556,000 gals

UFW = 1,556,000/9,279,000 = 16.8%

Excessive UFW = 6.8% = 628,100 gals = 1,721 GPD

H. Ravenna Park/Lincoln Heights System

Total Water Pumped	=	33,234,000 gals
Total Water Sold	=	29,521,000 gals
Difference	=	3,713,000 gals
Other Uses (By Utility)	=	140,000 gals
Difference	=	3,573,000 gals

UFW = 3,573,000/33,234,000 = 10.8%

Excessive UFW = 0.8% = 249,600 gals = 684 GPD

I. Weathersfield System

Total Water Pumped	=	117,074,000 gals
Total Water Sold	=	104,948,000 gals
Difference	=	12,126,000 gals
Other Uses (By Utility)	=	216,000 gals
Difference	=	11,910,000 gals

UFW = 11,910,000/117,074,000 = 10.2%

Excessive UFW = 234,148 gals = 642 GPD

EXHIBIT TLB – 5

ANALYSIS OF PLANT IN SERVICE AMOUNTS

				EXHIBIT TLB-5, ANALYSIS OF PLANT IN SERVICE AMOUNTS, PAGE 1 OF 4	
UTILITIES, INC. OF FLORIDA - ANALYSIS OF WATER & WASTEWATER PLANT IN SERVICE					
LOCATION	**TYPE**	**DEC. 31, 1997**	**DEC. 31, 2001**	**DIFFERENCE**	**PRINCIPAL AREAS OF INCREASES**
1. Crownwood	water	$93,233.17	$97,576.82	$4,343.65	none
2. Crownwood	wastewater	$146,514.33	$165,170.71	$18,656.38	Sewer Mains = $15,400
					Sewage Treatment Plant = $3,200
2A. Golden Hills	water	$491,756.84	$523,959.05	$32,202.21	Elect. Pump Equipt. = $3,000
					Trans. & Dist Mains = $4,500
					Service Lines = $20,000
					Meters = $4,000
3. Lake Tarpon	water	$315,267.26	$339,459.85	$24,192.59	Water Treatment Equipt. = $3,000
					Service Lines = $16,000
4. Davis Shores	water	$41,724.39	$41,749.80	$25.41	none
5. Crescent Heights	water	$120,161.88	$120,621.79	$459.91	none
6. Orangewood	water	$202,209.04	$351,895.75	$149,686.71	Elect. Pump Equip. = $6,500
					Water Treat. Equip. = $10,500
					Trans. & Dist. Mains = $27,500
					Meters = $6,800
					Meter Installation = $13,700
					Dist. Resv. & Standpipes = $44,800
					Wells & Springs = $7,400
7. Buena Vista*	water	$16,508	$55,112	$38,604.00	Organization = $9,512
$0 shown before year 2000. System apparantly purchased in 2000 at little cost.					Struct. & Improv. (Pump Plant) = $2,600
					Elect. Pump Equipt. = $5,600
					Meters = $8,000
					Hydrants = $7,000

			EXHIBIT TLB-5, ANALYSIS OF PLANT IN SERVICE AMOUNTS, PAGE 2 OF 4		
UTILITIES, INC. OF FLORIDA - ANALYSIS OF WATER & WASTEWATER PLANT IN SERVICE					
LOCATION	TYPE	DEC. 31, 1997	DEC. 31, 2001	DIFFERENCE	PRINCIPAL AREAS OF INCREASES
8. Summertree*	water	$872,987.02	$994,691.76	$121,704.74	Wells & Springs = $75,399.67 (in 2001)
*1/1/00 to 12/31/01					Elect. Pump Equip. = $5,000
					Water Treat. Equip. = $3,600
					Dist. Resv. & Standpipes = $28,500
					Service Lines = $8,000
9. Summertree***	wastewater	$859,002.72	$962,368.00	$103,365.28	Lift Stations = $22,500
*** All wastewater is now pumped to Pasco County for treatment, therefore					Mains = $2,000
all portions of treatment plant in service should be deleted from plant in service or else					Manholes = $25,538
these facilities should be considered 0% used and useful. The amounts of plant in service					Treatment Plant = $47,633
shown by the utility for these facilites at 12/31/01 are $114,849.00 for sewer lagoon and					
$109,496.00 for treatment and disposal equipment. As far as I can tell from the MFRs					
Schedule A-6, page 3 of 3, these facilities and another $30,087.oo for structures and improvements					
are all still counted under sewer plant in service.					
10. Jensen	water	$252,237.11	$291,748.21	$39,511.10	Elect. Pump. Equipt. = $10,300
					Trans. & Dist. System = $25,100 (in 20000
					Service Lines = $3,300
11. Bear Lake	water	$142,271.43	$153,739.00	$11,467.57	Dist. Resv. & Standpipes = $6,300.00

			EXHIBIT TLB-5. ANALYSIS OF PLANT IN SERVICE AMOUNTS, PAGE 3 OF 4			
UTILITIES, INC. OF FLORIDA - ANALYSIS OF WATER & WASTEWATER PLANT IN SERVICE						
LOCATION	**TYPE**	**DEC. 31, 1997**	**DEC. 31, 2001**	**DIFFERENCE**	**PRINCIPAL AREAS OF INCREASES**	
12. Ravenna Park /						
Lincoln Heights	water	$276,276.88	$303,423.29	$27,146.41	Elect. Pump Equip. = $4,414	
					Trans. & Dist. Mains = $18,803 (in 2000)	
13. Ravenna Park /						
Lincoln Heights*	wastewater	$547,761.75	$684,819.90	$137,058.15	Treatment Plant = $115,229	
*All wastewater since July, 2001 has been pumped to City of Sanford for treatment. Therefore the elements of the						
sewer plant in service as of 12/31/01should be removed from plant in service or these elements counted as 0% used and						
useful. The elements of plant in service shown by the utility which are not now in service would include the treatment plant						
at $329,536.64, the sewer lagoons at $590.00 and probably the buildings and structures at $57,099.91. Also Land and Land						
Rights at $5,595.72 are probably where the old treatment pl plant was located.						
14. Wis-Bar*	water	$631.00	$17,342.76	$16,711.76	Organization = $14,937.00	
*First Amount for plant in service shown as $631 at 6/30/00. Apparantly this water system was purchased in 2000 for a						
small amount.						
15. Wis-Bar*	wastewater	$450.00	$3,429.00	$2,979.00	Lift Station = $2,784.49	
*First amount of plant in service shown as $450 at 6/30/00. Waste water is pumped to Pasco County for treatment						
16. Crystal Lake	water	$113,383.00	$123,567.00	$10,184.00	Elect Pump Equip. = $7,900	
17. Phillips	water	$84,668.31	$89,543.77	$4,875.46	Trans. & Dist. Mains = $2,815.00	
18. Park Ridge	water	$108,839	$114,225	$5,386.00	Elect Pump Equip. = $5,239.00	

			EXHIBIT TLB-5, ANALYSIS OF PLANT IN SERVICE AMOUNTS, , PAGE 4 OF 4		
UTILITIES, INC. OF FLORIDA - ANALYSIS OF WATER & WASTEWATER PLANT IN SERVICE					
LOCATION	**TYPE**	**DEC. 31, 1997**	**DEC. 31, 2001**	**DIFFERENCE**	**PRINCIPAL AREAS OF INCREASES**
19. Little Wekiva	water	$46,226.96	$50,508.58	$4,281.62	Struct. & Improvements = $2,515.00
20. Oakland Shores	water	$260,858.00	$292,087.00	$31,229.00	Wells & Springs = $4,284
					Dist. Resv. & Standpipes = $22,606
					Trans. & Dist. Mains = $2,735
21. Weathersfield	water	$968,772.52	$1,030,843.84	$62,071.32	Elect. Pump Equip. = $39,871.26
					Meters = $6,725.49
					Mains = $3,454.75
22. Weathersfield *	wastewater	$942,989.18	$965,025.21	$22,036.03	Service lines = $9,557.77
* Wastewater is pumped to the City of Altamonte Springs fo for treatment. Therefore					Sewage Treatment Plant = $6,073.42
any items in wastewater plant in service which may be related to the former					Lift Stations = $3,271.69
treatment plant should be deducted from plant in service or else considered 0% used & useful.					
These items include Building & Structures at $132,286.99; Land Rights at $10,876.32					
and Additions to Treatment Plant at $6,073.42.					
			Page 4		

COLUMN-SET 1
PERIOD ENDING: 12/31/01
SUBDIV: S-5L49.FLA U. I. OF FLORIDA

SUB 60

MONTHLY BALANCE SHEET PYA

ACCOUNT	DESCRIPTION	PYA;BEG:JAN	PYA;BEG:FEB	PYA;BEG:MAR	PYA;BEG:APR	PYA;BEG:MAY	PYA;BEG:JUN
3035040	L & L RIGHTS(TRANS&DIST)	245.51	245.51	245.51	245.51	245.51	245.51
3036010	LAND & LAND RIGHTS	2144.39	2144.39	2144.39	2144.39	2144.39	2144.39
3043021	STRUCT & IMPRV (PUMP PLT)	22525.98	22525.98	22525.98	22525.98	22525.98	22525.98
3044031	STRUCT & IMPRV (WATER T P)	30298.81	30298.81	30298.81	30298.81	30298.81	30298.81
3072014	WELLS & SPRINGS	8151.42	8151.42	8151.42	8151.42	8151.42	8151.42
3113025	ELECTRIC PUMP EQUIP	49017.31	49017.31	49017.31	51734.87	52953.21	52953.21
3204032	WATER TREATMENT EQPT	16554.00	16554.00	16554.00	16554.00	16554.00	16674.87
3305042	DIST RESV & STNDPIPES	44475.20	44475.20	44475.20	44475.20	44475.20	44475.20
3315043	TRANS & DISTR MAINS	76737.39	76737.39	76737.39	76737.39	76737.39	76737.39
3335045	SERVICE LINES	25368.85	25368.85	25368.85	25368.85	25368.85	25387.21
3345046	METERS	20265.73	20265.73	20265.73	20265.73	20265.73	20265.73
3345047	METER INSTALLATIONS	1079.74	1079.74	1079.74	1079.74	1079.74	1079.74
3446095	LABORATORY EQPT	1789.05	1789.05	1789.05	1789.05	1789.05	1789.05
3466094	TOOLS SHOP & MISC EQPT	694.78	694.78	694.78	694.78	694.78	694.78
101.1	WTR UTILITY PLANT IN SERVICE	299348.16	299348.16	299348.16	302065.72	303284.06	303423.29
3537002	L & L RIGHTS	5595.72	5595.72	5595.72	5595.72	5595.72	5595.72
3542011	LIFT STATION	48061.91	48061.91	48061.91	50099.91	50099.91	50099.91
3547003	BLDGS & STRUCTS	57099.87	57099.87	57099.87	57099.87	57099.87	57099.87
3602006	SEWAGE SERVICE LINES	21637.19	21637.19	21637.19	21637.19	21637.19	21637.19
3602007	FORCE OR VACUUM MAINS	308.37	308.37	308.37	308.37	308.37	308.37
3612008	SEWER MAINS	219926.95	219926.95	219926.95	219926.95	219926.95	219926.95
3612010	MANHOLES	25.25	25.25	25.25	25.25	25.25	25.25
3804004	SEWER LAGOONS	590.00	590.00	590.00	590.00	590.00	590.00
3804005	SEWAGE TRTMT PLANT	323899.47	327919.95	329311.95	329536.64	329536.64	329536.64
101.2	SWR UTILITY PLANT IN SERVICE	677144.73	681165.21	682557.21	684819.90	684819.90	684819.90
1051092	SEWER PLANT IN PROCESS	93421.34	93421.34	193265.22	194286.57	283995.24	848375.32
105.1	WORK IN PROGRESS	93421.34	93421.34	193265.22	194286.57	283995.24	848375.32
1083011	ACCUM DEPR.-10111	0.00	0.00	0.00	252.00	252.00	252.00
1083014	ACCUM DEPR.-10114	3731.51-	3754.13-	3776.75-	3799.37-	3821.99-	3844.61-
1083021	ACCUM DEPR.-10121	6233.21-	6290.09-	6346.97-	6403.85-	6460.73-	6517.61-
1083025	ACCUM DEPR.-10125	15363.42-	15567.66-	15771.90-	13841.14-	14045.38-	14249.62-
1083031	ACCUM DEPR.-10131	13317.00-	13393.50-	13470.00-	13546.50-	13623.00-	13699.50-
1083032	ACCUM DEPR.-10132	4842.34-	4905.11-	4967.88-	5030.65-	5093.42-	4175.19-
1083042	ACCUM DEPR.-10142	6271.51-	6371.58-	6471.65-	6571.72-	6671.79-	6771.86-
1083043	ACCUM DEPR.-10143	20453.44-	20602.44-	20751.44-	20900.44-	21049.44-	21198.44-
1083045	ACCUM DEPR.-10145	4186.09-	4238.32-	4290.55-	4342.78-	4395.01-	4447.24-
1083046	ACCUM DEPR.-10146	10779.96-	10864.40-	10948.84-	11033.28-	11117.72-	11202.16-
1083047	ACCUM DEPR.-10147	335.11-	339.61-	344.11-	348.61-	353.11-	357.61-
1083094	ACCUM DEPR-TOOLS SHOP MISC	133.92-	137.54-	141.16-	144.78-	148.40-	152.02-
1083095	ACCUM DEPR.-10195	912.10-	922.04-	931.98-	941.92-	951.86-	961.80-
108.3	ACCUM DEPR WATER PLANT	86559.61-	87386.42-	88213.23-	86653.04-	87479.85-	87325.66-
1084003	ACCUM DEPR.-10203	24048.20-	24197.14-	24346.08-	24495.02-	24643.96-	24792.90-
1084004	ACCUM DEPR.-10204	1.41-	2.82-	4.23-	5.64-	7.05-	8.46-

COLUMN-SET 1
PERIOD ENDING: 12/31/01
SUBDIV: S-5L49.FLA U. I. OF FLORIDA

MONTHLY BALANCE SHEET PYA

ACCOUNT	DESCRIPTION	PYA;BEG:JAN	PYA;BEG:FEB	PYA;BEG:MAR	PYA;BEG:APR	PYA;BEG:MAY	PYA;BEG:JUN
1084005	ACCUM DEPR.-10205	41265.27-	42037.23-	42809.19-	43581.15-	44353.11-	45125.07-
1084006	ACCUM DEPR.-10206	6256.45-	6303.87-	6351.29-	6398.71-	6446.13-	6493.55-
1084007	ACCUM DEPR.-10207	31.77-	32.63-	33.49-	34.35-	35.21-	36.07-
1084008	ACCUM DEPR.-10208	43454.39-	43861.25-	44268.11-	44674.97-	45081.83-	45488.69-
1084010	ACCUM DEPR.-10210	0.07-	0.14-	0.21-	0.28-	0.35-	0.42-
1084011	ACCUM DEPR.-10211	14110.09-	14270.30-	14430.51-	14590.72-	14750.93-	14911.14-
108.4	ACCUM DEPR SEWER PLANT	129167.65-	130705.38-	132243.11-	133780.84-	135318.57-	136856.30-
1311001	CASH UNAPPLIED-NSF'S	0.00	0.00	0.00	0.00	0.00	0.00
131.1	CASH UNAPPLIED	0.00	0.00	0.00	0.00	0.00	0.00
1411000	A/R-CUSTOMER	624.67	14304.96	549.95	14267.30	496.41	15736.77
1411002	A/R-CUSTOMER ACCRUAL	28603.00	12462.00	24924.00	11774.00	23547.00	12437.00
141.1	ACCOUNTS RECEIVABLE CUSTOMER	29227.67	26766.96	25473.95	26041.30	24043.41	28173.77
2351000	CUSTOMER DEPOSITS	5065.00-	4905.00-	4905.00-	5065.00-	5015.00-	5305.00-
235.1	CUSTOMER DEPOSITS	5065.00-	4905.00-	4905.00-	5065.00-	5015.00-	5305.00-
2361173	ACCRUED COUNTY TAX-SEMINOLE	4203.49-	4634.61-	4639.67-	5085.00-	5083.63-	5567.68-
236.1	ACCRUED TAXES	4203.49-	4634.61-	4639.67-	5085.00-	5083.63-	5567.68-
2372030	ACCRUED CUST DEP INTEREST	381.80	608.31	582.98	562.45	537.12	512.50
237.1	ACCRUED INTEREST	381.80	608.31	582.98	562.45	537.12	512.50
2711000	CIAC-WATER-UNDISTR.	74083.56-	74083.56-	74083.56-	74083.56-	74083.56-	74083.56-
271.1	CONTRIBUTIONS IN AID WATER	74083.56-	74083.56-	74083.56-	74083.56-	74083.56-	74083.56-
2721000	CIAC-SEWER-UNDISTRIB.	110209.34-	110209.34-	110209.34-	110209.34-	110209.34-	110209.34-
271.2	CONTRIBUTIONS IN AID SEWER	110209.34-	110209.34-	110209.34-	110209.34-	110209.34-	110209.34-
2722000	ACC. AMORT-CIA-WATER	51892.04	52098.52	52305.00	52511.48	52717.96	52924.44
272.1	ACCUM AMORT OF CIA WATER	51892.04	52098.52	52305.00	52511.48	52717.96	52924.44
2723000	ACC. AMORT-CIA-SEWER	73685.53	73937.89	74190.25	74442.61	74694.97	74947.33
272.2	ACCUM AMORT OF CIA SEWER	73685.53	73937.89	74190.25	74442.61	74694.97	74947.33
	TOTAL BALANCE SHEET	815812.62	815422.08	913428.86	919853.25	1006902.71	1573829.01

