BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for increase in water and)	
wastewater rates in Charlotte, Highlands,)	Docket No. 160101-WS
Lake, Lee, Marion, Orange, Pasco, Pinellas,)	
Polk, and Seminole Counties by Utilities, Inc.)	
of Florida.)	
)	

DIRECT TESTIMONY

OF

FRANK SEIDMAN

on behalf of

Utilities, Inc. of Florida

Q. Please state your name, profession and address.

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A.

A. My name is Frank Seidman. I am President of Management and Regulatory Consultants, Inc., consultants in the utility regulatory field. My address is 36 Yacht Club Dr., North Palm Beach, FL 33408.

Q. State briefly your educational background and experience.

I hold the degree of Bachelor of Science in Electrical Engineering from the University of Miami. I have also completed several graduate level courses in economics at Florida State University, including public utility economics. I am a Professional Engineer, registered to practice in the state of Florida. I have over 50 years of experience in utility regulation, management and consulting. This experience includes nine years as a staff member of the Florida Public Service Commission (FPSC), two years as a planning engineer for a Florida telephone company, four years as Manager of Rates and Research for a water and sewer holding company with operations in six states, and three years as Director of Technical Affairs for a national association of industrial users of electricity. I have been providing rate and regulatory consulting services in Florida for over 30 years. Specifically, with regard to the water and wastewater industry, I have participated in the preparation and presentation of numerous rate cases, most of which were considered by the Florida Public Service Commission. I have also prepared cases before the Sarasota County Commission. Many of the cases before the FPSC were made final through the Proposed Agency Action procedures; others went to public hearing in which I presented direct and/or rebuttal testimony. I have prepared or participated in the preparation of all phases of water and wastewater financial, rate and engineering

sections of the Minimum Filing Requirements (MFRs), including used and useful. I have also participated in most of the water and wastewater rulemaking procedures before the FPSC. I have also prepared several original cost studies accepted by this Commission in setting rates.

Q. On whose behalf are you presenting this testimony?

A. I am presenting this testimony and appearing on behalf of the applicant, Utilities, Inc. of Florida (UIF).

Q. For what purpose were you retained by the applicant?

A. I was retained to prepare the used and useful analyses for each of the systems through which UIF provides service and the required schedules in the MFRs pertaining to used and useful. These are identified in the MFRs as the "F" schedules. I was also retained to assist in preparation of the MFRs for several of the systems, namely Cypress Lakes, Lake Placid, Pennbrooke, Mid-County and Eagle Ridge.

Q. What is the purpose of your direct testimony?

A. The purpose of my direct testimony is to present the Minimum Filing Requirements and the used and useful schedules.

Q. Are you sponsoring any exhibits?

A. Yes. I am sponsoring Exhibit FS-1, which is a summary of my education and my experience as it pertains to water and wastewater regulation. I am sponsoring Exhibit FS-2, which is a summary of the used and useful percentages of all the individual systems included in this filing. I am also co-sponsoring, along with witnesses Kincaid, Flynn and Swain, the Minimum Filing Requirements consisting of Volume I, the Financial, Rate and Engineering sections, Volume II, the Billing Analysis and Volume III,

1		the Additional Engineering Information required by Rule 25-30.440,
2		Florida Administrative Code.
3	Q.	Would you please summarize the results of your used and useful
4		analyses?
5	A.	Yes. As previously stated, the results of the used and useful analyses are
6		contained in the "F" schedules section of each of the MFRs for the various
7		systems. For convenience, I have prepared Exhibit FS-2, which summarizes
8		the results for all of the systems.
9	Q.	Does that conclude your direct testimony?
10	A.	Yes, it does.
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)	Docket No. 160101-WS

EXHIBIT FS-1

OF

FRANK SEIDMAN

on behalf of

Utilities, Inc. of Florida

Docket No. 160101-WS
Curriculum Vitae
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CURRICULUM VITAE

FRANK SEIDMAN, P.E.

Over 50 years of experience in utility regulation, management and consulting, including 9 years in regulation and 6 years practical experience in utility operations and management.

President of Management & Regulatory Consultants, Inc. Services provided regarding water and wastewater utilities include: preparation of rate cases and service availability charge applications; analysis and design of rates; analysis of expenses and plant; preparation of billing analyses; coordination of rate case presentations; representation before regulatory bodies and presentation of expert testimony; participation in the design of regulatory statutes and rules; assistance in the preparation of annual reports; assistance in setting up systems of accounts; preparation of original cost and market valuation studies and economic analyses.

As a member of the engineering staff of the Florida Public Service Commission at several levels, played an active role in rate cases, rate design, planning and service evaluation for gas, electric, telephone, water and wastewater utilities.

As Director of Technical Affairs for the Electricity Consumer's Resource Council, a national association of large industrial electricity users, developed and presented positions and testimony on electric rate design, cost of service, and PURPA related issues.

As Manager of Rates and Research for GAC Utilities, Inc., responsible for managing the revenue requirements program and preparing rate applications for a water and sewer utility holding company with operations in six states.

Has presented testimony before jurisdictions in Arkansas, California, Delaware, Florida, Michigan and Texas, as well as the U.S. Department of Energy, and the Federal Energy Regulatory Commission. Appeared as a speaker and/or instructor before many trade and professional groups throughout the United States.

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BSEE from the University of Miami with substantial graduate level work in economics, including public utility economics, at the Florida State University. A registered Professional Engineer in the State of Florida and past member of the Florida Engineering Society, the National Society of Professional Engineers, the Institute of Electrical and Electronic Engineers, the American Water Works Association and the Florida Water Works Association.

Rev:05/31/16

SUMMARY OF PROFESSIONAL EXPERTISE IN WATER and WASTEWATER REGULATION

FRANK SEIDMAN

I. Participation In Specific Water And Sewer Cases

California

Case: California Cities Water co., Rate Case, 1973

Sponsor: California Cities Water Co.

Purpose: Supervise Rate Case preparation and present testimony re intercompany tax allocations.

Florida

Case: Florida 2nd Judicial District Court; re Contributions In Aid of Construction, 1970

Sponsor: Court Subpoena

Purpose: Testify re Relationship of CIAC and Rates.

Florida

Case: Docket No. I-71184-WS; GAC Utilities, Inc., of Florida, Cape Coral Division, Investigation of Main

Extension Fees, 1971

Sponsor: GAC Utilities, Inc.

Purpose: Prepare Main Extension Fee Study and testify re Main Extension Fees.

Florida

Case: Docket No. 71581-WS; GAC Utilities Inc., Poinciana Division; Application for Certificate of

Convenience and Necessity, 1971

Sponsor: GAC Utilities, Inc.
Purpose: Testify re Application.

Florida

Case: Sarasota County; Florida Cities Water Co., Rate Case, 1972

Sponsor: Florida Cities Water Co.

Purpose: Prepare Rate Case and testify re Application.

Florida

Case: Docket No. 800594-WS; Palm Coast Utility Corp., Rate Case and Certificate Filing, 1980

Sponsor: Palm Coast Utility Corp.

Purpose: Prepare Original Cost Study and Minimum Filing

Requirements.

Florida

Case: Docket No. 810485-WS; Palm Coast Utility Corp., Rate Case, 1982

Sponsor: Palm Coast Utility Corp.

Purpose: Prepare Minimum Filing Requirements.

Florida

Case: Charlotte County; Fiveland Investments, Inc. Rate Case, 1982

SponsorFiveland Investments, Inc.

Purpose: Prepare Rate Case and make presentation before Utility Board.

Florida

Case: Docket No. 820152-WS; San Carlos Utilities, Inc. Rate Case, 1982

Sponsor: San Carlos Utilities, Inc.

Purpose: Assist in Preparing Minimum Filing Requirements.

Florida

Case: Docket No. 820153-S; Shell Point Village Rate Case, 1982

Sponsor: Shell Point Village

Purpose: Prepare Rate Case and represent SPV before PSC.

Florida

Case: Docket No. 840092-WS; Palm Coast Utility Corp., Rate Case, 1983

Sponsor: Palm Coast Utility Corp.

Purpose: Prepare Rate Case and testimony re Application.

Florida

Case: Docket No. 840105-WS; Gulf Utility company, Rate Case, 1983

Sponsor: Gulf Utility Company

Purpose: Prepare Rate Case and testimony re Application.

Florida

Case: Collier County, East Naples Water Systems, Inc., Rate Case, 1984

Sponsor: East Naples Water Systems, Inc.

Purpose: Prepare Rate Case and present testimony re Application.

Florida

Case: Docket No. _____; East Naples Water systems, Inc., Application for Certificate and Certificate

Extension, 1985

Sponsor: East Naples Water Systems, Inc.

Purpose: Prepare Case for presentation to PSC.

Florida

Case: Docket No. _____; East Naples Water Systems, Inc. Rate Case, 1985

Sponsor: East Naples Water Systems, Inc.

Purpose: Prepare Rate Case and testimony re Application.

Florida

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Case: Docket No. 850100-WS; Du-Lay Utility Company, Inc.; Rate Case, 1984

Sponsor: Du-Lay Utility Company, Inc.

Purpose: Prepare rate case and present testimony re Application.

Florida

Case: Docket No. 850062-WS; Meadowbrook Utility Systems, Inc. Rate Case, 1984 - 1988

Sponsor: Meadowbrook Utility Systems, Inc.

Purpose: Coordinate case and prepare testimony re Application.

Florida

Case: Docket No. 870330-WS; Seminole Utility Systems, Inc., Rate Case, 1986

Sponsor: Seminole Utility Systems, Inc.

Purpose: Prepare Rate Case and present testimony re Application.

Florida

Case: Docket No. 870166-WS; Palm Coast Utility Corp., Rate Case, 1986 - 1987

Sponsor: Palm Coast Utility Corp.

Purpose: Prepare Rate Case and present testimony re Application.

Florida

Case: Docket No. 870149-WS; Atlantis Utilities Company, Overearnings Investigation

Sponsor: Atlantis Utilities Company

Purpose: Participate in preparation of response to PSC.

Florida

Case: Undocketed (Sarasota County), Dolomite Utilities Corporation, Rate Case, 1988 - 1989.

Sponsor: Dolomite Utilities Corporation

Purpose: Prepare Rate Case and present testimony re Application.

Florida

Case: Undocketed (Charlotte County), West Charlotte Utilities, Market Value Appraisal, 1988

Sponsor: West Charlotte Utilities

Purpose: Appraisal for additional financing

Florida

Case: Docket No. 880756-WS; Atlantis Utilities Company, Rate Case, 1988

Sponsor: Atlantis Utility Company

Purpose: Prepare Rate Case

Florida

Case: Undocketed (Charlotte County), West Charlotte Utilities, Pass-Thru Application, 1989

Sponsor: West Charlotte Utilities

Purpose: Prepare Pass-Thru Application

Florida

Case: Docket No. 891114-WS; Sailfish Point Utility Corporation, Rate Case, 1989

Sponsor: Sailfish Point Utility Corporation

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Purpose: Prepare Rate Case

Florida

Case: Docket No. 890554-WU; Lake Griffin Utilities Inc., Certificate Application, 1989

Sponsor: Lake Griffin Utilities Inc.

Purpose: Prepare original cost and application for initial rates and charges.

Florida

Case: Undocketed; 1988-1989

Sponsor: Atlantis Utility Company

Purpose: Market Value Appraisal and Sale Negotiations

Florida

Case: Undocketed; 1990

Sponsor: Tangerine Woods Utilities and Englewood Utilities Co.

Purpose: Study Re Englewood Water District Master Plan

Florida

Case: Docket No. 900329-WS; United Florida Utilities Corporation; Marion and Washington Counties

Sponsor: Southern States Utilities; United Florida Utilities, and Deltona Utilities

Purpose: Prepare and Present Rate Application for Marion and Washington County portion of

twenty-seven county rate increase application, including substantiation of original cost.

Assist with testimony and brief for entire application.

Florida

Case: Docket No. 900682-WS; Exemption Request, 1990

Sponsor: W.P. Utilities

Purpose: Request for Exemption from PSC Regulation

Florida

Case: Docket No. 900816-WS; Sailfish Point Utility Corporation, Rate Case, 1990

Sponsor: Sailfish Point Utility Corporation
Purpose: Prepare and Present Rate Case

Florida

Case: Undocketed; Sailfish Point Utility Corporation, 1991

Sponsor: Sailfish Point Utility Corporation

Purpose: Prepare Market Valuation

Florida

Case: Docket No. 910020-WS; Utilities Inc. of Florida (Pasco County), Rate Case, 1991

Sponsor: Utilities Inc. of Florida

Purpose: Prepare and Present Rebuttal Testimony on Used & Useful.

Florida

Case: Docket No. 911082-WS; Revisions to Water and Wastewater Rules, 1992-93.

Sponsor: Florida Water Works Association

Purpose: Prepare and present comments of Association regarding rule revisions, including

ratemaking and used and useful formulae.

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Florida

Case: Docket No. 920174-WU; Utilities Inc. of Florida (Lake County), Application for Amendment of

Certificate and Objection to City of Clermont Ord. 273-C, establishing a Chapter 180 F.S.,

W&S Utility, 1992

Sponsor: Utilities Inc. of Florida

Purpose: Prepare and Present Testimony supporting certificate application and objecting to

formation of utility that encompasses UIF certificated service areas and prevents their

economic development.

Florida

Case: Docket No. 920199-WS; Southern States Utilities, Inc.

Combined System Rate Case, 1991 & 1992

Sponsor: Southern States Utilities;

Purpose: Develop all rate base data and prepare MFRs for systems in Osceola, Orange, Brevard and

Clay counties as part of a combined system rate application.

Florida

Case: Docket No. 920650-WS; Application for Certificate, 1992.

Sponsor: W.P. Utilities

Purpose: Apply for certificate, establish original cost for rate base and rates.

Florida

Case: Undocketed; Rolling Oaks Utility, 1992.

Sponsor: Southern States

Purpose: Prepare duee diligence and valuation report.

Florida

Case: Docket No. 920834-WS; Utilities Inc. of Florida (Pasco County), Limited proceeding to increase

rates to recover cost of purchased assets, 1992.

Sponsor: Utilities Inc. of Florida

Purpose: Prepare Original Cost Study and design rates to recover costs.

Florida

Case: Docket No. 921293-SU; Mid-County Services, Inc. (Pinellas County), Application to increase rates

tand service availability (SAC) charges.

Sponsor: Mid-County Services, Inc.

Purpose: In response to protest of SACs, prepare analysis of requested charges and evaluate

compliance with PSC rules.

Florida

Case: Docket No. 930770-WU; St. George Island Utility Company, Ltd, Rate Application, 1993.

Sponsor: St. George Island Utility

Purpose: Prepare all MFRs and supporting testimony

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Florida

Case: Docket No. 940109-WU; St. George Island Utility Company, Ltd, Rate Application, 1994.

Sponsor: St. George Island Utility

Purpose: Prepare all MFRs and supporting testimony

Florida

Case: Docket No. 930570-WS; Lake Placid Utilities, Inc., Application for certificate transfer.

Sponsor: Lake Placid Utilities, Inc.
Purpose: Prepare original cost study.

Florida

Case: Undocketed; Sailfish Point Utility Corporation, 1994

Sponsor: Sailfish Point Utility Corporation

Purpose: Prepare Market Valuation

Florida

Case: 1994-5; Undocketed [THIS IS NOT A RATE APPLICATION]

Sponsor: Miami-Dade Water and Sewer Department [Subcontractor to Milian, Swain & Associates]

Purpose: Subcontracted to prepare billing analysis and design rates to recover five year projected

cost of service.

Florida

Case: 1994-5; UNDOCKETED Rulemaking on Used & Useful and Petition to Adopt Rules

Sponsor: Florida Waterworks Association

Purpose: Develop position, draft proposed rule, participate in workshops and consult re Petition to

Adopt Rules regarding margin reserve and imputation of CIAC.

Florida

Case: Docket No. 951056-WS; Palm Coast Utility Corporation; Application for Increase in Rates

Sponsor: Palm Coast Utility Corporation

Purpose: Prepare MFRs and supporting testimony; prepare rebuttal testimony; participate in

hearing and post hearing procedures.

Florida

Case: Docket No. 951593-WS; Palm Coast Utility Corporation; Application for Revision in Service

Availability Charges

Sponsor: Palm Coast Utility Corporation

Purpose: Prepare application; prepare response to staff recommendation; participate in

Commission agenda conference.

Florida

Case: Docket No. 960258-WS; Petition to adopt Rules on Margin Reserve and Imputation of CIAC

Sponsor: Florida Waterworks Association

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Purpose: Develop position, draft proposed rule, participate in studies to support position; prepare

testimony; prepare responses to testimony; participate in hearings. Testify in subsequent

DOAH rule challenge.

Florida

Case: Docket No. 970076-WS; Sailfish Point Utility Corporation, Joint Application to transfer assets to

Sailfish Point Service Corporation, 1997

Sponsor: Sailfish Point Utility Corporation

Purpose: Assist with Application

Florida

Case: Docket No. 960283-WS; Wedgefield Utilities, Inc., Application for Transfer of Certificates from

Econ Utilities Corp. to Wedgefield, 1997

Sponsor: Wedgefield Utilities, Inc.

Purpose: Testify re Acquisition Adjustment and Policy

Florida

Case: Docket No. 960444-WU; Lake Utility Services, Inc., Application for Rate Increase and for increase

in Service Availability Charges, 1997

Sponsor: Lake Utility Services, Inc.

Purpose: File Testimony re Used & Useful and Future Connections for SAC.

Florida

Case: Undocketed - Challenge at DOAH of PSC Rule 25-30.431, 1997-98

Sponsor: Florida Waterworks Association

Purpose: Assist with strategy and discovery; appear as expert witness re regulation and policy

issues.

Florida

Case: Undocketed - Market value appraisal, 1997,8 & 2000

Sponsor: Water Management Services, Inc.

Purpose: Prepare market value appraisal and update for

re-financing.

Florida

Case: Docket No. 980483-WU; Lake Utility Services, Inc., Investigation re overcollection of AFPI, 1998

Sponsor: Lake Utility Services, Inc.

Purpose: Participate in preparation of testimony.

Florida

Case: Docket No. 971220-WS; Cypress Lakes Utilities, Inc., Application for certificate transfer, 1999

Sponsor: Cypress Lakes Utilities, Inc.

Purpose: Prepare testimony re acquisition adjustment.

Florida

Case: Docket No. 971065-SU; Mid-County Services, Inc., Application for increase in rates, 1999

Sponsor: Mid-County Services, Inc.

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Purpose: Prepare testimony re used and useful, margin reserve and imputation of CIAC.

Florida

Case: Undocketed; PSC Annual Reports, 1999

Sponsor: AquaSource, Inc.

Purpose: Prepare annual reports for newly acquired multi-system

Crystal River Utilities, Inc.

Florida

Case: Undocketed; Market Valuation, 1999
Sponsor: Northern Trust Bank of Naples

Purpose: Prepare market valuation for defaulted utility, Bonita Country Club Utilities, Inc.

Florida

Case: Docket No. 990975-SU; Application for Certificate Transfer, 1999,2000

Sponsor: Realnor Hallandale, Inc..

Purpose: Participate in preparation of application to transfer Certificate from Bonita Country Club

Utilities, Inc. provide consulting re utility operations, prepare PSC annual reports.

Florida

Case: Docket No. 000154-SU; Proposed Rule 25-30.432 re used and useful, 2000

Sponsor: Florida Water Works Association

Purpose: Represent FWWA at PSC Staff workshop; prepare presentation.

Florida

Case: Undocketed; Water and wastewater rates and charges Analysis, 2000

Sponsor: North Miami Beach, City of

Purpose: Through Milian Swain and Associates, Inc. prepare analysis and recommendation for all

charges.

Florida

Case: Docket No. 991437-WU; Application for increase in Water rates, 1997-2001

Sponsor: Wedgefield Utilities, Inc.

Purpose: Prepare testimony re used and useful and acquisition adjustment; provide consulting

re entire case and issues.

Florida

Case: Docket No. 000694-WU; Application for limited proceeding for increase in rate to recover cost of

replacing supply mains on new bridge, 2000

Sponsor: Water Management Services, Inc.

Purpose: Prepare schedules supporting increase; participate in preparation of State Revolving Fund

loan application.

Florida

Case: Docket No. 990696-WS; Application for original certificate in Duval and St. Johns counties, 2000-01

Sponsor: Nocatee Utility Corp.

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Purpose: Through Milian Swain and Associates, Inc. provide analysis of intervenor studies, assist

with case analysis, preparation, discovery and hearings.

Florida

Case: Docket No. 001502-WS; Proposed Rule 25-30.0371, Acquisition Adjustments, 2001

Sponsor: Utilities, Inc.

Purpose: Represent UI and present position at PSC workshop.

Florida

Case: Docket No. 001820-SU; Application for certificate Transfer, 2001

Sponsor: Utilities, Inc. of Eagle Ridge

Purpose: Prepare original cost study of newly acquired Cross Creek system.

Florida

Case: Undocketed; Application for original rates and charges and tariffs in St. Johns County, 2000-01

Sponsor: St. Joe Utility Co.

Purpose: Prepare supporting schedules for rates and charges.

Florida

Case: Undocketed; PSC Annual Reports, 2001

Sponsor: Harbor Hills Utilities, Inc.

Purpose: Prepare annual reports and reconcile records in accordance with PSC staff requests.

Florida

Case: Undocketed; Prepare Cost of Service Study, 2002.

Sponsor: CWS - Palm Valley

Purpose: Prepare cost study to support mobile home park conversion from to direct utility billing

from rent inclusion.

Florida

Case: Undocketed; Application for original franchise certificate in Flagler County, 2002

Sponsor: MHC, Inc. - Bulow Village

Purpose: Prepare application and supporting documents - application put on hold.

Florida

Case: Docket No. 020006-WS; Reestablishment of Authorized Rate of Return for Water and Wastewater

Utilities, 2002

Sponsor: Florida Water Services Corp.

Purpose: Prepare expert testimony on effect of rule change proposal.

Florida

Case: Docket No. 020071-WS; Application for increase in rates and charges, 2002

Sponsor: Utilities Inc. of Florida

Purpose: Prepare Used & Useful analysis and MFR engineering schedules for six county rate

application.

Florida

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Case: Docket No. 020407-WS; Application for increase in rates and charges, 2002

Sponsor: Cypress Lakes Utilities, Inc.

Purpose: Prepare complete MFR supporting rate increase.

Florida

Case: Docket No. 020409-SU; Application for increase in rates and charges, 2002

Sponsor: Utilities, Inc. of Sandalhaven

Purpose: Prepare complete MFR supporting rate increase.

Florida

Case: Docket No. 020408-SU; Application for increase in rates and charges, 2002

Sponsor: Alafaya Utilities, Inc.

Purpose: Prepare Used & Useful analysis, MFR engineering schedules and original cost study for

purchased assets.

Florida

Case: Docket No. 030443-WS; Application for increase in rates and charges, 2003

Sponsor: Labrador Utilities, Inc.

Purpose: Prepare Used & Useful analysis and MFR engineering schedules.

Florida

Case: Docket No. 030444-WS; Application for increase in rates and charges, 2003

Sponsor: Bayside Utility Services, Inc.

Purpose: Prepare complete MFR supporting rate increase.

Florida

Case: Docket No. 030445-SU; Application for increase in rates and charges, 2003

Sponsor: Utilities, Inc. of Eagle Ridge

Purpose: Prepare complete MFR supporting rate increase.

Florida

Case: Docket No. 030446-SU; Application for increase in rates and charges, 2003

Sponsor: Mid-County Utility Services, Inc.

Purpose: Prepare complete MFR supporting rate increase.

Florida

Case: Undocketed - Hillsborough County; Application for increase in rates and charges, 2003

Sponsor: East Lake Water Services, Inc.
Purpose: Prepare Used & Useful Analysis.

Florida

Case: Docket No. 040247-WS; Application for original water and wastewater certificates, rates and

charges and tariffs in Franklin County, 2004

Sponsor: St. James Island Utility Company.

Purpose: Prepare application, tariffs and supporting schedules for rates and charges.

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Florida

Case: Docket No. 040358-SU; Application for original wastewater certificate, rates and charges and

tariffs in Bay County, 2004

Sponsor: Crooked Creek Utility Company.

Purpose: Prepare application, tariffs and supporting schedules for rates and charges.

Florida

Case: Undocketed - Sarasota County; Application for increase in rates and charges, 2004

Sponsor: Siesta Key Utilities Authority.

Purpose: Prepare application and supporting schedules.

Florida

Case: Docket No. 040450-WS; Application for increase in rates and charges, 2004

Sponsor: Indiantown Co., Inc.

Purpose: Prepare Used & Useful analysis.

Florida

Case: Undocketed - Certificate Application, 2005 (never filed)

Sponsor: MHC, Inc.

Purpose: Prepare application and supporting rates and charges.

Florida

Case: Docket No. 050281-WS; Application for increase in rates and charges, 2005

Sponsor: Plantation Bay Utility Co.

Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 050587-WS; Application for increase in rates and charges, 2005

Sponsor: MSM Utilities

Purpose: Assist w/SARC; prepare annual report.

Florida

Case: Docket No. 980876-WS; Application for certificate (update), 2005

Sponsor: Ocala Springs Utility, Inc. Purpose: Prepare updated analysis.

Florida

Case: Undocketed (Collier County) Applicaton for change in meter installation charges, 2006

Sponsor: Indiantown Co., Inc.
Purpose: Prepare application.

Florida

Case: Docket No. 060246-WS; Application for increase in rates and charges, 2006

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Sponsor: Gold Coast Utility Corp.

Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 060256-WS; Application for increase in rates and charges, 2006

Sponsor: Alafaya Utilities Inc.

Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 060257-WS; Application for increase in rates and charges, 2004

Sponsor: Cypress Lakes Utilities, Inc.
Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 060260-WS; Application for increase in rates and charges, 2006

Sponsor: Lake Placid Utilities, Inc.

Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 060254-SU; Application for increase in rates and charges, 2006

Sponsor: Mid-County Services, Inc.

Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 060255-WS; Application for increase in rates and charges, 2006

Sponsor: Tierra Verde Utilities, Inc.

Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 060253-WS; Application for increase in rates and charges, 2006

Sponsor: Utilities,Inc. Of Florida

Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 060261-WS; Application for increase in rates and charges, 2006

Sponsor: Utilities, Inc. of Pennbrooke
Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 060285-WS; Application for increase in rates and charges, 2006

Sponsor: Utilities, Inc. of Sandalhaven

Purpose: Prepare Used & Useful analysis and Projected TY MFR.

Florida

Case: Docket No. 070183-WS; Proposed adoption of Rule 25-30.4325, F.A.C., Water Treatment Plant Used

and Useful Calculations, 2007

Sponsor: Utilities, Inc.

Purpose: Prepare positions and present testimony on proposed rules.