COLUMN-SET 2

ACCOUNT	DESCRIPTION	PYA;BEG:JUL	PYA;BEG:AUG	PYA;BEG:SEP	PYA;BEG:OCT	PYA;BEG:NOV	PYA;BEG:DEC
3035040	L & L RIGHTS(TRANS&DIST)	245.51	245.51	245.51	245.51	245.51	245.51
3036010	LAND & LAND RIGHTS	2144.39	2144.39	2144.39	2144.39	2144.39	2144.39
3043021	STRUCT & IMPRV (PUMP PLT)	22525.98	22525.98	22525.98	22525.98	22525.98	22525.98
3044031	STRUCT & IMPRV (WATER T P)	30298.81	30298.81	30298.81	30298.81	30298.81	30298.81
3072014	WELLS & SPRINGS	8151.42	8151.42	8151.42	8151.42	8151.42	8151.42
3113025	ELECTRIC PUMP EQUIP	52953.21	52953.21	52953.21	52953.21	52953.21	52953.21
3204032	WATER TREATMENT EQPT	16674.87	16674.87	16674.87	16674.87	16674.87	16674.87
3305042	DIST RESV & STNDPIPES	44475.20	44475.20	44475.20	44475.20	44475.20	44475.20
3315043	TRANS & DISTR MAINS	76737.39	76737.39	76737.39	76737.39	76737.39	76737.39
3335045	SERVICE LINES	25387.21	25387.21	25387.21	25387.21	25387.21	25387.21
3345046	METERS	20265.73	20265.73	20265.73	20265.73	20265.73	20265.73
3345047	METER INSTALLATIONS	1079.74	1079.74	1079.74	1079.74	1079.74	1079.74
3446095	LABORATORY EQPT	1789.05	1789.05	1789.05	1789.05	1789.05	1789.05
3466094	TOOLS SHOP & MISC EQPT	694.78	694.78	694.78	694.78	694.78	694.78
101.1	WTR UTILITY PLANT IN SERVICE	303423.29	303423.29	303423.29	303423.29	303423.29	303423.29
3537002	L & L RIGHTS	5595.72	5595.72	5595.72	5595.72	5595.72	5595.72
3542011	LIFT STATION	50099.91	50099.91	50099.91	50361.50	50054.86	50054.86
3547003	BLDGS & STRUCTS	57099.87	57099.87	57099.87	57099.87	57099.87	57099.87
3602006	SEWAGE SERVICE LINES	21637.19	21637.19	21637.19	21637.19	21637.19	21637.19
3602007	FORCE OR VACUUM MAINS	308.37	308.37	308.37	308.37	308.37	308.37
3612008	SEWER MAINS	219926.95	219926.95	219926.95	219926.95	219926.95	219926.95
3612010	MANHOLES	25.25	25.25	25.25	25.25	25.25	25.25
3804004	SEWER LAGOONS	590.00	590.00	590.00	590.00	590.00	590.00
3804005	SEWAGE TRTMT PLANT	329536.64	329536.64	329597.67	329597.67	329597.67	329597.67
101.2	SWR UTILITY PLANT IN SERVICE	684819.90	684819.90	684880.93	685142.52	684835.88	684835.88
1051092	SEWER PLANT IN PROCESS	901776.54	936262.75	936675.95	936675.95	936675.95	936675.95
105.1	WORK IN PROGRESS	901776.54	936262.75	936675.95	936675.95	936675.95	936675.95
1083011	ACCUM DEPR.-10111	252.00	252.00	252.00	252.00	252.00	252.00
1083014	ACCUM DEPR.-10114	3867.23-	3889.85-	3912.47-	3935.09-	3957.71-	3980.33-
1083021	ACCUM DEPR.-10121	6574.49-	6631.37-	6688.25-	6745.13-	6802.01-	6858.89-
1083025	ACCUM DEPR.-10125	14470.26-	14690.90-	14911.54-	15132.18-	15352.82-	15573.46-
1083031	ACCUM DEPR.-10131	13776.00-	13852.50-	13929.00-	14005.50-	14082.00-	14158.50-
1083032	ACCUM DEPR.-10132	4238.42-	4301.65-	4364.88-	4428.11-	4491.34-	4554.57-
1083042	ACCUM DEPR.-10142	6871.93-	6972.00-	7072.07-	7172.14-	7272.21-	7372.28-
1083043	ACCUM DEPR.-10143	21347.44-	21496.44-	21645.44-	21794.44-	21943.44-	22092.44-
1083045	ACCUM DEPR.-10145	4500.13-	4553.02-	4605.91-	4658.80-	4711.69-	4764.58-
1083046	ACCUM DEPR.-10146	11286.60-	11371.04-	11455.48-	11539.92-	11624.36-	11708.80-
1083047	ACCUM DEPR.-10147	362.11-	366.61-	371.11-	375.61-	380.11-	384.61-
1083094	ACCUM DEPR-TOOLS SHOP MISC	155.64-	159.26-	162.88-	166.50-	170.12-	173.74-
1083095	ACCUM DEPR.-10195	971.74-	981.68-	991.62-	1001.56-	1011.50-	1021.44-
108.3	ACCUM DEPR WATER PLANT	88169.99-	89014.32-	89858.65-	90702.98-	91547.31-	92391.64-
1084003	ACCUM DEPR.-10203	24941.84-	25090.78-	25239.72-	25388.66-	25537.60-	25686.54-
1084004	ACCUM DEPR.-10204	9.87-	11.28-	12.69-	14.10-	15.51-	16.92-

COLUMN-SET 2

ACCOUNT	DESCRIPTION	PYA;BEG:JUL	PYA;BEG:AUG	PYA;BEG:SEP	PYA;BEG:OCT	PYA;BEG:NOV	PYA;BEG:DEC
1084005	ACCUM DEPR.-10205	45910.47-	46695.87-	47109.27-	47894.67-	48680.07-	49465.47-
1084006	ACCUM DEPR.-10206	6540.97-	6588.39-	6635.81-	6683.23-	6730.65-	6778.07-
1084007	ACCUM DEPR.-10207	36.93-	37.79-	38.65-	39.51-	40.37-	41.23-
1084008	ACCUM DEPR.-10208	45895.55-	46302.41-	46709.27-	47116.13-	47522.99-	47929.85-
1084010	ACCUM DEPR.-10210	0.49-	0.56-	0.63-	0.70-	0.77-	0.84-
1084011	ACCUM DEPR.-10211	15078.14-	15245.14-	15412.14-	15518.14-	15685.14-	15852.14-
108.4	ACCUM DEPR SEWER PLANT	138414.26-	139972.22-	141158.18-	142655.14-	144213.10-	145771.06-
1311001	CASH UNAPPLIED-NSF'S	0.00	0.00	40.00-	104.56	69.95-	0.00
131.1	CASH UNAPPLIED	0.00	0.00	40.00-	104.56	69.95-	0.00
1411000	A/R-CUSTOMER	381.42	14489.96	1343.93	13239.53	768.88	15909.90
1411002	A/R-CUSTOMER ACCRUAL	24873.00	11559.00	23116.00	11863.00	23725.00	11419.00
141.1	ACCOUNTS RECEIVABLE CUSTOMER	25254.42	26048.96	24459.93	25102.53	24493.88	27328.90
2351000	CUSTOMER DEPOSITS	5255.00-	5240.00-	5240.00-	5240.00-	5160.00-	5450.00-
235.1	CUSTOMER DEPOSITS	5255.00-	5240.00-	5240.00-	5240.00-	5160.00-	5450.00-
2361173	ACCRUED COUNTY TAX-SEMINOLE	5567.68-	6016.76-	6016.76-	6458.53-	6458.53-	6890.10-
236.1	ACCRUED TAXES	5567.68-	6016.76-	6016.76-	6458.53-	6458.53-	6890.10-
2372030	ACCRUED CUST DEP INTEREST	485.97	467.60	441.07	430.02	403.49	378.60
237.1	ACCRUED INTEREST	485.97	467.60	441.07	430.02	403.49	378.60
2711000	CIAC-WATER-UNDISTR.	74083.56-	74083.56-	74083.56-	74083.56-	74083.56-	74083.56-
271.1	CONTRIBUTIONS IN AID WATER	74083.56-	74083.56-	74083.56-	74083.56-	74083.56-	74083.56-
2721000	CIAC-SEWER-UNDISTRIB.	110209.34-	110209.34-	110209.34-	110209.34-	110209.34-	110209.34-
271.2	CONTRIBUTIONS IN AID SEWER	110209.34-	110209.34-	110209.34-	110209.34-	110209.34-	110209.34-
2722000	ACC. AMORT-CIA-WATER	53132.23	53340.02	53547.81	53755.60	53963.39	54171.18
272.1	ACCUM AMORT OF CIA WATER	53132.23	53340.02	53547.81	53755.60	53963.39	54171.18
2723000	ACC. AMORT-CIA-SEWER	75200.12	75452.91	75705.70	75958.49	76211.28	76464.07
272.2	ACCUM AMORT OF CIA SEWER	75200.12	75452.91	75705.70	75958.49	76211.28	76464.07
	TOTAL BALANCE SHEET	1622392.64	1655279.23	1652528.19	1651243.41	1648265.37	1648482.17

COLUMN-SET 3

10:06:20 07 NOV 2002 (BS.MONTH.PYA) PA

EXHIBIT TLB-5
ATTACHMENT 1
PAGE 5 OF 6

ACCOUNT	DESCRIPTION	PAY BEG ADJ	PYA BEG ALC
3035040	L & L RIGHTS(TRANS&DIST)	245.51	245.51
3036010	LAND & LAND RIGHTS	2144.39	2144.39
3043021	STRUCT & IMPRV (PUMP PLT)	22525.98	22525.98
3044031	STRUCT & IMPRV (WATER T P)	30298.81	30298.81
3072014	WELLS & SPRINGS	8151.42	8151.42
3113025	ELECTRIC PUMP EQUIP	52953.21	52953.21
3204032	WATER TREATMENT EQPT	16674.87	16674.87
3305042	DIST RESV & STNDPIPES	44475.20	44475.20
3315043	TRANS & DISTR MAINS	82293.14	82293.14
3335045	SERVICE LINES	25387.21	25387.21
3345046	METERS	20265.73	20265.73
3345047	METER INSTALLATIONS	1079.74	1079.74
3446095	LABORATORY EQPT	1789.05	1789.05
3466094	TOOLS SHOP & MISC EQPT	694.78	694.78
101.1	WTR UTILITY PLANT IN SERVICE	308979.04	308979.04
3537002	L & L RIGHTS	107114.51	107114.51
3542011	LIFT STATION	50105.86	50105.86
3547003	BLDGS & STRUCTS	57099.87	57099.87
3602006	SEWAGE SERVICE LINES	21637.19	21637.19
3602007	FORCE OR VACUUM MAINS	308.37	308.37
3612008	SEWER MAINS	1086076.06	1086076.06
3612010	MANHOLES	25.25	25.25
3804004	SEWER LAGOONS	590.00	590.00
3804005	SEWAGE TRTMT PLANT	341161.72	341161.72
101.2	SWR UTILITY PLANT IN SERVICE	1664118.83	1664118.83
1051092	SEWER PLANT IN PROCESS	0.00	0.00
105.1	WORK IN PROGRESS	0.00	0.00
1083011	ACCUM DEPR.-10111	252.00	252.00
1083014	ACCUM DEPR.-10114	3980.33-	3980.33-
1083021	ACCUM DEPR.-10121	6858.89-	6858.89-
1083025	ACCUM DEPR.-10125	15573.46-	15573.46-
1083031	ACCUM DEPR.-10131	14158.50-	14158.50-
1083032	ACCUM DEPR.-10132	4554.57-	4554.57-
1083042	ACCUM DEPR.-10142	7372.28-	7372.28-
1083043	ACCUM DEPR.-10143	22092.44-	22092.44-
1083045	ACCUM DEPR.-10145	4764.58-	4764.58-
1083046	ACCUM DEPR.-10146	11708.80-	11708.80-
1083047	ACCUM DEPR.-10147	384.61-	384.61-
1083094	ACCUM DEPR-TOOLS SHOP MISC	173.74-	173.74-
1083095	ACCUM DEPR.-10195	1021.44-	1021.44-
108.3	ACCUM DEPR WATER PLANT	92391.64-	92391.64-
1084003	ACCUM DEPR.-10203	25686.54-	25686.54-
1084004	ACCUM DEPR.-10204	16.92-	16.92-

COLUMN-SET 3

10:06:20 07 NOV 2002 (BS.MONTH.PYA) PA

ACCOUNT	DESCRIPTION	PAY BEG ADJ	PYA BEG ALC
1084005	ACCUM DEPR.-10205	49465.47-	49465.47-
1084006	ACCUM DEPR.-10206	6778.07-	6778.07-
1084007	ACCUM DEPR.-10207	41.23-	41.23-
1084008	ACCUM DEPR.-10208	47929.85-	47929.85-
1084010	ACCUM DEPR.-10210	0.84-	0.84-
1084011	ACCUM DEPR.-10211	15852.14-	15852.14-
108.4	ACCUM DEPR SEWER PLANT	145771.06-	145771.06-
1311001	CASH UNAPPLIED-NSF'S	0.00	0.00
131.1	CASH UNAPPLIED	0.00	0.00
1411000	A/R-CUSTOMER	15909.90	15909.90
1411002	A/R-CUSTOMER ACCRUAL	11419.00	11419.00
141.1	ACCOUNTS RECEIVABLE CUSTOMER	27328.90	27328.90
2351000	CUSTOMER DEPOSITS	5450.00-	5450.00-
235.1	CUSTOMER DEPOSITS	5450.00-	5450.00-
2361173	ACCRUED COUNTY TAX-SEMINOLE	6890.10-	6890.10-
236.1	ACCRUED TAXES	6890.10-	6890.10-
2372030	ACCRUED CUST DEP INTEREST	378.60	378.60
237.1	ACCRUED INTEREST	378.60	378.60
2711000	CIAC-WATER-UNDISTR.	74083.56-	74083.56-
271.1	CONTRIBUTIONS IN AID WATER	74083.56-	74083.56-
2721000	CIAC-SEWER-UNDISTRIB.	110209.34-	110209.34-
271.2	CONTRIBUTIONS IN AID SEWER	110209.34-	110209.34-
2722000	ACC. AMORT-CIA-WATER	54171.18	54171.18
272.1	ACCUM AMORT OF CIA WATER	54171.18	54171.18
2723000	ACC. AMORT-CIA-SEWER	76464.07	76464.07
272.2	ACCUM AMORT OF CIA SEWER	76464.07	76464.07
	TOTAL BALANCE SHEET	1696644.92	1696644.92

DETAIL TB BY SUB

EXHIBIT TLB-5
ATTACHMENT 2
PAGE 1 OF 3

U T I L I T I E S , I N C O R P O R A T E D

DETAIL TRIAL BALANCE

ACCOUNT	DESCRIPTION	BEG-BALANCE	CURRENT	END-BALANCE
3511001	ORGANIZATION	3,348.96	0.00	3,348.96
3537002	L & L RIGHTS	10,000.00	0.00	10,000.00
3542011	LIFT STATION	142,678.77	0.00	142,678.77
3547003	BLDGS & STRUCTS	30,087.00	0.00	30,087.00
3602006	SEWAGE SERVICE LINES	74,327.73	0.00	74,327.73
3602007	FORCE OR VACUUM MAINS	109,364.24	0.00	109,364.24
3612008	SEWER MAINS	325,472.00	0.00	325,472.00
3612010	MANHOLES	43,204.56	0.00	43,204.56
3804004	SEWER LAGOONS	114,849.00	0.00	114,849.00
3804005	SEWAGE TRTMT PLANT	109,045.92	0.00	109,045.92
101.2	SWR UTILITY PLANT IN SERVICE	962,378.18	0.00	962,378.18
1051092	SEWER PLANT IN PROCESS	8,666.90-	0.00	8,666.90-
105.1	WORK IN PROGRESS	8,666.90-	0.00	8,666.90-
1084001	ACCUM DEPR.-10201	1,263.13-	0.00	1,263.13-
1084003	ACCUM DEPR.-10203	12,673.92-	0.00	12,673.92-
1084004	ACCUM DEPR.-10204	46,208.13-	0.00	46,208.13-
1084005	ACCUM DEPR.-10205	21,199.44-	0.00	21,199.44-
1084006	ACCUM DEPR.-10206	23,073.13-	0.00	23,073.13-
1084007	ACCUM DEPR.-10207	44,498.72-	0.00	44,498.72-
1084008	ACCUM DEPR.-10208	103,090.15-	0.00	103,090.15-
1084010	ACCUM DEPR.-10210	2,477.25-	0.00	2,477.25-
1084011	ACCUM DEPR.-10211	41,476.94-	0.00	41,476.94-
108.4	ACCUM DEPR SEWER PLANT	295,960.81-	0.00	295,960.81-
1142010	UTIL PLT ACQ ADJ-SEWER	24,512.00	0.00	24,512.00
114.2	NET UTILITY PAA SWR PLANT	24,512.00	0.00	24,512.00
1152020	ACCUM PROV UTIL PAA-SEWER	6,872.73-	0.00	6,872.73-
115.2	ACCUM PROV UTIL PAA SWR PLANT	6,872.73-	0.00	6,872.73-
2721000	CIAC-SEWER-UNDISTRIB.	463,032.00-	0.00	463,032.00-
271.2	CONTRIBUTIONS IN AID SEWER	463,032.00-	0.00	463,032.00-
2723000	ACC. AMORT-CIA-SEWER	125,703.32	0.00	125,703.32
272.2	ACCUM AMORT OF CIA SEWER	125,703.32	0.00	125,703.32
	TOTAL BALANCE SHEET	338,061.06	0.00	338,061.06

EXHIBIT TLB-5
ATTACHMENT 2
PAGE 2 OF 3

DETAIL TB BY SUB

U T I L I T I E S , I N C O R P O R A T E D

DETAIL TRIAL BALANCE

ACCOUNT	DESCRIPTION	BEG-BALANCE	CURRENT	END-BALANCE
7105000	PURCHASED SEWAGE TRTMNT	79,405.73	0.00	79,405.73
401.1C	PURCHASED SEWAGE TREATMT	79,405.73	0.00	79,405.73
7151020	ELEC PWR - SEWER SYSTEM	2,093.88	0.00	2,093.88
401.1E	ELECTRIC POWER	2,093.88	0.00	2,093.88
6759140	ALARM SYS PHONE EXPENSE	203.31	0.00	203.31
401.1S	OFFICE UTILITIES	203.31	0.00	203.31
7754003	SEWER-MAINT SUPPLIES	88.56	0.00	88.56
7754006	SEWER-MAINT REPAIRS	1,296.59	0.00	1,296.59
7754009	SEWER-ELEC EQUIPT REPAIR	399.45	0.00	399.45
7758490	SEWER-OTHER MAINT EXP	1,407.72	0.00	1,407.72
401.1Y	MAINTENANCE-SEWER PLANT	3,192.32	0.00	3,192.32
7754011	SEWER-SEWER RODDING	4,740.00	0.00	4,740.00
401.1YY	SLUDGE/RODDING	4,740.00	0.00	4,740.00
6759415	MOWING/SNOWPLOWING	800.00	0.00	800.00
401.1Z	MAINTENANCE-WTR&SWR PLANT	800.00	0.00	800.00
6759018	OPERATORS-OTHER OFFICE EXPENSE	12.56	0.00	12.56
6759416	OPERATORS-MEMBERSHIPS	15.64	0.00	15.64
401.1ZZ	OPERATORS EXPENSES	28.20	0.00	28.20
4033001	DEPRECIATION-10201	83.76	0.00	83.76
4033003	DEPRECIATION-10203	941.76	0.00	941.76
4033004	DEPRECIATION-10204	3,284.64	0.00	3,284.64
4033005	DEPRECIATION-10205	2,532.60	0.00	2,532.60
4033006	DEPRECIATION-10206	1,890.48	0.00	1,890.48
4033007	DEPRECIATION-10207	3,641.88	0.00	3,641.88
4033008	DEPRECIATION-10208	7,206.24	0.00	7,206.24
4033010	DEPRECIATION-10210	600.24	0.00	600.24
4033011	DEPRECIATION-10211	5,492.58	0.00	5,492.58
403.3	DEPRECIATION EXP-SEWER	25,674.18	0.00	25,674.18
4062000	AMORT OF UTIL PAA-SEWER	700.74	0.00	700.74
406.2	AMORT OF UTILITY PAA-SWR	700.74	0.00	700.74
4073000	AMORT EXP-CIA-SEWER	13,237.80-	0.00	13,237.80-

DETAIL TB BY SUB

U T I L I T I E S , I N C O R P O R A T E D

DETAIL TRIAL BALANCE

ACCOUNT	DESCRIPTION	BEG-BALANCE	CURRENT	END-BALANCE
407.7	AMORT EXP-CIA-SEWER	13,237.80-	0.00	13,237.80-
4081121	REAL ESTATE TAX	1,467.80	0.00	1,467.80
408.3	OTHER TAXES	1,467.80	0.00	1,467.80
	TOTAL INCOME STATEMENT	105,068.36	0.00	105,068.36
	TOTAL BALANCE SHEET	338,061.06	0.00	338,061.06
	TOTAL INCOME STATEMENT	105,068.36	0.00	105,068.36

ENDING: 12/31/01
DIV: S-5L49.FLA U. I. OF FLORIDA

WCATA

EXHIBIT TLB-5
ATTACHMENT 3
PAGE 1 OF 9

MONTHLY BALANCE SHEET PYA

ACCOUNT	DESCRIPTION	PYA;BEG:JAN	PYA;BEG:FEB	PYA;BEG:MAR	PYA;BEG:APR	PYA;BEG:MAY	PYA;BEG:JUN
3011001	ORGANIZATION	49093.99	49093.99	49093.99	49093.99	49093.99	49093.99
3036010	LAND & LAND RIGHTS	5812.95	5812.95	5812.95	5812.95	5812.95	5812.95
3042011	STRUCT & IMPRV (SOURCE SUP)	124.84	124.84	124.84	124.84	124.84	124.84
3043021	STRUCT & IMPRV (PUMP PLT)	30220.88	30220.88	30220.88	30220.88	30484.88	30484.88
3044031	STRUCT & IMPRV (WATER T P)	7352.35	7352.35	7352.35	7352.35	7352.35	7352.35
3072014	WELLS & SPRINGS	44682.42	44682.42	44682.42	44682.42	44682.42	44682.42
3113025	ELECTRIC PUMP EQUIP	115955.21	115955.21	115955.21	115955.21	116447.21	116447.21
3204032	WATER TREATMENT EQPT	37206.63	37206.63	37206.63	37206.63	37206.63	37206.63
3305042	DIST RESV & STNDPIPES	32602.59	32602.59	32602.59	32602.59	34292.06	34292.06
3315043	TRANS & DISTR MAINS	389202.07	389202.07	390902.07	390902.07	390902.07	390902.07
3335045	SERVICE LINES	127954.06	127954.06	128032.17	128032.17	128032.17	128097.64
3345046	METERS	159964.86	159964.86	159964.86	159964.86	159964.86	159964.86
3345047	METER INSTALLATIONS	1683.09	1683.09	1683.09	1683.09	1683.09	1683.09
3355048	HYDRANTS	17450.43	19120.10	19120.10	19120.10	19120.10	19120.10
3446095	LABORATORY EQPT	1451.31	1451.31	1451.31	1451.31	1451.31	1451.31
3466094	TOOLS SHOP & MISC EQPT	3383.66	3383.66	3383.66	3383.66	3383.66	3383.66
101.1	WTR UTILITY PLANT IN SERVICE	1024141.34	1025811.01	1027589.12	1027589.12	1030034.59	1030100.06
3511001	ORGANIZATION	150.00	150.00	150.00	150.00	150.00	150.00
3537002	L & L RIGHTS	10876.32	10876.32	10876.32	10876.32	10876.32	10876.32
3542011	LIFT STATION	134135.70	134135.70	134173.99	134173.99	134173.99	134173.99
3547003	BLDGS & STRUCTS	146560.53	146560.53	146560.53	146560.53	146560.53	146560.53
3602006	SEWAGE SERVICE LINES	81725.27	81725.27	81725.27	85832.80	85832.80	85832.80
3602007	FORCE OR VACUUM MAINS	9562.71	9562.71	9562.71	9562.71	9562.71	9562.71
3612008	SEWER MAINS	513358.03	513358.03	513358.03	513358.03	513358.03	513358.03
3612010	MANHOLES	54862.73	54862.73	54862.73	54862.73	54862.73	54862.73
3804005	SEWAGE TRTMT PLANT	4177.75	5335.12	5335.12	5335.12	5335.12	5335.12
101.2	SWR UTILITY PLANT IN SERVICE	955409.04	956566.41	956604.70	960712.23	960712.23	960712.23
1051092	SEWER PLANT IN PROCESS	0.00	770.00	770.00	3963.04	4887.04	10702.54
1052091	WATER PLANT IN PROCESS	185384.51	185384.51	192081.51	192081.51	192081.51	192081.51
1052093	OTHER PLANT IN PROCESS	37902.80	71411.57	123336.57	219726.45	237471.55	245465.38
105.1	WORK IN PROGRESS	223287.31	257566.08	316188.08	415771.00	434440.10	448249.43
1083001	ACCUM DEPR.-10101	42171.53-	42273.81-	42376.09-	42478.37-	42580.65-	42682.93-
1083011	ACCUM DEPR.-10111	59.09-	59.41-	59.73-	60.05-	60.37-	60.69-
1083014	ACCUM DEPR.-10114	21167.38-	21291.37-	21415.36-	21539.35-	21663.34-	21787.33-
1083021	ACCUM DEPR.-10121	7094.80-	7171.11-	7247.42-	7323.73-	6564.04-	6640.35-
1083025	ACCUM DEPR.-10125	42774.89-	43258.04-	43741.19-	44224.34-	44707.49-	45190.64-
1083031	ACCUM DEPR.-10131	2263.32-	2281.88-	2300.44-	2319.00-	2337.56-	2356.12-
1083032	ACCUM DEPR.-10132	15136.79-	15277.87-	15418.95-	15560.03-	15701.11-	15842.19-
1083042	ACCUM DEPR.-10142	13791.74-	13865.10-	13938.46-	14011.82-	13233.18-	13306.54-
1083043	ACCUM DEPR.-10143	166420.75-	167174.51-	167928.27-	168682.03-	169435.79-	170189.55-
1083045	ACCUM DEPR.-10145	48115.15-	48381.72-	48648.29-	48914.86-	49181.43-	49448.00-
1083046	ACCUM DEPR.-10146	87901.88-	88568.40-	89234.92-	89901.44-	90567.96-	91234.48-
1083047	ACCUM DEPR.-10147	996.82-	1003.83-	1010.84-	1017.85-	1024.86-	1031.87-
1083048	ACCUM DEPR.-10148	5650.71-	5290.99-	5323.27-	5355.55-	5387.83-	5420.11-
1083094	ACCUM DEPR-TOOLS SHOP MISC	729.63-	747.25-	764.87-	782.49-	800.11-	817.73-

COLUMN-SET 1
PERIOD ENDING: 12/31/01
SUBDIV: S-5L49.FLA U. I. OF FLORIDA

MONTHLY BALANCE SHEET PYA

ACCOUNT	DESCRIPTION	PYA;BEG:JAN	PYA;BEG:FEB	PYA;BEG:MAR	PYA;BEG:APR	PYA;BEG:MAY	PYA;BEG:JUN
1083095	ACCUM DEPR.-10195	1007.14-	1015.21-	1023.28-	1031.35-	1039.42-	1047.49-
108.3	ACCUM DEPR WATER PLANT	455281.62-	457660.50-	460431.38-	463202.26-	464285.14-	467056.02-
1084001	ACCUM DEPR.-10201	79.31-	79.62-	79.93-	80.24-	80.55-	80.86-
1084003	ACCUM DEPR.-10203	83126.53-	83508.81-	83891.09-	84273.37-	84655.65-	85037.93-
1084004	ACCUM DEPR.-10204	103.18-	103.18-	103.18-	103.18-	103.18-	103.18-
1084005	ACCUM DEPR.-10205	2962.08-	2972.04-	2982.00-	2991.96-	3001.92-	3011.88-
1084006	ACCUM DEPR.-10206	39956.26-	40135.37-	40314.48-	39711.59-	39890.70-	40069.81-
1084007	ACCUM DEPR.-10207	5544.16-	5570.70-	5597.24-	5623.78-	5650.32-	5676.86-
1084008	ACCUM DEPR.-10208	259337.08-	260286.59-	261236.10-	262185.61-	263135.12-	264084.63-
1084010	ACCUM DEPR.-10210	29799.85-	29952.09-	30104.33-	30256.57-	30408.81-	30561.05-
1084011	ACCUM DEPR.-10211	61790.68-	62237.80-	62341.92-	62789.04-	63236.16-	63683.28-
108.4	ACCUM DEPR SEWER PLANT	482699.13-	484846.20-	486650.27-	488015.34-	490162.41-	492309.48-
1311001	CASH UNAPPLIED-NSF'S	0.00	0.00	0.00	544.72	0.00	0.00
131.1	CASH UNAPPLIED	0.00	0.00	0.00	544.72	0.00	0.00
1411000	A/R-CUSTOMER	36648.19	1613.36	37085.54	1232.78	34248.85	1156.67
1411002	A/R-CUSTOMER ACCRUAL	29743.00	59486.00	28343.00	59536.00	29768.00	59536.00
141.1	ACCOUNTS RECEIVABLE CUSTOMER	66391.19	61099.36	65428.54	60768.78	64016.85	60692.67
2351000	CUSTOMER DEPOSITS	17815.00-	17655.00-	17975.00-	17975.00-	18455.00-	18455.00-
235.1	CUSTOMER DEPOSITS	17815.00-	17655.00-	17975.00-	17975.00-	18455.00-	18455.00-
2361173	ACCRUED COUNTY TAX-SEMINOLE	10398.24-	10397.77-	11313.31-	11313.31-	12333.23-	12333.23-
236.1	ACCRUED TAXES	10398.24-	10397.77-	11313.31-	11313.31-	12333.23-	12333.23-
2372030	ACCRUED CUST DEP INTEREST	2608.76	2521.68	2474.31	2387.23	2336.32	2249.24
237.1	ACCRUED INTEREST	2608.76	2521.68	2474.31	2387.23	2336.32	2249.24
2525000	ADV-IN-AID OF CONST-WATER	52000.00-	52000.00-	52000.00-	52000.00-	52000.00-	52000.00-
252.1	ADVANCES IN AID WATER	52000.00-	52000.00-	52000.00-	52000.00-	52000.00-	52000.00-
2526000	ADV-IN-AID OF CONST-SEWER	48000.00-	48000.00-	48000.00-	48000.00-	48000.00-	48000.00-
252.2	ADVANCES IN AID SEWER	48000.00-	48000.00-	48000.00-	48000.00-	48000.00-	48000.00-
2527000	ACC. AMORT-AIA-WATER	1633.00	1633.00	1633.00	1633.00	1633.00	1633.00
252.3	ACC AMORT AIA WATER	1633.00	1633.00	1633.00	1633.00	1633.00	1633.00
2528000	ACC. AMORT-CIA-SEWER	1315.00	1315.00	1315.00	1315.00	1315.00	1315.00
252.4	ACC AMORT AIA SEWER	1315.00	1315.00	1315.00	1315.00	1315.00	1315.00

COLUMN-SET 1
PERIOD ENDING: 12/31/01
SUBDIV: S-5L49.FLA U. I. OF FLORIDA

MONTHLY BALANCE SHEET PYA

ACCOUNT	DESCRIPTION	PYA;BEG:JAN	PYA;BEG:FEB	PYA;BEG:MAR	PYA;BEG:APR	PYA;BEG:MAY	PYA;BEG:JUN
2711000	CIAC-WATER-UNDISTR.	379106.32-	379106.32-	379106.32-	379106.32-	379106.32-	379106.32-
271.1	CONTRIBUTIONS IN AID WATER	379106.32-	379106.32-	379106.32-	379106.32-	379106.32-	379106.32-
2721000	CIAC-SEWER-UNDISTRIB.	499841.20-	499841.20-	499841.20-	499841.20-	499841.20-	499841.20-
271.2	CONTRIBUTIONS IN AID SEWER	499841.20-	499841.20-	499841.20-	499841.20-	499841.20-	499841.20-
2722000	ACC. AMORT-CIA-WATER	239765.03	240797.59	241830.15	242862.71	243895.27	244927.83
272.1	ACCUM AMORT OF CIA WATER	239765.03	240797.59	241830.15	242862.71	243895.27	244927.83
2723000	ACC. AMORT-CIA-SEWER	299588.34	300724.69	301861.04	302997.39	304133.74	305270.09
272.2	ACCUM AMORT OF CIA SEWER	299588.34	300724.69	301861.04	302997.39	304133.74	305270.09
	TOTAL BALANCE SHEET	868997.50	898527.83	959606.46	1057127.75	1078333.80	1086048.30