Florida

Case: Docket No. 080247-SU; Application for increase in rates and charges, 2007

Sponsor: Utilities, Inc. of Eagle Ridge

Purpose: Prepare complete MFR supporting rate increase.

Florida

Case: Docket No. 080248-SU; Application for increase in rates and charges, 2007

Sponsor: Tierra Verde Utilities, Inc.
Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 080249-WS; Application for increase in rates and charges, 2007

Sponsor: Labrador Utilities, Inc.

Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 080250-WS; Application for increase in rates and charges, 2007

Sponsor: Mid-County Services, Inc.

Purpose: Prepare complete MFR supporting rate increase.

Florida

Case: Undocketed -Sarasota Co., Application for increase in rates and charges, 2007

Sponsor: Southgate Utilities, Inc.

Purpose: Prepare Used & Useful analysis.

Florida

Case: Undocketed -Hillsborough Co., Application for increase in rates and charges, 2007

Sponsor: Pebble Creek Utilities, Inc.
Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 090392-WS; Application for increase in rates and charges, 2008

Sponsor: Utilities, Inc. of Pennbrooke

Purpose: Prepare complete MFR supporting rate increase.

Florida

Case: Docket No. 090349-WS; Application for increase in rates and charges, 2008

Sponsor: Cypress Lakes Utilities, Inc.
Purpose: Prepare Used & Useful analysis.

Florida

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Case: Docket No. 090402-WS; Application for increase in rates and charges, 2008

Sponsor: S

Sanlando Utilities, Inc.

Purpose:

Prepare Used & Useful analysis.

Florida

Case: Docket No. 090381-SU; Application for increase in rates and charges, 2008

Sponsor:

Utilities, Inc. Of Longwood

Purpose:

Prepare Used & Useful analysis.

Florida

Case: Docket No. 090462-WS; Application for increase in rates and charges, 2008

Sponsor:

Utilities, Inc. Of Florida

Purpose:

Prepare Used & Useful analysis.

Florida

Case: Docket No. 100104-W; Application for increase in rates and charges, 2009

Sponsor: Purpose: Water Management Services, Inc. Prepare Used & Useful analysis.

Prepare complete MFR supporting rate increase.

Florida

Case: Docket No. 100426-WS; Application for increase in rates and charges, 2010

Sponsor:

Lake Utility Services, Inc. Of Florida

Purpose:

Prepare Used & Useful analysis.

Florida

Case: Docket No. 110153-S; Application for increase in rates and charges, 2010

Sponsor:

Utilities, Inc. of Eagle Ridge

Purpose:

Prepare Used & Useful analysis.

Florida

Case: Docket No. 110257-WS; Application for increase in rates and charges, 2010

Sponsor:

Sanlando Utilities, Inc.

Purpose:

Prepare Used & Useful analysis.

Florida

Case: Docket No. 110264-WS; Application for increase in rates and charges, 2010

Sponsor:

Labrador Utilities, Inc.

Purpose:

Prepare Used & Useful analysis.

Florida

Case: Charlotte County Jurisdiction (Undocketed) Application for increase in rates and charges, 2010

Sponsor:

Utilities, Inc. of Sandalhaven

Purpose:

Prepare complete MFR supporting rate increase.

Florida

Case: Docket No. 100330-WS; Application for increase in rates and charges, 2011

Sponsor: Aqua America, Inc.

Purpose: Prepare Rebuttal Testimony on Used & Useful.

Florida

Case: Docket No. 120037-WS; Application for increase in rates and charges, 2011

Sponsor: Utilities, Inc. of Pennbrooke

Purpose: Prepare MFR and Used & Useful analysis.

Florida

Case: Docket No. 120209-WS; Application for increase in rates and charges, 2011

Sponsor: Utilities, Inc. of Florida

Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 130212-WS; Application for increase in rates and charges, 2012

Sponsor: Cypress Lakes Utilities, Inc.

Purpose: Prepare MFR and Used & Useful analysis.

Florida

Case: Docket No. 140135-WS; Application for increase in rates and charges, 2013

Sponsor: Labrador Utilities, Inc.

Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 140060-WS; Application for increase in rates and charges, 2013

Sponsor: Sanlando Utilities Corp.

Purpose: Prepare Used & Useful analysis.

Florida

Case: Docket No. 150120-SU; Application for increase in rates and charges, 2014

Sponsor: Utilities, Inc. of Sandalhaven
Purpose: Prepare Used & Useful analysis.

Florida

Case: Undocketed Consulting Services, 2015 Sponsor: Black Bear Reserve Water Corp.

Purpose: Prepare Report of on Considerations re sale of utility

Florida

Case: Docket No. 150071-SU; Application for increase in rates and charges, 2015

Sponsor: KW Resort Utilities Corp.

Purpose: Prepare Used & Useful analysis.

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Florida

Case: Collier County Jurisdiction; Application for increase in rates and charges, 2015

Sponsor:

Ave Maria Utility Co., LLLP

Purpose:

Prepare Used & Useful analysis.

Michigan

Case: Northern Michigan Water; Rate Case, 1972

Sponsor: Northern Michigan Water Co.

Purpose:

Prepare Rate Case and present testimony re Appropriate Rate of Return.

North Carolina

Case: Carolina Water Service, Inc. of North Carolina; Rate Case, 1992.

Sponsor:

Carolina Water Service, Inc. of North Carolina

Purpose:

Prepare and present rebuttal testimony regarding the concept of used and useful for a

regulated utility.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for increase in water and)	
wastewater rates in Charlotte, Highlands,)	
Lake, Lee, Marion, Orange, Pasco, Pinellas,)	
Polk, and Seminole Counties by Utilities, Inc.)	
of Florida.	j	
	j	Docket No. 160101-WS

EXHIBIT FS-2

OF

FRANK SEIDMAN

on behalf of

Utilities, Inc. of Florida

Witness: Frank Seidman Ex. FS-2 Page 1 of 1

Summary of Used and Useful Percentages				rage (or)	
	COLINITY	Tues	U&U W Plant	U&U WW Plant	U&U Dist & Col.
	COUNTY	Туре	Pct	Pct	Pct Pct
SYSTEM					
Weathersfield (incl. Trailwoods & Oakland Hills)	Seminole	W/S	100.00%	Purchased Treatment - Not appl.	100.00%
Oakland Shores	Seminole	W	100.00%	-	100.00%
Little Wekiva	Seminole	W	100.00%		100.00%
Park Ridge	Seminole	W	100.00%	-	100.00%
Phillips	Seminole	W	100.00%	-	100.00%
Ravenna Park (incl. Crystal Lake)/ Lincoln Heights	Seminole	W/S	100.00%	Purchased Treatment - Not appl.	100.00%
Bear Lake	Seminole	W	100.00%		100.00%
Jansen	Seminole	W	100.00%		100.00%
Crescent Heights	Orange	W	100.00%		100.00%
Davis Shores	Orange	W	100.00%	¥	100.00%
Golden Hills/Crownwood	Marion	W	100.00%	100.00%	100.00%
Lake Tarpon	Pinellas	W	100.00%		100.00%
Orangewood (incl. Wis-Bar, Buena Vista MHP)	Pasco	W/S	100.00%	Purchased Treatment - Not appl.	100.00%
Summertree	Pasco	W/S	100.00%	Purchased Treatment - Not appl.	100.00%
Lake Utility Services, Inc. (LUSI)	Lake	W/S	100.00%	59.00%	100.00%
LUSI (Four Lakes)	Lake	W	100.00%		100.00%
LUSI (Lake Saunders)	Lake	W	100.00%		100.00%
Utilities, Inc. of Longwood	Seminole	s		100.00%	100.00%
Sanlando Utilities Corp. (incl. Knollwood, DesPinar)	Seminole	W/S	100.00%	100.00%	100.00%
Utilities, Inc. of Pennbrooke	Lake	W/S	100.00%	100.00%	100.00%
Lake Placid Utilities, Inc.	Highland	W/S	100.00%	100.00%	100.00%
Mid-County Services, Inc.	Pinellas	S		100.00%	100.00%
Tierra Verde Utilities, Inc.	Pinellas	s		Purchased Treatment - Not appl.	100.00%
Cypress Lakes Utilities, Inc.	Polk	W/S	100.00%	100.00%	100.00%
Utilities, Inc. of Eagle Ridge (incl. Cross Creek)	Lee	S		100.00%	100.00%
Utilities, Inc. of Sandalhaven	Charlotte	s		100.00%	100.00%
Labrador Utilities, Inc.	Pasco	W/S	100.00%	100.00%	100.00%

NOTE: With the exception of the wastewater plants at Sandalhaven, Lake Placid, Labrador & LUSI and Crownwood, all systems indicated as 100% used & useful have been found to be 100% used & useful in a previous docket by the Commission.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 1 of 258

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Preparer: Seidman, F.

Company: Utilitis, Inc. of Florida - Cypress Lakes (248-095)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (2)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)					
Jan-15	6.472	6.743	0.000	3.676	2.191	0.876	13.0%
Feb-15	4.516	4.701	0.000	3.974	0.513	0.213	4.5%
Mar-15	5.436	5.658	0.000	3.618	0.485	1.556	27.5%
Apr-15	5.128	5.338	0.000	4.894	0.677	-0.233	-4.4%
May-15	6.131	6.382	0.000	3.634	1.209	1.539	24.1%
Jun-15	5.301	5.518	0.000	4.479	1.796	-0.758	-13.7%
Jul-15	3.361	3.498	0.000	3.312	0.174	0.013	0.4%
Aug-15	4.157	4.327	0.000	2.750	1.138	0.439	10.2%
Sep-15	6.517	6.784	0.000	2.519	3.924	0.341	5.0%
Oct-15	5.700	5.933	0.000	3.306	1.452	1.175	19.8%
Nov-15	5.398	5.619	0.000	4.055	0.750	0.814	14.5%
Dec-15	7.357	7.658	0.000	4.368	2.515	0.775	10.1%
Total	65.474	68.160	0.000	44.584	16.824	6.751	9.9%

(Above data in millions of gallons)

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of gallons sold:

The gallons sold above is the same as shown on Scheduke F 9. They both reconcile to the gallons sold on Schedule E 2 within .031%, a negligible difference.

⁽¹⁾ The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 2 of 258

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

Company: Utilitis, Inc. of Florida - Cypress Lakes (248-095)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

 $\textbf{Explanation:} \ \ \textbf{Provide a schedule of gallons of was tewater treated by individual plant for each month of the}$

historical test year. Flow data should match the monthly operating reports sent to DEP.

N/ 41- /	(1)	(2) Individua	(3) l Plant Flows	(4)	(5)	(6) Total Purch.
Month/ Year	Cypress Lakes	(Name)	(Name)	(Name)	Total Plant Flows	Sewage Treatment
Jan-15	4.572				4.572	0.000
Feb-15	4.613				4.613	0.000
Mar-15	4.149				4.149	0.000
Apr-15	3.162				3.162	0.000
May-15	2.250				2.250	0.000
Jun-15	2,282				2.282	0.000
Jul-15	2.386				2.386	0.000
Aug-15	2.493				2.493	0.000
Sep-15	2,220				2.220	0.000
Oct-15	2.320				2.320	0.000
Nov-15	2.652				2.652	0.000
Dec-15	3.282				3.282	0.000
	24.204					
Total	36.381	========	========	========	36.381	0.000

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 3 of 258

Water Treatment Plant Data

Florida Public Service Commission

Company: Utilitis, Inc. of Florida - Cypress Lakes (248-095)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-3 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		Date	GPD
1 Plant Capacity by Water Use Permit			
The hydraulic rated capacity. If different from that shown AADF			331,200
on the DEP operating or construction permit, provide an explanatio <u>MMADF</u>			447,100
2 Maximum Day			
The single day with the highest pumpage rate for the test year.		6/18/2015	309,000
Explain, on a separate sheet of paper if fire flow, line breaks,		(Includes directional	flushing of 102,000
or other unusual occurrences affected the flow this day. Max day, no unusual occurrences		12/13/2015	298,000
3 Five Day Max. Year			
The five days with the highest pumpage rate from any one month	(1)	12/20/2015	268,000
in the test year. Provide an explanation if fire flow, line	(2)	12/17/2015	269,000
breaks or other unusual occurrences affected the flows on	(3)	12/6/2015	279,000
these days.	(4)	12/26/2015	285,000
	(5)	12/13/2015	298,000
		AVERAGE	279,800
		Max Month	247,028
4 Average Daily Flow		Annual	186,739

 $5 \quad Required \ Fire \ Flow \qquad 500 \ gpm \ Residential, 1,000 \ gpm \ Commercial$

1,000 gpm for 2 hours

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 4 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilitis, Inc. of Florida - Cypress Lakes (248-095)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained

from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		MONTH	GPD
1.	Plant Capacity (3MADF)		190,000
	The hydraulic rated capacity. If different from that shown on the DER operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month	2/2015	164,750
3	Average Annual Daily Flow		99,674
3	Max 3 Month Average Daily Flow (3MADF)	Ending 3/2015	148,699

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

(There is no record that this peak month was influenced by any abnormal infiltration)

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 5 of 258

Used and Useful Calculations

Florida Public Service Commission

100.00%

Water Treatment Plant

Company: Utilitis, Inc. of Florida - Cypress Lakes (248-095)

Schedule F-5

Docket No.: 160101-WS

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well capacity, gpm	1,210	gpm
Firm Reliable well pumping capacity (largest well out), gpm	370	gpm
Ground storage capacity, gal.	0	gallons
Usable ground storage (90%), gal.	0	gallons
Elevated storage	0	gallons
Usable elevated storage	0	gallons
Hydropneumatic storage capacity, gal.	20,000	gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0	gallons
Total usable storage, gal.	0	gallons
Maximum day demand	298,000	O.
Peak hour demand = 2 x maximum day/1440	414	gpm

E: fl	1 000 cmm - 2 h cmm	120 000 cm J
Fire flow requirement	1,000 gpm x 2 hours	120,000 gpd

Unaccounted for water	9.90% of water pumped	18,497 gpd, avg
Acceptable unaccounted for	10.00%	18,674 gpd, avg
Excess unaccounted for		0.0 gpd, avg

Used & Useful Analysis, in accordance with Rule 25-30.4325:

(No usable storage)

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where:

$\mathbf{A} =$	Peak demand	414	gpm
$\mathbf{B} =$	Property needed to serve five years after TY	3	gpm
C =	Fire flow demand	1,000	gpm
$\mathbf{D} =$	Excess unaccounted for water	0	gpm
$\mathbf{E} =$	Firm Reliable Capacity	370	gpm

The above used & useful factor is applicable to all source of supply, pumping and treatment accounts, as well as the land, structures and distribution reservoir accounts.

Note: In Docket no. 130212-WS, the Commission found the water and wastewater systems 100% used and useful and shall continue to be 100% used and useful, after considering the impact of conservation and growth in demand.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 6 of 258

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Company: Utilitis, Inc. of Florida - Cypress Lakes (248-095)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-6 Page 1 of 2

Preparer: Seidman, F.

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

and the projected test year (if applicable).

Recap Schedules: A-6,A-10,B-14

Line No.	_			
1 2	(A)	Used and useful flow (000): 3MADF - year 2015		148,699
3	(B)	Property needed for post test year period (see F-8)		3,578
4	(C)	Permitted capacity (3MADF)		190,000
5	(D)	Used and useful percentage		<u>80.15</u> %
6	(E)	Non-used and useful percentage	Use	<u>19.85</u> % 100.00%

Note: In Docket no. 130212-WS, the Commission found the water and wastewater systems 100% used and useful and shall continue to be 100% used and useful, after considering the impact of conservation and growth in demand.

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilitis, Inc. of Florida - Cypress Lakes (248-095)

Schedule F-6

Docket No.: 160101-WS

Page 2 of 2

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

A. Infiltration allowance, excluding service laterals

Mai	in dia. Main lengt	h		Allowance @ 3 gpd/inch-dia./n	
inch	nes feet	m		-	ру
1	4	0	0.000	0	1.0
2	6	483	0.091	274	
	8	43,535	8.245	32,981	
	10	118	0.022	112	
	12	2,963	0.561	3,367	
3	15	0	0.000	0	
4 Tota	al	47,099	8.920	36,734	13,408,012
5 Esti	mated Inflow @ 10)% of flows (l.10)			4,204,006
6 Allo	owable I&I				17,612,018
	Actual Inflow & Inf stewater treated	intration (1&1)			36,380,854
XX 7	4 C-II (4		-	Estimated	
	ter Gallons (not ca idential WW	ppea) som to:	40,703,771	eturned 80%	32,563,017
	idential www. i-Res. WW		1,336,290	90%	1,202,661
	mated flows return	had	42,040,061	90 /0	33,765,678
10 12511	matcu nows return	ıcu	42,040,001		33,703,070
12 Esti	mated I&I (treated	l less returned) [1.7-1.9	9]		2,615,177
	ual less allowable [•			-14,996,842
14 Exc	ess, if any [l.10-l.6,	if positive]			0
15 Exc	ess as percent of w	astewater treated			0.00%

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 8 of 258

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Company: Utilitis, Inc. of Florida - Cypress Lakes (248-095)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-7 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Distribution & Collection Systems

In Docket No.130212-WS, as in the previous Docket No. 090349-WS, the Commission found the distribution and collection systems to be 100% U&U. There has been no change in the systems. Used and useful should remain 100%.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 9 of 258

Margin Reserve Calculations

Florida Public Service Commission

Company: Utilitis, Inc. of Florida - Cypress Lakes (248-095)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-8 Page 1 of 1

Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Water Treatment & Related Facilities

 $PN = EG \times PT \times U$

where:

EG =	Equivalent annual growth in ERCs (see F-9)	2.23 ERC/yr
PT =	Post test year period per statute	5 yrs
U =	Unit of measure utilized in U&U calculations	0.255 gpm/ERC *
PN =	Property needed expressed in U units	3 gpm

^{*} Based on 2015 Peak hour demand from F-5 divided by ERCs from Schedule F-9.

Wastewater Treatment & Related Facilities

 $PN = EG \times PT \times U$

where:

EG =	Equivalent annual growth in ERCs (see F-10)	7.37 ERC/yr
PT =	Post test year period per statute	5 yrs
U =	Unit of measure utilized in U&U calculations	97 gpd/ERC **
PN =	Property needed expressed in U units	3,578 gpd

^{**} Based on 2015 3MADF divided by ERCs fron Schedule F-10.

Distribution & Collection Systems

 $PN = EG \times PT \times U$

where:

EG =	Equivalent annual growth in SFRs (see F-9)	14.22 SFR/yr ***
PT =	Post test year period per statute	5 yrs
U =	Unit of measure utilized in U&U calculations	1 SFR/lot
PN =	Property needed expressed in U units	71 SFR

^{***} Based on SFR growth. The water & wastewater SFRs are same. EG = TY avg SFRs x groewth rate in SFRs, (F-9 or F-10, col. 10)

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 10 of 258

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilitis, Inc. of Florida - Cypress Lakes (248-095)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-9 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Sl	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	1,426	1,430	1,428	43,589,068	30,525	49,377,968	1,618	
2	2012	1,430	1,446	1,438	40,977,673	28,496	46,182,670	1,621	0.19%
3	2013	1,446	1,448	1,447	39,590,264	27,360	42,836,584	1,566	-3.39%
4	2014	1,448	1,470	1,459	37,617,204	25,783	40,826,814	1,583	1.14%
5	2015	1,470	1,497	1,484	40,703,771	27,438	44,584,391	1,625	2.62%
					Aver	age Growth Through	h 5-Year Period (Col. 8)		0.14%

Regression Analysis per Rule 25-30.431(2)(C)

		<u>A</u>	
Constant:	1609.253412	1	1,618
X Coefficient:	-2.259554071	2	1,621
R^2:	0.018354118	3	1,566
		4	1,583
		5	1,625
		10	1587

Five year growth (38) Ercs Annual average growth -7.66 Ercs

The Coefficient of determination - R^2 is very weak. Use simple average growth rate:

Five year growth 11 Ercs Annual average growth @ 0.14% 2.23 Ercs

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 11 of 258

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilitis, Inc. of Florida - Cypress Lakes (248-095)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		SI	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	1,426	1,430	1,428	43,589,068	30,525	45,904,118	1,504	
2	2012	1,430	1,446	1,438	40,977,673	28,496	43,367,133	1,522	1.20%
3	2013	1,446	1,448	1,447	39,590,264	27,360	40,684,154	1,487	-2.29%
4	2014	1,448	1,470	1,459	37,617,204	25,783	38,964,974	1,511	1.63%
5	2015	1,470	1,497	1,484	40,703,771	27,438	42,040,061	1,532	1.38%
					Aver	age Growth Through	h 5-Year Period (Col. 8)		0.48%

Regression Analysis per Rule 25-30.431(2)(C)

		<u>A</u>	<u> Y</u>
Constant:	1497.387282	1	1,504
X Coefficient:	4.61433626	2	1,522
R^2:	0.178136311	3	1,487
		4	1,511
		5	1,532
		10	1544

Five year growth 11 Ercs Annual average growth 2.27 Ercs

The Coefficient of determination - R^2 is very weak. Use simple average growth rate:

Five year growth 37 Ercs Annual average growth @ 0.48% 7.37 Ercs

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 12 of 258

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

Company: Utilities, Inc. of Florida - Eagle Ridge (249-449)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the

historical test year. Flow data should match the monthly operating reports sent to DEP.

	(1)	(2) Individua	(3) I Plant Flows	(4)	(5)	(6) Total Purch.
Month/ Year	Eagle Ridge Plant	Cross Creek Plant	(Name)	(Name)	Total Plant Flows	Sewage Treatment
Jan-15	6.976	2.677			9.653	0.000
Feb-15	6.604	2.929			9.533	0.000
Mar-15	7.454	3.096			10.550	0.000
Apr-15	6.549	2.043			8.592	0.000
May-15	6.164	1.157			7.321	0.000
Jun-15	5.855	1.058			6.913	0.000
Jul-15	6.211	1.111			7.322	0.000
Aug-15	6.330	1.092			7.422	0.000
Sep-15	6.124	1.219			7.343	0.000
Oct-15	6.336	1.406			7.742	0.000
Nov-15	6.549	1.729			8.278	0.000
Dec-15	6.658	1.744			8.402	0.000
Total	77.810	21.261			99.071	0.000
	========	========	========	========	=======================================	=========

Note: These plants are not interconnected.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 13 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Eagle Ridge (249-449)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		MONTH	GPD
	EAGLE RIDGE PLANT		
1 I	Plant Capacity (TMADF) Extended aeration		318,000
	The hydraulic rated capacity. If different from that shown on the DER operating or construction permit, provide an explanation.		
2 /	Average Daily Flow Max Month	2/2015	240,452
3 /	Average Annual Daily Flow		213,178
4 I	Maximum Three Month Average Daily Flow	3/2015	233,780
ć	(There is no record that this peak month was influenced by any abnormal infiltration)		
	CROSS CREEK PLANT	MONTH	GPD
1. I	Plant Capacity (MMADF)		249,000
	The hydraulic rated capacity. If different from that shown on the DER operating or construction permit, provide an explanation.		
2. /	Average Daily Flow Max Month	3/2015	99,871
3 /	Average Annual Daily Flow		58,249

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 14 of 258

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Eagle Ridge (249-449)

Schedule F-6

Docket No.: 160101-WS

Page 1 of 2

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Line <u>No.</u>

There are two plants in the Eagle Ridge system - Eagle Ridge and Cross Creek. They are not interconnected and must be evaluated separately.

EAGLE RIDGE

1	(A)	Used and useful flow, GPD (TMADF) (See F-4)	<u>233,780</u>
2	(B)	Less: Excess I&I (No indication of excess I/I - see note))	
3	(C)	Plus: Property needed for post test year period (See F-8)	
4	(E)	Permitted capacity	318,000
5	(F)	Used and useful percentage	<u>73.52</u> %
		Use 100% U&U, See note	100.00%
6	(G)	Non-used and useful percentage	26.48%

NOTE:

In the previous case, Docket No. 080247-SU, it was noted that the service area is virtually built out and the Utility did not request a growth allowance. Nothing has changed in that regard. The system is built out. However, the water use per wastewater SFR continues to decrease, perhaps reflecting customer conservation. It has decreased from 266 gpd/SFR in the 2007 TY to only 206 gpd/SFR in the 2015 TY. The Utility is requesting that the Commission treat the Eagle Ridge system the same as it did the Cross Creek system in the last case. In that case, the Commission found Cross Creek to be 100% Used and Useful because it was completely built out.

CROSS CREEK

1	(A)	Used and useful flow, GPD (MMADF) (See F-4)		<u>99,871</u>
2	(B)	Less: Excess I&I (No indication of excess I/I - see note))		
3		Plus: Property needed for post test year period (See F-8)	
4	(E)	Permitted capacity		249,000
5	(F)	Used and useful percentage		40.11%
			Use 100% U&U, See note	100.00%
6	(G)	Non-used and useful percentage		59.89%

NOTE:

In the previou case, Docket No. 080247-SU, the Commission found Cross Creek to be 100% Used and Useful because it was completely bult out. As with the Eagle Creek system, it should be noted that treated flows have decreased from 82 gpd/Condo unit in the 2007 TY to only 64 gpd/Condo unit in the 2015 TY. This should have no affect on affect on the Commission's decision to continue to find the system 100% Used and Useful. At this low rate of flow per unit there is no indication of excessive I&I.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 15 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Schedule F-6

Preparer: Seidman, F.