COLUMN-SET 2

ACCOUNT	DESCRIPTION	PYA;BEG:JUL	PYA;BEG:AUG	PYA;BEG:SEP	PYA;BEG:OCT	PYA;BEG:NOV	PYA;BEG:DEC
3011001	ORGANIZATION	49093.99	49093.99	49093.99	49093.99	49093.99	49093.99
3036010	LAND & LAND RIGHTS	5812.95	5812.95	5812.95	5812.95	5812.95	5812.95
3042011	STRUCT & IMPRV (SOURCE SUP)	124.84	124.84	124.84	124.84	124.84	124.84
3043021	STRUCT & IMPRV (PUMP PLT)	30484.88	30484.88	30484.88	30484.88	30484.88	30484.88
3044031	STRUCT & IMPRV (WATER T P)	7352.35	7352.35	7352.35	7352.35	7352.35	7352.35
3072014	WELLS & SPRINGS	44682.42	44682.42	44682.42	44682.42	44682.42	44682.42
3113025	ELECTRIC PUMP EQUIP	116447.21	116584.12	116584.12	116584.12	116584.12	116584.12
3204032	WATER TREATMENT EQPT	37206.63	37206.63	37206.63	37206.63	37206.63	37206.63
3305042	DIST RESV & STNDPIPES	34292.06	34303.14	34303.14	34303.14	34303.14	34303.14
3315043	TRANS & DISTR MAINS	391107.86	391107.86	391107.86	391107.86	391107.86	391107.86
3335045	SERVICE LINES	128097.64	128097.64	128097.64	128487.64	128487.64	128487.64
3345046	METERS	159964.86	159964.86	159964.86	159964.86	159964.86	159964.86
3345047	METER INSTALLATIONS	1683.09	1683.09	1683.09	1683.09	1683.09	1683.09
3355048	HYDRANTS	19120.10	19120.10	19120.10	19120.10	19120.10	19120.10
3446095	LABORATORY EQPT	1451.31	1451.31	1451.31	1451.31	1451.31	1451.31
3466094	TOOLS SHOP & MISC EQPT	3383.66	3383.66	3383.66	3383.66	3383.66	3383.66
101.1	WTR UTILITY PLANT IN SERVICE	1030305.85	1030453.84	1030453.84	1030843.84	1030843.84	1030843.84
3511001	ORGANIZATION	150.00	150.00	150.00	150.00	150.00	150.00
3537002	L & L RIGHTS	10876.32	10876.32	10876.32	10876.32	10876.32	10876.32
3542011	LIFT STATION	134173.99	134173.99	134173.99	134862.99	134862.99	135286.99
3547003	BLDGS & STRUCTS	146560.53	146560.53	146560.53	146560.53	146560.53	146560.53
3602006	SEWAGE SERVICE LINES	85832.80	85832.80	85832.80	85832.80	88294.48	88294.48
3602007	FORCE OR VACUUM MAINS	9562.71	9562.71	9562.71	9562.71	9562.71	9562.71
3612008	SEWER MAINS	513358.03	513358.03	513358.03	513358.03	513358.03	513358.03
3612010	MANHOLES	54862.73	54862.73	54862.73	54862.73	54862.73	54862.73
3804005	SEWAGE TRTMT PLANT	5335.12	6073.42	6073.42	6073.42	6073.42	6073.42
101.2	SWR UTILITY PLANT IN SERVICE	960712.23	961450.53	961450.53	962139.53	964601.21	965025.21
1051092	SEWER PLANT IN PROCESS	13320.54	14090.54	14090.54	18556.54	20789.54	21790.54
1052091	WATER PLANT IN PROCESS	192081.51	192814.39	192814.39	192814.39	192814.39	206163.39
1052093	OTHER PLANT IN PROCESS	246197.46	246416.46	246416.46	251937.54	251937.54	251937.54
105.1	WORK IN PROGRESS	451599.51	453321.39	453321.39	463308.47	465541.47	479891.47
1083001	ACCUM DEPR.-10101	42785.21-	42887.49-	42989.77-	43092.05-	43194.33-	43296.61-
1083011	ACCUM DEPR.-10111	61.01-	61.33-	61.65-	61.97-	62.29-	62.61-
1083014	ACCUM DEPR.-10114	21911.32-	22035.31-	22159.30-	22283.29-	22407.28-	22531.27-
1083021	ACCUM DEPR.-10121	6717.32-	6794.29-	6871.26-	6948.23-	7025.20-	7102.17-
1083025	ACCUM DEPR.-10125	45675.84-	44932.04-	45417.24-	45902.44-	46387.64-	46872.84-
1083031	ACCUM DEPR.-10131	2374.68-	2393.24-	2411.80-	2430.36-	2448.92-	2467.48-
1083032	ACCUM DEPR.-10132	15983.27-	16124.35-	16265.43-	16406.51-	16547.59-	16688.67-
1083042	ACCUM DEPR.-10142	13383.70-	13240.86-	13318.02-	13395.18-	13472.34-	13549.50-
1083043	ACCUM DEPR.-10143	170948.55-	171707.55-	172466.55-	173225.55-	173984.55-	174743.55-
1083045	ACCUM DEPR.-10145	49714.87-	49981.74-	50248.61-	50355.48-	50622.35-	50889.22-
1083046	ACCUM DEPR.-10146	91901.00-	92567.52-	93234.04-	93900.56-	94567.08-	95233.60-
1083047	ACCUM DEPR.-10147	1038.88-	1045.89-	1052.90-	1059.91-	1066.92-	1073.93-
1083048	ACCUM DEPR.-10148	5455.48-	5490.85-	5526.22-	5561.59-	5596.96-	5632.33-
1083094	ACCUM DEPR-TOOLS SHOP MISC	835.35-	852.97-	870.59-	888.21-	905.83-	923.45-

(90%

COLUMN-SET 2

ACCOUNT	DESCRIPTION	PYA;BEG:JUL	PYA;BEG:AUG	PYA;BEG:SEP	PYA;BEG:OCT	PYA;BEG:NOV	PYA;BEG:DEC
1083095	ACCUM DEPR.-10195	1055.56-	1063.63-	1071.70-	1079.77-	1087.84-	1095.91-
108.3	ACCUM DEPR WATER PLANT	469842.04-	471179.06-	473965.08-	476591.10-	479377.12-	482163.14-
1084001	ACCUM DEPR.-10201	81.17-	81.48-	81.79-	82.10-	82.41-	82.72-
1084003	ACCUM DEPR.-10203	85420.21-	85802.49-	86184.77-	86567.05-	86949.33-	87331.61-
1084004	ACCUM DEPR.-10204	103.18-	103.18-	103.18-	103.18-	103.18-	103.18-
1084005	ACCUM DEPR.-10205	3024.60-	3037.32-	3050.04-	3062.76-	3075.48-	3088.20-
1084006	ACCUM DEPR.-10206	40257.93-	40446.05-	40634.17-	40822.29-	40541.41-	40729.53-
1084007	ACCUM DEPR.-10207	5703.40-	5729.94-	5756.48-	5783.02-	5809.56-	5836.10-
1084008	ACCUM DEPR.-10208	265034.34-	265984.05-	266933.76-	267883.47-	268833.18-	269782.89-
1084010	ACCUM DEPR.-10210	30713.29-	30865.53-	31017.77-	31170.01-	31322.25-	31474.49-
1084011	ACCUM DEPR.-10211	64130.53-	64577.78-	65025.03-	65472.28-	65919.53-	66366.78-
108.4	ACCUM DEPR SEWER PLANT	494468.65-	496627.82-	498786.99-	500946.16-	502636.33-	504795.50-
1311001	CASH UNAPPLIED-NSF'S	0.00	95.74-	0.00	0.00	0.00	0.00
131.1	CASH UNAPPLIED	0.00	95.74-	0.00	0.00	0.00	0.00
1411000	A/R-CUSTOMER	39647.08	71.85	40152.94	1420.87	40369.42	1495.83
1411002	A/R-CUSTOMER ACCRUAL	29839.00	59677.00	55306.00	55306.00	29481.00	58964.00
141.1	ACCOUNTS RECEIVABLE CUSTOMER	69486.08	59748.85	95458.94	56726.87	69850.42	60459.83
2351000	CUSTOMER DEPOSITS	18215.00-	18215.00-	19015.00-	18935.00-	19335.00-	19335.00-
235.1	CUSTOMER DEPOSITS	18215.00-	18215.00-	19015.00-	18935.00-	19335.00-	19335.00-
2361173	ACCRUED COUNTY TAX-SEMINOLE	13377.17-	13376.73-	14312.55-	14312.55-	15310.33-	15310.33-
236.1	ACCRUED TAXES	13377.17-	13376.73-	14312.55-	14312.55-	15310.33-	15310.33-
2372030	ACCRUED CUST DEP INTEREST	2201.74	2109.46	2036.28	1944.00	1877.98	1785.70
237.1	ACCRUED INTEREST	2201.74	2109.46	2036.28	1944.00	1877.98	1785.70
2525000	ADV-IN-AID OF CONST-WATER	52000.00-	52000.00-	52000.00-	52000.00-	52000.00-	52000.00-
252.1	ADVANCES IN AID WATER	52000.00-	52000.00-	52000.00-	52000.00-	52000.00-	52000.00-
2526000	ADV-IN-AID OF CONST-SEWER	48000.00-	48000.00-	48000.00-	48000.00-	48000.00-	48000.00-
252.2	ADVANCES IN AID SEWER	48000.00-	48000.00-	48000.00-	48000.00-	48000.00-	48000.00-
2527000	ACC. AMORT-AIA-WATER	1633.00	1633.00	1633.00	1633.00	1633.00	1633.00
252.3	ACC AMORT AIA WATER	1633.00	1633.00	1633.00	1633.00	1633.00	1633.00
2528000	ACC. AMORT-CIA-SEWER	1315.00	1315.00	1315.00	1315.00	1315.00	1315.00
252.4	ACC AMORT AIA SEWER	1315.00	1315.00	1315.00	1315.00	1315.00	1315.00

COLUMN-SET 2

ACCOUNT	DESCRIPTION	PYA;BEG:JUL	PYA;BEG:AUG	PYA;BEG:SEP	PYA;BEG:OCT	PYA;BEG:NOV	PYA;BEG:DEC
2711000	CIAC-WATER-UNDISTR.	379106.32-	379106.32-	379106.32-	379106.32-	379106.32-	379106.32-
271.1	CONTRIBUTIONS IN AID WATER	379106.32-	379106.32-	379106.32-	379106.32-	379106.32-	379106.32-
2721000	CIAC-SEWER-UNDISTRIB.	499841.20-	499841.20-	499841.20-	499841.20-	499841.20-	499841.20-
271.2	CONTRIBUTIONS IN AID SEWER	499841.20-	499841.20-	499841.20-	499841.20-	499841.20-	499841.20-
2722000	ACC. AMORT-CIA-WATER	245958.98	246990.13	248021.28	249052.43	250083.58	251114.73
272.1	ACCUM AMORT OF CIA WATER	245958.98	246990.13	248021.28	249052.43	250083.58	251114.73
2723000	ACC. AMORT-CIA-SEWER	306406.33	307542.57	308678.81	309815.05	310951.29	312087.53
272.2	ACCUM AMORT OF CIA SEWER	306406.33	307542.57	308678.81	309815.05	310951.29	312087.53
	TOTAL BALANCE SHEET	1094768.34	1086122.90	1117341.93	1087045.86	1101091.49	1103604.82

ACCOUNT	DESCRIPTION	PAY BEG ADJ	PYA BEG ALC
3011001	ORGANIZATION	49093.99	49093.99
3036010	LAND & LAND RIGHTS	5812.95	5812.95
3042011	STRUCT & IMPRV (SOURCE SUP)	124.84	124.84
3043021	STRUCT & IMPRV (PUMP PLT)	30484.88	30484.88
3044031	STRUCT & IMPRV (WATER T P)	7352.35	7352.35
3072014	WELLS & SPRINGS	44682.42	44682.42
3113025	ELECTRIC PUMP EQUIP	132011.00	132011.00
3204032	WATER TREATMENT EQPT	37206.63	37206.63
3305042	DIST RESV & STNDPIPES	34303.14	34303.14
3315043	TRANS & DISTR MAINS	391719.86	391719.86
3335045	SERVICE LINES	128538.64	128538.64
3345046	METERS	159964.86	159964.86
3345047	METER INSTALLATIONS	1683.09	1683.09
3355048	HYDRANTS	19120.10	19120.10
3446095	LABORATORY EQPT	1451.31	1451.31
3466094	TOOLS SHOP & MISC EQPT	3383.66	3383.66
101.1	WTR UTILITY PLANT IN SERVICE	1046933.72	1046933.72
3511001	ORGANIZATION	150.00	150.00
3537002	L & L RIGHTS	10876.32	10876.32
3542011	LIFT STATION	135286.99	135286.99
3547003	BLDGS & STRUCTS	146560.53	146560.53
3602006	SEWAGE SERVICE LINES	88345.48	88345.48
3602007	FORCE OR VACUUM MAINS	9562.71	9562.71
3612008	SEWER MAINS	513460.03	513460.03
3612010	MANHOLES	54862.73	54862.73
3804005	SEWAGE TRTMT PLANT	6200.92	6200.92
101.2	SWR UTILITY PLANT IN SERVICE	965305.71	965305.71
1051092	SEWER PLANT IN PROCESS	23438.04	23438.04
1052091	WATER PLANT IN PROCESS	209592.51	209592.51
1052093	OTHER PLANT IN PROCESS	0.00	0.00
105.1	WORK IN PROGRESS	233030.55	233030.55
1083001	ACCUM DEPR.-10101	43296.61-	43296.61-
1083011	ACCUM DEPR.-10111	62.61-	62.61-
1083014	ACCUM DEPR.-10114	22531.27-	22531.27-
1083021	ACCUM DEPR.-10121	7102.17-	7102.17-
1083025	ACCUM DEPR.-10125	46872.84-	46872.84-
1083031	ACCUM DEPR.-10131	2467.48-	2467.48-
1083032	ACCUM DEPR.-10132	16688.67-	16688.67-
1083042	ACCUM DEPR.-10142	13549.50-	13549.50-
1083043	ACCUM DEPR.-10143	174743.55-	174743.55-
1083045	ACCUM DEPR.-10145	50889.22-	50889.22-
1083046	ACCUM DEPR.-10146	95233.60-	95233.60-
1083047	ACCUM DEPR.-10147	1073.93-	1073.93-
1083048	ACCUM DEPR.-10148	5632.33-	5632.33-
1083094	ACCUM DEPR-TOOLS SHOP MISC	923.45-	923.45-

ACCOUNT	DESCRIPTION	PAY BEG ADJ	PYA BEG ALC
1083095	ACCUM DEPR.-10195	1095.91-	1095.91-
108.3	ACCUM DEPR WATER PLANT	482163.14-	482163.14-
1084001	ACCUM DEPR.-10201	82.72-	82.72-
1084003	ACCUM DEPR.-10203	87331.61-	87331.61-
1084004	ACCUM DEPR.-10204	103.18-	103.18-
1084005	ACCUM DEPR.-10205	3088.20-	3088.20-
1084006	ACCUM DEPR.-10206	40729.53-	40729.53-
1084007	ACCUM DEPR.-10207	5836.10-	5836.10-
1084008	ACCUM DEPR.-10208	269782.89-	269782.89-
1084010	ACCUM DEPR.-10210	31474.49-	31474.49-
1084011	ACCUM DEPR.-10211	66366.78-	66366.78-
108.4	ACCUM DEPR SEWER PLANT	504795.50-	504795.50-
1311001	CASH UNAPPLIED-NSF'S	0.00	0.00
131.1	CASH UNAPPLIED	0.00	0.00
1411000	A/R-CUSTOMER	1495.83	1495.83
1411002	A/R-CUSTOMER ACCRUAL	58964.00	58964.00
141.1	ACCOUNTS RECEIVABLE CUSTOMER	60459.83	60459.83
2351000	CUSTOMER DEPOSITS	19335.00-	19335.00-
235.1	CUSTOMER DEPOSITS	19335.00-	19335.00-
2361173	ACCRUED COUNTY TAX-SEMINOLE	15310.33-	15310.33-
236.1	ACCRUED TAXES	15310.33-	15310.33-
2372030	ACCRUED CUST DEP INTEREST	1785.70	1785.70
237.1	ACCRUED INTEREST	1785.70	1785.70
2525000	ADV-IN-AID OF CONST-WATER	52000.00-	52000.00-
252.1	ADVANCES IN AID WATER	52000.00-	52000.00-
2526000	ADV-IN-AID OF CONST-SEWER	48000.00-	48000.00-
252.2	ADVANCES IN AID SEWER	48000.00-	48000.00-
2527000	ACC. AMORT-AIA-WATER	1633.00	1633.00
252.3	ACC AMORT AIA WATER	1633.00	1633.00
2528000	ACC. AMORT-CIA-SEWER	1315.00	1315.00
252.4	ACC AMORT AIA SEWER	1315.00	1315.00

ACCOUNT	DESCRIPTION	PAY BEG ADJ	PYA BEG ALC
2711000	CIAC-WATER-UNDISTR.	379106.32-	379106.32-
271.1	CONTRIBUTIONS IN AID WATER	379106.32-	379106.32-
2721000	CIAC-SEWER-UNDISTRIB.	499841.20-	499841.20-
271.2	CONTRIBUTIONS IN AID SEWER	499841.20-	499841.20-
2722000	ACC. AMORT-CIA-WATER	251114.73	251114.73
272.1	ACCUM AMORT OF CIA WATER	251114.73	251114.73
2723000	ACC. AMORT-CIA-SEWER	312087.53	312087.53
272.2	ACCUM AMORT OF CIA SEWER	312087.53	312087.53
	TOTAL BALANCE SHEET	873114.28	873114.28

EXHIBIT TLB – 6

EXCESSIVE I/I CALCULATIONS

EXHIBIT TLB-6

EXCESSIVE I/I CALCULATIONS

1. Summertree Wastewater system, Pasco County

   Total Water Sold to Accounts with Wastewater Connections = 22,027,023 Gals.
   Normally expected Amount Returnable to Sewers:
   80% x 22,027,023 = 17,621,618Gals.
   Total Wastewater Treated = 23,690,000 Gals.
   Total I/I = 23,690,000 - 17,621,618 = 6,068,382 Gals. = 25.62%

   Excessive I/I = 25.62 - 10 = 15.62% = 3,700,378 Gals. = 10,138 GPD

   SINCE THERE IS NO WASTEWATER PLANT TO APPLY THE 15.62% EXCESS I/I TO THE USED AND USEDFUL PERCENTAGE, THE ACCOUNTANTS SHOULD APPLY THIS EXCESS I/I PERCENTAGE TO THE OPERATIONAL COSTS OF PUMPING THE WASTEWATER TO PASCO COUNTY. FURTHERMORE, THE EXCESS I/I PERCENTAGE SHOULD BE APPLIED TO THE PURCHASED COST OF WASTEWATER TREATMENT FROM PASCO COUNTY.

2. Weathersfield System, Seminole County

   Total Water Sold to Accounts with Wastewater Connections = 99,956,360 Gals.
   Normally expected Amount Returnable to sewers:
   80% x 99,956,360 = 79,965,088 Gals.
   Total Wastewater Treated = 90,077,391 Gals.
   Total I/I = 90,077,391 - 79,965,088 = 10,112,303 Gals. = 11.23%

   Excess I/I = 11.23 - 10 = 1.23% = 1,107,952 Gal/Yr. = 3,035 GPD

   SINCE THERE IS NO WASTEWATER PLANT TO APPLY THE 1.23% EXCESS I/I TO THE USED AND USEDFUL PERCENTAGE, THE ACCOUNTANTS SHOULD APPLY THIS EXCESS I/I PERCENTAGE TO THE OPERATIONAL COSTS OF PUMPING THE WASTEWATER TO THE CITY OF ALTAMONTE SPRINGS. FURTHERMORE, THE EXCESS I/I PERCENTAGE SHOULD BE APPLIED TO THE PURCHASED COST OF WASTEWATER TREATMENT FROM THE CITY OF ALAMONTE SPRINGS.

3. Ravenna Park/Lincoln System, Seminole County

   Total Water Sold to Accounts with Wastewater Connections = 26,688,376 Gals
   Normally Expected Amount Returnable to Sewers:
   80% x 26,688,376 = 21,350,700 Gals
   Total Wastewater Treated = 19,584,000 (purchased) + 11,571,000 (treated)
   = 31,155,000 Gals.
   Total I/I = 31,155,000 - 21,350,700 = 9,804,300 Gals = 31.47%

   Excess I/I = 31.47 - 10 = 21.47%

SINCE THERE IS NO WASTEWATER PLANT TO APPLY THE 21.47% EXCESS I/I TO THE USED AND USEDFUL PERCENTAGE, THE ACCOUNTANTS SHOULD APPLY THIS EXCESS I/I PERCENTAGE TO THE OPERATIONAL COSTS OF PUMPING THE WASTEWATER TO THE CITY OF SANFORD. FURTHERMORE, THE EXCESS I/I PERCENTAGE SHOULD BE APPLIED TO THE PURCHASED COST OF WASTEWATER TREATMENT FROM THE CITY OF SANFORD.

4. Golden Hills/Crownwood System, Marion County

The Utility shows in Schedule F-6 of the MFRs that 11.43% more wastewater was treated than sold. No data was available from the flow records to make an independent calculation. Therefore the I/I reported by the Utility was accepted with a resulting excessive I/I percentage of 1.43%. This amount was used in the calculation of the used and useful percentage for the wastewater treatment plant.

EXHIBIT TLB – 7

FIRE FLOW TEST DATA FOR SYSTEMS CLAIMED BY UTILITY AS FURNISHING FIRE FLOW

(AS FURNISHED BY UTILITY IN RESPONSE TO OPC INTERROGATORY NO. 110)

Response to 8th Set of Interrogatories - #110 Hydrant Roster

CNT	#	Location	Make	Model	Size	Year	Static psi	Resid psi	Flow gpm	Flow @ 20 psi in gpm	Test Date
		602-Weathersfield									
1	1	600 Stanford Drive	Darling	B84B	5 1/4	1984	63	42	1,340	1,973	1/23/2003
2	2	600 LaSalle	Mueller	584N	5 1/4	2001	65	48	1,360	2,301	1/23/2003
3	3	453 Northwestern	Mueller	584N	5 1/4	2002	65	40	1,360	1,868	1/23/2003
4	4	Across from 380 Northwestern	Mueller	584N	5 1/4	2002	63	35	1,340	1,689	1/23/2003
5	5	Tulane/Weathersfield	Mueller		4 1/4	2002	60	40	865	1,258	2/6/2003
6	6	Tulane/Lynchfield	Mueller	N	4 1/4	1959	58	35	950	1,246	2/6/2003
7	7	Balsa/Grove	Darling		5 1/4	1984	65	10	1,360	1,220	1/23/2003
8	8	Trinity/Notre Dame	Mueller	584N	4 1/4	1959	64	30	750	862	2/6/2003
9	9	Baylor/Notre Dame	Mueller	584N	5 1/4	1959	60	30	810	946	2/6/2003
10	10	650 Riversedge	Kennedy	K81A	5 1/4	1985	72	40	1,050	1,365	2/6/2003
11	11	Weathersfield/Clemson	Kennedy	K81A	5 1/4	1985	68	45	1,080	1,607	2/6/2003
12	12	Carlisle/Clemson	Mueller		5 1/4	1986	58	30	920	1,085	2/6/2003
13	13	Clemson/Lynchfield	Mueller		4 1/4	1959	68	30	840	953	2/6/2003
14	14	Michigan/Citadel	Mueller		4 1/4	1959	62	30	750	869	2/6/2003
15	15	Dunn/Duke	Mueller	584N	5 1/4	2002	70	45	1,050	1,527	2/7/2003
16	16	Northwestern/Dunn	Mueller	584N	5 1/4	2002	65	35	960	1,195	2/7/2003
17	17	607 Weathersfield	Mueller	584N	5 1/4	2001	60	32	880	1,067	2/7/2003
18	18	Stanford/Northwestern	Mueller	584N	5 1/4	2002	62	40	960	1,361	2/7/2003
19	19	712 Mahogany	Mueller		4 1/2	1972	70	22	750	767	2/7/2003
20	20	509 Northwestern	Kennedy	K11	4 1/2	1971	75	60	1,300	2,622	2/7/2003
21	21	Pine/Balsa	Kennedy	K11	4 1/2	1971	65	18	1,350	1,319	2/10/2003
22	22	760 Trailwoods	Kennedy	K11	4 1/2	1971	64	30	630	724	2/21/2003
23	23	624 Veneer	Mueller	584N	5 1/4	2002	62	40	1,050	1,489	2/7/2003
24	24	678 Trailwood	Kennedy	K11	4 1/2	1971	58	18	530	516	2/21/2003
25	25	613 Moss/Northwestern	Mueller	584N	5 1/4	2001	65	39	1,050	1,412	2/21/2003
26	26	Ronnie/Oak Drive	Mueller		4 1/2	1992	63	24	650	685	2/21/2003
27	27	170 Jay Drive	Mueller		4 1/4	1968	65	25	1,360	1,449	2/7/2003
28	28	Getty/Jay Drive	Mueller	584N	5 1/4	1997	65	30	800	916	2/7/2003
29	29	Encino Way/Oaklando	Mueller	584N	4 1/2	1960	55	13	1,250	1,133	1/23/2003
30	30	788 Oaklando	Mueller	584N	4 1/2	1960	60	12	1,300	1,178	1/23/2003
31	31	Acapulca/Barbuda	Darling	B84B	5 1/4	2002	62	12	1,320	1,201	1/23/2003
32		604-Oakland Shores									
33	1	600 Lakeshore Drive	M&H		5 1/4		65	34	840	1,027	2/11/2003
34	2	Magnolia/Faith Terrace	Darling	85F	5 1/4	1994	60	35	920	1,186	2/11/2003
35	3	Magnolia/Oranole	Mueller		5 1/4	1988	52	22	740	766	2/11/2003
36		613-UIF-Wisbar									
37	1	2324 Prestige Dr.	M&H	129	5 1/4	1969	44	13	472	411	9/25/2001
38	2	2327 Staghorn Dr.	M&H	129	5 1/4	1969	44	12	463	396	9/25/2001
39	3	2424 Santiago Dr.	M&H	129	5 1/4	1969	48	35	472	714	9/25/2001
40	4	2436 Prestige Dr.	M&H	129	5 1/4	1969	52	12	422	374	9/25/2001
41		615-UIF-Buena Vista									
42	1	1948 Bonita Dr. @ Pleasure Dr.	Mueller	Improved	4 1/4	1957	50	33	731	993	9/25/2001
43	2	4124 Buena Vista Dr. @ Pleasure	Mueller	Improved	4 1/4	1957	51	32	844	1,099	9/25/2001
44	3	4004 Reggie Dr.	Mueller	Improved	4 1/4	1963	51	29	633	762	9/25/2001
45	4	4004 Scarlet Maple Dr.	Mueller	Improved	4 1/2	1965	53	29	610	724	9/25/2001
46	5	4405 Bonita Dr. nr Hess Station	Waterous	Pacer	5 1/4	1990	50	35	761	1,106	9/25/2001
47	6	1353 Hess Dr. @ Buena Vista	AVK	2780	5 1/4	2001	51	35	819	1,171	9/30/2001
48	7	4117 Lange Dr. @ Pleasure	Kennedy	K-81A	5 1/4	1993	51	36	818	1,211	9/25/2001
49	8	2143 Kepner Dr. @ Lange	Mueller	Improved	4 1/4	1960	52	32	740	954	9/24/2001
50		618-Jansen									
51	1	Courtney Cove/Sombrero Ave	Mueller		5 1/4	1989	60	23	800	834	2/10/2003
52	2	6709 Shellbark	Waterous		5 1/4	1978	65	15	540	510	2/10/2003
53	3	9503 Shortleaf	Waterous		5 1/4	1979	60	15	650	610	2/10/2003
54	4	Across from 9488 Shortleaf	Waterous		5 1/4	1984	55	18	650	631	2/21/2003

No F.F.

Response to 8th Set of Interrogatories - #110 Hydrant Roster

CNT	#	Location	Make	Model	Size	Year	Static psi	Resid psi	Flow gpm	Flow @ 20 psi in gpm	Test Date
55		620-Crescent Heights									
56	1	Johns St/Amelia	Darling	B62B	5 1/4	1972	64	20	660	660	2/10/2003
57	2	John St/Robinson	Mueller		5 1/4	1970	64	55	1,200	2,827	2/10/2003
58		626-UIF-Summertree									
59	1	11922 Boynton Dr.	Mueller	Improved	5 1/4	1969	53	44	294	593	10/8/2001
60	2	11730 Bayonet Ln.	Mueller	Improved	4 1/2	1970	58	39	790	1,149	10/8/2001
61	3	12102 Boynton Dr.	Mueller	Improved	4 1/2	1970	60	48	731	1,400	10/8/2001
62	4	11614 Boynton Dr.	Mueller	Improved	4 1/2	1970	60	47	957	1,756	10/8/2001
63	5	11615 Pampas	US Pipe	Metropolitan	5 1/4	1983	60	49	944	1,896	10/8/2001
64	6	Golf Course @ Paradise Point Dr.	US Pipe	Metropolitan	5 1/4	1983	68	59	967	2,388	10/8/2001
65	7	Rosetree & Pampas Dr.	US Pipe	Metropolitan	5 1/4	1983	65	57	990	2,516	10/8/2001
66	8	Paradise Pt Dr & Scotch Pine Dr.	US Pipe	Metropolitan	5 1/4	1983	65	57	990	2,516	10/8/2001
67	9	11515 Scotch Pine Dr.	US Pipe	Metropolitan	5 1/4	1983	61	51	990	2,121	10/8/2001
68	10	11704 Rosetree Dr.	US Pipe	Metropolitan	5 1/4	1983	56	49	944	2,286	10/8/2001
69	11	11811 Wax Mrytle Dr.	US Pipe	Metropolitan	5 1/4	1983	60	50	944	1,996	10/8/2001
70	12	11517 Pampas Dr.	US Pipe	Metropolitan	5 1/4	1983	61	50	990	2,015	10/8/2001
71	13	11631 Scotch Pine Dr.	US Pipe	Metropolitan	5 1/4	1983	60	49	967	1,942	10/8/2001
72	14	11625 English Elm Dr.	US Pipe	Metropolitan	5 1/4	1983	62	49	944	1,778	10/8/2001
73	15	11640 White Ash Dr.	US Pipe	Metropolitan	5 1/4	1983	59	48	944	1,870	10/8/2001
74	16	11602 Golden Rain	US Pipe	Metropolitan	5 1/4	1983	60	48	944	1,809	10/8/2001
75	17	11601 Scotch Pine Dr.	US Pipe	Metropolitan	5 1/4	1983	60	48	944	1,809	10/8/2001
76	18	11618 Pear Tree Ln.	US Pipe	Metropolitan	5 1/4	1983	60	49	944	1,896	10/8/2001
77	19	11532 Rosetree Dr.	US Pipe	Metropolitan	5 1/4	1983	62	51	944	1,946	10/8/2001
78	20	11606 WhiteAsh Dr.	US Pipe	Metropolitan	5 1/4	1983	66	50	944	1,670	10/8/2001
79	21	11711 Alderwood Dr.	US Pipe	Metropolitan	5 1/4	1983	59	48	944	1,870	10/8/2001
80	22	Tupelo & Pampas Dr.	US Pipe	Metropolitan	5 1/4	1983	61	50	990	2,015	10/8/2001
81	23	11632 Aspenwood Dr.	US Pipe	Metropolitan	5 1/4	1983	52	44	895	1,892	10/8/2001
82	24	11604 Aspenwood Dr.	US Pipe	Metropolitan	5 1/4	1983	59	46	895	1,620	10/8/2001
83	25	11720 Aspenwood Dr.	US Pipe	Metropolitan	5 1/4	1983	58	48	944	1,941	10/8/2001
84	26	11634 Cocowood Dr.	US Pipe	Metropolitan	5 1/4	1983	60	46	1,012	1,784	10/8/2001
85	27	11736 WhiteAsh Dr.	US Pipe	Metropolitan	5 1/4	1983	50	38	920	1,509	10/8/2001
86	28	11609 Cocowood Dr.	US Pipe	Metropolitan	5 1/4	1983	54	46	920	2,010	10/8/2001
87	29	Loblolly Dr. & Hollyann Dr.	Kennedy	K-81A	5 1/4	1996	51	48	944	3,332	10/8/2001
88	30	1621 Hollyann Dr.	Kennedy	K-81A	5 1/4	1996	60	51	967	2,164	10/8/2001
89	31	11647 Foxworth Dr.	Kennedy	K-81A	5 1/4	1996	52	48	967	2,972	10/8/2001
90	32	11742 Ivywood Dr.	Kennedy	K-81A	5 1/4	1999	51	48	944	3,332	10/8/2001
91	33	Paradise Pt. @ Clear Oaks Circle	Darling	B-84-B	5 1/4	2000	60	56	967	3,353	10/8/2001
92	34	Clear Oaks Circle	Darling	B-84-B	5 1/4	2000	62	50	944	1,857	10/8/2001
93	35	Paradise Pt. @ Cedar Oaks	Darling	B-84-B	5 1/4	2000	50	41	920	1,763	10/8/2001
94	36	11428 Sinatra Dr.	Darling	B-84-B	5 1/4	2000	59	48	944	1,870	10/8/2001
95	37	Turtle Dove Pl.	Darling	B-84-B	5 1/4	2000	57	46	944	1,817	10/8/2001
96		629-UIF-Orangewood									
97	1	4621 Darlington Rd.	Kennedy	K-81A	5 1/4	1989	58	50	2,420	5,613	9/25/2001
98		630-Golden Hills									
99	1	5599 NW 80th Avenue Rd.	Mueller	SR	4 1/4	1964	70	52	925	1,606	2/18/2003
100	2	5885 NW 80th Avenue Rd.	M&H			1971	68	52	787	1,424	2/18/2003
101	3	5440 NW 78th Ct.	Mueller	SR	4 1/4	1964	60	50	740	1,564	2/18/2003
102	4	7769 NW 56th Place	Mueller	SR	4 1/4	1964	70	50	965	1,583	2/18/2003
103	5	5580 NW 75th Ct.	Mueller	SR	4 1/4	1964	76	60	787	1,548	2/18/2003
104	6	5850 NW 75th Ave.	Darling	FW2	4 1/2		70	54	865	1,600	2/18/2003
105	7	4825 NW 80th Ave.	Mueller	SR30	4 1/4	1964	60	50	787	1,664	2/18/2003
106	8	7671 NW 46th Place	Mueller	SR	4 1/4	1964	50	40	865	1,566	2/18/2003
107	9	5147 NW 76th Ct.	Kennedy	K11	4 1/2	1972	56	44	1,000	1,810	2/18/2003
108	10	5404 NW 76th Ct.	Kennedy	K11	4 1/2	1971	52	40	787	1,337	2/18/2003
109	11	7734 NW 49th Street Road	Mueller	SR	4 1/4	1964	54	40	1,000	1,615	2/18/2003
110	12	4606 NW 78th Avenue	Mueller	SR30	4 1/4	1964	54	40	967	1,561	2/18/2003

Response to 8th Set of Interrogatories - #110 Hydrant Roster

CNT	#	Location	Make	Model	Size	Year	Static psi	Resid psi	Flow gpm	Flow @ 20 psi in gpm	Test Date
111	13	Intersection of NW 78th Ave and NW 42nd Lane	Mueller	SR30	4 1/4	1964	72	58	865	1,757	2/18/2003
112	14	440 NW 76th Ct.	Mueller	SR30	4 1/4	1964	60	42	835	1,285	2/18/2003
113	15	4714 NW 75th Ave.	Mueller	SR30	4 1/4	1964	72	50	787	1,252	2/18/2003
114	16	4480 NW 74th Terrace	Mueller	ASR	4 1/2	1981	66	42	710	1,009	2/18/2003
115	17	7345 NW 44th Lane	Mueller	ASR	4 1/2	1981	78	50	710	1,052	2/18/2003
116	18	4950 NW 75th Ave.	Mueller	SR	4 1/4	1964	70	38	865	1,101	2/18/2003
117	19	5270 NW 75th Ave.	Mueller	SR	4 1/4	1964	78	50	865	1,282	2/18/2003
118	20	4727 NW 80th Ave.	Mueller	SR30	4 1/4	1964	52	42	787	1,475	2/18/2003
119	21	4400 NW 80th Ave.	Kennedy	K11	4 1/2	1971	50	40	500	905	2/18/2003
120	22	5385 NW 80th Avenue Rd.	Mueller	SR	4 1/4	1964	60	50	935	1,977	2/18/2003
121	23	5072 NW 80th Avenue Rd.	Mueller	SR	4 1/4	1964	58	48	865	1,779	2/18/2003
122	24	8101 NW 46ths St.	Mueller	SR01	5 1/4	1976	55	40	935	1,477	2/18/2003
123	25	4500 NW 82nd Ct.	Mueller	SR	4 1/2	1976	54	40	777	1,255	2/18/2003
124	26	4700 NW 82nd Ct.	Mueller	SR	4 1/2	1976	50	40	749	1,356	2/18/2003
125	27	8131 NW 43rd Lane	Mueller	SR2	4 1/2	1976	56	44	787	1,424	2/18/2003
126	28	Lot 8, Blk 9, NW 82nd Ct.	Kennedy		4 1/2	1989	52	40	1,000	1,698	2/18/2003
127	29	8155 NW 49th Street Rd.	Stripped Stem - Unable to test								
128		**637-UIF-Lake Tarpon**									
129	1	152 Independence Blvd.	Mueller	S. Centurion	5 1/4	2002	49	38	810	1,367	7/26/2002
130	2	271 Independence Blvd.	Kennedy	K10	4 1/2	1968	50	40	750	1,357	5/15/2002
131	3	61 Harbor Way @ Colonial	Mueller	Improved	4 1/4	1966	56	30	820	978	5/15/2002
132	4	151 Philadelphia Way	Mueller	Improved	4 1/2	1966	54	41	760	1,277	5/15/2002
133	5	Liberty @ Colonial Blvd.	Waterous	Pacer	5 1/4	1989	56	40	840	1,302	5/15/2002

EXHIBIT TLB – 8

ANALYSIS OF CASES CITED BY UTILITY AS SUPPORTING INSTANTANEOUS FLOWS FOR USED & USEFUL CALCULATIONS

ANALYSIS OF CASES CITED BY UTILITY AS SUPPORTING INSTANTANEOUS FLOWS FOR USED & USEFUL CALCULATIONS

Office of Public Counsel Interrogatory No. 58 asked whether the used and useful calculation rationale for water plants using instantaneous flows had ever been used or approved by the Florida Public Service Commission in any prior cases and if so, specify the cases. The Utility's response cited four cases with discussion of how the Commission dealt with the instantaneous flow issue in each case.