0.00%

Page 2 of 2

 $Company: \ Utilities, Inc.\ of\ Florida-Eagle\ Ridge\ (249-449)$

Docket No.: 160101-WS

-WS

Test Year Ended: December 31, 2015

EAGLE RIDGE

A. Infiltration allowance, excluding service laterals

	Main dia. Main length inches feet	miles		Allowance @ gpd/inch-dia./	mile
	4	0	0.000	gpu 0	gpy
1	6	0	0.000	0	
2	8	56,845	10.766	43,064	
3	10	0	0.000	0	
4	Total	56,845	10.766	43,064	15,718,504
5	Estimated Inflow @ 10% of	gallons sold (L.10)			9,862,700
6	Allowable I&I	. ,			25,581,204
	B. Actual Inflow & Infiltrati	on (I&I)			
7	Wastewater treated				77,810,000
				Estimated	
	Gallons Billed (not capped) t	to:		returned *	
8	SFR Residential WW cust.		57,599,000	60%	34,559,400
9	All Other		41,028,000	90%	36,925,200
10	Estimated flows returned		98,627,000		71,484,600
11	* The Eagle Ridge communi	ty is heavily landsca	ped both on	lots and comr	non areas.
12	Management estimates that	a smaller percentag	e than avera	ge of water co	nsumed is
13	is returned for wastewater to	reatment.			
14	Estimated I&I (treated less i	esturned) [I 7-I 10]			6,325,400
15	Actual I&I less allowable [L	,			-19,255,804
10	recease ter tess anowabit [La	11 2.0]			-17,200,004

CROSS CREEK PLANT

Excess, if any [L.11-L.6, if positive]

Excess as percent of wastewater treated

16

17

- $18 \qquad \hbox{Cross Creek was originally developed and operated as a not-for-profit association. Was tewater} \\$
- 19 rates were set up on a flat rate basis, based on the total number of buildout units. The area is built out.
- 20 The current owner continues to bill on a flat rate basis. As such, it has no need for, and no record of, the amount
- 21 of water purchased by residents. However, for purposes of this filing the Utility inquired of Lee County, the amount of
- 22 water sold to Cross Creek customers. That amount is 66,136,000 gallons for the TY or 200 gpd per unit (905 units).
- 23 The treated flows for Cross Creek for the TY were 27,030,500 gallons or only 81 gpd per unit, down from 85 gdp per
- 24 unit in the last case (TY 2002). I&I does not appear to be a problem.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 16 of 258

Used and Useful Calculations Water Distribution and Wastewater Collection Systems Florida Public Service Commission

Company: Utilities, Inc. of Florida - Eagle Ridge (249-449)

Schedule F-7

Docket No.: 160101-WS

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5, A-6, A-9, A-10, B-13, B-14

Wastewater Collection System

In Docket No. 080247-SU, the Commission found that the collection systems for both Eagle Ridge and Cross Creek were 100% Used and Useful. Nothing has changed. The systems should remain 100% Used and Useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 17 of 258

Margin Reserve Calculations

Florida Public Service Commission

Schedule F-8 Page 1 of 1

Preparer: Seidman, F.

Company: Utilities, Inc. of Florida - Eagle Ridge (249-449)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: If a margin reserve is requested, provide all calculations and analyses used to determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Wastewater Treatment & Related Facilities

 $PN = EG \times PT \times U$

where:

EG = Equivalent annual growth in ERCs (see F-10) 33 ERC/yr
PT = Post test year period per statute 5 yrs
U = Unit of measure utilized in U&U calculations 178 gpd/ERC **
PN = Property needed expressed in U units 29,327 gpd

NOTE: Even though F-10 shows a positive trend in growth in ERCs, the system is completely built out.No allowance for growth is requested.

^{**} Based on 2015 3MADF divided by ERCs fron Schedule F-10.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 18 of 258

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Eagle Ridge (249-449)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		SI	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	730	749	740	60,940,000	82,407	98,616,000	1,197	
2	2012	749	744	747	58,607,310	78,509	96,663,310	1,231	2.89%
3	2013	744	767	756	67,043,730	88,741	101,441,730	1,143	-7.16%
4	2014	767	771	769	58,239,000	75,733	92,383,000	1,220	6.71%
5	2015	771	762	767	57,599,000	75,145	98,627,000	1,312	7.59%
					Aver	age Growth Throug	h 5-Year Period (Col. 8)		2.51%

NOTE: The above data is for the Eagle Ridge system only. There is no gallonage data for Cross Creek. Cross Creek is a flat rate wastewater system; water is sold to and billed to individual customers directly by Lee County. This utility has no gallonage data and the number of units is fixed at 905.

Regression Analysis per Rule 25-30.431(2)(C)

		<u>X</u>	<u>Y</u>
Constant:	1154.61862	1	1,197
X Coefficient:	22.0187239	2	1,231
R^2:	0.320441446	3	1,143
		4	1,220
		5	1,312
		10	1375

Five year growth 62 Ercs Annual average growth 12.46 Ercs

The Coefficient of determination - R^2 is very weak. Use simple average growth rate:

Five year growth 165 Ercs Annual average growth @ 2.51% 32.93 Ercs

Eagle Ridge and Cross Creek are separately served golf and tennis club communities. The Eagle Ridge service area consists of 815 single family detached residences, 538 apartment units, 178 condo units, 204 town house units and a few commercial customers. In Eagle Ridge, units in some multi-unit buildings are individully metered and some are master metered. Therefore, a customer count and a unit count will not be the same. The number of SFRs shown for the test year are individually metered SFRs. All others are captured under GS accounts.

There is no growth in units but there is fluctuation in SFRs being billed. There is also fluctuation in GS use associated with master metered units. The small rate of growth allows for fluctuating service requirements to be recognized.

The Cross Creek service area consists of 905 condominum units, some of which are single family and some of which are multi-unit buildings. Cross Creek is billed at a flat rate for 905 units.

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Company: Utilities, Inc. of Florida - Labrador (259-217)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Florida Public Service Commission

Schedule F-1 (Revised)

Page 1 of 1

Preparer: Seidman, F. Rev. 10/27/2016

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

Total Gallons Pumped Per MORs	Total Gallons Corrected for	Gallons	Gallons	Othor	Unaccounted	%
•	Corrected for		- 4110113	Other	For Water	Unaccounted
Per MORs		Purchased	Sold	Uses (2)	(1)+(2)-(3)-(4)	For Water
	Meter Error (1)					
2.621	2.631	0.000	2.090	0.292	0.249	9.5%
2.494	2.679	0.000	2.136	0.391	0.152	5.7%
2.842	3.064	0.000	2.321	0.234	0.509	16.6%
1.928	2.138	0.000	2.275	0.234	-0.371	-17.4%
1.168	1.419	0.000	1.333	0.160	-0.074	-5.2%
0.980	1.197	0.000	0.856	0.158	0.183	15.3%
0.937	1.074	0.000	0.778	0.055	0.242	22.5%
0.886	1.056	0.000	0.761	0.098	0.197	18.6%
0.946	1.213	0.000	0.761	0.068	0.384	31.7%
1.272	1.505	0.000	0.876	0.089	0.539	35.9%
1.913	2.134	0.000	1.230	0.083	0.821	38.5%
2.052	2.353	0.000	1.796	0.107	0.449	19.1%
20.039	22.463	0.000	17.213	1.970	3.280	14.6%
	2.842 1.928 1.168 0.980 0.937 0.886 0.946 1.272 1.913 2.052	2.842 3.064 1.928 2.138 1.168 1.419 0.980 1.197 0.937 1.074 0.886 1.056 0.946 1.213 1.272 1.505 1.913 2.134 2.052 2.353	2.842 3.064 0.000 1.928 2.138 0.000 1.168 1.419 0.000 0.980 1.197 0.000 0.937 1.074 0.000 0.886 1.056 0.000 0.946 1.213 0.000 1.272 1.505 0.000 1.913 2.134 0.000 2.052 2.353 0.000	2.842 3.064 0.000 2.321 1.928 2.138 0.000 2.275 1.168 1.419 0.000 1.333 0.980 1.197 0.000 0.856 0.937 1.074 0.000 0.778 0.886 1.056 0.000 0.761 0.946 1.213 0.000 0.761 1.272 1.505 0.000 0.876 1.913 2.134 0.000 1.230 2.052 2.353 0.000 1.796	2.842 3.064 0.000 2.321 0.234 1.928 2.138 0.000 2.275 0.234 1.168 1.419 0.000 1.333 0.160 0.980 1.197 0.000 0.856 0.158 0.937 1.074 0.000 0.778 0.055 0.886 1.056 0.000 0.761 0.098 0.946 1.213 0.000 0.761 0.068 1.272 1.505 0.000 0.876 0.089 1.913 2.134 0.000 1.230 0.083 2.052 2.353 0.000 1.796 0.107	2.842 3.064 0.000 2.321 0.234 0.509 1.928 2.138 0.000 2.275 0.234 -0.371 1.168 1.419 0.000 1.333 0.160 -0.074 0.980 1.197 0.000 0.856 0.158 0.183 0.937 1.074 0.000 0.778 0.055 0.242 0.886 1.056 0.000 0.761 0.098 0.197 0.946 1.213 0.000 0.761 0.068 0.384 1.272 1.505 0.000 0.876 0.089 0.539 1.913 2.134 0.000 1.230 0.083 0.821 2.052 2.353 0.000 1.796 0.107 0.449

(Above data in millions of guilons)

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of gallons sold:

The gallons sold above is the same as shown on Schedule F 9. They both reconcile to the gallons sold on Schedule E 2 within .0058%. (corrected (10/7/2016)

Gallons of Wastewater Treated

Florida Public Service Commission

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

In Thousands of Gallons

Company: Utilities, Inc. of Florida - Labrador (259-217)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

N f1./	(1)	(2) Individual	(3) Plant Flows	(4)	(5)	(6) Total Purch.
Month/ Year	Forest	(Name)	(Name)	(Name)	Total Plant Flows	Sewage Treatment
	Lakes	(=)	(- 1)	(= \-		
Jan-15	2.567				2.567	0.000
Feb-15	2.565				2.565	0.000
Mar-15	2.682				2.682	0.000
Apr-15	1.696				1.696	0.000
May-15	0.932				0.932	0.000
Jun-15	0.775				0.775	0.000
Jul-15	0.996				0.996	0.000
Aug-15	2.025				2.025	0.000
Sep-15	1.403				1.403	0.000
Oct-15	1.300				1.300	0.000
Nov-15	1.747				1.747	0.000
Dec-15	1.814				1.814	0.000
Total	20.500				20.500	0.000

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 21 of 258

Water Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Labrador (259-217)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-3 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

			Date	GPD
1 Plant Capacity The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.	per MOR			564,000
2 Maximum Day				
The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day.		-	2/24/2015	149,000
3 Five Day Max. Year				
The five days with the highest pumpage rate from any one month		(1)	3/6/2015	127,000
in the test year. Provide an explanation if fire flow, line		(2)	3/5/2015	128,000
breaks or other unusual occurrences affected the flows on		(3)	3/18/2015	134,000
these days.		(4)	3/13/2015	137,000
		(5)	3/27/2015	138,000
			AVERAGE _	132,800
			Max Month	98,849
4 Average Daily Flow		_	Annual	61,748

5 Required Fire Flow

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide

documents to support this calculation.

* 500 gpm for 2 hours

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 22 of 258

Wastewater Treatment Plant Data

Company: Utilities, Inc. of Florida - Labrador (259-217)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

Florida Public Service Commission

Schedule F-4 Page 1 of 1 Preparer: Seidman, F.

		MONTH	GPD
1.	Plant Capacity (3MRADF)		216,000
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
2.	Maximum 3MRADF	3/2015	86,978
3	Average Annual Daily Flow		56,165

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

Used and Useful Calculations Water Treatment Plant

Florida Public Service Commission

Docket No.: 160101-WS

Company: Utilities, Inc. of Florida - Labrador (259-217) Schedule F-5 Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	950 gpm
Firm Reliable well pumping capacity (largest well out), gpm	200 gpm
Ground storage capacity, gal.	34,000 gallons
Usable ground storage (90%), gal.	30,600 gallons
Elevated Storage	0 gallons
Usable ground storage (100%), gal.	0 gallons
Hydropneumatic storage capacity, gal.	0 gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	30,600 gallons

Maximum day demand,	149,000 gpd
Peak hour demand = $2x \max day/1440$	207 gpm

Fire flow requirement	500 gpm for 2 hours	60,000 gpd

Unaccounted for water 14.89% of water pumped 9,192 gpd, avg 6,158 gpd, avg Acceptable unaccounted for 10.00% Excess unaccounted for 3,034 gpd, avg

<u>Used & Useful Analysis, in accordance with Rule 25-30.4325:</u>

Water Treatment Plant

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where:	100.00%
(System has Ground Storage)	

A =	Peak demand	149,000 gpd
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpd
C =	Fire flow demand	60,000 gpd
$\mathbf{D} =$	Excess Unaccounted for water	3,034 gpd
$\mathbf{E} =$	Firm Reliable Capacity (16 hours)	192,000 gpd

The above used and useful factor is applicable to all source of supply, pumping and treatment accounts.

Storage

$1 \text{ CICCIL USCU & USCIUI } = (A + D + C + D)/E \times 100 / 0, \text{ WHCIC.}$	Percent Used & Useful =	$(A + B + C - D)/E \times 100\%$, where:	100.00%
--	-------------------------	---	---------

A =	Peak demand	149,000 gallons
$\mathbf{B} =$	Property needed to serve five years after TY	0 gallons
C =	Fire flow demand	60,000 gallons
$\mathbf{D} =$	Excess Unaccounted for water	3,034 gallons
$\mathbf{E} =$	Firm Reliable Capacity	30,600 gallons

The above used and useful factor is applicable to the distribution reservoir accounts.

Note: In Docket No. 140135-WS, the Commission found the WTP to be 100% used and useful. There has been no change in circunstances. It should continue to be 100% used and useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 24 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - Labrador (259-217)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-6 Page 1 of 2 Preparer: Seidman, F.

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

Line No.

Labrador (Forest Lake Estates) WWTP

1	(A)	Used and useful flow (000):	
2		3MRADF - year 2013	<u>86,978</u>
3	(B)	Property needed for post test year period (see F-8)	0.00
4	(C)	Permitted capacity	<u>216,000</u>
5	(D)	Used and useful percentage	<u>40.27</u> %
6	(E)	Non-used and useful percentage	<u>59.73</u> %
7	[F]	Used and useful percentage for rate case purposes (see note).	100.00%

Explanation: The plant serves an 894-lot MHP and a 274-lot RV park. Occupancy is subject to large seasonal variations. A plant constructed to serve full occupancy of the MHP alone at design flows of 280 gpd/ERC would require 250,000 gpd capacity. However, actual flows for the whole system are closer to 78 gpd/ERC in the peak 3-month period assuming 95% occupancy. The flow for which the plant is designed is reasonable. In addition, the system is built out, in accordance with 25-30.4325(4), F.A.C., In the last case, Docket No. 140135-WS, the Commission rejected the argument to use 100% because there is a 11.6 acre undeveloped parcel and found the plant to be only 79.94% used and useful. As evidenced above, usage continues to decline with no change in customers. There is no evidence that this parcel will ever be used. In addition, it should be noted that this plant, at the current capacity, has been in place since approximately 1990, was in place when the prior utility owner applied for its original certificate in 1999, and was objected to by the then current residents as being "inadequate during high volume winter usage." At the time of the original certificate application, the customer base was exactly as it is today. In the original certificate Order No. PSC-01-1483-PAA-WS, the Commission noted that, according to DEP, the plant is virtually at maximum capacity during the high peak winter season. The only thing that has changed since 1999 is that customers have conserved water, using considerably less than in 1999 and the operation of the plant has improved under current ownership, such that the plant is no loner "inadequate." The utility should not be penalized for operating the plant properly or for the impact of water conservation by customers. The plant should be considered 100% U&U.

All reuse related plant that can be separately identified in the accounts should be considered as 100% used & useful irrespective of the decision regarding the WWTP.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 25 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Schedule F-6 Page 2 of 2

Preparer: Seidman, F.

Company: Utilities, Inc. of Florida - Labrador (259-217) Docket No.: 160101-WS

Test Year Ended: December 31, 2015

A. Infiltration allowance, excluding service laterals

				Al	lowance @ 500)
	Main dia.	Main length		gp	d/inch-dia./mile	e
	inches	feet	miles	gp	d gpy	
		4	0	0.000	0	
1		6	0	0.000	0	
2		8	27,825	5.270	21,080	
3	1	0	0	0.000	0	
4	Total		27,825	5.270	21,080	7,694,034
5	Estimated	Inflow @ 10% of g	gallons sold (L.10)			1,656,913
6	Allowable	1&I				9,350,947
	B. Actual	Inflow & Infiltratio	on (I&I)			
7	Wastewat	er treated				20,500,100
				Es	timated	
	Gallons B	illed (not capped) to):	ret	turned *	
8	SFR Resid	dential WW cust.		13,584,000	80%	10,867,200
9	All Other			2,985,130	90%	2,686,617
10	Estimated	l flows returned		16,569,130		13,553,817

11	Estimated I&I (treated less returned) [L.7-L.10]	6,946,283
12	Actual I&I less allowable [L.11-L.6]	-2,404,664
13	Excess, if any [L.11-L.6, if positive]	0
14	Excess as percent of wastewater treated	0.00%

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Used and Useful Calculations

Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Labrador (259-217)

Docket No.: 160101-WS

1-WS Page 1 of 1

Test Year Ended: December 31, 2015

Preparer: Seidman, F.

Schedule F-7

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Distribution & Collection Systems

The service area consists of Forest Lakes Estate Mobile Home Park and Forest Lakes RV Resort. The MHP has 894 lots and is built out. Occupancy varies throughout the year. Occupancy runs as high as 889 or over 99% during the season. The RV resort has 274 lots for transient occupants.

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Margin Reserve Calculations

Company: Utilities, Inc. of Florida - Labrador (259-217)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

 $\label{prop:eq:explanation: If a margin reserve is requested, provide all calculations and analyses used to determine the amount of margin reserve for each portion of used and useful plant. \\$

Florida Public Service Commission

Schedule F-8 Page 1 of 1

Preparer: Seidman, F.

Recap Schedules: F-5, F-6, F-7

Water Treatment & Related Facilities

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Labrador (259-217)

Schedule F-9 Page 1 of 1

Docket No.: 160101-WS Test Year Ended: December 31, 2015

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Customer	rs .	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	881	873	877	16,166,709	18,434	20,991,519	1,139	
2	2012	873	875	874	15,491,250	17,725	19,552,340	1,103	-3.13%
3	2013	875	878	877	14,517,192	16,563	17,437,252	1,053	-4.56%
4	2014	878	878	878	13,807,950	15,727	15,171,470	965	-8.37%
5	2015	878	895	887	13,584,000 Ave	15,323 rage Growth Throug	17,212,930 gh 5-Year Period (Col. 8)	1,123	16.44% 0.10%

$Regression\ Analysis\ per\ Rule\ 25\text{--}30.431(2)(C)$

		<u>X</u>	<u>Y</u>
Constant:	1127.307563	1	1,139
X Coefficient:	-16.92342166	2	1,103
R^2:	0.144393972	3	1,053
		4	965
		5	1,123
		10	958

Five year growth Annual average growth (165) Ercs -33.05 Ercs Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Labrador (259-217)

Schedule F-10 Page 1 of 1

Docket No.: 160101-WS Test Year Ended: December 31, 2015

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers,

the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Customer	rs .	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	881	873	877	16,166,709	18,434	19,294,749	1,047	
2	2012	873	875	874	15,491,250	17,725	18,071,940	1,020	-2.59%
3	2013	875	878	877	14,517,192	16,563	15,811,792	955	-6.37%
4	2014	878	878	878	13,807,950	15,727	14,332,940	911	-4.53%
5	2015	878	895	887	13,584,000	15,323	16,569,130 th 5-Year Period (Col. 8)	1,081	18.65%

$Regression\ Analysis\ per\ Rule\ 25\text{--}30.431(2)(C)$

Constant:	1014.419987	1	1,047
X Coefficient:	-3.897007708	2	1,020
R^2:	0.007973397	3	955
		4	911
		5	1,081
		10	975

Five year growth Annual average growth (106) Ercs -21.17 Ercs

Y

 \mathbf{X}

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 30 of 258

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Florida Public Service Commission

Page 1 of 1 Preparer: Seidman, F.

Schedule F-1

Company: Utilities, Inc. of Florida - Lake Placid (242-23)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (2)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)					
Jan-15	0.603	0.593	0.000	0.400	0.000	0.193	32.6%
Feb-15	0.621	0.611	0.000	0.479	0.000	0.132	21.6%
Mar-15	0.648	0.635	0.000	0.547	0.000	0.087	13.7%
Apr-15	0.448	0.439	0.000	0.568	0.000	-0.129	-29.5%
May-15	0.395	0.387	0.000	0.453	0.000	-0.066	-17.0%
Jun-15	0.387	0.379	0.000	0.332	0.000	0.047	12.3%
Jul-15	0.353	0.345	0.000	0.267	0.000	0.079	22.8%
Aug-15	0.344	0.337	0.000	0.324	0.000	0.013	3.8%
Sep-15	0.342	0.334	0.000	0.249	0.000	0.085	25.5%
Oct-15	0.383	0.375	0.000	0.352	0.000	0.022	6.0%
Nov-15	0.472	0.462	0.000	0.305	0.000	0.157	33.9%
Dec-15	0.473	0.463	0.000	0.383	0.000	0.080	17.3%
	5.469	5,359	0.000	4,659	0.000	0.700	13.1%

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

Reconciliation of gallons sold:

The gallons sold above is the same as shown on Scheduke F 9. They both reconcile to the gallons sold on Schedule E 2 within .98%, an acceptablee difference.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 31 of 258

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

Company: Utilities, Inc. of Florida - Lake Placid (242-23)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

 $\textbf{Explanation:} \ \ \textbf{Provide a schedule of gallons of was tewater treated by individual plant for each month of the}$

historical test year. Flow data should match the monthly operating reports sent to DEP.

(1)	(2)	(3)	(4)	(5)	(6)
	Individual	Plant Flows			Total Purch.
					Sewage
	(Name)	(Name)	(Name)	Flows	Treatment
0.763				0.763	0.000
0.641				0.641	0.000
0.764				0.764	0.000
0.549				0.549	0.000
0.488				0.488	0.000
0.561				0.561	0.000
0.443				0.443	0.000
0.507				0.507	0.000
0.568				0.568	0.000
0.444				0.444	0.000
0.453				0.453	0.000
0.663				0.663	0.000
6.843				6.843	0.000
	0.764 0.549 0.488 0.561 0.443 0.507 0.568 0.444 0.453 0.663	Sun'N (Name) Lake Plant 0.763 0.641 0.764 0.549 0.488 0.561 0.443 0.507 0.568 0.444 0.453 0.663	Lake Plant 0.763 0.641 0.764 0.549 0.488 0.561 0.443 0.507 0.568 0.444 0.453 0.663	Sun'N (Name) (Name) (Name) Lake Plant 0.763 0.641 0.764 0.549 0.488 0.561 0.443 0.507 0.568 0.444 0.453 0.663	Sun'N (Name) (Name) (Name) Total Plant 0.763 0.763 0.763 0.641 0.641 0.641 0.764 0.764 0.764 0.549 0.549 0.549 0.488 0.488 0.488 0.561 0.561 0.561 0.443 0.507 0.507 0.568 0.444 0.444 0.453 0.663 0.663

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 32 of 258

500 gpm for 2 hours

Water Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid (242-23)

Docket No.: 160101-WS

5 Required Fire Flow

Schedule F-3 Page 1 of 1

Test Year Ended: December 31, 2015

Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

			Date	GPD
1 Plant Capacity The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.	Per annual Report			288,000
2 Maximum Day				
The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day.		-	2/13/2015	27,200
3 Five Day Max. Year				
The five days with the highest pumpage rate from any one month		(1)	3/26/2015	23,700
in the test year. Provide an explanation if fire flow, line		(2)	3/7/2015	24,900
breaks or other unusual occurrences affected the flows on		(3)	3/9/2015	25,600
these days.		(4)	3/12/2015	26,500
		(5)	3/16/2015	27,100
			AVERAGE _	25,560
			Max Month	20,471
4 Average Daily Flow			Annual	14,681

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 33 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid (242-23)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each was tewater treatment plant. All flow data must be obtained

from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		MONTH	GPD
1.	Plant Capacity (Permitted @ AADF)		90,000
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a)		24,642
	An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.		
3	Annual Average Daily Flow		18,749

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Used and Useful Calculations Water Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid (242-23)

Schedule F-5 **Docket No.: 160101-WS** Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	400 gpm
Firm Reliable well pumping capacity (largest well out), gpm	200 gpm

Ground storage capacity, gal. 0 gallons 0 gallons Usable ground storage (90%), gal. 0 gallons **Elevated Storage** Usable ground storage (100%), gal. 0 gallons Hydropneumatic storage capacity, gal. 5,000 gallons Usable hydropneumatic storage capacity (0.00%), gal. 0 gallons 0 gallons Total usable storage, gal.

Maximum day demand,	27,200 gpd
Peak hour demand = $2x \max \frac{day}{1440}$	38 gpm

Fire flow requirement	500 gpm for 2 hours	500 gnm

Unaccounted for water	13.06% of water pumped	1,957 gpd, avg
Acceptable unaccounted for	10.00%	1,494 gpd, avg
Excess unaccounted for		463 gpd, avg

Used & Useful Analysis, in accordance with Rule 25-30.4325:

Water Treatment Plant

100.00%

(No usable atorage)

A =	Peak demand	38 gpm
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpm
$\mathbf{C} =$	Fire flow demand	500 gpm
$\mathbf{D} =$	Excess Unaccounted for water	0.3 gpm
$\mathbf{E} =$	Firm Reliable Capacity (16 hours)	200 gpm

NOTE: In addition to the above analysis, in Docket No. 130243-WS, Order No. PSC-14-0335-PAA-WS, the Commission found that there had been no growth in the previous five years in the service area and no apparent potential for development. Pursuant to Rule 25-30.4325(4), F.A.C., the treatment should be considered 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 35 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid (242-23)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-6 Page 1 of 2

Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Line No.