I completed research of the four cited cases at the PSC records center. A discussion of each case, the Utility's argument and my analysis of each case is as follows.

I. DOCKET NO. 940917-WS

The Utility stated that, "In Docket No. 940917-WS, the utility evaluated used & useful on the basis of maximum daily flow equal to minimum design criteria (of) 1.1 gpm average daily flow per connection times 2." "The order indicated that the calculations had been verified and agreed with and approved the Utility's results."

MY ANALYSIS: This case was an application for rate increase by Utilities, Inc. for various water and wastewater systems in Seminole, Orange and Pasco Counties. The PSC Staff Analysis in the Proposed Agency Action Memorandum of April 6, 1995 stated as follows: "With the exception of the Crescent Heights WTP and the Lincoln Heights Wastewater treatment system, all facilities are either built out or have been determined to be 100% used and useful in past rate cases." The Staff then goes on to recommend 0% used and useful for the Crescent Heights system because all water is being purchased from the Orlando Utilities Commission. Staff does say that its calculations agree with the Utility's calculation of 79.2% for the Lincoln Heights *WASTEWATER* system. (See attached case & Staff memorandum)

Utilities, Inc's argument that its calculations based on some instantaneous flow basis had been "verified and agreed with" is simply not true. At most, all the PSC Staff stated was that they agreed with the 100% requested used and useful percentage for most of the systems because "all facilities are either built out or have been determined to be 100% used and useful in past rate cases. Furthermore, it is noted that this case was not opposed by OPC and the Commission had no other rationale to consider.

Therefore, the Utility cannot rely on the order in Docket No. 940917–WS as providing any precedent for using instantaneous flows of water plants in calculating used and useful percentages.

II. DOCKET NO. 910020-WS

In its response to OPC Interrogatory No. 58, the Utility stated, "The concept of evaluating used and useful on the basis of instantaneous demand was also introduced in Docket No. 910020-WS (UIF's Summertree system) using a peak hour demand equal to 2 times the peak day demand as a proxy." "That approach was recommended to the Commission as appropriate in the 1/23/92 Staff Recommendation."

MY ANALYSIS: I could not find the referenced 1/23/92 Staff Recommendation in the micro-film records of the case. However, I did find the case order with the attached positions on each issue by the Utility, OPC and PSC Staff. (See attached case materials). On Issue 13, "What is the appropriate used and useful percentages for the water plant and water distribution system", the positions are stated as follows:

> UTILITY: 100 percent. Further, the water distribution system is fully contributed; therefore, no adjustment is necessary.
>
> OPC: The water treatment plant is 51 percent used and useful and the distribution system is 30 percent used and useful.
>
> STAFF: The water plant is 51 percent used and useful. The water distribution system is 100 percent used and useful because it is fully contributed.

Therefore, it is immaterial what the first thoughts of Staff may have been concerning the use of instantaneous flow for used and useful calculations for the water plant (If, indeed, such a recommendation was made as reported by the Utility). What is important is their final decision and the Commission's order of 2/27/92 where OPC's position is upheld for 51 percent used and useful for the water plant and the Utility's position for a 100 percent used and useful factor using instantaneous flows is rejected.

The Utility obviously cannot claim this case as any kind of precedent for an approved instantaneous flow rationale.

III. DOCKET NO. 911082-WS

The Utility's third cited case is Docket No. 911082-WS which was the docket that considered rulemaking for water and wastewater utilities and various proposed formulas for determining used and useful percentages. The Utility then goes on to discuss the fact that instantaneous demand was considered.

However, in the next sentence, the Utility admits that the rulemaking docket was eventually abandoned. Obviously, the Utility cannot site this docket as precedent for using instantaneous flows in used and useful calculations.

IV. DOCKET NO. 960444-WU

The final case cited by the Utility to try to provide precedent for using instantaneous flows in used and useful calculations is Docket No. 960444-WU where Utilities Inc's Lake Utility Services, Inc. requested rate increase for a number of water systems.

The Utility states that, "The utility provided an analysis of used and useful using the instantaneous demand concept." "However, that case was settled and the Utility's approach was never addressed by the Commission."

This settled case can of course not be used as any sort of precedent. However, what the Utility failed to report is that in this case, the used and useful percentages proposed by the Utility in the MFR filing were greatly reduced by the PSC Staff in the proposed Agency Action of May 9, 1997. (See attached case materials). Here again, the Utility's proposed rationale of using instantaneous flows in the used and useful calculations was rejected by the PSC Staff.

After analyzing each of the four cases cited by the Utility as providing past evidence of the Commission approving instantaneous flow in used and useful calculations, we are left with the obvious conclusion that the Commission has never approved or even commented on any such rationale.

Pro Forma Plant

The utility's pro forma adjustments to general plant represent allocations of common plant from an affiliated company, Water Services Corporation. These adjustments are allocated provisions for computer mainframes, vehicles, and other common assets. These facilities serve the utility's customers. Upon consideration, we find that the pro forma adjustments to general plant are reasonable and properly included in rate base.

Excessive Unaccounted-For-Water

Unaccounted-for-water is determined by deducting the amount of water sold to customers and the amount of water lost due to line flushing and line breaks from the amount of metered water leaving the water plant. According to the utility's MFRs, the utility had 26.47 percent unaccounted-for-water during the test year.

Utility witness Seidman testified that 14.98 percent of water pumped is a reasonable amount of unaccounted-for-water since the system has a low average residential consumption. OPC witness DeMeza testified that 10 percent of water sold is an acceptable level of unaccounted-for-water.

The utility has a flushing program but does not keep records of this water use. Therefore, we have not considered flushing in the unaccounted-for-water calculation. In the future, UIF shall keep records of the estimated water used for flushing. These records will allow the water used for flushing to be considered in the unaccounted-for-water calculation.

We agree with witness DeMeza that 10 percent of water pumped is a reasonable level of unaccounted-for-water for this system. Therefore, we find it appropriate that the 16.5 percent of additional expenses resulting from the 26.5 percent unaccounted-for-water be removed. Accordingly, expenses for purchased power and chemicals have been reduced by $1,489 and $306, respectively.

Margin Reserve

In its application the utility did not request any margin reserve based on its determination that both the water and wastewater systems were 100 percent used and useful. OPC witness DeMeza testified that no margin reserve should be included since

current customers would have to pay for future expansion of facilities. Both utility witnesses Rasmussen and Cuddie testified that the area served by the utility has not experienced any growth and that UIF has no plans for future development at PPW. Upon consideration, we find it appropriate to make no allowance for margin reserve.

Used and Useful Percentage of Wastewater Interconnection

UIF completed installation of the new master wastewater lift station and interconnected with Pasco County on April 26, 1991. The lift station is a six-foot diameter wet well with two 600 gallons per minute (gpm) pumps that receive and then pump wastewater to Pasco County.

OPC witness DeMeza calculated that the lift station is 37 percent used and useful based on the water plant capacity and the wastewater flows. Utility witness Seidman testified that the used and useful calculation for the lift station should be based on the lift station design parameters and not the water plant capacity. He further testified that the master lift station is sized to maintain the minimum flow velocity for the three miles of force main connecting the lift station with Pasco County's receiving station. Mr. Seidman testified that although the lift station can accommodate future growth which may occur, it cannot be downsized to serve the existing flows without jeopardizing its ability to maintain the required minimum wastewater velocity with the frictional losses which occur in the force main. Witness Seidman also testified that the six-foot wet well is the minimum size which could be constructed even if only existing flows were considered.

We agree with witness Seidman's testimony. Accordingly, we find the lift station to be 100 percent used and useful.

Calculation of Equivalent Residential Connections

In his testimony, OPC witness DeMeza calculated that the water distribution system can serve 5,319 equivalent residential connections (ERCs) by dividing the water plant capacity of 500,000 gallons per day (gpd) by 94 gpd. Mr. DeMeza also testified that the wastewater collection system can serve 1,952 ERCs using the 500,000 gpd water plant capacity.

Utility witness Seidman testified that the water plant capacity has no relationship with the number of ERCs that either the water distribution system or the wastewater collection system can serve. Mr. Seidman testified that the present water distribution system configuration serves 715 residential customers and 30 commercial customers in the Arborwood and PPW subdivisions for a total of 1,585 ERCs. Mr. Seidman testified that the ERC capacity of the wastewater collection lines should be based on the 715 lots which are being served in Arborwood and PPW.

We agree with Mr. Seidman's calculations. Accordingly, we find the appropriate ERC capacity for the Arborwood and PPW areas to be 1,585 for the water distribution system and 715 for the wastewater collection system.

Even though the Horizon Club subdivision has water and wastewater lines, it has no customers and no reliable information is available about how many ERCs Horizon Club can serve. The ERC capacity is usually required to make used and useful adjustments for water mains and wastewater lines. However, as discussed elsewhere in this Order, rate base at the time of transfer is being set at zero. Therefore, since the Horizon Club lines were included in the property transferred to UIF, we find no used and useful adjustment necessary. Accordingly, we make no determination of the ERC capacity for the Horizon Club subdivision.

Excessive Infiltration

Infiltration is calculated by determining the difference between the amount of wastewater returned by the customers to the collection system and the amount of wastewater pumped to Pasco County. Although infiltration exists in all wastewater systems, the utility admits that this system has an infiltration problem which is due, at least in part, to the previous utility owner's failure to properly maintain the system.

Because the abandoned wastewater plant did not have any flow measuring equipment, it was impossible to quantify the amount of infiltration until the new master lift station was finished on April 26, 1991. Since no historical flow information is available, both OPC and UIF estimated the flows by using a percentage of the residential water sales plus an allowance for a reasonable amount of infiltration. The expenses for purchased wastewater treatment and power can be determined from the flow estimates.

OPC witness DeMeza testified that 19,057 gpd of infiltration is reasonable for this system. We agree. Utility witness Seidman and OPC witness DeMeza disagreed on the percentage of water sales returning to the wastewater collection system. Mr. DeMeza opined that 80 percent is returned to the system. Mr. Seidman opined that 96 percent of the water sales would be returned to the collection system since the development has a central irrigation system. We agree with Mr. Seidman's calculation because it takes into consideration the central irrigation system.

Therefore, we find the appropriate percentage of water sales to be used in the calculation of the amount of wastewater returned to the system to be 96 percent. Accordingly, we have reduced purchased wastewater treatment expense by $140,018 and purchased power by $5,268 for excessive infiltration.

Acquisition Adjustment

An acquisition adjustment is the difference between the purchase price and the previous owner's original cost amount. Pursuant to Commission policy, rate base inclusion of an acquisition adjustment is allowed only when extraordinary circumstances justify such treatment. In its application, the utility requested rate base inclusion of positive acquisition adjustments of $52,000 for its water system and $21,000 for its wastewater system.

Establishing the amount of an acquisition adjustment, requires a determination of the rate base of the acquired company. This value is usually derived from the previous owner's books and records. Absent such information an original cost study may be employed. As discussed in an earlier portion of this Order, we have determined for the purposes of this proceeding that rate base at the time of transfer was zero.

According to testimony by utility witnesses Cuddie and Wenz, the final purchase price for the PPW systems consisted of two parts: an initial purchase amount of $208,000 for the water system and $20,000 for the wastewater system, and a final purchase payment amount based on the Commission's determination of rate base in this proceeding. Utility witness Wenz stated that the utility is contractually obligated to pay acquisition adjustment amounts of $52,000 and $21,000 for the respective water and wastewater systems, regardless of this Commission's determination of rate

STAFF: Yes, an adjustment should be made to remove the value of the land on which the abandoned wastewater plant was located. No adjustment is necessary for the building as it is not in rate base.

ISSUE 7: Should an adjustment be made to remove the value of wastewater plant structures and improvements which have been abandoned?

POSITIONS

UTILITY/PPW: No.

OPC: Yes.

STAFF: Yes, an adjustment should be made to remove $28,818 in Account 354, Structures and Improvements with corresponding reductions to accumulation depreciation and depreciation expense for $16,696 and $356, respectively.

ISSUE 8: Should the cost of wells no. 2, no. 15, and no. 17 be removed from rate base? (See also, Issue 16)

POSITIONS

UTILITY/PPW: No.

OPC: Yes.

STAFF: Account 307 should be reduced by $38,310 to remove the cost of well no. 15 from rate base. Corresponding reductions should be made to accumulation depreciation and depreciation expense of $11,115 and $473, respectively. No adjustment for well no. 2 is necessary as it was not included in rate base.

ISSUE 9: Should an adjustment be made for excessive unaccounted for water?

POSITIONS

UTILITY/PPW: Yes, reduce purchased power by $1,203 and chemical expense by $248.

OPC: Yes, there is excessive lost water which requires a reduction in water expenses of $1,861.

STAFF: Yes. The used and useful calculation of water treatment plant expense should be reduced for unaccounted for water by 16.5 percent. The purchased power expense should be reduced by $1,967 and chemical expense should be reduced by $430.

ISSUE 10: Should the used and useful calculations include a margin reserve?

POSITIONS

UTILITY/PPW: If the Commission finds that used and useful is less than 100 percent, a margin reserve may be appropriate.

OPC: No. Inclusion of a margin reserve introduces costs not connected with test year customers.

STAFF: No. The utility did not request any margin reserve.

ISSUE 11: What is the used and useful amount for the new interconnection (i.e., force main, lift station, pumps, and meter) with Pasco County's treatment plant?

POSITIONS

UTILITY/PPW: 100 percent.

OPC: 37 percent.

STAFF: 100 percent.

ISSUE 12: What is the total capacity in ERCs for the water distribution and wastewater collection systems?

POSITIONS

UTILITY/PPW: The total capacity in ERCs for the water distribution system is 1,585; for the wastewater collection system it is 715.

OPC: The total of ERC's for water is 5,319 and for wastewater is 1,952.

STAFF: Agree with utility.

ISSUE 13: What are the appropriate used and useful percentages for the water plant and water distribution system?

POSITIONS

UTILITY/PPW: 100 percent. Further, the water distribution system is fully contributed; therefore, no adjustment is necessary.

OPC: The water treatment plant is 51 percent used and useful and the distribution system is 30 percent used and useful.

STAFF: The water plant is 51 percent used and useful. The water distribution system is 100 percent used and useful because it is fully contributed.

*

ISSUE 14: Should an adjustment be made for excessive infiltration/inflow into the wastewater collection system?

POSITIONS

UTILITY/PPW: Yes. Reduce purchased sewage treatment by $114,400 and purchased power by $4,802.

OPC: Yes.

STAFF: Yes. An adjustment to used and useful should be made for excess infiltration. The purchased power, purchased wastewater treatment and chemical expenses for wastewater should be reduced to reflect the excessive infiltration.

ISSUE 15: What is the appropriate used and useful percentage for the wastewater collection system?

POSITIONS

UTILITY/PPW: 100 percent. Further, the collection lines are fully contributed; therefore, no adjustment is necessary.

OPC: The wastewater collection system is 37 percent used and useful.

STAFF: The wastewater collection system is 100 percent used and useful because it is fully contributed.

DOCKET NO. 940917-WS
DATE: April 6, 1995

ISSUE 7: What are the appropriate used and useful percentages for the various systems?

RECOMMENDATION: The appropriate used and useful percentages for all systems excepting the Crescent Heights water treatment plant and well and the Lincoln Heights wastewater treatment plant and system are 100%. Staff recommends a 0% used and useful percentage for the Crescent Heights Water Treatment plant and well. Staff recommends a 79.2% used and useful for the Lincoln Heights system. (FUCHS)

STAFF ANALYSIS: With the exception of the Crescent Heights WTP and the Lincoln Heights wastewater treatment system all facilities are either built out or have been determined to be 100% used and useful in past rate cases. Staff calculations verify 100% used and useful in those systems. The Utility has requested a 79.2% used and useful percentage for the Lincoln Heights system. Staff calculations agree with the Utility's; therefore we recommend 79.2% used and useful for the Lincoln Heights system. Prior to the 1993 test year, the Crescent Heights water treatment plant and well were taken off line because the system reached the size which requires two wells according to DEP regulations. A suitable well site could not be found in the area. The Utility decided to become a bulk customer of the Orlando Utilities Commission and take the plant and well off line. That occurred before the start of the 1993 test year. Since the plant remains off line, Staff recommends 0% used and useful for the Crescent Heights WTP.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for rate increase in Pasco County by UTILITIES, INC. OF FLORIDA	DOCKET NO. 910020-WS ORDER NO. 25821 ISSUED: 02/27/92

The following Commissioners participated in the disposition of this matter:

J. TERRY DEASON
BETTY EASLEY

APPEARANCES:

WAYNE L. SCHIEFELBEIN, Esquire, Gatlin, Woods, Carlson & Cowdery, 1709-D Mahan Drive, Tallahassee, Florida 32308
On behalf of Utilities, Inc. of Florida

JACK SHREVE, Esquire, and H. F. MANN, II, Esquire, Office of Public Counsel, Claude Pepper Building, Room 810, 111 West Madison Street, Tallahassee, Florida 32399-1400
On behalf of the Citizens of the State of Florida

CATHERINE BEDELL, Esquire, Florida Public Service Commission, Division of Legal Services, 101 East Gaines Street, Tallahassee, Florida 32399-0863
On behalf of the Commission Staff

DAVID E. SMITH, Esquire, Florida Public Service Commission, Office of General Counsel, 101 East Gaines Street, Tallahassee, Florida 32399-0863
Counsel to the Commissioners

FINAL ORDER SETTING RATES AND CHARGES AND REQUIRING REFUND

BY THE COMMISSION:

BACKGROUND

Utilities, Inc. of Florida (UIF or utility) is a Class B utility providing water and wastewater service for 27 systems in 6 counties in Central Florida. UIF is a wholly owned subsidiary of Utilities, Inc. The Paradise Point West (PPW) water and wastewater system in Pasco County is located in a predominantly residential area serving 715 residential customers. The minimum filing

Utilities, Inc. of Florida - Orangewood (Pasco County)
Docket No. 940917-WS

Rate Case
Financial, Rate and Engineering
Minimum Filing Requirements

Test Year Ending December 31, 1993

Used and Useful Calculations
Water Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Orange County
Docket No.: 940917-WS
Test Year Ended: December 31, 1993

Schedule: F-5
Page 1 of 3
Preparer: PMC

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water treatment plant(s) for the historical test year and the projected test year (if applicable).

Druid Isle:

1. Capacity of plant: 40 gpm per annual report.

2. Maximum daily flow: 114 gpm.

   1.1 min. design criteria (a) * 2 representing twice the average flow * connections
   1.1 * 2 * 52

3. Average daily flow: 57 gpm.

   1.1 * 52

4. Fire flow capacity:

   a. Required fire flow: not provided.

5. Margin reserve (not to exceed 20% of present customers): not applicable, system is built out.

6. Excessive unaccounted for water: 0 gallons per day.

   a. Total amount: 0 gpd, 0% of average daily flow.
   b. Reasonable amount: 1,990 gpd, 20% of average daily flow.
   c. Excessive amount: 0 gpd, 0% of average daily flow.

7. Percent used and useful: 100% used and useful.

   (2 + 4 + 5 - 6) / 1 = % used and useful

   (114 + 0 + 0 - 0) / 40 = 100% used and useful

(a) The minimum design criteria is 1.1 gallons per minute per connection.

Used and Useful Calculations — Florida Public Service Commission
Water Treatment Plant

Company: Utilities, Inc. of Florida - Orange County — Schedule: F-5
Docket No.: 940917-WS — Page 2 of 3
Test Year Ended: December 31, 1993 — Preparer: PMC

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water treatment plant(s) for the historical test year and the projected test year (if applicable).

Crescent Heights:

1. Capacity of plant: 350 gpm per annual report.

2. Maximum daily flow: 605 gpm.

   1.1 min. design criteria (a) * 2 representing twice the average flow * connections
   1.1 * 2 * 275

3. Average daily flow: 303 gpm.

   1.1 * 275

4. Fire flow capacity:

   a. Required fire flow: 500 gpm

5. Margin reserve (not to exceed 20% of present customers): not applicable, system is built out.

6. Excessive unaccounted for water: 0 gallons per day.

   a. Total amount: 13,118 gpd, 14.2% of average daily flow.
   b. Reasonable amount: 18,476 gpd, 20% of average daily flow.
   c. Excessive amount: 0 gpd, 0% of average daily flow.

7. Percent used and useful: 100% used and useful.

   (2 + 4 + 5 - 6) / 1 = % used and useful

   (605 + 500 + 0 - 0) / 350 = 100% used and useful

(a) The minimum design criteria is 1.1 gallons per minute per connection.

0080A

Used and Useful Calculations — Florida Public Service Commission
Water Treatment Plant

Company: Utilities, Inc. of Florida - Orange County — Schedule: F-5
Docket No.: 940517-WS — Page 3 of 3
Test Year Ended: December 31, 1993 — Preparer: PMC

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water treatment plant(s) for the historical test year and the projected test year (if applicable).

Davis Shores:

1. Capacity of plant: 69 gpm per annual report.

2. Maximum daily flow: 90 gpm.

   1.1 min. design criteria (a) * 2 representing twice the average flow * connections
   1.1 * 2 * 41

3. Average daily flow: 45 gpm.

   1.1 * 41

4. Fire flow capacity:

   a. Required fire flow: not provided.

5. Margin reserve (not to exceed 20% of present customers): not applicable, system is built out.

6. Excessive unaccounted for water: 0 gallons per day.

   a. Total amount: 1,216 gpd, 9.8% of average daily flow.
   b. Reasonable amount: 2,492 gpd, 20% of average daily flow.
   c. Excessive amount: 0 gpd, 0% of average daily flow.

7. Percent used and useful: 100% used and useful.

   (2 + 4 + 5 - 6) / 1 = % used and useful

   (90 + 0 + 0 - 0) / 69 = 100% used and useful

(a) The minimum design criteria is 1.1 gallons per minute per connection.

0080B

Used and Useful Calculations
Water Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole County
Docket No.: 940917-WS
Test Year Ended: December 31, 1993

Schedule: F-5
Page 1 of 9
Preparer: PMC

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water treatment plant(s) for the historical test year and the projected test year (if applicable).

Westbersfield:

1. Capacity of plant: 1,500 gpm per annual report.

2. Maximum daily flow: 2,616 gpm.

   1.1 Min. design criteria (a) * 2 representing twice the average flow * connections
   1.1 * 2 * 1189

3. Average daily flow: 1,308 gpm.

   1.1 * 1189

4. Fire flow capacity:

   a. Required fire flow: 500 gpm.

5. Margin reserve (not to exceed 20% of present customers): not applicable, system is built out.

6. Excessive unaccounted for water: 0 gallons per day.

   a. Total amount: 36,268 gpd, 9.4% of average daily flow.
   b. Reasonable amount: 77,325 gpd, 20% of average daily flow.
   c. Excessive amount: 0 gpd, 0% of average daily flow.

7. Percent used and useful: 100% used and useful.

   (2 + 4 + 5 - 6) / 1 = % used and useful

   (2,616 + 500 + 0 - 0) / 1,500 = 100% used and useful

(a) The minimum design criteria is 1.1 gallons per minute per connection.

Used and Useful Calculations
Water Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Orangewood (Pasco County) Schedule: F-5
Docket No.: 940917-WS Page 1 of 1
Test Year Ended: December 31, 1993 Preparer: PMC

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water treatment plant(s) for the historical test year and the projected test year (if applicable).

1. Capacity of plant: 850 gpm.

2. Maximum daily flow: 1285 gpm.

   1.1 min. design criteria (a) * 2 representing twice the average flow * connections
   1.1 * 2 * 584

3. Average daily flow: 642 gpm.

   1.1 * 584

4. Fire flow capacity:

   a. Required fire flow: 500 gpm.

5. Margin reserve (not to exceed 20% of present customers): not applicable, system is built out.

6. Excessive unaccounted for water: 0 gallons per day.

   a. Total amount: 13,247 gpd, 11.6% of average daily flow.
   b. Reasonable amount: 22,785 gpd, 20% of average daily flow.
   c. Excessive amount: 0 gpd, 0% of average daily flow.

7. Percent used and useful: 100% used and useful.

   (2 + 4 + 5 - 6) / 1 = % used and useful

   (1285 + 500 + 0 - 0) / 1150 = 100% used and useful

(a) The minimum design criteria is 1.1 gallons per minute per connection.

FLORIDA PUBLIC SERVICE COMMISSION
Fletcher Building, 101 East Gaines Street
Tallahassee, Florida 32399-0850

M E M O R A N D U M

April 6, 1995

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

FROM: DIVISION OF WATER & WASTEWATER (GROOM, MONIZ, CLARK, MERCHANT, FUCHS)
DIVISION OF LEGAL SERVICES (VACCARO)

RE: DOCKET NO. 940917-WS - UTILITIES, INC. OF FLORIDA - APPLICATION FOR A RATE INCREASE IN SEMINOLE, ORANGE, AND PASCO COUNTIES BY UTILITIES, INC. OF FLORIDA
COUNTY: SEMINOLE, ORANGE, AND PASCO COUNTIES

AGENDA: 04/18/95 - REGULAR - AGENDA - PROPOSED AGENCY ACTION - INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: 5-MONTH EFFECTIVE DATE: 4/29/95
(PAA Rate Case)

SPECIAL INSTRUCTIONS: I:\PSC\WAW\WP\940917WS.RCM

M E M O R A N D U M

MAY 9, 1997

TO: DIVISION OF RECORDS AND REPORTING

FROM: DIVISION OF LEGAL SERVICES (VACCARO)

RE: DOCKET NO. 960444-WU - APPLICATION FOR RATE INCREASE AND FOR INCREASE IN SERVICE AVAILABILITY CHARGES IN LAKE COUNTY BY LAKE UTILITY SERVICES, INC. PSC-97-0531-FOF-WU

Attached is a NOTICE OF PROPOSED AGENCY ACTION ORDER APPROVING, IN PART, AND DENYING, IN PART, INCREASED RATES AND CHARGES, with attachments, to be issued in the above referenced docket. (Number of pages in order - 72)

TV/mw

Attachment

cc: Division of Water & Wastewater (Willis, Austin, Crouch, Lingo, Merchant, Munroe, Rendell, Zhang)

I: 960444OR.TV

Attachments Not On-Line

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for rate increase and for increase in service availability charges in Lake County by Lake Utility Services, Inc.	DOCKET NO. 960444-WU ORDER NO. PSC-97-0531-FOF-WU ISSUED: MAY 9, 1997

The following Commissioners participated in the disposition of this matter:

JULIA L. JOHNSON, Chairman
J. TERRY DEASON
JOE GARCIA
DIANE K. KIESLING

NOTICE OF PROPOSED AGENCY ACTION
ORDER APPROVING, IN PART, AND DENYING, IN PART,
INCREASED RATES AND CHARGES

BY THE COMMISSION:

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

BACKGROUND

Lake Utility Services, Inc., (LUSI or utility) is a Class B utility located in Lake County. LUSI is a wholly-owned subsidiary of Utilities, Inc. and provides no wastewater service. The service area is composed of eighteen subdivisions, which are served by twelve water plants. All of the plants are basically pump and chlorinate with hydropneumatic tanks. There are ten plants in the South Clermont Region. In this region there are groups of two (Oranges-Vistas), three (Clermont I-Amber Hill-Lake Ridge Club) and four (Highland Point-Crescent Bay-Crescent West-Lake Crescent Hills) interconnected plants with one stand-alone plant (Clermont II). The other two plants (Lake Saunders and Four Lakes) are outside this area. The minimum filing requirements (MFRs) filed in this docket indicate that the service area contained a total of 915

this docket indicate that the service area contained a total of 915 customers at the end of 1995. According to the St. Johns River Water Management District (SJRWMD), LUSI is in a water conservation area.

On December 24, 1987, LUSI was granted Original Certificate No. 496-W by Order No. 18605 in Docket No. 871080. On February 20, 1991, by Order No. 24139, in Docket No. 900906-WU, we transferred all Utilities, Inc. of Florida systems in Lake County to LUSI.

By Proposed Agency Action (PAA) Order No. PSC-95-1228-FOF-WU, issued on October 5, 1995, in Docket No. 950232-WU, we approved a limited proceeding to restructure rates and ordered the utility to supply necessary information regarding its service availability policy within 90 days. However, on October 26, 1995, LUSI protested the order. On March 4, 1996, LUSI filed an offer of settlement.

By Order No. PSC-96-0504-AS-WU, we accepted the settlement proposal. In the settlement, LUSI agreed to file this current rate case (Docket No. 960444-WU) and propose uniform rates and uniform service availability charges for all of its operations in Lake County, except for Four Lakes and Lake Saunders Acres. As part of the settlement, the utility stipulated to the use of "Staff's Proposed Rate Structure (Revised)" in Docket No. 950232-WU, for the purpose of calculating interim rates. Therefore, the rates included in "Staff Proposed Rate Structure (Revised)", pursuant to Order No. PSC-96-0504-AS-WU, became LUSI's current approved rates immediately prior to any interim adjustment in this rate case.

The utility reported adjusted test year operating revenues of $313,946 for its water operations for 1995. The utility has never had a full rate case; therefore, there is no previously established rate of return on equity.

The utility filed this application for a rate increase on June 3, 1996. We notified the utility of several deficiencies in the filing. Those deficiencies were corrected and the official filing date was established as July 9, 1996. The utility's requested test year for both interim and final rates is the historical period ended December 31, 1995. Also, the utility requested that this case be processed using the PAA procedure pursuant to Section 367.081(8), Florida Statutes.

amount, 23,378 GPD, is divided by the average daily consumption, 361,981 GPD, the resultant is an adjustment factor of 0.06458 or 6.458 percent, which results in adjustments of $2,587 and $461 for purchased power expense and chemical expense, respectively.

Used and Useful

We found the following errors in the original used and useful values provided in the MFRs: (1) the flow data used to calculate the maximum daily flow for interconnected plants was not from the same day; (2) the fire flow allowances for interconnected plants were incorrect; (3) the margin reserve value was not supported; (4) the excessive unaccounted for water was not in the calculation; and (5) there was no lot count information for the distribution system.

The utility requested an extension of time in order to provide more accurate flow data, a more detailed set of maps and support for the margin reserve values. During this extension and a second that followed, the utility was told that the transmission mains which served to interconnect plants would be considered 100 percent used and useful if the dollar value with supporting documents were provided. This was never done.

At the end of the second extension, the utility submitted revised plant used and useful calculations. These calculations contained changes in plant capacities. At that point we contacted DEP for the plant permit capacities. The following plant used and useful calculations were made using those DEP permitted capacities along with all other corrected data.

Water plant

Based on our calculations, the appropriate used and useful percentages for LUSI's water plants are: 67.83 percent (Clermont I, Amber Hill, Lake Ridge Club); 100 percent (Clermont II); 37.97 percent (Oranges, Vistas); 54.76 percent (Highland Point, Crescent Bay, Crescent West, Lake Crescent Hills); 36.48 percent (Four Lakes); and 41.03 percent (Lake Saunders).

Storage

The hydro tanks are the smallest possible tanks for adequate performance and, therefore, are 100 percent used and useful.

Distribution System

The distribution system calculation was derived from actual lot counts of the entire service area. Based on our calculations, the appropriate used and useful percentages for LUSI's distribution system are: 0.73 percent (Clermont I, Amber Hill, Lake Ridge Club); 0.58 percent (Clermont II); 0.37 percent (Orange, Vistas); 0.41 percent (Highland Point, Crescent Bay, Crescent West, Lake Crescent Hills); 0.91 percent (Lake Saunders); and 0.86 percent (Four Lakes).

Imputation of Contributions in Aid of Construction (CIAC) for Water Supply and Storage System

In 1987, the utility entered into a water system construction agreement with the developer of the Vistas Subdivision. The term of this agreement stated that Utilities, Inc. of Florida agreed to "an initial cash payment of $16,500 at such time as the water supply and storage system as described herein is complete and operational and providing service thereby". The utility recorded $16,500 as Undistributed Water Plant in 1987 and transferred this amount to Transmission and Distribution Mains in 1995. In Audit Exception No. 3, the staff auditor indicated that no proof of payment by the utility was provided to support this entry on the utility's books. The utility, in its response to the Audit Report, argued that the purchase agreement, which acted as an invoice, stated that LUSI was purchasing the water supply and storage system for $16,500. Although the purchase agreement specifies the duties and obligations of the two parties, it cannot be solely relied upon as proof of payment without other collaborating evidence. From merely looking at the purchase agreement, we cannot determine the date of payment or even if a payment was made. Nonetheless, we find that $16,500 was a reasonable price for the water supply and storage system which is currently in use.

In conclusion, we do not find that the utility has provided documentation sufficient to determine the price, if any, the utility paid for this system in 1987. Based on the foregoing, we have imputed CIAC for the agreement price of $16,500 for the Vistas' water supply and storage system. Accordingly, we have increased accumulated amortization of CIAC and CIAC amortization expenses by $3,506 and $413, respectively.