1 (A) Used and useful flow, GPD (AADF)			18,749
2 (B) Less: Excess I&I (No indication	of excess I/I - see note))		-
3 (C) Plus: Property needed for post to	est year period (See F-8)		
4 (E) Permitted capacity (see Note)			90,000
5 (F) Used and useful percentage 6 Sys	stem essentially built out (F-7),	Use	20.83% 100.00%
7 (G) Non-used and useful percentage 8 Sys	stem essentially built out (F-7),	Use	$\frac{79.17\%}{0.00\%}$

In the last case, Docket No. 130243-WS, the Commission found the WWTP to be 18.4% used and useful, but in keeping with its practice, it set at 28.5%, the amount it had found in the previous Docket No. 090351-WS. This utility has an extremely low 54 gpd/ERC treated flows. If full permitted capacity were utilized, the flows would be 258 gpd/ERC, which would be a reasonable design capacity. Since the system is not over built and the Commission has found in the last case that there is no growth or potential for growth, the WWTP should be considered 100% used and useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 36 of 258

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid (242-23)

Schedule F-6

Docket No.: 160101-WS

Page 2 of 2

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

A. Infiltration allowance, excluding service laterals

		Main length		g	Allowance @ pd/inch-dia./	
	inches	feet	miles			gpy
		1	0	0.000	0	
1		6	0	0.000	0	
2	8	-	4,155	0.787	3,148	
3	10)	0	0.000	0	
4	Total		4,155	0.787	3,148	1,148,920
5	Estimated	Inflow @ 10% o	of gallons sold (L.10)			656,421
6	Allowable	I&I				1,805,341
7	B. Actual Wastewat	Inflow & Infiltra	tion (I&I)			6,843,440
	Gallons B	illed (not capped) to:	_	Estimated eturned	
8	SFR Resid	lential WW cust.		2,088,930	80%	1,671,144
9	All Other			4,475,280	90%	4,027,752
10	Estimated	flows returned		6,564,210		5,698,896
11			s returned) [L.7-L.10)]		1,144,544
12		I less allowable [=			-660,797
13		any [L.11-L.6, if	-			0
14	Excess as	percent of waster	water treated			0.00%

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Used and Useful Calculations Water Distribution and Wastewater Collection Systems Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid (242-23)

Schedule F-7

Docket No.: 160101-WS

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

100% Used & Useful - System is built out. See Docket No. 130243-WS, Order No. PSC-14-0335-PAA-WS

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 38 of 258

Margin Reserve Calculations

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid (242-23) Schedule F-8
Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used $\ensuremath{\omega}$

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable - System is built out. See Docket No. 130243-WS, Order No. PSC-14-0335-PAA-WS

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 39 of 258

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid (242-23)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-9 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Sl	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	92	89	91	3,385,266	37,406	4,616,276	123	
2	2012	89	88	89	3,174,539	35,870	4,519,591	126	2.10%
3	2013	88	102	95	3,294,621	34,680	4,551,359	131	4.16%
4	2014	102	109	106	2,746,780	26,036	4,068,910	156	19.08%
5	2015	109	113	111	2,088,930	18,819	4,658,650 h Through 5-Year Period (Col. 8	248	58.40% 20.93%

Regression Analysis per Rule 25-30.431(2)(C)

		<u>A</u>	<u>.</u>
Constant:	73.32640129	1	123
X Coefficient:	27.8561043	2	126
R^2:	0.708475795	3	131
		4	156
		5	248
		10	352

Five year growth Annual average growth 104 Ercs 20.87 Ercs

NOTE: This a no growth system with regard to residential development, as evidenced above. However there has been growth in the usage within the general service sector. Being a small system, changes like this result in large perntage differences. As the system is built out, there is no request at this time for a growth allowance

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Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid (242-23)

Docket No.: 160101-WS

color Tig

Test Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	92	89	91	3,385,266	37,406	5,662,356	151	
2	2012	89	88	89	3,174,539	35,870	5,437,861	152	0.15%
3	2013	88	102	95	3,294,621	34,680	5,527,789	159	5.14%
4	2014	102	109	106	2,746,780	26,036	5,073,520	195	22.26%
5	2015	109	113	111	2,088,930	18,819 Average Growtl	6,564,210 h Through 5-Year Period (Col.	349	79.00%

Regression Analysis per Rule 25-30.431(2)(C)

		<u>A</u>	<u> </u>
Constant:	69.76848978	1	151
X Coefficient:	43.81288168	2	152
R^2:	0.673109741	3	159
		4	195
		5	349
		10	508

Five year growth Annual average growth 159 Ercs 31.82 Ercs

NOTE: This a no growth system with regard to residential development, as evidenced above. However there has been growth in the usage within the general service sector. Being a small system, changes like this result in large perntage differences. As the system is built out, there is no request at this time for a growth allowance

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2 Page 1 of 1

Preparer: F. Seidman

Company: Utilities Inc. of Longwood (246-450)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

Month/ Year Longwood (Name) (Name) Jan-15 10.967 Feb-15 10.133 Mar-15 11.260 Apr-15 10.748 May-15 10.699 Jun-15 11.291 Jul-15 11.386 Aug-15 12.508 Sep-15 13.846 Oct-15 12.052	(Name)	Total Plant Flows 10.967 10.133 11.260 10.748 10.699	0.000 0.000 0.000
Feb-15 10.133 Mar-15 11.260 Apr-15 10.748 May-15 10.699 Jun-15 11.291 Jul-15 11.386 Aug-15 12.508 Sep-15 13.846 Oct-15 12.052		10.133 11.260 10.748 10.699	
Mar-15 11.260 Apr-15 10.748 May-15 10.699 Jun-15 11.291 Jul-15 11.386 Aug-15 12.508 Sep-15 13.846 Oct-15 12.052		11.260 10.748 10.699	0.000 0.000
Apr-15 10.748 May-15 10.699 Jun-15 11.291 Jul-15 11.386 Aug-15 12.508 Sep-15 13.846 Oct-15 12.052		10.748 10.699	0.000
May-15 10.699 Jun-15 11.291 Jul-15 11.386 Aug-15 12.508 Sep-15 13.846 Oct-15 12.052		10.699	0.000 0.000
May-15 10.699 Jun-15 11.291 Jul-15 11.386 Aug-15 12.508 Sep-15 13.846 Oct-15 12.052			0.000
Jul-15 11.386 Aug-15 12.508 Sep-15 13.846 Oct-15 12.052			
Aug-15 12.508 Sep-15 13.846 Oct-15 12.052		11.291	0.000
Sep-15 13.846 Oct-15 12.052		11.386	0.000
Oct-15 12.052		12.508	0.000
		13.846	0.000
		12.052	0.000
Nov-15 11.455		11.455	0.000
Dec-15 10.999		10.999	0.000
Total 137.344		137.344	0.000

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 42 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities Inc. of Longwood (246-450)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: F. Seidman

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained

from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		MONTH	GPD
1.	Plant Capacity (Permitted @ AADF - Limited by reuse system capacity)		470,000
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		500,000
2.	Average Daily Flow Max Month (a)		461,533

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 43 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities Inc. of Longwood (246-450)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-6 Page 1 of 2

Preparer: F. Seidman

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

Recap Schedules: A-6,A-10,B-14

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 44 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities Inc. of Longwood (246-450)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-6 (Revised)

Page 2 of 2

See Note

Preparer: F. Seidman

A. Infiltration allowance, excluding service laterals

	Main dia. Main length			Allowance @gpd/inch-dia		
	inches feet	mil	es	gpd	gı	у
	4	0	0.000		0	
1	6	0	0.000		0	
2	8	15,828	2.998		11,991	
3	10	0	0.000		0	
4	Total	15,828	2.998		11,991	4,376,682
5	Estimated Inflow @ 10% of	gallons sold (L.1	0)			See Note
6	Allowable I&I					8,753,364
7	B. Actual Inflow & Infiltrati Wastewater treated	on (I&I)				137,344,000
	Gallons Billed (not capped)			Estimated returned *		
8	SFR Residential WW cust.	(no data)	Flat rate		80%	See Note
9	All Other		22,883,761		90%	20,595,385
10	Estimated flows returned		See Note			See Note
11 12	Estimated I&I (treated less a Actual I&I less allowable [L	.11-L.6]	.10]			See Note See Note
13	Excess, if any [L.11-L.6, if p	ositive]				See Note

NOTE:

Excess as percent of wastewater treated

14

Residential customers are billed on flat rate basis. Metered water amounts are not available, but GS flows are. If the difference is assumed to be residential plus I/I, then the returned flows can be assumed to be 100%. A check on the reasonableness of flows is as follows:

Treated wastewater flows (from F-2)	137,344,000 gallons
Less: GS Flows (from F-10)	30,094,000
Remaining = residential + I/I	107,250,000
B/E Average TY residential customers (from F-10)	1,649 customers
Average gpd per residential customer, incl I/I	178 gpd/cust

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 45 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities Inc. of Longwood (246-450)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-6 Page 2 of 2

Preparer: F. Seidman

A. Infiltration allowance, excluding service laterals

	Main dia. Main length inches feet 4	mil 0	les 0.000	Allowance @ gpd/inch-diagpd 0	
1	6	0	0.000	0	
2	8	15,828	2.998		
3	10	0	0.000	, ,	
4	Total	15,828	2.998		4,376,682
5	Estimated Inflow @ 10% of ga	,		11,,,,1	See Note
6	Allowable I&I	1010 0014 (201	• ,		8,753,364
7	B. Actual Inflow & Infiltration Wastewater treated	(I&I)			137,344,000
8 9 10	Gallons Billed (not capped) to: SFR Residential WW cust. (n All Other Estimated flows returned		Flat rate 22,883,761 See Note	Estimated returned * 80% 90%	See Note 20,595,385 See Note

11	Estimated I&I (treated less returned) [L.7-L.10]	See Note
12	Actual I&I less allowable [L.11-L.6]	See Note
13	Excess, if any [L.11-L.6, if positive]	See Note
14	Excess as percent of wastewater treated	See Note

NOTE:

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 46 of 258

Used and Useful Calculations Water Distribution and Wastewater Collection Systems Florida Public Service Commission

Company: Utilities Inc. of Longwood (246-450)

Schedule F-7 Page 1 of 1

Docket No.: 160101-WS

Preparer: F. Seidman

Test Year Ended: December 31, 2015

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Wastewater Collection System

In the last Docket No. 090381-SU, the Commission , as it had in the previous docket, found that the service area to be built out and the wastewater plant and collection system 100% used and useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 47 of 258

Margin Reserve Calculations

Florida Public Service Commission

Company: Utilities Inc. of Longwood (246-450)

Schedule F-8 Page 1 of 1

Docket No.: 160101-WS

Preparer: F. Seidman

Test Year Ended: December 31, 2015

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

In the last Docket No. 090381-SU, the Commission , as it had in the previous docket, found the service area to be built out and the wastewater plant and collection system 100% used and useful.

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities Inc. of Longwood (246-450)

(6-450) Schedule F-10 Page 1 of 1

Docket No.: 160101-WS Test Year Ended: December 31, 2015

Preparer: F. Seidman

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Flat Rate SFR Customers		Flat Rate SFR Customers SFR Gallons/ Total				Total	Annual
Line		-			Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	1,600	1,644	1,622	Not Available	Unknown	25,600,177	Unknown	
2	2012	1,644	1,637	1,641	Flat Rate	Unknown	24,220,525	Unknown	-5.39%
3	2013	1,637	1,636	1,637	No Readiings	Unknown	22,110,901	Unknown	-8.71%
4	2014	1,636	1,642	1,639		Unknown	21,628,814	Unknown	-2.18%
5	2015	1,642	1,655	1,649		Unknown	22,883,761	Unknown	5.80%
					Avera	age Growth Through	1 5-Year Period (Col. 8)		-2.62%

Regression Analysis per Rule 25-30.431(2)(C)

		<u>A</u>	<u>Y</u>
Constant:	25696198.5	1	25,600,177
X Coefficient:	-802454.3	2	24,220,525
R^2:	0.612241375	3	22,110,901
		4	21,628,814
		5	22,883,761
		10	17.671.656

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 49 of 258

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

Company: Utilities, Inc. of Florida - Mid-County (250-261)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the

historical test year. Flow data should match the monthly operating reports sent to DEP.

	(1)	(2) Individual	(3) Plant Flows	(4)	(5)	(6) Total Purch.
Month/					Total Plant	Sewage
Year	Mid-County	(Name)	(Name)	(Name)	Flows	Treatment
Jan-15	21.052				21.052	0.000
Feb-15	20.202				20.202	0.000
Mar-15	23.463				23.463	0.000
Apr-15	20.503				20.503	0.000
May-15	20.929				20.929	0.000
Jun-15	22.087				22.087	0.000
Jul-15	28.405				28.405	0.000
Aug-15	34.024				34.024	0.000
Sep-15	27.931				27.931	0.000
Oct-15	22.071				22.071	0.000
Nov-15	20.917				20.917	0.000
Dec-15	20.685				20.685	0.000
Total	282.269				282.269	0,000

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 50 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Mid-County (250-261)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		MONTH	GPD
1.	Permitted Plant Capacity (AADF)		900,000
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a)		773,340

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 51 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - Mid-County (250-261)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-6 Page 1 of 2

Preparer: Seidman, F.

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

Recap Schedules: A-6, A-10, B-14

Line No.

1 (A) Used and useful flow, GPD (AA	DF)		<u>773,340</u>
2 (B) Less: Excess I&I (No indic	eation of excess I/I - see note))		-
3 (C) Plus: Property needed for	post test year period (See F-8)		52,368
4 (E) Permitted capacity			900,000
5 (F) Used and useful percentage 6	See Note	Use	<u>91.75</u> % <u>100.00</u> %
7 (G) Non-used and useful percentage 8	See Note	Use	8.25% 0.00%

Note: Used & Useful Evaluation

In Docket No. 030446, the Commission found the WWTP to be 92% used and useful based on actual flows and growth for the TY 2002. In the cases that followed, Docket Nos. 060254 and 080250, the flows were reduced substantially even though there was growth. This was due to the efforts of the utility to replace poorly maintained mains and manholes in the many mobile homres that make up the service area. As the service was approaching build out, the utility requested the plant be found to be 100% U&U. The Commission opted for the 92% U&U found in the previous case, in recognition that there was still some redevelopment going on. The Utility contends that the limits of redevelopment appear to have been reached as evident in the stability of the meter equivalent growth in Schedule F-10 and the plant should now be found to be 100% used and useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 52 of 258

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Schedule F-6

Company: Utilities, Inc. of Florida - Mid-County (250-261) Docket No.: 160101-WS

Docket No.: 160101-WS
Page 2 of 2
Test Year Ended: December 31, 2015
Preparer: Seidman, F.

A. Infiltration allowance, excluding service laterals

				Allowance @	500
	Main dia. Main length			gpd/inch-dia./	mile/mile
	inches feet	miles		gpd	gpy
	4	0	0.000	0	
1	6	0	0.000	0	
2	8	84,087	15.926	63,702	
3	10	5,010	0.949	4,744	
4	Total	89,097	16.874	68,447	24,983,006
5	Estimated Inflow @ 10% of g	gallons sold (L.10)			31,599,800
6	Allowable I&I				56,582,806
7	B. Actual Inflow & Infiltration Wastewater treated	on (I&I)			282,269,000
8	Gallons Billed (not capped) to SFR Residential WW cust.	o:		Estimated returned *	104,648,000
9	All Other		185,188,000	90%	166,669,200
10	Estimated flows returned		315,998,000	70 70	271,317,200
11	Estimated I&I (treated less re	eturned) [L.7-L.10]		10,951,800
12	Actual I&I less allowable [L.]	11-L.6]			-45,631,006
13	Excess, if any [L.11-L.6, if po	citival			0
	Excess, if any [E:11 E:0, if po	Sitive			v

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 53 of 258

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Mid-County (250-261)

Schedule F-7

Docket No.: 160101-WS

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5, A-6, A-9, A-10, B-13, B-14

This is a wastwater-only system.

Wastewater Collection System

The service area consists of many subdivisions as well as master metered areas. In general, the collection systems are built by the various developers and contributed to the utility. Only master feeders and lift stations that serve the system as a whole are built by the utility. There are stil some pockets of undeveloped land, although they are now limited, and additional collection mains must be added before new customers can added. The collection system should be considered 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 54 of 258

Margin Reserve Calculations

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Mid-County (250-261)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-8 Page 1 of 1

Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5, F-6, F-7

Wastewater Treatment & Related Facilities

PN = EG x PT x U

where:

EG = Equivalent annual growth in ERCs (see F-10) 27 ERC/yr
PT = Post test year period per statute 5 yrs

U = Unit of measure utilized in U&U calculations 386 gpd/ERC, AADF *

PN = Property needed expressed in U units 52,368 gpd

^{*} Based on 2015 AADF divided by TY equivalent ERCs from Schedule F-10

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Mid-County (250-261)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Meter	Equivalent	ERCs	SFR	Gallons/	Total	Total	Annual
Line		-			Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
		Note A	Note A	Note A	Note A	Note A	Note A	<u> </u>	
1	2011	1,908	1,909	1,909	N/A	N/A	N/A	1,909	
2	2012	1,909	1,991	1,950	N/A	N/A	N/A	1,950	2.17%
3	2013	1,991	2,001	1,996	N/A	N/A	N/A	1,996	2.36%
4	2014	2,001	2,001	2,001	N/A	N/A	N/A	2,001	0.25%
5	2015	2,001	2,001	2,001	N/A	N/A	N/A	2,001	0.00%
					Avei	rage Growth Through	5-Year Period (Col. 8)		1.20%

TY per MFR Schedule E 2, See Note B:

Bills **Actual TY** 2062 2063 2,063 130810 63,423 315998

Regression Analysis per Rule 25-30.431(2)(C)

		<u> </u>	
Constant:	1900.5	1	1,909
X Coefficient:	23.6	2	1,950
R^2:	0.822469654	3	1,996
		4	2,001
		5	2,001
		10	2127

Five year growth 136 Ercs Annual average growth 27.10 Ercs

NOTE A:

Billing information for this system must be obtained from the Pinellas County water utility. The county has indicated they do not keep historical consumption information, therefore the information needed to complete this schedule is not available. Mid-County has utilized the number of meter equivalents for the water meters as they appear in the annual reports at Schedule S-11. This appears to be the best indicator of growth.

NOTE B:

TY per MFR Schedule E 2:

	SFRs			SFR	Gallons/	Total
				Gallons	SFR	Gallons
	Beginning	Ending	Average	Sold	(5)/(4)	Sold
Actual TY	2100	2100	2100	130810	62,290	315998

Although historical information was not available,information for the test year was, and was used in developing MFR Schedule E 2 and is used in analyzing I&I in Schedule F 6, page 2.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 56 of 258

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Preparer: Seidman, F.

Company: Utilities, Inc. of Pennbrooke (260-451)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (2)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)					
Jan-15	9.668	9.791	0.000	7.841	0.007	1.943	19.8%
Feb-15	8.327	8.274	0.000	8.655	0.010	-0.391	-4.7%
Mar-15	12.109	11.730	0.000	10.053	0.121	1.556	13.3%
Apr-15	13.700	13.268	0.000	11.648	0.695	0.925	7.0%
May-15	18.497	17.934	0.000	15.826	0.009	2.099	11.7%
Jun-15	14.558	14.109	0.000	13.901	0.010	0.198	1.4%
Jul-15	12.208	11.826	0.000	12.538	0.009	-0.720	-6.1%
Aug-15	8.895	8.615	0.000	7.934	0.041	0.640	7.4%
Sep-15	8.778	8.507	0.000	8.233	0.007	0.267	3.1%
Oct-15	14.685	14.226	0.000	11.011	0.730	2.485	17.5%
Nov-15	12.341	11.954	0.000	12.201	0.009	-0.256	-2.1%
Dec-15	11.871	11.498	0.000	10.207	0.010	1.281	11.1%
Total	145.637	141.733	0.000	130.049	1.659	10.025	7.1%

(Above data in millions of gallons)

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

Reconciliation of gallons sold:

The total gallons sold for Pennbrooke, as shown on Schedule F-1 and F-9 are the same.

The total gallons sold for per Schedule E-2 is $130.102\,$ mg, a 0.047% , virtually the same.

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount

on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 57 of 258

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

Company: Utilities, Inc. of Pennbrooke (260-451)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

 $\textbf{Explanation:} \ \ \textbf{Provide a schedule of gallons of was tewater treated by individual plant for each month of the}$

historical test year. Flow data should match the monthly operating reports sent to DEP.

	(1)	(2)	(3)	(4)	(5)	(6)
Month/ Year	Pennbrooke		Plant Flows 	(Name)	Total Plant Flows	Total Purch. Sewage Treatment
 Jan-15	3.663				3.663	0.000
Feb-15	3.281				3.281	0.000
Mar-15	3.407				3.407	0.000
Apr-15	2.852				2.852	0.000
May-15	2.649				2.649	0.000
Jun-15	2.407				2.407	0.000
Jul-15	2.584				2.584	0.000
Aug-15	3.057				3.057	0.000
Sep-15	3.283				3.283	0.000
Oct-15	2.886				2.886	0.000
Nov-15	2.858				2.858	0.000
Dec-15	2.988				2.988	0.000
Total	35.915				35.915	0.000
	========	========	=========	========	==========	========

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 58 of 258

Water Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Pennbrooke (260-451)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-3 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

			Date	GPD
1 Plant Capacity The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanati	per Sanitary Survey Limit per CUP			864,000 454,000
2 Maximum Day				
The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day.			4/8/2015	849,000
3 Five Day Max. Year				
The five days with the highest pumpage rate from any one month		(1)	5/10/2015	803,000
in the test year. Provide an explanation if fire flow, line		(2)	5/3/2015	806,000
breaks or other unusual occurrences affected the flows on		(3)	5/23/2015	812,000
these days.		(4)	5/31/2015	831,000
		(5)	5/28/2015	838,000
			AVERAGE	818,000
			Max Month	578,503
4 Average Daily Flow			Annual	388,310

5 Required Fire Flow [Lake County Code]

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

1200 gpm x 2 hrs

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 59 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Pennbrooke (260-451)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained

from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		MONTH	GPD
1.	Plant Capacity (Permitted @ AADF)		180,000
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a)		118,161
	An average of the daily flows during the peak usage month		
	during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.		
3.	Annual Average Daily Flow		98,397

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 60 of 258

Used and Useful Calculations

Florida Public Service Commission

Water Treatment Plant

Company: Utilities, Inc. of Pennbrooke (260-451) Schedule F-5 **Docket No.: 160101-WS** Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	2,050 gpm
Firm Reliable well pumping capacity (largest well out), gpm	1,000 gpm

Ground storage capacity, gal.	150,000 gallons
Usable ground storage (90%), gal.	135,000 gallons
Elevated Storage	0 gallons
Usable ground storage (100%), gal.	0 gallons
Hydropneumatic storage capacity, gal.	17,652 gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	135,000 gallons

Maximum day demand,	849,000 gpd
Peak hour demand = $2x \max \frac{day}{1440}$	1,179 gpm

Fire flow requirement	1200 gpm for 2 hours	144,000 gpd
The now requirement	1200 Spin for 2 nours	11,000 gpt

Unaccounted for water	7.07% of water pumped	2,366 gpd, avg
Acceptable unaccounted for	10.00%	3,336 gpd, avg
Excess unaccounted for		0 gpd, avg

Used & Useful Analysis, in accordance with Rule 25-30.4325:

Water Treatment Plant

100.00%

$\mathbf{A} =$	Peak demand	849,000 gpd
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpd
C =	Fire flow demand	144,000 gpd
D =	Excess Unaccounted for water	0 gpd
$\mathbf{E} =$	Firm Reliable Capacity (16 hours)	960,000 gpd

The above used and useful factor is applicable to all source of supply, pumping and treatment accounts. as well as the land and structures accounts.

Storage

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where:	100.00%
Tercent Oscu & Osciui – (A + D + C - D//L A 100 /0, where.	100.00 /0

$\mathbf{A} =$	Peak demand	849,000 gallons
$\mathbf{B} =$	Property needed to serve five years after TY	0 gallons
C =	Fire flow demand	144,000 gallons
D =	Excess Unaccounted for water	0 gallons
$\mathbf{E} =$	Firm Reliable Capacity	135,000 gallons

The above used and useful factor is applicable to the distribution reservoir accounts.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 61 of 258

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Pennbrooke (260-451)

Schedule F-6

Docket No.: 160101-WS

Page 1 of 2

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Line No.

1	(A)	Used and useful flow, GPD (AAI	OF)		<u>98,397</u>
2	(B)	Less: Excess I&I (No indica	tion of excess I/I - see note))		-
3	(C)	Plus: Property needed for p	ost test year period (See F-8)	-	<u>-</u>
4	(E)	Permitted capacity (see Note)			<u>180,000</u>
5 6	(F)	Used and useful percentage	System essentially built out (F-7),	Use	<u>54.67</u> % <u>100.00</u> %
7 8	(G)	Non-used and useful percentage	System essentially built out (F-7),	Use	45.33% 0.00%

Note: Used & Useful Evaluation

In the last Docket No. 120037-WS, the Commission, as it had in the previous three rate cases, evaluated used & useful in accordance with the factors outlined in Rule 25-30.432. F.A.C, and found it to be 100%. The number of customers has remained virtually unchanged from 2005 forward.

The wastewater treated, including I&I, continues to be low: 79 gpd/ERC as compared to water gallons treated of 278 gpd/ERC. There is no indication of I&I problems. Used & useful should remain at 100%.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 62 of 258

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Schedule F-6

Preparer: Seidman, F.

Page 2 of 2

Company: Utilities, Inc. of Pennbrooke (260-451)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

A. Infiltration allowance, excluding service laterals

	Main dia. Main length			llowance @ : pd/inch-dia./r	
	inches feet	miles	01	•	ру
	4	0	0.000	0	or <i>3</i>
1	6	0	0.000	0	
2	8	49,816	9.435	37,739	
3	10	0	0.000	0	
4	Total	49,816	9.435	37,739	13,774,879
5	Estimated Inflow @ 10% of g	gallons sold (L.10)		,	10,571,135
6	Allowable I&I				24,346,014
	B. Actual Inflow & Infiltratio	on (I&I)			
7	Wastewater treated				35,915,000
				stimated	
	Gallons Billed (not capped) to) :	re	eturned *	
8	SFR Residential WW cust.		103,670,904	80%	82,936,723
9	All Other		2,040,450	90%	1,836,405
10	Estimated flows returned		105,711,354		84,773,128

st A substantial portion of water purchased is used for irrigation as is evident from the disparity between water gallons purchased and wastewater gallons treated.

11	Estimated I&I (treated less returned) [L.7-L.10]	-48,858,128
12	Actual I&I less allowable [L.11-L.6]	-73,204,142
13	Excess, if any [L.11-L.6, if positive]	0
14	Excess as percent of wastewater treated	0.00%

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 63 of 258

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Company: Utilities, Inc. of Pennbrooke (260-451)

Docket No.: 160101-WS

Schedule F-7

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution System

The service area is essentially built out. The distribution & collection systems should be considered 100% used & useful as they were in Docket No. 120037-WS and previous dockets.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 64 of 258

Margin Reserve Calculations

Florida Public Service Commissio

Company: Utilities, Inc. of Pennbrooke (260-451)

Docket No.: 160101-WS

Schedule F-8

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable - System is built out. See Docket No. 120037-WS and previous dockets.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 65 of 258

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Pennbrooke (260-451)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-9 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	1,247	1,223	1,235	145,834,475	118,085	179,634,386	1,521	
2	2012	1,223	1,230	1,227	129,841,731	105,864	144,233,441	1,362	-10.44%
3	2013	1,230	1,218	1,224	121,090,391	98,930	136,358,151	1,378	1.17%
4	2014	1,218	1,215	1,217	103,784,439	85,314	119,038,059	1,395	1.23%
5	2015	1,215	1,228	1,222	114,228,173	93,515	130,048,553	1,391	-0.33%
					Ave	rage Growth Throu	gh 5-Year Period (Col. 8)		-2.09%

Regression Analysis per Rule 25-30.431(2)(C)

		<u>X</u>	<u>Y</u>
Constant:	1478.076875	1	1,521
X Coefficient:	-22.82705032	2	1,362
R^2:	0.321124981	3	1,378
		4	1,395
		5	1,391
		10	1250

Five year growth (141) Ercs Annual average growth -28.17 Ercs

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 66 of 258

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Pennbrooke (260-451)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	1,247	1,223	1,235	131,659,905	106,607	133,849,008	1,256	
2	2012	1,223	1,230	1,227	116,720,871	95,166	117,996,321	1,240	-1.25%
3	2013	1,230	1,218	1,224	108,822,381	88,907	110,029,731	1,238	-0.19%
4	2014	1,218	1,215	1,217	94,193,619	77,430	95,601,579	1,235	-0.23%
5	2015	1,215	1,228	1,222	103,670,904	84,872	105,711,354 gh 5-Year Period (Col. 8)	1,246	-0.20%

Regression Analysis per Rule 25-30.431(2)(C)

		<u>A</u>	ㅗ
Constant:	1250.20962	1	1,256
X Coefficient:	-2.520421585	2	1,240
R^2:	0.234337863	3	1,238
		4	1,235
		5	1,246
		10	1225

Five year growth (21) Ercs Annual average growth -4.11 Ercs

Gallons of Wastewater Treated In Thousands of Gallons

Florida Public Service Commission

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 67 of 258

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

Utilities, Inc. of Florida - Sandalhaven (256-446)

y

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DER.

	(1)	(2)	(3)	(4)	(5)	(6) Purchased	(7) Total	
Month/	Indi	ividual Plant H	Flows (000,000)		Total Plant	Sewage	Sewage	
Year	Sandalhaven	N/A N/A		N/A	Flows	Treatment *	Treatment	
Jan-15	2.704				2.704	2.653	5.35	
Feb-15	2,577				2.577	2.595	5.172	
Mar-15	2.848				2.848	2.992	5.840	
Apr-15	2.153				2.153	2.324	4.477	
May-15	1.364				1.364	1.967	3.331	
Jun-15	2.351				2.351	1.812	4.163	
Jul-15	1.799				1.799	1.914	3.713	
Aug-15	1.513				1.513	1.741	3.254	
Sep-15	1.501				1.501	1.711	3.212	
Oct-15	1.648				1.648	1.850	3.498	
Nov-15	0.169				0.169	3.756	3.925	
Dec-15						4.532	4.532	
Total	20.627	_	-	-	20.627	29.847	50.474	

^{*} Sewage treated by Englewood Water District (EWD)

Florida Public Service Commission -Schedules

Exhibit FS-2 (Part 2) Page 68 of 258

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Utilities, Inc. of Florida - Sandalhaven (256-446) Docket No. 160101-WS Test Year Ended: December 31, 2015

Explanation: rrovide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operative reports (MORs) sent to the Department of Environmental Regulation.

	PRE-ABANDONMENT OF WWTP - Plant taken off line, Nov. 6, 2015	MONTH	GPD
1.	a. Permitted Capacity, Treatment Plant (Rolling 3MADF)		45,000
	b. Purchased Capacity, Englewood Water District (EWD) (AADF)		300,000
	The hydraulic rated capacity. If different from that shown on the DER operating or construction permit, provide an explanation.		
2.	a. Max TMADF, WWTP	Mar, 2015	90,377
	Average Annual Daily Flow, WWTP		56,513
	b. Average Daily Flow Max Month, EWD	Dec, 2015	109,011
	Average Annual Daily Flow, EWD		81,773
	An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.		
	POST ABANDONMENT OF WWTP - Plant taken off line, Nov. 6, 2015	MONTH	GPD
1.	a. Permitted Capacity, Treatment Plant (Rolling 3MADF)		
	b. Purchased Capacity, Englewood Water District (EWD) (AADF)		300,000
	The hydraulic rated capacity. If different from that shown on the DER operating or construction permit, provide an explanation.		
2.	a. Average Daily Flow Max Month - assumes all flows to EWD	Mar, 2015	188,387
	Average Annual Daily Flow - assumes all flows to EWD		138,285

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

Used and Useful Calculations Wastewater Treatment Plant

Docket No. 160101-WS Florida Public Sergice Commission Exhibit FS-2 (Part 2) Page 69 of 258

Utilities, Inc. of Florida - Sandalhaven (256-446)

Docket No. 160101-WS

Test Year Ended: December 31, 2015

Schedule F-6 Page 1 of 4

Preparer: Seidman, F.

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

Line No.		PRE-ABANDONMENT OF WWTP - Plant taken off line, Nov. 6, 2015	
		SANDALHAVEN TREATMENT PLANT	
1	(A)	Used and useful flow, AADF	EC 512
2		Flows only to WWTP (11 months flows)	56,513
4	(C)	Plus: Property needed for post test year period (This WWTP cannot handle additional growth)	-
5	(D)	Total Flows to WWTP	56,513
6	(E)	Permitted Capacity (Rolling 3MADF)	45,000
7	(F)	Used and useful percentage	126.00 %
		Use	100.00 %
8	(G)	Non-used and useful percentage	-26.00 %
0	(G)	Use	0.00 %
		The above used and useful percentage is applicable to All Treatment & Disposal Accounts 355.4,354.4,380.4 & 389.4.	
Line No.		POST ABANDONMENT OF WWTP - Plant taken off line, Nov. 6, 2015	
		ASSUME ALL FLOWS TO ENGLEWOOD WATER DISTRICT	
1	(A)	TY Flows to EWD, GPD, AADF - assumes all flows to EWD	138,285
2	(B)	Plus: Property needed for post test year period (F-8) [total flows committed to be treated]	163,780
3	(C)	Total Flows to be Treated, GPD, AADF	302,065
4	(D)	EWD Purchased Capacity, AADF	300,000
5	(E)	Used and useful percentage	101.00 %
		explanation on Schedule F - 6, page 2. Note that the Utility has already seen AADF of Use:	100.00 %
		350 gpd in 2010. On that basis alone, U&U would exceed 100%.	(1.00) 0/
6	(F)	Non-used and useful percentage	(1.00) %

The above used and useful percentage is applicable to All Treatment & Disposal Accounts 355.4,354.4,380.4 & 389.4.

Recap Schedules: A-6, A-10, B-14

Used and Useful Calculations Wastewater Treatment Plant

Utilities, Inc. of Florida - Sandalhaven (256-446)

Docket No. 160101-WS

Test Year Ended: December 31, 2015

Docket No. 160101-WS Florida Public Service Communication Exhibit FS-2 (Part 2) Page 70 of 258

Schedule F-6 Page 2 of 4

Preparer: Seidman, F.

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

HISTORY OF DEVELOPMENT OF WASTWATER TREATMENT & DISPOSAL AT SANDALHAVEN

Until 2006, all sewage in the Sandalhaven service area was treated at the onsite 150,000 AADF rated WWTP. Disposal was via spray irrigation, rated at 150,000 gpd at the Wildflower Golf Course. The Utility also had a 100,000 gpd percolation pond as back up. In 2006, the golf course became permanently unavailable for disposal. Other land for disposal was not available, the percolation pond has inadequate capacity during periods of peak demand and DEP would not approve other alternative means of disposal. The Utility determined that the most economic alternative to meet the then current and future demand was to purchase treatment & disposal capacity from the Englewood Water District (EWD) and eventually retire the onsite WWTP. The Utility proceeded with its plans. The Commission, in Order No. PSC-07-0865-PAA-SU, found that the Utility acted prudently in exploring alternative treatment and disposal options, and to implement the mos cost effective option. The Commission also found that the Utility made a prudent decision to interconnect with EWD. Based on the then expressed demand, the Utility contracted with EWD to purchase 500,000 gpd capacity. The arrangement was for an initial increment of 100,000 gpd to be followed by two 200,000 gpd increments. The Utility purchased an initial block of 100,000 gpd capacity and then an additional 200,000 gpd block from EWD. Both were paid for in 2006. The remaining 200,000 gpd was to be purchased at a later date, however, sensing the slow down of the economy, the Utility negotiated to not have to commit to the final 200,000 gpd increment. Based on the best information available in 2006, and the commitments being made for demand, the purchase of 300,000 gpd was a prudent decision as was relinquishing the last 200,000 gpd increment.

The onsite WWTP was taken off line November 6, 2015. all flows now go to the EWD for treatment and disposal.

BASIS FOR 100% USED & USEFUL

Per agreement with DEP, the Utility is required to purchase wastewater treatment and disposal capacity from EWD. The size of blocks of capacity purchased is necessary and prudent. The amount of capacity purchased was based on serving all of the existing customers served by the WWTP (that has now been taken off line) [97,367 gpd in 2005] plus prepaid commitments and guaranteed revenue agreements of 245,220 gpd in 2006, totalling 342,587. Since that time, flows have been as high as 154,850 gpd in 2010 and are currently 138,285 gpd. In addition to the current demand, the Utility must also have capacity to treat 163,780 gpd of prepaid commitment not yet served. The reduction in actual flows from 2010 to 2015 is indicative of the instability of MFD occupancy over which the Utility has no control.

The level of Used & Useful should be applied only to net plant, net of the associated CIAC.

Recap Schedules: A-6, A-10, B-14

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 71 of 258

Schedule F-6

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

0.00%

0.00%

Utilities, Inc. of Florida - Sandalhaven (256-446)

Docket No. 160101-WS

Page 3 of 4 Test Year Ended: December 31, 2015 Preparer: Seidman, F.

A. Infiltration allowance, excluding service laterals

1 2 3 4 5	Main dia. inches 4 6 6 8 8 10 12	Type PVC PVC VCP	Main length	miles 0.000 0.440 0.000 3.089 5.101 0.000 0.000	Allowance @ 500 gpd/inch-diamile gpd 0 1,321 0 12,356 20,405 0 0		
6	15 Texts 1		0	0.000	24.002	12 440 071	
7	Total	-fl @ 100	45,570 % of flows (L.10)	8.631	34,082	12,440,071 5,047,410	
	Allowable I		% 01 110WS (L.10)			17,487,481	
	B. Calculation Wastewater		Inflow & Infiltr	ation (I&I)		50,474,100	F-2
11	Water Gallo	WW SFR	ped) sold to:	21,141,000	Estimated return	19,026,900	F-10
14	General Ser	vice	-	15,358,000	96%	14,743,680	
15	Estimated fl	ows returne	ed	36,499,000	93%	33,770,580	F-10
	Estimated Io		less returned) [L. .16-L.9]	.10-L.15]		16,703,520 -783,961	

* - Notes:

18 Excess, if any [L.17, if positive]

19 Excess as percent of wastewater treated

20 Excess as percent to be used for filing

- 1. Residential flow returns at 90% are borne out by the capped residential flows of 17,284,000 and consistent with the flows used and accepted in Docket No. 060285-SU.
- 2. General Service flow returns at 96% is consistent with flows used and accepted in Docket No. 060285-SU.
- 4. These results are consistent with the NOTE above wherein little excess I&I was found after an investigation followed by repairs.

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Utilities, Inc. of Florida - Sandalhaven (256-446)

Docket No. 160101-WS

Test Year Ended: December 31, 2015

Schedule F-6 Page 4 of 4

Preparer: Seidman, F.

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

		(a)	(b)	(c)	(d)	(e)	(f)	
Schedule of Comr	nitments and Capacity	Calculation of Committed EWD Capacity for Docket No. 160101 Prepaid						
COMMITMENT	s	CIAC Paid?	ERCs @ 190 gpd/ERC	Flow (gpd)	ERCS not built	Capacity Not Used	Date Paid	
Current Annua	al Average Flow (12 Month RAA) to Sandalhaven WWTP			138,285				
Additional Pre	paid Commitments:							
52 lots	Eagles Preserve	No	68	12,920	68	12,920	Guaranteed Rev. Payments	
60 lots	Shamrock Shores	Yes	57	10,830	56	10,640	Predates UI ownership	
45 lots	Cape Haze Marina, in bankruptcy	Yes	59	11,290	45	8,550	6/12/95	
105 condos	Hacienda Del Mar, under constr.	Yes	112	21,280	-	-	2/24/03	
48 rooms	Ship's Lantern Hotel, no activity	Yes	51	9,600	51	9,690	1/15/03	
234 condos	Hammocks at Cape Haze, under constr.	Yes	234	44,460	85	16,150	10/1/04	
Commer'l	Cape Haze Plaza Addition, under constr.	Yes	28	5,260	-	-	3/31/05	
264 apts	Cape Haze Resort-under constr.	Yes	264	50,160	120	22,800		
	SUBTOTAL 2006		873	165,800	425	80,750		
422 condos	Placida Commons/Coral Caye (formerly 8401 Placida Road)	Yes	418	79,420	408	77,520	9/11/06	
	Total Prepaid Commitments through 2006		1,291	245,220	833	158,270	_	
	Prepaid Commitments added after 2006							
	Placida Plaza	Yes	26	4,922	26	4,940	10/19/08	
	Egret Real Estate	Yes	3	619	3	570	3/17/09	
			29	5,541	29	5,510		
	Total Prepaid Commitments		1,320	250,761	862	163,780	_	
	Total Capacity Committed including flows diverted from W	WTP		389,046				

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Utilities, Inc. of Florida - Sandalhaven (256-446) Docket No. 160101-WS

Test Year Ended: December 31, 2015

Docket No. 160101-WS Florida Public Service Commission Exhibit FS-2 (Part 2) Page 73 of 258

Schedule F-7 Docket No. 160101-WS Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-6, A-10, B-14

This is a wastewater-only system.

Wastewater Collection System

The wastewater collection mains and lift stations within developments were contributed by the developers. Under the circumstances, a used & useful analysis was not deemed necessary nor performed. The collection system, excluding the force main to EWD and the associated master lift station, should be considered 100% used and useful. Used & useful for these components are addressed below.

Force Main

In anticipation of the closing of the WWTP determined that it was necessary to transmi all flows to the Englewood Water District. The Commission, in Order No. 07-0865-PAA-SU, found that the utility made a prudent decision to interconnect with EWD. Sandalhaven, taking advantage of economies of scale, constructed a 12" force main, adequate to handle anticipated demand. This eliminated the doubling of labor costs and road trenching and repairing associated with laying the main in two phases. The plant has been mandated to close and all flows diverted by the fall of 2015. This force main is the sole means of transmitting flows from Sandalhaven to the EWD plant. The Commission recognized in Order No. PSC-14-0626-PAA-WU that when a pipeline provides the sole means of transmission, it should be considered 100% used and useful. Everything depends on it. That logical conclusion is applicable here. Therefore, force main should be considered 100% U&U.

Lift Station for 12" Force Main

As a part of the force main project, the Utility constructed a receiving well for this lift station adequate for total demand as the most economical choice, while equipping it with pumping capacity adequate for current demand and near term growth. Since it would be uneconomical to enlarge the reciving well, and since the force main is now the sole means of transmitting flows , the lift station should be considered 100% used & useful.

Margin Reserve Calculations

Florida Public Service Commission

Docket No. 160101-WS

F-Schedules Exhibit FS-2 (Part 2)

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Schedule F-8 Page 1 of 1

Preparer: Seidman, F.

Utilities, Inc. of Florida - Sandalhaven (256-446) **Docket No. 160101-WS**

Test Year Ended: December 31, 2015

Explanation: If a margin reserve is requested, provide all calculations and analyses used to determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-6, F-7

Wastewater Treatment & Related Facilities -

All flows are now sent to the Englewood Water District (EWD for treatment and disposal.

The growth factor is determined according to the formula in Commission Rule 25-30.431:

 $PN = EG \times PT \times U$

where:

EG =Equivalent annual growth in ERCs (see E-6), capped @ 5%/yr

PT =Post test year period per statute

U =Unit of measure utilized in U&U calculations PN =Property needed expressed in U units

The raw data produces negative growth and for reasons explained in Sch. F-10 is not representaive of ongoing demand.

For purposes of determining used & useful of the EWD purchases, the prepaid commitments on which the the EWD purchases were based must be recognized. As described in Sch. F-6, page 4, there are 250,761 gpd in prepaid commitments of which 163,780 gpd are still outstanding. Therefore, PN = 163,780 gpd should be used in the calculation of U&U at Sch. F 6.

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Utilities, Inc. of Florida - Sandalhaven (256-446)

Docket No. 160101-WS

Test Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

10

-7.74%

604 Projected

(761)

(152)

(106)

Explanation: Provide the following information in order to calculate the average growth in ERC's for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
					SFR	Gallons/	Total	Total	Annual
Line			FR Customers		Gallons	SFR	Gallons	ERCs	% Incr.
NO.	r ear	Бедіппінд	Enging	Average	5010	(5)/(4)	<u> 5010</u>	(7)/(0)	in EKCs
1	2011	725	769	747	19,758,000	26,450	50,204,000	1,898	
2	2012	769	757	763	19,141,000	25,087	48,368,000	1,928	1.58%
3	2013	757	764	761	19,657,000	25,847	42,970,000	1,662	-13.78%
4	2014	764	788	776	19,209,000	24,754	36,568,000	1,477	-11.14%
5	2015	788	793	791	21,141,000	26,744	36,499,000	1,365	-7.62%
					Average Growth	Through 5-Y	ear Period (Col	1,608	-7.74%
		Note: Above show	s total sales (no	t capped) to WV	W Customers.		***	T 7	
			Regression Ar	nalysis per Rule	e 25-30.431(2)(C)		<u>X</u>	<u>Y</u>	
			Constant:		2121.350769		_		
			X Coefficient:		-151.7430723		1	1,898 A	Actual
			R^2:		0.925067974		2	1,928 A	Actual
							3	1,662 A	Actual
							4	1,477 A	Actual
							5	1,365 A	Actual

The substantial reduction in total gallons sold, even though SFR gallons and gallons/SFR are relatively stable, is more an indication of instability in MFD (included in General Service) occupancy than of growth patterns. Compare the pattern of change in total ERCs between 2012 and 2015 to that between 2007 and 2011.

2007	6.48%	2012	1.58%
2008	11.99%	2013	-13.78%
2009	15.48%	2014	-11.14%
2010	12.42%	2015	-7.62%
2011	18.78%		
Average	13.03%		-7.74%

When occupancy increases, so will total gallons sold and thus total ERCs.

5 year growth

Annual average growth

Annual average growth @

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 76 of 258

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Utilities, Inc. of Florida - Sanlando (255-368) Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Florida Public Service Commission

Schedule F-1 (Revised) Page 1 of 1 Preparer: Seidman, F.

Revised: 10/27/2016

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakage's and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, Columns 4 & 5 may be omitted.

	(1)	(2)	(3)	(4)	(5)	(6) Unaccounted	(7) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (2)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)					
Jan-15	150.806	151.187	0.000	159.736	0.613	-9.163	-6.1%
Feb-15	137.534	137.281	0.000	147.609	0.573	-10.901	-7.9%
Mar-15	187.974	187.500	0.000	147.230	0.596	39.674	21.2%
Apr-15	201.936	201.453	0.000	198.739	0.803	1.911	0.9%
May-15	277.104	276.003	0.000	196.813	1.583	77.607	28.1%
Jun-15	228.293	227.713	0.000	243.030	1.048	-16.365	-7.2%
Jul-15	219.666	219.170	0.000	231.071	0.699	-12.600	-5.7%
Aug-15	178.351	178.019	0.000	181.094	0.503	-3.578	-2.0%
Sep-15	148.960	148.689	0.000	158.233	0.455	-9.999	-6.7%
Oct-15	216.513	215.949	0.000	175.450	1.286	39.214	18.2%
Nov-15	201.928	201.359	0.000	186.017	0.431	14.911	7.4%
Dec-15	209.416	208.484	0.000	197.115	1.393	9.976	4.8%
Total	2,358.481	2,352.807	0.000	2,222.137	9.982	120.688	5.1%

(Above data in millions of gallons)

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of Gallons Sold shown in Schedules F-1, F-9 and E-2:
The total gallons sold for Sanlando, as shown on Schedule F-1 and F-9 are the same.

The total gallons sold for per Schedule E-2 is 2214.808 mg, nly a 0/33% difference.

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount

on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 77 of 258

Gallons of Wastewater Treated In Thousands of Gallons

Florida Public Service Commission

Schedule F-2 Page 1 of 1 Preparer: Seidman, F.

Utilities, Inc. of Florida - Sanlando (255-368) Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

	(1)	(2)	(3)	(4)	(5)	(6) Total Purch.	
Month/		Individual Pla		Total Plant	Sewage		
Year	Wekiva	N/A	N/A	N/A	Flows	Treatment	
Jan-15	63.277				63.277	_	
Feb-15	57.363				57.363	-	
Mar-15	56.292				56.292	-	
Apr-15	52.488				52.488	-	
May-15	57.437				57.437	-	
Jun-15	55.156				55.156	-	
Jul-15	63.190				63.190	-	
Aug-15	62.675				62.675	-	
Sep-15	76.276				76.276	-	
Oct-15	68.568				68.568	-	
Nov-15	58.752				58.752	-	
Dec-15	60.257				60.257	-	
Total	731.731				731.731		

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 78 of 258

Water Treatment Plant Data

Florida Public Service Commission

Utilities, Inc. of Florida - Sanlando (255-368) Docket No.: 160101-WS

Docket No.: 160101-WS Page
Test Year Ended: December 31, 2015 Prep

Schedule F-3 Page 1 of 1 Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

			DATE		GPD
1.	Plant Capacity Max Day Design Capacity per Sanitary Survey Reports Maximum withdrawal per CUP				17,925,000 10,098,000
	The hydraulic rated capacity. If different from that shown on the DER operating or construction permit, provide an explanation.				
2.	Maximum Day		6/1/15		12,792,000
	The single day with the highest pumpage rate for the test year. Explain, on a separate page, if fire flow, line-breaks or other unusual occurrences affected the flow this day. $ \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \left(\frac{1}{2}$			_	
3.	Five-Day Max Month	(1)	5/30/15	_	10,922,300
		(2)	5/28/15	_	10,935,300
	The five days with the highest pumpage rate from the month with the highest pumpage rate during the test year. Explain, on a separate page, if fire flow, line-	(3) (4)	5/17/15	_	11,036,000 11,073,800
	breaks or other unusual occurrences affected the flows on these days.	(5)	5/10/15	_	11,602,800
				AVERAGE	11,114,040
5.	Average Daily Flow		Max Month		8,903,336
			Annual		6,503,012

6. Required Fire Flow

1250 gpm for 2 hours

Seminole County requires 500 gpm residential & 1,250 commercial. ISO requires 2 hours up to 2,500 gpm

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 79 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Utilities, Inc. of Florida - Sanlando (255-368) Docket No.: 160101-WS

Page 1 of 1 Preparer: Seidman, F.

Schedule F-4

Test Year Ended: December 31, 2015 Pre

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operating reports (DMRs) sent to the Department of Environmental Protection.

	Wekiva Plant only *	MONTH	GPD
1.	Plant Capacity (AADF)		2,900,000
	The hydraulic rated capacity. If different from that shown on the DER operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month	7/2013	2,038,382
3	Average Annual Daily Flow		2,004,742

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

* The Des Pinar plant was taken out of service in September, 2012. All flows diverted to Wekiva plant.

This was necessary to meet reduced nutrient loading as mandated to protect the Wekiva River Basin.

Because of the design of the Des Pinar plant it could not be modified to meet reduced nutrient limits.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 80 of 258

Used and Useful Calculations Water Treatment Plant

Florida Public Service Commission

100.00%

Schedule F-5

Utilities, Inc. of Florida - Sanlando (255-368)

Docket No.: 160101-WS Page 1 of 2 Preparer: Seidman, F. Revised:9/8/2014 Test Year Ended: December 31, 2015

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well capacity, gpm	17,376	gpm
Firm Reliable well pumping capacity (largest well out), gpm	13,876	gpm
Ground storage capacity, gal.	3,475,000	gallons
Usable ground storage (90%), gal.	3,127,500	gallons
Elevated Storage	0	gallons
Usable elevated storage	0	gallons
Hydropneumatic storage capacity, gal.	10,000	gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0	gallons
Total usable storage, gal.	3,127,500	gallons

12,792,000 gpd Maximum day demand 17,767 gpm Peak hour demand = $2 \times \text{maximum day}/1440$

3. Fire flow requirement 1250 gpm x 2 hours 150,000 gpd

Unaccounted for water 5.96% of water pumped 387,617 gpd, avg Acceptable unaccounted for 10.00% 650,301 gpd, avg Excess unaccounted for 0 gpd, avg

5. <u>Used & Useful Analysis in accordance with Rule 25-30.4325</u>

 $\frac{Water\ Treatment\ Plant}{Percent\ Used\ \&\ Useful = (A+B+C-D)/E\ x\ 100\%,\ where:}$ 100.00%

A =	Peak demand	12,792,000 gpd
$\mathbf{B} =$	Property needed to serve five years after TY	1,137,868 gpd
C =	Fire flow demand	150,000 gpd
D =	Excess unaccounted for water	0 gpd
$\mathbf{E} =$	Firm Reliable Capacity (16 hours)	13,320,960 gpd

The above used & useful factor is applicable to all source of supply, pumping and treatment accounts, as well as the land, structures accounts.

Storage Plant

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where:

A =	Peak demand	12,792,000	gallons
$\mathbf{B} =$	Property needed to serve years after TY	1,137,868	gallons
C =	Fire flow demand	150,000	gallons
D =	Excess unaccounted for water	0	gallons
$\mathbf{E} =$	Firm Reliable Capacity (Usable storage)	3,127,500	gallons

The above used & useful factor is applicable to the reservoir & storage account,

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 81 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Utilities, Inc. of Florida - Sanlando (255-368)

Docket No.: 160101-WS Test Year Ended: December 31, 2015 Schedule F-6 Page 1 of 2 Preparer: Seidman, F.

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

Line			
No.			
	Weki	va Plant	
1	(A)	Used and useful flow (000):	
2		AADF - year 2013	2,004,742
3	(B)	Property needed for post test year period (see F-8)	113,561
4	(C)	Permitted capacity	2,900,000
5	(D)	Used and useful percentage	<u>73.04</u> %
6	(E)	Non-used and useful percentage	<u>26.96</u> %
7	[F]	Used and useful percentage for rate case purposes (see note).	<u>100.00</u> %

NOTE: In the last cse, TY, 2013, Docket No. 140060-WS, Order No. PSC-15-0233-PAA-WS, the Commission affirmed it decisions in the two previuos case and found the WWTP to be 100% used and useful. There have been no changes in capacity. The plant should continue to be found 100% usec and useful.

All reuse related plant that can be separately identified in the accounts should be considered as 100% used & useful irrespective of the decision regarding the WWTP.