LAKE UTILITY SERVICES, INC. ADJUSTMENTS TO RATE BASE TEST YEAR ENDED 12/31/95	SCHEDULE NO. 1-B DOCKET NO. 960444-WU
EXPLANATION	WATER
UTILITY PLANT IN SERVICE	
To adjust utility plant in service	$ (103,440)
LAND	
To reflect unrecorded land cost	$ 357
NON-USED AND USEFUL PLANT	
To reflect net non-used & useful adjustment	$ (488,618)
ACCUMULATED DEPRECIATION	
To remove acc. depre. related to UPIS adjustments	$ (56,123)
CIAC	
a) To reflect adjustment per Audit Exception No. 12	$ (168,449)
b) To impute CIAC on Vistas's water system	$ (16,500)
c) To impute CIAC to offset margin reserve	$ (12,480)
	(197,429)
ACCUMULATED AMORTIZATION OF CIAC	
a) To reflect adjustment per Audit Exception No. 12	$ 11,803
b) To reflect the effect of imputation of CIAC on Vistas's water plant	$ 3,506
c) To reflect the effect of imputation of CIAC on margin reserve	$ 168
	$ 15,477
ACQUISITION ADJUSTMENT AMORTIZATION	
To remove incorrectly recorded acquisition adjustment	$ 70,169
ACCUMULATED AMORT. OF ACQUISITION ADJUSTMENT	
To reflect the effect of removal of acquisition adjustment	$ (7,095)
DEFERRED INCOME TAXES	
To reflect income tax on advance for construction	$ 127,927
ADVANCE FOR CONSTRUCTION	
To reflect adjustment per Audit Exception No. 12	$ (376,255)
WORKING CAPITAL	
To reflect adjustments on operating expenses	$ (1,253)

ıd a... ıl Calculations
er Treatment Plant

Florida Public Service Commission

ıpany: Lake Utility Services, Inc.
ket No.: 960444-WU
edule Year Ended: 12/31/95

Schedule: F-5
Page 1 of 13
Preparer: D. Rasmussen

planation: Provide all calculations, analyses and governmental requirements used to determine used and useful percentages for the water treatment plant(s) for the historical test year and projected test year (if applicable).

rmont I
Capacity of plant: 122000gpd

Maximum daily flow: 352000gpd

1.1 gallons/min. design criteria (c) * 2 representing twice the average flow * connections
1.1 * 2 * 111

Average daily flow: 176000gpd

1.1 * 111

Fire flow capacity: 120000gpd

a. Required fire flow: . 120000gpd

Margin reserve (not to exceed 20% of present customers): 0

Excessive unaccounted for water: 0

a. Total amount: 0gpd, 0% of average daily flow.
b. Reasonable amount: 7000gpd, 20% of average daily flow.
c. Excessive amount: 0 gpd, 0% of average daily flow.

Percent used and useful: % used and useful. 100

(2 + 4 + 5 - 6) / 1 = % used and useful

The minimum design criteria is 1.1 gallons per minute per connection.

te: Clermont I, Amber Hill, and Lake Ridge Club are interconnected.

ed and Useful Calculations
ater Treatment Plant

Florida Public Service Commission

mpany: Lake Utility Services, Inc.
cket No.: 960444-WU
hedule Year Ended: 12/31/95

Schedule: F-5
Page 2 of 13
Preparer: D. Rasmussen

planation: Provide all calculations, analyses and governmental requirements used to determine
e used and useful percentages for the water treatment plant(s) for the historical test year and
e projected test year (if applicable).

ermont II
Capacity of plant: 71000gpd

Maximum daily flow: 111000gpd

1.1 min. design criteria (c) * 2 representing twice the average flow * connections
1.1 * 2 * 35

Average daily flow: 55000gpd

1.1 * 35

Fire flow capacity: 0gpd

a. Required fire flow: . 0gpd

Margin reserve (not to exceed 20% of present customers): 0

Excessive unaccounted for water: 0

a. Total amount: 2000gpd, 11.1% of average daily flow.
b. Reasonable amount: 3600gpd, 20% of average daily flow.
c. Excessive amount: 0 gpd, 0% of average daily flow.

Percent used and useful: % used and useful. 100

(2 + 4 + 5 - 6) / 1 = % used and useful

The minimum design criteria is 1.1 gallons per minute per connection.

sed and Useful Calculations
ater Treatment Plant

Florida Public Service Commission

ompany: Lake Utility Services, Inc.
ocket No.: 960444-WU
chedule Year Ended: 12/31/95

Schedule: F-5
Page 3 of 13
Preparer: D. Rasmussen

xplanation: Provide all calculations, analyses and governmental requirements used to determine
e used and useful percentages for the water treatment plant(s) for the historical test year and
e projected test year (if applicable).

mber Hill

Capacity of plant: 396000gpd

Maximum daily flow: 127000gpd

1.1 min. design criteria (c) * 2 representing twice the average flow * connections
1.1 * 2 * 40

Average daily flow: 63000gpd

1.1 * 40

Fire flow capacity: 120000gpd

a. Required fire flow: . 120000gpd

Margin reserve (not to exceed 20% of present customers): 25000gpd

Excessive unaccounted for water: 0gpd

a. Total amount: 17000gpd, 12% of average daily flow.
b. Reasonable amount: 29000gpd, 20% of average daily flow.
c. Excessive amount: 0 gpd, 0% of average daily flow.

Percent used and useful: 69% used and useful.

(2 + 4 + 5 - 6) / 1 = % used and useful

The minimum design criteria is 1.1 gallons per minute per connection.

e: Clermont I, Amber Hill, and Lake Ridge Club are interconnected.

sed and Useful Calculations
ater Treatment Plant

Florida Public Service Commission

ompany: Lake Utility Services, Inc.
ocket No.: 960444-WU
chedule Year Ended: 12/31/95

Schedule: F-5
Page 4 of 13
Preparer: D. Rasmussen

xplanation: Provide all calculations, analyses and governmental requirements used to determine
e used and useful percentages for the water treatment plant(s) for the historical test year and
e projected test year (if applicable).

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ake Ridge Club

Capacity of plant: 468000gpd

Maximum daily flow: 215000gpd

1.1 min. design criteria (c) * 2 representing twice the average flow * connections
1.1 * 2 * 68

Average daily flow: 108000gpd

1.1 * 68

Fire flow capacity: 120000gpd

a. Required fire flow: . 120000gpd

Margin reserve (not to exceed 20% of present customers): 43000gpd

Excessive unaccounted for water:

a. Total amount: 0gpd,0% of average daily flow.
b. Reasonable amount: 18000gpd, 20% of average daily flow.
c. Excessive amount: 0 gpd, 0% of average daily flow.

Percent used and useful: 81% used and useful.

(2 + 4 + 5 - 6) / 1 = % used and useful

] The minimum design criteria is 1.1 gallons per minute per connection.

ote: Clermont I, Amber Hill, and Lake Ridge Club are interconnected.

ed and Useful Calculations
ater Treatment Plant

Florida Public Service Commission

mpany: Lake Utility Services, Inc.
cket No.: 960444-WU
hedule Year Ended: 12/31/95

Schedule: F-5
Page 5 of 13
Preparer: D. Rasmussen

xplanation: Provide all calculations, analyses and governmental requirements used to determine
e used and useful percentages for the water treatment plant(s) for the historical test year and
e projected test year (if applicable).

ighland Point

Capacity of plant: 432000gpd

Maximum daily flow: 101000gpd

1.1 min. design criteria (c) * 2 representing twice the average flow * connections
1.1 * 2 * 32

Average daily flow: 51000gpd

1.1 * 32

Fire flow capacity: 120000gpd

a. Required fire flow: 120000gpd

Margin reserve (not to exceed 20% of present customers): 20000gpd

Excessive unaccounted for water: 36000gpd

a. Total amount: 50000gpd, 69% of average daily flow.
b. Reasonable amount: 14000gpd, 20% of average daily flow.
c. Excessive amount: 36000 gpd, 49% of average daily flow.

Percent used and useful: 47% used and useful.

(2 + 4 + 5 - 6) / 1 = % used and useful

The minimum design criteria is 1.1 gallons per minute per connection.

te: Highland Point, Crescent Bay, Crescent West and Lake Crescent Hills are interconnected.

ed and Useful Calculations
ter Treatment Plant

Florida Public Service Commission

mpany: Lake Utility Services, Inc.
cket No.: 960444-WU
hedule Year Ended: 12/31/95

Schedule: F-5
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Preparer: D. Rasmussen

planation: Provide all calculations, analyses and governmental requirements used to determine
used and useful percentages for the water treatment plant(s) for the historical test year and
projected test year (if applicable).

anges
Capacity of plant: 396000gpd

Maximum daily flow: 247000gpd

1.1 min. design criteria (c) * 2 representing twice the average flow * connections
1.1 * 2 * 78

Average daily flow: 124000gpd

1.1 * 78

Fire flow capacity: 120000gpd

a. Required fire flow: . 120000gpd

Margin reserve (not to exceed 20% of present customers): 32000gpd

Excessive unaccounted for water: 0

a. Total amount: 8000gpd, 16% of average daily flow.
b. Reasonable amount: 10000gpd, 20% of average daily flow.
c. Excessive amount: 0 gpd, 0% of average daily flow.

Percent used and useful: 100% used and useful.

(2 + 4 + 5 - 6) / 1 = % used and useful

The minimum design criteria is 1.1 gallons per minute per connection.

ote: The Oranges, and Vistas are interconnected.

sed and Useful Calculations
ater Treatment Plant

Florida Public Service Commission

mpany: Lake Utility Services, Inc.
ocket No.: 960444-WU
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Schedule: F-5
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Preparer: D. Rasmussen

xplanation: Provide all calculations, analyses and governmental requirements used to determine
e used and useful percentages for the water treatment plant(s) for the historical test year and
e projected test year (if applicable).

stas

Capacity of plant: 1700000gpd

Maximum daily flow: 127000gpd

1.1 min. design criteria (c) * 2 representing twice the average flow * connections
1.1 * 2 * 40

Average daily flow: 63000gpd

1.1 * 40

Fire flow capacity: 120000gpd

a. Required fire flow: . 120000gpd

Margin reserve (not to exceed 20% of present customers): 25000gpd

Excessive unaccounted for water:

a. Total amount: 2000gpd, 7% of average daily flow.
b. Reasonable amount: 6000gpd, 20% of average daily flow.
c. Excessive amount: 0 gpd, 0% of average daily flow.

Percent used and useful: 16% used and useful.

(2 + 4 + 5 - 6) / 1 = % used and useful

The minimum design criteria is 1.1 gallons per minute per connection.

te: The Oranges, and Vistas are interconnected.

ed and Useful Calculations
ater Treatment Plant

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Schedule: F-5
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Preparer: D. Rasmussen

planation: Provide all calculations, analyses and governmental requirements used to determine
used and useful percentages for the water treatment plant(s) for the historical test year and
projected test year (if applicable).

escent West
Capacity of plant: 432000gpd

Maximum daily flow: 222000gpd

1.1 min. design criteria (c) * 2 representing twice the average flow * connections
1.1 * 2 * 70

Average daily flow: 111000gpd

1.1 * 70

Fire flow capacity: 120000gpd

a. Required fire flow: . 120000gpd

Margin reserve (not to exceed 20% of present customers): 44000gpd

Excessive unaccounted for water: 30000gpd

a. Total amount: 58000gpd, 41% of average daily flow.
b. Reasonable amount: 28000gpd, 20% of average daily flow.
c. Excessive amount: 30000 gpd, 21% of average daily flow.

Percent used and useful: 82% used and useful.

(2 + 4 + 5 - 6) / 1 = % used and useful

The minimum design criteria is 1.1 gallons per minute per connection.

le: Highland Point, Crescent Bay, Crescent West and Lake Crescent Hills are interconnected.

sed and Useful Calculations
ater Treatment Plant

Florida Public Service Commission

ompany: Lake Utility Services, Inc.
ocket No.: 960444-WU
chedule Year Ended: 12/31/95

Schedule: F-5
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Preparer: D. Rasmussen

xplanation: Provide all calculations, analyses and governmental requirements used to determine
e used and useful percentages for the water treatment plant(s) for the historical test year and
e projected test year (if applicable).

rescent Bay

Capacity of plant: 1080000gpd

Maximum daily flow: 143000gpd

1.1 min. design criteria (c) * 2 representing twice the average flow * connections
1.1 * 2 * 45

Average daily flow: 71000gpd

1.1 * 45

Fire flow capacity: 120000gpd

a. Required fire flow: . 120000gpd

Margin reserve (not to exceed 20% of present customers): 29000gpd

Excessive unaccounted for water:

a. Total amount: 0gpd, 0% of average daily flow.
b. Reasonable amount: 0gpd, 0% of average daily flow.
c. Excessive amount: 0 gpd, 0% of average daily flow.

Percent used and useful: 27% used and useful.

(2 + 4 + 5 - 6) / 1 = % used and useful

The minimum design criteria is 1.1 gallons per minute per connection.

te: Highland Point, Crescent Bay, Crescent West and Lake Crescent Hills are interconnected.

d and Useful Calculations
er Treatment Plant

Florida Public Service Commission

pany: Lake Utility Services, Inc.
ket No.: 960444-WU
edule Year Ended: 12/31/95

Schedule: F-5
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Preparer: D. Rasmussen

lanation: Provide all calculations, analyses and governmental requirements used to determine used and useful percentages for the water treatment plant(s) for the historical test year and projected test year (if applicable).

e **Crescent Hills**
Capacity of plant: 432000gpd

Maximum daily flow: 244000gpd

1.1 min. design criteria (c) * 2 representing twice the average flow * connections
1.1 * 2 * 77

Average daily flow: 122000gpd

1.1 * 77

Fire flow capacity: 120000gpd

a. Required fire flow: . 120000gpd

Margin reserve (not to exceed 20% of present customers): 49000gpd

Excessive unaccounted for water: 0gpd

a. Total amount: 20000gpd, 19% of average daily flow.
b. Reasonable amount: 21000gpd, 20% of average daily flow.
c. Excessive amount: 0 gpd, 0% of average daily flow.

Percent used and useful: 96% used and useful.

(2 + 4 + 5 - 6) / 1 = % used and useful

The minimum design criteria is 1.1 gallons per minute per connection.

le: Highland Point, Crescent Bay, Crescent West and Lake Crescent Hills are interconnected.

ater Treatment Plant

ompany: Lake Utility Services, Inc.
ocket No.: 960444-WU
hedule Year Ended: 12/31/95

Schedule: F-5
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Preparer: D. Rasmussen

xplanation: Provide all calculations, analyses and governmental requirements used to determine
e used and useful percentages for the water treatment plant(s) for the historical test year and
e projected test year (if applicable).

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our Lakes

Capacity of plant: 151,200 gpd

Maximum daily flow: 162,000 gpd

1.1 min. design criteria (c) * 2 representing twice the average flow * connections
1.1 * 2 * 45

Average daily flow: 81,000

1.1 * 45

Fire flow capacity: 0

a. Required fire flow: . 0

Margin reserve (not to exceed 20% of present customers): 0

Excessive unaccounted for water:

a. Total amount: 3000gpd, 14% of average daily flow.
b. Reasonable amount: 4600gpd, 20% of average daily flow.
c. Excessive amount: 0 gpd, 0% of average daily flow.

Percent used and useful: 100% used and useful.

(2 + 4 + 5 - 6) / 1 = % used and useful

The minimum design criteria is 1.1 gallons per minute per connection.

le: Highland Point, Crescent Bay, Crescent West and Lake Crescent Hills are interconnected.

Water Treatment Plant

Company: Lake Utility Services, Inc.
Docket No.: 960444-WU
Schedule Year Ended: 12/31/95

Schedule: F-5
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Preparer: D. Rasmussen

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water treatment plant(s) for the historical test year and the projected test year (if applicable).

Lake Saunders

Capacity of plant: 432000gpd

Maximum daily flow: 111,000 gpd

1.1 min. design criteria (c) * 2 representing twice the average flow * connections
1.1 * 2 * 35

Average daily flow: 55,000 gpd

1.1 * 35

Fire flow capacity: 120000gpd

a. Required fire flow: 120000gpd

Margin reserve (not to exceed 20% of present customers): 22,000 gpd

Excessive unaccounted for water:

a. Total amount: 1800gpd, 18% of average daily flow.
b. Reasonable amount: 2000gpd, 20% of average daily flow.
c. Excessive amount: 0 gpd, 0% of average daily flow.

Percent used and useful: 59% used and useful.

(2 + 4 + 5 - 6) / 1 = % used and useful

The minimum design criteria is 1.1 gallons per minute per connection.

sed and Useful Calculations
ater Treatment Plant

Florida Public Service Commission

ompany: Lake Utility Services, Inc.
ocket No.: 960444-WU
hedule Year Ended: 12/31/95

Schedule: F-5
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Preparer: D. Rasmussen

xplanation: Provide all calculations, analyses and governmental requirements used to determine
e used and useful percentages for the water treatment plant(s) for the historical test year and
e projected test year (if applicable).

(1)	(2)	(3)	(4)	(5)	(6)	(7)
erconnected Systems	Combined Capacity of Plants (GPD)	Combined Maximum Daily Flow (GPD)	Combined Fire Flow Capacity (GPD)	Combined Margin Reserve (GPD)	Excessive Unaccounted For Water (GPD)	Used & Useful Percentage
ermont I, Amber Hill, Lake Ridge Club	986,000	694,000	360,000	25,000	0	109%
ermont II	71,000	111,000	0	0	0	156%
e Oranges, Vistas	2,096,000	374,000	240,000	57,000	0	32%
ghland Point, Crescent Bay, Crescent West, Lake Crescent Hills	2,376,000	710,000	480,000	142,000	66,000	53%
ke Saunders	432,000	111,000	120,000	22,000	0	59%
ur Lakes	151,200	162,000	0	0	0	107%
tals	6,112,200	2,162,000	1,200,000	246,000	66,000	58%