Recap Schedules: A-6, A-10, B-14

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 82 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Utilities, Inc. of Florida - Sanlando (255-368)

Schedule F-6 Page 2 of 2
Preparer: Seidman, F. Docket No.: 160101-WS Test Year Ended: December 31, 2015

A. Infiltration allowance, excluding service laterals

			Allo	owance @ 500	
	Main dia.	Main length	gpd	/inch-dia./mile	
	inches	feet	miles	gpd	
1	4	1,583	0.300	600	
2	6	7,339	1.390	4,170	
3	8	421,401	79.811	319,243	
4	10	45,681	8.652	43,259	
5	12	2,009	0.380	2,283	
6	15	180	0.034	256	
7	Total	478,193	90.567	369,810	134,980,595
8	Estimated In	flow @ 10% of flow:	s (L.14)		158,924,391
9	Allowable Id	&I	` '		293,904,985

B. Calculation of Actual Inflow & Infiltration (I&I)

731,730,717 F-2 10 Wastewater treated

Water Gallons (not capped)	sold to:	Estimated returne	ed *	
11 Residential WW SFR	1,359,282,799	39%	533,727,000	F-10
12 General Service	256,291,071	90%	230,661,964	F-10
13 Less: Reuse	-26,329,962			
14 Estimated flows returned	1,589,243,908		764,388,964	

15 * The SFRs served are heavily foliaged as evidenced by the fact that 50% of gallons used are in excess of the 10,000 per month billing cap. As well, the average monthly water use per WW customer is over 14,000. Assuming non-irrigation use is 250 gpd/ERC, average monthly water treated is 250x365/12 = 7,604 gals. Estimated Res. Return at 7,000 level from E-14 billing analysis is 533,727,000.

16 Estimated I&I (treated less returned) [L.10-L.15]	-32,658,247
17 Actual less allowable [L.16-L.9]	-326,563,232
18 Excess, if any [L.17, if positive]	0
19 Excess as percent of wastewater treated	0.00%

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 83 of 258

Used and Useful Calculations Water Distribution and Wastewater Collection Systems Florida Public Service Commission

Schedule F-7

Utilities, Inc. of Florida - Sanlando (255-368)

Docket No.: 160101-WS

Page 1 of 1 Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not

Distribution & Collection Systems

Distribution and collection lines serving customers are almost totally contributed. An allowance for property needed for growth is not necessary. This conclusion was also reached in Docket No. 900338-WSand Docket No. 110257-WS.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 84 of 258

Margin Reserve Calculations

Florida Public Service Commission

 Utilities, Inc. of Florida - Sanlando (255-368)
 Schedule F-8

 Docket No.: 160101-WS
 Page 1 of 1

 Test Year Ended: December 31, 2015
 Preparer: Seidman, F.

 $\label{prop:continuous} Explanation: \ If a margin \ reserve is \ requested, provide all calculations and analyses used to determine the amount of margin \ reserve for each portion of used and useful plant.$

Recap Schedules: F-5, F-6, F-7

Water Treatment & Related Facilities

 $PN = EG \times PT \times U$

where:

EG = Equivalent annual growth in ERCs (see F-9) 213 ERC/yr
PT = Post test year period per statute 5 yrs
U = Unit of measure utilized in U&U calculations 1,068 gpd/ERC **
PN = Property needed expressed in U units 1,137,868 gpd

Wastewater Treatment & Related Facilities (Wekiva)

 $PN = EG \times PT \times U$

where:

Distribution & Collection Systems

Distribution and collection lines serving customers are almost totally contributed. An allowance for property needed for growth is not necessary.

 $[\]ensuremath{^{**}}$ MDD from F-5 divided by average ERCs from F-9.

^{**} AADF from F-6 divided by average ERCs from Schedule F-10.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 85 of 258

Equivalent Residential Connections - Water

Florida Public Service Commission

Utilities, Inc. of Florida - Sanlando (255-368)

Schedule F-9 Page 1 of 1

Docket No.: 160101-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2015

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2) SFR Customers	(3)	(4)	(5) SFR	(6) Gallons/	(7) Total	(8) Total	(9)
Line		SFR Customers			Gallons	SFR	Gallons	ERCs	Annual % Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	9,332	9,365	9,349	2,110,268,046	225,733	2,576,717,027	11,415	
2	2012	9,365	9,414	9,390	2,013,640,211	214,457	2,474,579,621	11,539	1.09%
3	2013	9,414	9,456	9,435	1,776,584,678	188,297	2,252,643,468	11,963	3.68%
4	2014	9,456	9,533	9,495	1,712,375,045	180,354	2,195,255,196	12,172	1.74%
5	2015	9,533	9,662	9,598	1,780,926,198	185,561	2,222,137,364	11,975	-1.62%
					Average G	rowth Through (4-Year Period (Col. 8)		1.27%

Reconciliation: Col. 7 differs from Sch. E-2 by 12.6 MG or only .56%, which is inconsequential. SFR customers and gallons do not include Multifamily customers.

Annual average growth

· ·	alysis per Rule 25-30.431(2)(C) Related Facilities	<u>X</u>	<u>Y</u>	
Constant:	11286.68855	1	11,415	Actual
X Coefficient:	175.3733497	2	11,539	Actual
R^2:	0.74766459	3	11,963	Actual
		4	12,172	Actual
		5	11,975	Actual
		10	13,040	Projected
Projected 5 year growth	1,065 I	CRCs		_

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Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Utilities, Inc. of Florida - Sanlando (255-368)

Schedule F-10 Page 1 of 1

Docket No.: 160101-WS Test Year Ended: December 31, 2015

Page 1 of 1 Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7) Tr 1	(8)	(9)
Line		SFR Customers			SFR Gallons	Gallons/ SFR	Total Gallons	Total ERCs	Annual % Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	7,818	7,846	7,832	1,582,117,786	202,007	1,846,413,463	9,140	
2	2012	7,846	7,883	7,865	1,536,267,721	195,342	1,784,223,574	9,134	-0.07%
3	2013	7,883	7,903	7,893	1,358,764,458	172,148	1,598,005,225	9,283	1.63%
4	2014	7,903	7,978	7,941	1,306,608,871	164,550	1,553,393,246	9,440	1.70%
5	2015	7,978	8,072	8,025	1,359,282,799	169,381	1,615,573,870	9,538	1.04%
					Average G	rowth Through :	5-Year Period (Col. 8)		1.45%

The gallons shown are the total used by WW customers, without the SFR use being limited by the 10k billing cap. SFR customers and gallons do not include Multi-family customers.

Regression Analysis per Ru For Treatment Related Fac	<u>X</u>	<u>Y</u>	
Constant:	8976.481731	1	9,140 Actual
X Coefficient:	110.1919294	2	9,134 Actual
R^2:	0.990666223	3	9,283 Actual
		4	9,440 Actual
		5	9,538 Actual
		10	10,078 Projected

Projected 5 year growth 540 ERCs Annual average growth 108 **Gallons of Wastewater Treated** In Thousands of Gallons

Company: Utilities, Inc. of Florida - Tierra Verde (241-428)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Florida Public Service Commission

Schedule F-2 Page 1 of 1

Preparer: F. Seidman

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

	(1)	(2) Individua	(3) I Plant Flows	(4)	(5)	(6) Total Purch.
Month/ Year	(Name)	(Name)	(Name)	(Name)	Total Plant Flows	Sewage Treatment
Jan-15					0.000	9.519
Feb-15					0.000	11.516
Mar-15					0.000	10.248
Apr-15					0.000	10.392
May-15					0.000	9.401
Jun-15					0.000	9.401
Jul-15					0.000	11.260
Aug-15					0.000	13.090
Sep-15					0.000	11.078
Oct-15					0.000	11.889
Nov-15					0.000	9.452
Dec-15					0.000	11.788
Total	0.000				0.000	129.033
	======================================	========	========	========	=======================================	========

(Above data in millions of gallons)

All wastewater pumped to City of St. Petersburg for treatment and disposal.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 88 of 258

Wastewater Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - Tierra Verde (241-428)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: F. Seidman

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

	NOT APPLICABLE - ALL TREATMENT PURCHASED	MONTH	GPD
1.	Plant Capacity		
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
	DEP Permitted Capacity		
2.	Annaual Average Daily Flow		

An average of the daily flows during the test year.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 89 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - Tierra Verde (241-428)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-6 Page 1 of 2

Preparer: F. Seidman

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

Recap Schedules: A-6,A-10,B-14

NOT APPLICABLE - ALL TREATMENT PURCHASED

1 2	(A)	Used and useful flow, GPD (AADF, 12 mo ending 6/30/05)	<u>0</u>
3	(B)	Less: Excess I&I	0
4	(C)	Plus: Property needed for post test year period (See F-8)	<u>0</u>
5	(D)	Total Flows	0
6	(E)	Permitted capacity	<u>0</u>
7	(F)	Used and useful percentage	%
8	(G)	Non-used and useful percentage	%

Schedule F-6

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Tierra Verde (241-428)

Docket No.: 160101-WS

Page 2 of 2 Test Year Ended: December 31, 2015 Preparer: F. Seidman

A. Infiltration allowance, excluding service laterals

			Allow	ance @ 500
			gpd/iı	nch-dia./mile
Main dia.	Main length		gpd	gpy
inches	feet	miles		

	inches	feet	miles		
1	8	27,885	5.281	21,125	
2	10	440	0.083	417	
	12	4,021	0.762	4,569	
	15	3,461	0.655	4,916	
3	18	<u>3,125</u>	<u>0.592</u>	5,327	
4	Total	38,932	7.373	36,354	13,269,167
_	E-4'	100/ - 60 (110)		•	, ,

- Estimated Inflow @ 10% of flows (l.10)
- 6 Allowable I&I

B. Calculation of Inflow & Infiltration (I&I)

7 Wastewater treated 129,033,140

		Est	timated (2)
	Gallons billed to WW cust. (1)	1	eturned
8	Residential	N/A	100%
	Multi-Units	N/A	100%
9	Commercial	<u>N/A</u>	100%
10	Estimated flows returned		

(1) - Treatment is provided by City of St. Petersburg. The City also provides water service. In prior cases, the City has provided information on water gallons sold so we could do an I&I analysis. The City no longer provides this service, therefore a direct estimate of I/I flows is not possible.

11	Estimated I&I (treated less returned) [1.7-1.10]	N/A
12	Actual less allowable [l.11-l.6]	N/A
13	Excess, if any [l.11-l.6, if positive]	N/A
14	Excess as percent of wastewater treated	N/A

The Tierra Verde service area is located entirely on a barrier island at the mouth of Tampa Bay. Ground water levels are always high, making the collection system more susceptible to I&I. At the time of the previous case, TY 2007, the utility had found that the storm water systems of some of the condo developments were tied into the collection system. In addition, the Utility had found that I&I was entering the system from poorly constructed or damaged and abandoned developer lines. At that time, the City was treating 201.263 mg annually with 880 average SFRs and the estimated excess I/I flow was 29 mg. The Utility initiated I&I studies, tracked down the masjor sources of I/I and continues to carry out maintenance and and repairs as needed. As a result, the City is now treating only 129.033 mg annually with a slight increase in average SFRs to 925 (from F-10), a reduction of 72 mg annually. This more than eliminates the 29 mg escess I/I found in 2007. It appears that the Utility has been effective in controlling and eloiminationg excess I/I.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 91 of 258

Used and Useful Calculations

Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Tierra Verde (241-428)

Docket No.: 160101-WS

160101 WC

Test Year Ended: December 31, 2015

Schedule F-7 Page 1 of 1

Preparer: F. Seidman

Explanation: Provide all calculations, analyses and governmental requirements used to determine the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contribted or buil-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Wastewater Collection System

In Docket No. 080248-SU, Order No. PSC-09-0372-PAA-SU, the Commission found the wastewater collection system to be 100% used and useful because the collection system in place was needed to serve the current customers. There has been no change to the collection system. It should remain 100% used and useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 92 of 258

Margin Reserve Calculations

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Tierra Verde (241-428)

Schedule F-8

Docket No.: 160101-WS

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: F. Seidman

Explanation: If a margin reserve is requested, provide all calculations and analyses used to determine the amount of margin reserve for each portion of used and useful

plant.

Recap Schedules: F-5,F-6,F-7

Wastewater Treatment & Related Facilities

Not Applicable - All sewage treatment service purchased from City of St. Petersburg.

Collection System

Not Applicable - System is built out. See Sch. F-7.

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Schedule F-10 Page 1 of 1 Preparer: F. Seidman

Company: Utilities, Inc. of Florida - Tierra Verde (241-428)

Docket No.: 160101-WS Test Year Ended: December 31, 2015

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Mete	r Equivalent I	ERCs	SFR	Gallons/	Total	Total	Annual
Line			See Note		Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
2	2011	922	925	924	N/A	N/A	N/A	924	-
3	2012	925	931	928	N/A	N/A	N/A	928	0.49%
4	2013	931	932	932	N/A	N/A	N/A	932	0.38%
5	2014	932	937	935	N/A	N/A	N/A	935	0.32%
6	2015	937	952	945	N/A	N/A	N/A	945	1.07%
					Average G	rowth Through 5-Y	Year Period (Col. 8)		0.59%

NOTE: Water is supplied by the City of St. Petersburg. Wastewater customer pay a flat rate. The City no longer maintains historical records regarding the gallons used by class or in total. Therefore, the growth analysis above is based on the historical number of meters equivalents as shown in the Utility's annual report at Schedule S-11. Since the Utility purchases all treatment and disposal service and the collection system is 100% used and useful (Sch. 7), the growth factor is not relevant.

Regression Analysis per Rule 25-30.431(2)(C)

		<u>X</u>	<u>Y</u>	
Constant:	916.25	1	924	
X Coefficient	5.25	2	928	
R^2:	0.911533692	3	932	
		4	935	
		5	945	
Projection based on regres			10	EDC-
Projected 5 year growth p	ast TY		10	ERCs
Average annual growth			2.00	ERCs
Projection based on averag	zes			
Projected 5 year growth p	ast TY		28	ERCs
Average annual growth			5.57	ERCs
Average annual grown			3.37	ERCS

Company: Lake Utilities Services, Inc. excluding Four Lakes & Lake Saunders

Docket No.: 160101-WS

Historical Year Ended: December 31, 2015

Florida Public Service Commission

Schedule F-1 Page 1 of 3

Preparer: Seidman, F.

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (2)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)					
Jan-15	96.718	95.33	0.000	94.613	4.187	-3.468	-3.6%
Feb-15	85.108	83.89	0.000	83.097	1.023	-0.227	-0.3%
Mar-15	112.799	111.26	0.000	82.571	0.489	28.196	25.3%
Apr-15	124.772	123.37	0.000	111.987	0.472	10.908	8.8%
May-15	159.393	157.99	0.000	140.875	0.492	16.620	10.5%
Jun-15	135.239	134.37	0.000	141.800	0.395	-7.830	-5.8%
Jul-15	116.346	115.50	0.000	127.013	0.409	-11.920	-10.3%
Aug-15	103.573	102.91	0.000	101.905	0.602	0.403	0.4%
Sep-15	102.768	102.17	0.000	97.019	0.429	4.726	4.6%
Oct-15	132.822	132.01	0.000	97.363	0.339	34.304	26.0%
Nov-15	121.415	120.64	0.000	123.557	0.444	-3.357	-2.8%
Dec-15	115.198	114.50	0.000	112.104	0.425	1.968	1.7%
Total	1,406.151	1,393.933	0.000	1,313.905	9.704	70.324	5.0%

(Above data in millions of gallons)

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of gallons sold:

Excludes Four Lakes & Lake Saunders, which are stand alone systems.

Reconciliation of Gallons Sold shown in Schedules F-1, F-9 and E-2:

The total gallons sold for LUSI excluding Four Lakes and Lake Saunders, as shown on Schedule F-1 and F-9, are the same. The total gallons sold for per Schedule E-2 is 1,322,430 k-gallons, a difference of 8,525 k-gallons or only 0.645%. This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

Company: Lake Utilities Services, Inc. - Four Lakes

Docket No.: 160101-WS

Historical Year Ended: June 30, 2010

Florida Public Service Commission

Schedule F-1 Page 2 of 3

Preparer: Seidman, F.

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (2)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)					
Jan-15	0.512	0.505	0.000	0.493	0.018	-0.007	-1.3%
Feb-15	0.442	0.436	0.000	0.413	0.046	-0.023	-5.4%
Mar-15	0.575	0.567	0.000	0.375	0.022	0.170	30.1%
Apr-15	0.620	0.611	0.000	0.450	0.016	0.145	23.7%
May-15	0.864	0.852	0.000	0.630	0.012	0.210	24.6%
Jun-15	0.643	0.634	0.000	0.722	0.018	-0.106	-16.7%
Jul-15	0.558	0.550	0.000	0.488	0.014	0.048	8.6%
Aug-15	0.506	0.499	0.000	0.532	0.015	-0.048	-9.6%
Sep-15	0.468	0.461	0.000	0.421	0.018	0.022	4.9%
Oct-15	0.605	0.597	0.000	0.435	0.018	0.143	24.0%
Nov-15	0.580	0.572	0.000	0.505	0.030	0.036	6.4%
Dec-15	0.574	0.566	0.000	0.530	0.014	0.023	4.0%
Total	6.947	6.850	0.000	5.994	0.242	0.614	9.0%

(Above data in millions of gallons)

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of Gallons Sold shown in Schedules F-1, F-9 and E-2:

The total gallons sold for Four Lakes as shown on Schedule F-1 and F-9, are the same.

The total gallons sold for per Schedule E-2 is 5.990 k-gallons, virtually the same.

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

Company: Lake Utilities Services, Inc. - Lake Saunders

Docket No.: 160101-WS

Historical Year Ended: June 30, 2010

Florida Public Service Commission

Schedule F-1 Page 3 of 3

Preparer: Seidman, F.

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

	(1)		(2)	(3)	(4)	(5)	(6) %
Month/ Year	Total Gallons Pumped Per MORs	Total Gallons Corrected for Meter Error (1)	Gallons Purchased	Gallons Sold	Other Uses (2)	Unaccounted For Water (1)+(2)-(3)-(4)	Unaccounted For Water
Jan-15	0.344	0.337	0.000	0.177	0.122	0.037	11.1%
Feb-15	0.378	0.370	0.000	0.177	0.178	0.009	2.4%
Mar-15	0.347	0.340	0.000	0.175	0.183	-0.018	-5.4%
Apr-15	0.396	0.388	0.000	0.183	0.186	0.019	4.9%
May-15	0.456	0.447	0.000	0.247	0.156	0.043	9.7%
Jun-15	0.385	0.377	0.000	0.252	0.164	-0.039	-10.3%
Jul-15	0.369	0.361	0.000	0.210	0.194	-0.042	-11.7%
Aug-15	0.353	0.346	0.000	0.187	0.172	-0.012	-3.4%
Sep-15	0.337	0.347	0.000	0.166	0.179	0.002	0.5%
Oct-15	0.337	0.347	0.000	0.177	0.176	-0.006	-1.9%
Nov-15	0.326	0.335	0.000	0.161	0.172	0.003	0.9%
Dec-15	0.335	0.345	0.000	0.166	0.193	-0.013	-3.9%
Total	4.363	4.341	0.000	2.284	2.074	-0.018	-0.4%
	(Above data in m	illions of gallons)	=======	========		========	========

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of Gallons Sold shown in Schedules F-1, F-9 and E-2:

The total gallons sold for Lake Saunders, as shown on Schedule F-1 and F-9 are the same.

The total gallons sold for per Schedule E-2 is 2.282 mg, virtually the same.

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

Company: Lake Utilities Services, Inc. excluding Four Lakes & Lake Saunders

Docket No.: 160101-WS

Historical Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

	(1)	(2) Individual	(3) Plant Flows	(4)	(5)	(6) Total Purch.
Month/					Total Plant	Sewage
Year	Lake Groves	(Name)	(Name)	(Name)	Flows	Treatment
Jan-15	15.03				15.03	
Feb-15	13.86				13.86	
Mar-15	16.47				16.47	
Apr-15	13.49				13.49	
May-15	12.68				12.68	
Jun-15	12.34				12.34	
Jul-15	15.01				15.01	
Aug-15	13.94				13.94	
Sep-15	11.95				11.95	
Oct-15	13.69				13.69	
Nov-15	14.22				14.22	
Dec-15	11.98				11.98	-
Total	164.66				164.66	
	(Alexandra)	======================================	========	=======	=========	========

(Above data in thousands of gallons)

Water Treatment Plant Data

Florida Public Service Commission

Company: Lake Utilities Services, Inc. excluding Four Lakes & Lake Saunders

Docket No.: 160101-WS

60101-WS

Historical Year Ended: December 31, 2015

Schedule F-3 Page 1 of 3

Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		Date	GPD
1 Plant Capacity			
The hydraulic rated capacity. If different from that shown			13,200,000
on the DEP operating or construction permit, provide an explanation.			
[Cumulative design capacity of all well systems in LUSI]			
2 Maximum Day (see Sch. F-1)			
The single day with the highest pumpage rate for the test year.		5/21/2015	7,199,000
Explain, on a separate sheet of paper if fire flow, line breaks,	•		
or other unusual occurrences affected the flow this day.			
3 Five Day Max. Year (see Sch. F-1)			
The five days with the highest pumpage rate from any one month	(1)	5/17/2015	6,150,000
in the test year. Provide an explanation if fire flow, line	(2)	5/18/2015	6,244,000
breaks or other unusual occurrences affected the flows on	(3)	5/31/2015	6,268,000
these days.	(4)	5/14/2015	6,852,000
	(5)	5/21/2015	7,199,000
		AVERAGE	6,542,600
		Max Month	5,096,350
4 Average Daily Flow		Annual	3,818,996

5 Required Fire Flow [Lake County Code]

500 gpm x 2 hrs

Water Treatment Plant Data

Florida Public Service Commission

Company: Lake Utilities Services, Inc. - Four Lakes

Docket No.: 160101-WS

Historical Year Ended: December 31, 2015

Schedule F-3 Page 2 of 3

Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		Date	GPD
1 Plant Capacity			
The hydraulic rated capacity. If different from that shown			151,200
on the DEP operating or construction permit, provide an explanation.			
[Limited by Water Use Permit peak month withdrawal]			
2 Maximum Day (see Sch. F-1, page 2)			
The single day with the highest pumpage rate for the test year.		6/17/2015	36,000
Explain, on a separate sheet of paper if fire flow, line breaks,	-		
or other unusual occurrences affected the flow this day.			
3 Five Day Max. Year (see Sch. F-1, page 2)			
The five days with the highest pumpage rate from any one month	(1)	5/29/2015	34,000
in the test year. Provide an explanation if fire flow, line	(2)	5/11/2015	35,000
breaks or other unusual occurrences affected the flows on	(3)	5/14/2015	35,000
these days.	(4)	5/23/2015	35,000
	(5)	5/24/2015	35,000
		AVERAGE	34,800
		Max Month	27,481
4 Average Daily Flow		Annual	18,766

5 Required Fire Flow [Lake County Code]

1200 gpm x 2 hrs

Water Treatment Plant Data

Florida Public Service Commission

Company: Lake Utilities Services, Inc. - Lake Saunders

Docket No.: 160101-WS

Historical Year Ended: December 31, 2015

Schedule F-3 Page 3 of 3

Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		Date	GPD
1 Plant Capacity			
The hydraulic rated capacity. If different from that shown			432,000
on the DEP operating or construction permit, provide an explanation.			
[Limited by Water Use Permit peak month withdrawal]			
2 Maximum Day (see Sch. F-1, page 2)			
The single day with the highest pumpage rate for the test year.		7/10/2015	32,000
Explain, on a separate sheet of paper if fire flow, line breaks,	•	Tested PRV	
or other unusual occurrences affected the flow this day.		3/23/2015	31,000
3 Five Day Max. Year (see Sch. F-1, page 2)			
The five days with the highest pumpage rate from any one month	(1)	5/242015	19,000
in the test year. Provide an explanation if fire flow, line	(2)	5/2/2015	20,000
breaks or other unusual occurrences affected the flows on	(3)	5/3/2015	20,000
these days.	(4)	5/8/2015	21,000
	(5)	5/152015	21,000
		AVERAGE	20,200
		Max Month	14,410
4 Average Daily Flow		Annual	11,892

5 Required Fire Flow [Lake County Code]

1200 gpm x 2 hrs

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 101 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Lake Utilities Services, Inc. excluding Four Lakes & Lake Saunders

Docket No.: 160101-WS

Historical Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		MONTH	GPD
1.	Plant Capacity (AADF)		999,000
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation. Note: Although the plant was expanded to 1 mgd, the permit allows operation at .499 mgd as long as the AADF remains below .500 mgd.		
2.	Average Daily Flow Max Month (a) Annual Average Daily Flow	March, 2015	531,387 451,110

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods. Used and Useful Calculations - Historic

Water Treatment Plant

Florida Public Service Commission

Company: Lake Utilities Services, Inc. excluding Four Lakes & Lake Saunders

Docket No.: 160101-WS

Schedule F-5 Page 1 of 4

100.00%

Historical Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	11,680 gpm
Firm Reliable well pumping capacity (largest well out), gpm	8,680 gpm
Ground storage capacity, gal.	3,374,685 gallons
0 1 1/0	, , 8
Usable ground storage (90%), gal.	3,037,217 gallons
Elevated Storage	
Usable elevated storage (100%)	
Hydropneumatic storage capacity, gal.	54,900 gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	3,037,217 gallons

Maximum day demand,	7,199,000 gpd
Peak hour demand = $2 \times \max \frac{day}{1440}$	9,999 gpd

Fire flow requirement	500 gpm for x 2 hours	60,000 gpd
Fire flow requirement	500 gpm for x 2 hours	60,000

Unaccounted for water	5.04% of water pumped	192,668 gpd, avg
Acceptable unaccounted for	10.00%	381,900 gpd, avg
Excess unaccounted for		0 gpd, avg

Used & Useful Analysis, inaccordance with Rule 25-30.4325;

Water Treatment Facilities, usable storage Percent Used & Useful = (A + B + C - D)/E x 100%, where:

	, , ,	
$\mathbf{A} =$	Peak demand (Max Day)	7,199,000 gpd
$\mathbf{B} =$	Property needed to serve five years after TY	1,185,167 gpd
C =	Fire flow demand	60,000 gpd
$\mathbf{D} =$	Excess Unaccounted for water	0 gpd
$\mathbf{E} =$	Firm Reliable Capacity (16 hours)	8,332,800 gpd

The above used and useful factor is applicable to all source of supply, pumping and treatment accounts.

Storage

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where:		100.00%
A =	Peak demand (Max Day)	7,199,000 gpd
$\mathbf{B} =$	Property needed to serve five years after TY	1,185,167 gpd
C =	Fire flow demand	60,000 gpd
$\mathbf{D} =$	Excess Unaccounted for water	0 gpd
$\mathbf{E} =$	Firm Reliable Capacity (Usable Capacity)	3,037,217 gallons

The above used and useful factor is applicable to the distribution reservoir account.

Used and Useful Calculations - Historic

Florida Public Service Commission

100.00%

Water Treatment Plant

Company: Lake Utilities Services, Inc. - Four Lakes

Docket No.: 160101-WS

Schedule F-5

Page 2 of 4

Historical Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	180 gpm
Firm Reliable well pumping capacity (largest well out), gpm	90 gpm
Ground storage capacity, gal.	0 gallons
Usable ground storage (90%), gal.	0 gallons
Elevated Storage	ē
Usable elevated storage (100%)	
Hydropneumatic storage capacity, gal.	2,000 gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	0 gallons

Maximum day demand,	36,000 gpd
Peak hour demand = $2 \times \max \frac{day}{1440}$	50 gpm

Fire flow requirement	500 gpm for x 2 hours	500 gpm
Unaccounted for water Acceptable unaccounted for	8.96% of water pumped 10.00%	1.168 gpm 1.303 gpm
Excess unaccounted for		0 gpm

Used & Useful Analysis, inaccordance with Rule 25-30.4325;

$\frac{Water\ Treatment\ Facilities,\ no\ usable\ storage}{Percent\ Used\ \&\ Useful = (A+B+C-D)/E\ x\ 100\%,\ where:}$

$\mathbf{A} =$	Peak demand (Max Day) - Peak hour	50 gpm
B =	Property needed to serve five years after TY	0.0 gpm
$\mathbf{C} =$	Fire flow demand	500 gpm
D =	Excess Unaccounted for water	0.0 gpm
$\mathbf{E} =$	Firm Reliable Capacity	90 gpm

The above used and useful factor is applicable to all source of supply, pumping and treatment accounts, as well as the land, structures and distribution reservoir accounts.

Used and Useful Calculations - Historic

Water Treatment Plant

Florida Public Service Commission

Company: Lake Utilities Services, Inc. - Lake Saunders

Docket No.: 160101-WS

Schedule F-5

Page 3 of 4

Historical Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	600 gpm
Firm Reliable well pumping capacity (largest well out), gpm	300 gpm

Ground storage capacity, gal. 0 gallons
Usable ground storage (90%), gal. 0 gallons

Elevated Storage

Usable elevated storage (100%)

Hydropneumatic storage capacity, gal. 5,000 gallons
Usable hydropneumatic storage capacity (0.00%), gal. 0 gallons
Total usable storage, gal. 0 gallons

Maximum day demand, 31,000 gpd Peak hour demand = 2 x max day/1440 43 gpm

Fire flow requirement 500 gpm for x 2 hours 500 gpm

Unaccounted for water -0.42% of water pumped -0.034 gpm
Acceptable unaccounted for 10.00% 0.826 gpm
Excess unaccounted for 0 gpm

Used & Useful Analysis, inaccordance with Rule 25-30.4325;

Water Treatment Facilities, no usable storage

Percent Used & Useful = (A + B + C - D)/E x 100%, where: 100.00%

$\mathbf{A} =$	Peak demand (Max Day) - Peak hour	43 gpm
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpm
$\mathbf{C} =$	Fire flow demand	500 gpm
$\mathbf{D} =$	Excess Unaccounted for water	0.0 gpm
$\mathbf{E} =$	Firm Reliable Capacity	300 gpm

The above used and useful factor is applicable to all source of supply, pumping and treatment accounts, as well as the land, structures and distribution reservoir accounts.

Used and Useful Calculations - Inventory of Components

Florida Public Service Commission

Company: Lake Utilities Services, Inc. excluding Four Lakes & Lake Saunders Docket No.: 160101-WS

Wells

Historical Year Ended: December 31, 2015

Schedule F-5 Page 4 of 4 Preparer: Seidman, F.

The LUSI Combined system covers an extended area and is composed of multiple wells and storage facilities. These facilities are interconnected and serve the service area as a whole. As such, the system is analyzed for used & useful as a single system. The capacities and descriptions of the components are shown below.

<u>Name</u> Lake Louisa WTP	PWS ID# 3354883-02	Location Vistas Vistas	Well No. 1/AAH6658 3/AAH2778	Yr Drilled 1988 2003	Pump Capacity gpm 1,000 625	Max Day Design, gpd 1,944,000	Storage MG 1.0000 incl.	Type G	<u>Source</u> Sanitary Survey 1/14/10	Confirmed Survey 4/14/2015
Vistas	3354883-02	Vistas	2/AAH6686	1993	750	822,000	0.1000 0.0150	G H*	Sanitary Survey 1/14/10	Confirmed Survey 4/14/2015 * Updated Survey 4/14/2015
Lake Ridge Club	3354883-05	L. Ridge Club	1/Unknown	1990	650	468,000	0.0070	н	Sanitary Survey 1/14/10	Confirmed Survey 9/14/2014
Amber Hill	3354883-06	Amber Hill	1/Unknown	1985	500	396,000	0.0075	Н	Sanitary Survey 1/14/10	Confirmed Survey 9/24/2014
Clermont #1	3354883-07	Four Winds	1/AAH6674 2/AAH6675	1940 1980	236 54	115,000	0.0010 0.0009	H H	Sanitary Survey 1/14/10	Confirmed Survey 4/14/2015
Clermont #2	3354883-08	Carr Water System	1/AAH6677 2/AAH6676	1939 1963	45 75	71,000	0.0035	Н*	Sanitary Survey 1/14/10	Confirmed Survey 4/14/2015 * Updated Survey 4/14/2015
Crescent Bay	3354883-09	Crescent Bay	2/AAH6683	1995	700	396,000	0.0100	Н	Sanitary Survey 1/14/10	Confirmed Survey 4/14/2015
The Oranges	3354883-10	The Oranges	1/AAH6684	1986	530	396,000	-	Н*	Sanitary Survey 1/14/10	Confirmed Survey 4/14/2015 * Updated Survey 4/14/2015
C.R. 561		L. Crescent Hills Crescent West	2/AAH6681 3/Unknown*	1991 1987	600 690	2,592,000	0.7500	G	Sanitary Survey 1/14/10	Confirmed Survey 9/24/2014 * Updated Survey 4/14/2015
	3354883-11	Highland Point	1/AAH4420*	1986	600	240,000	0.0100	н	Sanitary Survey 1/14/10	Note: Included in C.R. 561 design capacity; only applies if operated as stand-alone.
LUSI South	3354881	Lake Grove	AAH6688 AAH6687 AAI5838	1991 1992 2005	1,000 625 3,000	6,000,000	- 0.5000 1.0000 0.0247	H G G GC*	Sanitary Survey 1/15/10 3 @ 2500 2 @ 1500	Confirmed Survey 4/14/2015 * Updated Survey 4/14/2015
Totals					11,680	13,200,000	3.3747 0.0549	G H		
Stand Alone Systems					Capacity	Design, gpd	Gal	Туре		
Lake Saunders	PWS ID # 3354695	Location L. Saunders L. Saunders		Yr Drilled 1 1984 2 1984	gpm 300 300	432,000	5,000			O Confirmed Survey 4/15/2015
		Wells			Pump	Max Day	Storage			
	PWS ID#	Location	Well No.	Yr Drilled	Capacity gpm	Design, gpd	Gal	Type	Source:	
Four Lakes	3354647	Four Lakes Four Lakes		1 1980 2 1980	90 90	151,200	2,000	Н	Sanitary Survey 10/08/09	Confirmed Survey 4/15/2015
Wastewater WWTP	0.99	99 MGD, AADF								
Land application Land application		.5 MGD, AADF RIBs 99 MGD, AADF Reuse ir		7 acres						

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Used and Useful Calculations Wastewater Treatment Plant **FPSC**

 $Company: \ Lake \ Utilities \ Services, Inc. \ excluding \ Four \ Lakes \ \& \ Lake \ Saunders$

Docket No.: 160101-WS

Schedule F-6 Page 1 of 2

Historical Year Ended: December 31, 2015

Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Line <u>No.</u>

1	(A) Used and useful flow, GPD	
2	AADF	451,110

Less: Excessive I&I (from Sch. F-6, page 2) <u>0</u>

Net Used and useful flow, GPD 451,110

3 (B) Property needed for post test year period (See F-8) 135,110

4 (C) Permitted capacity 999,000

7 (E) Non-used and useful percentage 41.00 % 8 (E1) 0.00 %

The above used and useful percentage is applicable to Treatment and Disposal accounts except reuse accounts. All Reuse, Pumping, Intangible and General Plant is considered 100% Used & Useful.

Used and Useful Calculations Wastewater Treatment Plant

Company: Lake Utilities Services, Inc. excluding Four Lakes & Lake Saunders

Docket No.: 160101-WS

Historical Year Ended: December 31, 2015

FPSC

Schedule F-6 Page 2 of 2

Preparer: Seidman, F.

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

A. Infiltration allowance, excluding service laterals

Main dia.		Main length		Allowance @ 500 gpd/inch-dia./mile		
	inches	feet	miles	gpd	gpy	
1	6	131	0.025	74		
2	8	90,664	17.171	68,685		
3	10	350	0.066	331		
4	Total	91,145	17.262	69,091	25,218,113	
5	Estimated Inflow @ 1	0% of flows (1.8)			16,514,956	
6	Allowable I&I				41,733,069	
	B. Actual Inflow & In	filtration (I&I)				
7	Wastewater treated				164,655,000	
				Estimated returned *		
8	Water Gallons used b	y WW cust.	369,274,419	45%	165,149,561	
9	Estimated flows retur	rned			165,149,561	

* Homes & common areas are heavily landscaped and the soil is very porous, lik sugar sand. Per F-10, average water use is 107,330 gals per year or 8,944 per month per SFR. This is a considerable improvement since the last case, but assuming just 4,000 gallons per mo per SFRfor basic water, 4,000/8,944 equates to to a 45% return to wastewater. In the last case it was only 30% return

10	Estimated I&I (treated less returned) [1.7-1.9]	-494,561
11	Actual less allowable [l.10-l.6]	-42,227,630
12	Excess, if any [l.10-l.6, if positive]	0
13	Excess as percent of wastewater treated	0.00%

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Used and Useful Calculations Florida Public Service Commission

Water Distribution and Wastewater Collection Systems

Company: Lake Utilities Services, Inc. excluding Four Lakes & Lake Saunders

Schedule F-7

Docket No.: 160101-WS

Page 1 of 1

Historical Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution & Wastewater Collection Systems

In Docke No. 100426-WS, the Commission found that all the water & wastewater distribution & collection mains are contributed to the Utility in all three service area and should be considered 100% used and useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 109 of 258

Margin Reserve Calculations - Historic

Florida Public Service Commission

Company: Lake Utilities Services, Inc. excluding Four Lakes & Lake Saunders

Docket No.: 160101-WS

Historical Year Ended: December 31, 2015

Schedule F-8 Page 1 of 1

Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Water Source, Pumping, Treatment & Storage - Combined Excl. Four Lakes & Lake Saunders

 $PN = EG \times PT \times U$

where:

EG = Equivalent annual growth in ERCs (Sch. F-9) 346.50 ERCs/yr PT = Post test year period per statute 5 yrs

U = Unit of measure utilized in U&U calculations (Sch. F-3, F-9) 684.07 max day gpd/ERC

PN = Property needed expressed in U units 1,185,167 gpd

NOTE: U = T/A, where:

T = TY Max Day gallons (from Sch. F-3) A = TY Total ERCs (from Sch. F-9)

Water Source, Pumping, Treatment & Storage - Four Lakes & Lake Saunders

In Docket No. 100426-WS, the Commission found the Four Lakes and Lake Saunders system to be built with no growth. There is no growth margin.

Wastewater Treatment & Disposal

 $PN = EG \times PT \times U$

where:

EG = Equivalent annual growth in ERCs (Sch. F-10) 126.22 ERCs/yr
PT = Post test year period per statute 5 yrs

U = Unit of measure utilized in U&U calculations (Sch. F-2, F-10) 131.12 avg day gpd/ERC

PN = Property needed expressed in U units 82,750 gpd

NOTE: U = T/A, where:

T = TY treated gallons (from Sch. F-2) A = TY Total ERCs (from Sch. F-10)

In addition, there are 152 prepaid lots in Sawgrass Bay and 35 prepaid lots in the Lake Grove service are =

187 prepaid lots @ 280 gpd/ERC 52,360 gpd

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 110 of 258

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Lake Utilities Services, Inc. excluding Four Lakes & Lake Saunders

Schedule F-9 Page 1 of 3

Docket No.: 160101-WS

Preparer: Seidman, F.

Historical Year Ended: December 31, 2015

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) Total	(9)	
		SFR Customers			SFR		Gallons/ Total		Annual	
Line					Gallons	SFR	Gallons	ERCs	% Incr.	
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs	
1	2011	8,607	8,752	8,680	1,572,524,424	181,177	1,650,403,054	9,109		
2	2012	8,752	9,040	8,896	1,416,932,400	159,277	1,499,345,670	9,413	3.34%	
3	2013	9,040	9,574	9,307	1,274,266,460	136,915	1,343,465,180	9,812	4.24%	
4	2014	9,574	9,709	9,642	1,161,091,544	120,426	1,216,804,856	10,104	2.97%	
5	2015	9,709	10,011	9,860	1,231,036,774	124,852	1,313,905,285	10,524	4.15%	
						Average Growth Through 5-Year Period (Col. 8)				

Regression Analysis per Rule 25-30.431(2)(C)

		<u>X</u>	<u>Y</u>	Year
Constant:	8736.763778	1	9,109	2011 Actual
X Coefficient:	351.9488815	2	9,413	2012 Actual
R^2:	0.996832675	3	9,812	2013 Actual
		4	10,104	2014 Actual
		5	10,524	2015 Actual
		10	12.256	Hist TV + 5 vrs

HISTORIC

Five year growth per regression equation:

1,733 ERCs

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Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Lake Utilities Services, Inc. - Four Lakes

Schedule F-9 Page 2 of 3

Docket No.: 160101-WS

Preparer: Seidman, F.

Historical Year Ended: December 31, 2015

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
T :		SFR Customers			SFR Gallons	Gallons/	Total Gallons	Total	Annual
Line No.	Year	Beginning	Ending	Average	Sold	SFR (5)/(4)	Sold	ERCs (7)/(6)	% Incr. in ERCs
1	2011	67	68	68	8,454,020	125,245	8,454,020	68	
2	2012	68	66	67	7,295,140	108,883	7,295,140	67	-0.74%
3	2013	66	67	67	6,757,760	101,620	6,757,760	67	-0.75%
4	2014	67	67	67	6,369,280	95,064	6,369,280	67	0.75%
5	2015	67	68	68	5,994,400	88,806 Average Growth Th	5,994,400 rough 5-Year Period (Col. 8)	68	0.75%

Regression Analysis per Rule 25-30.431(2)(C)

		<u>X</u>	<u>Y</u>	Year
Constant:	67.1	1	68	2011 Actual
X Coefficient:	0.00	2	67	2012 Actual
R^2:	0.00	3	67	2013 Actual
		4	67	2014 Actual
		5	68	2015 Actual
		10	67	Hist TY + 5 yrs

HISTORIC

Five year growth per regression equation:

(0.40) ERCs

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Lake Utilities Services, Inc. - Lake Saunders

Schedule F-9 Page 3 of 3

Docket No.: 160101-WS

Preparer: Seidman, F.

Historical Year Ended: December 31, 2015

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		SFR Customers			SFR	Gallons/	Total	Total	Annual
Line		(I			Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	43	43	43	2,099,460	48,825	2,099,460	43	
2	2012	43	40	42	2,293,630	55,268	2,293,630	42	-3.49%
3	2013	40	42	41	2,258,030	55,074	2,258,030	41	-1.20%
4	2014	42	40	41	1,969,940	48,047	1,969,940	41	0.00%
5	2015	40	39	40	2,284,430	57,834 Average Growth Th	2,284,430 rough 5-Year Period (Col. 8)	40	-3.66%

Regression	Analysis per	Rule 2	25-30.431(2)(C)
------------	--------------	--------	-----------------

		<u>X</u>	<u>Y</u>	Year
Constant:	43.45	1	43	2011 Actual
X Coefficient:	-0.75	2	42	2012 Actual
R^2:	0.892857143	3	41	2013 Actual
		4	41	2015 Actual
		5	40	2015 Actual
		10	36	Hist TY + 5 yrs

HISTORIC

Five year growth per regression equation:

(3.55) ERCs

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Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Lake Utilities Services, Inc. excluding Four Lakes & Lake Saunders

Docket No.: 160101-WS

Historical Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Customer	S	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	2,809	2,841	2,825	478,901,073	169,523	491,445,023	2,899	
-		2,003	-,0.1	2,020	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10,,020	.> 1, 1 10, 0 20	2,055	
2	2012	2,841	2,925	2,883	436,113,401	151,271	451,281,071	2,983	2.91%
3	2013	2,925	3,046	2,986	375,424,506	125,749	389,371,356	3,096	3.79%
4	2014	3,046	3,177	3,112	351,613,863	113,005	366,378,003	3,242	4.71%
5	2015	3,177	3,327	3,252	349,036,825	107,330	369,274,419	3,441	6.12%
					Aver	age Growth Throug	h 5-Year Period (Col. 8)		4.38%

NOTE: The above history of gallons is the gallons used by wastewater customers, not the gallons billed (and capped). Gallons billed was not used because there is not a history readily available. Also, gallons billed reflects an arbitrary cap and is not necessarily indicative of gallons treated.

Regression Analysis per Rule 25-30.431(2)(C)

			<u>X</u>	<u>Y</u>	Year
	Constant:	2729.675722	1	2,899	2011 Actual
	X Coefficient:	134.2000907	2	2,983	2012 Actual
	R^2:	0.973402055	3	3,096	2013 Actual
			4	3,242	2014 Actual
			5	3,441	2015 Actual
			10	4,072	Hist TY + 5 yrs
HISTORIC					-
Five year growth per regression equation:				631	ERCs
Five year gr	owth per 5% per year m	aximum		951	ERCs

$\underline{Reconciliation\ of\ Water\ Gallons\ Sold\ to\ WW\ Customers\ shown\ in\ Schedules\ F-10\ and\ E-2:}$

The total water gallons sold to wastewater customers, shown above is 463,627,836. The total water gallons sold to wastewater customers shown on Schedule E-2 is 463,760,000. The difference is 132,164 galloms or only .0285% of the amount shown on E-2. This is due to the fact that the amount on F-10 is the sum of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Summertree (252-414)

Schedule F-1 Page 1 of 1

Docket No.: 160101-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

	(1)		(2)	(3)	(4)	(5) Unaccounted
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water
Year	Pumped	Corrected for	Purchased	Sold	Uses (2)(3)	(1)+(2)-(3)-(4)
	Per MORs	Meter Error (1)				
Jan-15	8.036	8.036	0.000	2.687	4.339	1.011
Feb-15	6.610	6.610	0.000	2.554	3.929	0.127
Mar-15	6.297	6.297	0.000	2.432	3.350	0.516
Apr-15	4.662	4.662	0.000	2.534	1.998	0.129
May-15	4.172	4.172	0.000	2.376	1.787	0.008
Jun-15	4.096	4.096	0.000	1.840	2.056	0.200
Jul-15	4.010	4.010	0.000	1.871	1.827	0.311
Aug-15	3.900	3.900	0.000	2.047	1.872	-0.020
Sep-15	4.014	4.014	0.000	2.039	1.797	0.178
Oct-15	4.118	4.118	0.000	2.147	1.644	0.328
Nov-15	4.096	4.096	0.000	2.475	1.590	0.032
Dec-15	4.588	4.588	0.000	2.356	1.666	0.566
Total	58.599	58.599	0.000	27.358	27.854	3.387

(Above data in millions of gallons)

- (1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flo meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are n necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistent thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration. For Summertree, there no deviations to correct.
- (2) Other Uses includes such uses as line breaks, flushing and water quality testing
- (3) The water at Summertree is high in trichloromethanes that require disinfection using chloramination. There is also a high iror groundwater requiring treatment with polyphosphate to sequester it. In the last case, Docket No. 120209-WS, it was recognized I strike a balance in treatment under these conditions. To do so has required a large volume of flushing on a daily basis to maintair throughout the system. This practice is expected to continue until such time as the Utility interconnects with the Pasco County w resulting reliance on Pasco for all water supply is expected to provide a more stable water quality and a reduction in flushing volu preference is being surveyed, and if they support the switch to Pasco County water, the two systems should be interconnected w supplying 100% of the water in 2016.

Reconciliation of gallons sold:

Reconciliation of gallons sold: The amounts on Sch. F-1 and F-9 are the same. Sch. E-2 shows the total for Pasco County, consisting of Orangewood and Summertree. The amount on Sch E-2 is 82,000 gallons less than the totals of those shown on Sch. F-1 and F-9 for Orangewood and Summertree, or a difference of only .00005% The amount is diminimis.

Gallons of Wastewater Treated In Thousands of Gallons

Florida Public Service Commission

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

Company: Utilities, Inc. of Florida - Pasco - Summertree (252-414)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

	(1) (2)		(3) (4) ividual Plant Flows		(5)	(6) Total Purch.	
Month/ Year	(Name)	(Name)	(Name)	(Name)	Total Plant Flows	Sewage Treatment	
Jan-15					0.000	3.034	
Feb-15					0.000	3.051	
Mar-15					0.000	2.847	
Apr-15					0.000	2.727	
May-15					0.000	2.417	
Jun-15					0.000	1.832	
Jul-15					0.000	2.778	
Aug-15					0.000	3.645	
Sep-15					0.000	2.609	
Oct-15					0.000	2.771	
Nov-15					0.000	2.787	
Dec-15					0.000	2.852	
Total	0.000				0.000	33.347	
	=======================================	==========	==========	==========	==========	==========	

All sewage pumped to Pasco County

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 116 of 258

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Summertree (252-414)

Schedule F-3 Docket No.: 160101-WS Page 1 of 1 Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

				Date	GPD
1 Plant Capacity					
The hydraulic rated capacity. If d		(Max day per CUP)			386,200
on the DEP operating or construc	ction permit, provide an explanation.				
2 Maximum Day					
The single day with the highest p	umpage rate for the test year.		_	1/3/2015	338,000
Explain, on a separate sheet of pa	aper if fire flow, line breaks,		_		
or other unusual occurrences aff	ected the flow this day.				
** All water is purchased from C	Orland Utilities Commission (OUC). Utility				
does submit an MOR, but read	ings are not daily.				
3 Five Day Max. Year					
The five days with the highest pu		(1)	1/10/2015	304,000	
in the test year. Provide an expla		(2)	1/22/2015	304,000	
breaks or other unusual occurrer		(3)	1/24/2015	309,000	
these days.			(4)	1/1/2015	324,000
			(5)	1/3/2015	338,000
				AVERAGE	315,800
				Max Month	259,226
4 Average Daily Flow				Annual	160,545
5 Required Fire Flow	(Mixed single & multi-family)		1,000 gpm for 2 hours		
5 Nequired File Flow	(iviixeu siligie & iliulti-idililiy)			1,000 gpiii ioi 2 ilou	13

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 117 of 258

Wastewater Treatment Plant Data

2.

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Summertree (252-414)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

MONTH

GPD

Not Applicable - all sewage pumped to Pasco County

1. Plant Capacity

The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

Average Daily Flow Max Month (a)

Schedule F-5

Used and Useful Calculations Water Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Summertree (252-414)

Docket No.: 160101-WS Page 1 of 1
Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	1,291 gpm
Firm Reliable well pumping capacity (largest well out), gpm	891 gpm

Ground storage capacity, gal.	0 gallons
Usable ground storage (90%), gal.	0 gallons
Elevated Storage	0 gallons
Usable ground storage (100%), gal.	0 gallons
Hydropneumatic storage capacity, gal.	22,500 gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	0 gallons

Maximum day demand,	338,000 gpd
Peak hour demand = 2x max day/1440	469 gpm

Fire flow requirement	1,000 gpm for 2 hours	120,000 gpd

Unaccounted for water	5.78% of water pumped	6 gpm
Acceptable unaccounted for	10.00%	11 gpm
Excess unaccounted for		0 gpm

Used & Useful Analysis, in accordance with Rule 25-30.4325:

No Usable Storage

Water Treatment Plant, no usable storage

Percent Used & Useful = (A + B + C - D)/E x 100%, where: 100.00%

A =	Peak demand	469 gpm
B =	Property needed to serve five years after TY	0 gpm
C =	Fire flow demand	1,000 gpm
D =	Excess Unaccounted for water	0 gpm
E =	Firm Reliable Capacity	891 gpm

The above used and useful factor is applicable to all source of supply, pumping, storage and treatment accounts.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 119 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Summertree (252-414)

Schedule F-6 Docket No.: 160101-WS Page 1 of 2 Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Not Applicable - all sewage pumped to Pasco County

The wastewater interconnection is considered to be 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 120 of 258

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Summertree (252-414)

Schedule F-6 Docket No.: 160101-WS Page 2 of 2 Test Year Ended: December 31, 2015 Preparer: F. Seidman

SUMMERTREE PURCHASES

A. Infiltration allowance, excluding service laterals

	Main dia.	Main length		A			
	inches	feet	miles	٥.	pd/inch-dia./mile pd gpy		
		4	372	0.070	ра _{БР} у 141		
1	6		3,825	0.724	2,173		
2		3	30,585	5.793	23,170		
3	1	0	2,677	0.507	2,535		
4	Total		37,459	7.095	28,020	10,227,189	
5	Estimated Inflow @ 10% of flows (I.10)				-,	2,718,493	
6	Allowable	I&I	,			12,945,682	
	B. Actual Inflow & Infiltration (I&I)						
7	Wastewat	er treated by Pasco Cou	inty			33,347,000	
			Estimated				
		led (not capped) to:		re			
8		ntial WW cust.		26,377,016	80%	21,101,613	
9	All Other		807,910	90%	727,119		
10	Estimated	flows returned		27,184,926		21,828,732	
11	Ectimated	18.1 (treated loss returns	od) [17 10]			11,518,268	
12	Estimated I&I (treated less returned) [I.7-I.10] Actual less allowable [I.11-I.6]		eu, [1./-1.10]			-1,427,414	
13		ny [l.11-l.6, if positive]				-1,427,414 0	
13 14	-		reated			•	
14	Excess as percent of wastewater treated					0.00%	

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 121 of 258

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Schedule F-7

Company: Utilities, Inc. of Florida - Pasco - Summertree (252-414)

Docket No.: 160101-WS Page 1 of 1
Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution System

Used & useful was last set for this system in Docket Nos. 120209-WS.

The water distribution system was found to be built out and 100% U&U. Circumstances have not changed.

The system remains 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 122 of 258

Margin Reserve Calculations

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Summertree (252-414)

Schedule F-8

Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable. Used & useful was last set for this system in Docket Nos. 120209-WS.

All water is purchased. The system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 123 of 258

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Summertree (252-414)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-9
Page 1 of 1
Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2) S	(3) FR Customer	(4)	(5) SFR	(6) Gallons/	(7) Total	(8) Total	(9) Annual
Line No.	Year	Beginning	Ending	Average	Gallons Sold	SFR (5)/(4)	Gallons Sold	ERCs (7)/(6)	% Incr. in ERCs
1	2011	1,056	1,049	1,053	23,095,007	21,943	23,987,217	1,093	
2	2012	1,049	1,104	1,077	22,697,124	21,084	23,570,684	1,118	2.27%
3	2013	1,104	1,136	1,120	25,094,508	22,406	26,012,448	1,161	3.85%
4	2014	1,136	1,161	1,149	24,773,919	21,571	25,575,499	1,186	2.13%
5	2015	1,161	1,168	1,165	26,377,016	22,651 Average Growth Thro	27,357,926 ough 5-Year Period (Col. 8)	1,208	1.87% 2.53%

Regression Analysis per Rule 25-30.431(2)(C)

			<u>Y</u>
Constant:	1063.999787	1	1,093
X Coefficient:	29.70189241	2	1,118
R^2:	0.986323189	3	1,161
		4	1,186
		5	1,208
		10	1361

Five year growth Annual average growth 153 Ercs 30.64 Ercs

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Summertree (252-414)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Customer	S	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	1,055	1,049	1,052	23,095,007	21,953	23,812,957	1,085	
2	2012	1,049	1,103	1,076	22,694,204	21,091	23,364,134	1,108	2.13%
3	2013	1,103	1,136	1,120	25,091,638	22,413	25,813,638	1,152	3.97%
4	2014	1,136	1,161	1,149	24,773,919	21,571	25,437,849	1,179	2.39%
5	2015	1,161	1,168	1,165	26,377,016	22,651	27,184,926	1,200	1.77%
						Average Growth Thro	ough 5-Year Period (Col. 8)		2.56%

Regression Analysis per Rule 25-30.431(2)(C)

		<u>X</u>	<u>Y</u>
Constant:	1053.991899	1	1,085
X Coefficient:	30.24449473	2	1,108
R^2:	0.985115578	3	1,152
		4	1,179
		5	1,200
		10	1356

Five year growth Annual average growth 156 Ercs 31.25 Ercs Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Company: Utilities, Inc. of Florida - Pasco - Orangewood, Buena Vista, Wis-Bar (252-414)

Test Year Ended: December 31, 2015

Docket No.: 160101-WS Preparer: Seidman, F.

year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (2)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)					
Jan-15	5.553	5.725	0.000	5.525	0.037	0.164	2.9%
Feb-15	5.972	6.122	0.000	4.984	0.011	1.127	18.4%
Mar-15	6.839	6.918	0.000	5.282	0.013	1.623	23.5%
Apr-15	6.332	6.406	0.000	5.672	0.022	0.712	11.1%
May-15	5.939	6.009	0.000	5.132	0.013	0.863	14.4%
Jun-15	6.145	6.215	0.000	5.934	0.017	0.263	4.2%
Jul-15	6.606	6.684	0.000	4.727	0.135	1.822	27.3%
Aug-15	7.268	7.354	0.000	5.432	0.056	1.867	25.4%
Sep-15	5.972	6.039	0.000	4.559	0.042	1.437	23.8%
Oct-15	6.375	6.448	0.000	5.127	0.124	1.198	18.6%
Nov-15	6.750	6.825	0.000	4.565	0.102	2.158	31.6%
Dec-15	5.176	5.242	0.000	4.992	0.066	0.184	3.5%
Total	74.925	75.988	0.000	61.930	0.638	13.420	17.7%
	(Above data in	millions of gallons)	=======	=======	======	=======================================	========

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration. For Summertree, there no

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of gallons sold:

Reconciliation of gallons sold: The amounts on Sch. F-1 and F-9 are the same.

Sch. E-2 shows the total for Pasco County, consisting of Orangewood and

Summertree. The amount on Sch E-2 is 82,000 gallons less than the totals of those shown on Sch. F-1 and F-9 for Orangewood and Summertree, or a difference of only .00005%

The amount is diminimis.

Gallons of Wastewater Treated In Thousands of Gallons

Florida Public Service Commission

Schedule F-2

Company: Utilities, Inc. of Florida - Pasco - Orangewood, Buena Vista, Wis-Bar (252-414)

Docket No.: 160101-WS

Page 1 of 1 Preparer: Seidman, F.

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

	(1)	(2) Individua	(3) I Plant Flows	(4)	(5)	(6) Total Purch.
Month/					Total Plant	Sewage
Year	(Name)	(Name)	(Name)	(Name)	Flows	Treatment
Jan-15					0.000	0.357
Feb-15					0.000	0.350
Mar-15					0.000	0.372
Apr-15					0.000	0.301
May-15					0.000	0.269
Jun-15					0.000	0.270
Jul-15					0.000	0.623
Aug-15					0.000	1.495
Sep-15					0.000	0.493
Oct-15					0.000	0.341
Nov-15					0.000	0.314
Dec-15					0.000	0.339
Total	0.000				0.000	5.526
	========	=========	=========	========	=========	=========

(Above data in millions of gallons)

Wastewater collection is provide to the Wis-Bar area

500 gpm for 2 hours

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Orangewood, Buena Vista, Wis-Bar (252-414)

Schedule F-3 Docket No.: 160101-WS Page 1 of 1 Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

			Date	GPD
1 Plant Capacity				
The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.	(Max day per CUP)			386,200
2 Maximum Day				
The single day with the highest pumpage rate for the test year.			8/6/2015	336,800
Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day.				
3 Five Day Max. Year				
The five days with the highest pumpage rate from any one month		(1)	8/7/2015	266,300
in the test year. Provide an explanation if fire flow, line		(2)	8/11/2015	272,900
breaks or other unusual occurrences affected the flows on		(3)	8/9/2015	306,350
these days.		(4)	8/10/2015	306,350
		(5)	8/6/2015	336,800
			AVERAGE _	297,740
			Max Month	237,232
4 Average Daily Flow			Annual	208,187

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

5 Required Fire Flow

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 128 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Orangewood, Buena Vista, Wis-Bar (252-414)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

	Wastewater collection is provide to the Wis-Bar area only, and is pumped to Pasco County for treatment & disposal.	MONTH	GPD
1.	Plant Capacity		
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a)		

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

Used and Useful Calculations Water Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Orangewood, Buena Vista, Wis-Bar (252-414)

Docket No.: 160101-WS

Page 1 of 1

Test Year Ended: December 31, 2015

Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	919 gpm
Firm Reliable well pumping capacity (largest well out), gpm	678 gpm

Ground storage capacity, gal.

Usable ground storage (90%), gal.

Elevated Storage

Usable ground storage (100%), gal.

Usable ground storage (100%), gal.

Usable hydropneumatic storage capacity, gal.

Usable hydropneumatic storage capacity (0.00%), gal.

Usable storage, gal.

Maximum day demand, 336,800 gpd
Peak hour demand = 2x max day/1440 468 gpm

Fire flow requirement 500 gpm for 2 hours 60,000 gpd

Unaccounted for water17.66% of water pumped26 gpmAcceptable unaccounted for10.00%14 gpmExcess unaccounted for11 gpm

Used & Useful Analysis, in accordance with Rule 25-30.4325:

Water Treatment Plant, no usable storage

Percent Used & Useful = (A + B + C - D)/E x 100%, where: 100.00%

A =	Peak demand	468 gpm
B =	Property needed to serve five years after TY	0 gpm
C =	Fire flow demand	500 gpm
D =	Excess Unaccounted for water	11 gpm
E =	Firm Reliable Capacity	678 gpm

The above used and useful factor is applicable to all source of supply, pumping, storage and treatment accounts.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 130 of 258

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Orangewood, Buena Vista, Wis-Bar (252-414) Sch

Schedule F-6

Docket No.: 160101-WS

Page 1 of 2

Test Year Ended: December 31, 2015

Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Not Applicable - wastewater service purchased from Pasco County.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 131 of 258

Schedule F-6

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Orangewood, Buena Vista, Wis-Bar (252-414)

Docket No.: 160101-WS Page 2 of 2
Test Year Ended: December 31, 2011 Preparer: F. Seidman

ORANGEWOOD (WIS-BAR)

A. Infiltration allowance, excluding service laterals

1 2	6	Main length feet 4 5	miles 0 0 4,662	gpd, gpd 0.000 0.000 0.883	0 0 3,532	
3 4 5 6	Total Estimated Allowable	Inflow @ 10% of flows (0 4,662 I.10)	0.000 0.883	0 3,532	1,289,114 372,135 1,661,248
7	B. Actual Ir Wastewate	nflow & Infiltration(I&I er treated)			5,526,330
8 9 10	SFR Reside All Other	led (not capped) to: ntial WW cust. flows returned			mated Irned * 80% 90%	2,897,710 89,289 2,986,999
11 12 13 14	Actual less Excess, if a	I&I (treated less returne allowable [I.11-I.6] ny [I.11-I.6, if positive] percent of wastewater to	,,			2,539,332 878,083 878,083 15.89%

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 132 of 258

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Schedule F-7

Company: Utilities, Inc. of Florida - Pasco - Orangewood, Buena Vista, Wis-Bar (252-414)

Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution and Collection Systems

Used & useful was last set for this system in Docket Nos. 120209-WS.

The water distribution system and collection system were found to be built out and 100% U&U. Circumstances have not changed.

The system remains 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 133 of 258

Margin Reserve Calculations

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Orangewood, Buena Vista, Wis-Bar (252-414) Schedule F-8

Docket No.: 160101-WS Page 1 of 1
Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable. Used & useful was last set for this system in Docket Nos. 120209-WS. All water is purchased. The system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Equivalent Residential Connections - Water

Florida Public Service Commission

Schedule F-9

Page 1 of 1

Company: Utilities, Inc. of Florida - Pasco - Orangewood, Buena Vista, Wis-Bar (252-414)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Customer	s	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	1,721	1,731	1,726	58,345,821	33,804	62,953,482	1,862	
2	2012	1,731	1,643	1,687	58,148,784	34,469	62,118,027	1,802	-3.23%
3	2013	1,643	1,686	1,665	56,179,801	33,752	59,519,654	1,763	-2.15%
4	2014	1,686	1,675	1,681	54,894,817	32,666	58,107,473	1,779	0.87%
5	2015	1,675	1,687	1,681	56,352,532	33,523 Average Growth Thro	61,929,763 ough 5-Year Period (Col. 8)	1,847	3.85%

Regression Analysis per Rule 25-30.431(2)(C)

		<u>X</u>	<u>Y</u>
Constant:	1826.779434	1	1,862
X Coefficient:	-5.317696148	2	1,802
R^2:	0.038592303	3	1,763
		4	1,779
		5	1,847
		10	1774

Five year growth (74) Ercs
Annual average growth -14.75 Ercs

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pasco - Orangewood, Buena Vista, Wis-Bar (252-414)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-10

Page 1 of 1
Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Line		S	FR Customer	S	SFR Gallons	Gallons/ SFR	Total Gallons	Total ERCs	Annual % Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	155	157	156	3,924,749	25,159	3,971,679	158	
2	2012	157	156	157	3,730,302	23,836	3,779,802	159	0.45%
3	2013	156	156	156	3,520,266	22,566	3,572,276	158	-0.17%
4	2014	156	156	156	3,529,009	22,622	3,577,149	158	-0.11%
5	2015	156	159	158	3,622,137	22,998 Average Growth Thro	3,721,347 ugh 5-Year Period (Col. 8)	162	2.33% 0.62%

Regression Analysis per Rule 25-30.431(2)(C)

<u>X</u> Y Constant: 156.7032399 1 158 X Coefficient: 0.74484182 2 159 R^2: 0.522946218 3 158 4 158 5 162 10 164

Five year growth 2 Ercs Annual average growth 0.47 Ercs Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Preparer: Seidman, F.

Company: Utilities, Inc. of Florida - UIF - Marion -Golden Hills/Crownwood 252-(136/90)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped Per MORs	Corrected for Meter Error (1)	Purchased	Sold	Uses (2)	(1)+(2)-(3)-(4)	For Water
Jan-15	4.188	4.156	0.000	3.357	0.005	0.795	19.1%
Feb-15	3.956	3.924	0.000	3.488	0.013	0.423	10.8%
Mar-15	4.701	4.669	0.000	3.251	0.040	1.378	29.5%
Apr-15	5.036	5.004	0.000	3.631	0.077	1.296	25.9%
May-15	6.007	5.975	0.000	4.702	0.163	1.109	18.6%
Jun-15	5.504	5.472	0.000	5.447	0.073	-0.048	-0.9%
Jul-15	4.611	4.579	0.000	4.819	0.033	-0.273	-6.0%
Aug-15	4.100	4.068	0.000	4.549	0.171	-0.651	-16.0%
Sep-15	3.767	3.735	0.000	3.323	0.009	0.403	10.8%
Oct-15	4.744	4.712	0.000	3.198	0.007	1.507	32.0%
Nov-15	4.646	4.614	0.000	4.152	0.096	0.365	7.9%
Dec-15	4.441	4.409	0.000	4.369	0.063	-0.023	-0.5%
Total	55.701	55.316	0.000	48.285	0.750	6.281	11.49

(Above data in millions of gallons)

(1) The Offiny does an annual now meter cambration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of Gallons Sold shown in Schedules F-1, F-9 and E-2:

The total gallons sold for Marion County, as shown on Schedule F-1 and F-9 are the same.

The total gallons sold for per Schedule E-2 is $48.170\,$ mg, a $0/239\%\,$ difference.

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2

Company: Utilities, Inc. of Florida (630/635-Golden Hills/Crownwood)

Docket No.: 160101-WS

Page 1 of 1 Preparer: Seidman, F.

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

	(1)	(2) Individual	(3) Plant Flows	(4)	(5)	(6) Total Purch.
Month/ Year	Crownwood	(Name)	(Name)	(Name)	Total Plant Flows	Sewage Treatment
 Jan-15	0.584				0.584	0.000
Feb-15	0.691				0.691	0.000
Mar-15	0.543				0.543	0.000
Apr-15	0.467				0.467	0.000
May-15	0.446				0.446	0.000
Jun-15	0.432				0.432	0.000
Jul-15	0.453				0.453	0.000
Aug-15	0.467				0.467	0.000
Sep-15	0.469				0.469	0.000
Oct-15	0.446				0.446	0.000
Nov-15	0.468				0.468	0.000
Dec-15	0.534				0.534	0.000
Tatal						
Total	6.000	0.000			6.000	0.000

(Above data in millions of gallons)

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 138 of 258

Schedule F-3

Preparer: Seidman, F.

Page 1 of 1

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida (630/635-Golden Hills/Crownwood)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

				Date	GPD
1 Plant Capacity	Max Design Day per	Sanitary Survey			636,000
The hydraulic rated capacity. If different on the DEP operating or construction perr		(Max Day Per CUP)			442,000
2 Maximum Day					
The single day with the highest pumpage	rate for the test year.			8/5/2016	267,000
Explain, on a separate sheet of paper if fire	e flow, line breaks,				
or other unusual occurrences affected the	flow this day		_		
3 Five Day Max. Year					
The five days with the highest pumpage ra	ite from any one month		(1)	5/23/2015	232,000
in the test year. Provide an explanation if	fire flow, lin€		(2)	5/9/2015	233,000
breaks or other unusual occurrences affect	ted the flows or		(3)	5/21/2015	236,000
these days.			(4)	5/7/2015	238,000
			(5)	5/13/2015	266,000
				AVERAGE	241,000
				Max Month	192,739
4 Average Daily Flow				Annual	151,550

5 Required Fire Flow 500 gpm for 2 hours

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 139 of 258

Schedule F-4

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida (630/635-Golden Hills/Crownwood)

Docket No.: 160101-WS Page 1 of 1
Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained

from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		MONTH	GPD
1.	Plant Capacity (Three Month Average Daily Flow (TMADF)		40,000
	The hydraulic rated capacity. If different from that shown on the DER operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a) Highest TMADF	Feb-15 Mar-15	<u>24,679</u> 20,344

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

Used and Useful Calculations Water Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida (630/635-Golden Hills/Crownwood)

Schedule F-5

Docket No.: 160101-WS

Page 1 of 1

Test Year Ended: December 31, 2015

Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gr Firm Reliable well pumping cap	740 : 290 :	٠.	
Ground storage capacity, gal. Usable ground storage (90%), g Elevated Storage Usable ground storage (100%), Hydropneumatic storage capac Usable hydropneumatic storag Total usable storage, gal.	gal. city, gal.	0 ; 0 ; 10,000 ;	gallons gallons gallons gallons gallons gallons gallons
Maximum day demand, Peak hour demand = 2x max da	267,000 g 371 g	.	
Fire flow requirement		500	gpm
Unaccounted for water Acceptable unaccounted for Excess unaccounted for	11.35% of water pumped 10.00%	11.95 ; 10.52 ; 1.43 ;	gpm

Used & Useful Analysis, in accordance with Rule 25-30.4325:

No Usable Storage

Water Treatment Plant, no usable storage

Percent Used & Useful =	(A + B + C - D)/E x 100%, where:	100.00%
reitelli Oseu & Oseiul –	A T D T C - DI/ L X 100/0, WITELE.	100.00%

A =	Peak demand	371 gpm
B =	Property needed to serve five years after TY	16 gpm
C =	Fire flow demand	500 gpm
D =	Excess Unaccounted for water	1 gpm
E =	Firm Reliable Capacity	290 gpm

The above used and useful factor is applicable to all source of supply, pumping, storage and treatment accounts, as well as the land and structures accounts.

Schedule F-6

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida (630/635-Golden Hills/Crownwood)

Docket No.: 160101-WS Page 1 of 2
Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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

Recap So	chedule	es: A-6,A-10,B-14		
Line No.	_			
1 2	(A)	Used and useful flow (000): 3MADF - year 2015		20,344
3	(B)	Property needed for post test year period (see F-8)		1,148
4	(C)	Permitted capacity (3MADF)		40,000
5	(D)	Used and useful percentage	Use:	53.73% 100.00%
6	(E)	Non-used and useful percentage	Use:	46.27% 0.00%

Used & useful was set at 68.65% in Docket No. 020071-WS and has been held at that level in every case since. In doing so, the Commission has recognized that although the number of customers has been virtually unchanged since 2006, flows remained almost the same or decreased and the Utility should not be penalized for reduced flows due to conservation or loss of customers by assigning a reduced level of used and useful. The Commission has also recognized that all none of the UIF systems is overbuilt and are all substantially built out. And in the last case, Docket No. 120209-WS, Order No. PSC-14-0025-PAA-WS, the Commission found all systems to be 100% used and useful. It should continue to do so.

The above used and useful factor is applicable to all treatment and disposal plant accounts.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 142 of 258

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida (630/635-Golden Hills/Crownwood)

Schedule F-6 Docket No.: 160101-WS Page 2 of 2 Test Year Ended: December 31, 2015 Preparer: F. Seidman

A. Infiltration allowance, excluding service laterals

	Main dia.	Main length			wance @ 500 /inch-dia./mile	
	inches	feet	miles	gpd	gpy	
1		6	0	0.000	0	
2	;	8	2,798	0.530	2,120	
3	1	0	0	0.000	0	
4	Total		2,798	0.530	2,120	773,689
5	Estimated	Inflow @ 10% of flow	ws (l.10)			614,464
6	Allowable	1&1				1,388,154
7	B. Actual II Wastewat	nflow & Infiltration(er treated	I&I)			6,000,000
	Gallons Bil	led (not capped) to:			mated urned *	
8		ential WW cust.		2,021,700	80%	1,617,360
9	All Other			4,122,943	90%	3,710,649
10	Estimated	flows returned		6,144,643		5,328,009
11	Estimated	I&I (treated less retu	ırned) [l.7-l.10]			671,991
12	Actual less	allowable [l.11-l.6]				-716,162
13	Excess, if a	ny [l.11-l.6, if positiv	e]			0
14	Excess as p	percent of wastewate	er treated			0.00%

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 143 of 258

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Company: Utilities, Inc. of Florida (630/635-Golden Hills/Crownwood)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-7
Page 1 of 1
Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution & Wastewater Collection Systems

Used & useful was last set for this system in Docket No. 120209-WS. The water distribution and wastewater collection systems were found to be 100% used & useful. Circumstances have not significantly changed. The systems should remain at 100% used and useful.

Margin Reserve Calculations

Florida Public Service Commission

Company: Utilities, Inc. of Florida (630/635-Golden Hills/Crownwood)Schedule F-8Docket No.: 160101-WSPage 1 of 1Test Year Ended: December 31, 2015Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Water Pumping, Treatment & Storage

 $PN = EG \times PT \times U$

where:

EG =	Equivalent annual growth in ERCs	4.85 ERCs/yr
PT =	Post test year period per statute	5 yrs
U =	Unit of measure utilized in U&U calculations.	0.65 gpm/ERC *
PN =	Property needed expressed in U units	16 gpm

^{*} Based on the 2015 Peak Hour Demand (Sch. F-5) divided by 2015 ERCs (Sch F-9).

Wastewater Treatment & Disposal

 $PN = EG \times PT \times U$

where:

EG =	Equivalent annual growth in ERCs	2.92 ERCs/yr
PT =	Post test year period per statute	5 yrs
U =	Unit of measure utilized in U&U calculations. *	79 gpd/ERC
PN =	Property needed expressed in U units	1148 gpd

^{*} Based on the 2015 TMADF (Sch. F-6) divided 2015 ERCs (Sch F-10).

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida (630/635-Golden Hills/Crownwood)

Docket No.: 160101-WS Test Year Ended: December 31, 2015 Schedule F-9 Page 1 of 1 Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)
		SFR Custome	rs		SFR	Gallons/	Total		Total	Annual
ine					Gallons	SFR	Gallons		ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold		(7)/(6)	in ERCs
1	2011	463	468	466	45,390,440	97,509	54,058,120	_	554	
2	2012	468	479	474	44,637,300	94,271	51,953,920		551	-0.59%
3	2013	479	488	484	45,773,178	94,670	51,365,798		543	-1.55%
4	2014	488	489	489	39,066,907	79,973	44,946,767		562	3.58%
5	2015	489	491	490	41,295,180	84,276	48,285,060		573	1.94%
					A	verage Growth Through	5-Year Period (Col. 8)		0.85%
				Regression Analy	ysis per Rule 25-30.431((2)(C)				
								<u>X</u>	<u>Y</u>	
					onstant:	542.2056366		1		
					Coefficient:	4.800899014		2		
				R^	2:	0.436427699		3		
								4		
								5		
								10	590	
					Five year growth				17	
					Annual average				3	

258

255

(4)

(1)

5 10

15 Ercs

2.92 Ercs

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida (630/635-Golden Hills/Crownwood)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1 Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

Line	(1)	(2) S	(3) FR Customer	(4)	(5) SFR Gallons	(6) Gallons/ SFR	(7) Total Gallons		(8) Total ERCs	(9) Annual % Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold		(7)/(6)	in ERCs
1	2011	81	81	81	2,191,760	27,059	7,028,424	_	260	
2	2012	81	79	80	2,514,260	31,428	10,398,252		331	27.38%
3	2013	79	85	82	2,336,130	28,489	8,062,122		283	-14.47%
4	2014	85	86	86	2,280,150	26,668	7,759,429		291	2.82%
5	2015	86	84	85	2,021,700	23,785 Average Growth Throug	6,144,643 h 5-Year Period (Col. 8)		258	-11.21% 1.13%
				Regression Ana	alysis per Rule 25-30.431	1(2)(C)				
					Sanatant.	207 2004540	<u>X</u>		<u>Y</u>	
					Constant: Coefficient:	297.3894518 -4.270213855		1 2	260 331	
					R^2:	0.05225166		3	283	
				'		0.03223100		4	291	

The Coefficient of determination - R^2 is very weak. Use simple average growth rate:

Five year growth

Annual average

Five year growth
Annual average growth @ 1.13%

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Company: Utilities, Inc. of Florida - UIF - Seminole - Bear Lake (252-015)

Docket No.: 160101-Ws

Test Year Ended: December 31, 2015

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The othe uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted

(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Pumped	Corrected for	Purchased	Sold	Uses (2)(3)	(1)+(2)-(3)-(4)	For Water
Per MORs	Meter Error (1)					
-	-	1.086	1.192	0.055	-0.161	-14.9%
1.079	1.057	0.155	1.120	0.052	0.040	3.3%
1.491	1.461	0.009	1.151	0.046	0.272	18.5%
1.556	1.524	0.001	1.254	0.048	0.223	14.6%
1.903	1.964	0.028	1.569	0.047	0.376	18.9%
0.165	0.172	1.106	1.419	0.044	-0.186	-14.5%
0.718	0.748	0.636	1.258	0.047	0.078	5.6%
1.534	1.598	0.000	1.358	0.048	0.193	12.1%
1.332	1.387	0.000	1.134	0.047	0.207	14.9%
1.515	1.578	0.008	1.198	0.045	0.342	21.6%
1.301	1.355	0.000	1.218	0.048	0.088	6.5%
1.450	1.510	0.000	1.262	0.022	0.226	14.9%
14.044	14.252	2.029	15 124	0.540	1 700	9.8%
	Total Gallons Pumped Per MORs - 1.079 1.491 1.556 1.903 0.165 0.718 1.534 1.332 1.515 1.301	Total Gallons Pumped Per MORs Total Gallons Corrected for Meter Error (1) 1.079 1.057 1.491 1.461 1.556 1.524 1.903 1.964 0.165 0.172 0.718 0.748 1.534 1.598 1.332 1.387 1.515 1.578 1.301 1.355 1.450 1.510	Total Gallons Pumped Per MORs Total Gallons Corrected for Meter Error (1) Gallons Purchased 1.079 1.057 0.155 1.491 1.461 0.009 1.556 1.524 0.001 1.903 1.964 0.028 0.165 0.172 1.106 0.718 0.748 0.636 1.534 1.598 0.000 1.332 1.387 0.000 1.515 1.578 0.008 1.301 1.355 0.000 1.450 1.510 0.000	Total Gallons Pumped Per MORs Total Gallons Meter Error (1) Gallons Purchased Gallons Sold 1.079 1.057 0.155 1.120 1.491 1.461 0.009 1.151 1.556 1.524 0.001 1.254 1.903 1.964 0.028 1.569 0.165 0.172 1.106 1.419 0.718 0.748 0.636 1.258 1.534 1.598 0.000 1.358 1.332 1.387 0.000 1.134 1.515 1.578 0.008 1.198 1.301 1.355 0.000 1.218 1.450 1.510 0.000 1.262	Total Gallons Pumped Per MORs Total Gallons Meter Error (1) Gallons Purchased Gallons Sold Other Uses (2)(3) - - 1.086 1.192 0.055 1.079 1.057 0.155 1.120 0.052 1.491 1.461 0.009 1.151 0.046 1.556 1.524 0.001 1.254 0.048 1.903 1.964 0.028 1.569 0.047 0.165 0.172 1.106 1.419 0.044 0.718 0.748 0.636 1.258 0.047 1.534 1.598 0.000 1.358 0.048 1.332 1.387 0.000 1.134 0.047 1.515 1.578 0.008 1.198 0.045 1.301 1.355 0.000 1.218 0.048 1.450 1.510 0.000 1.262 0.022	Total Gallons Pumped Per MORs Corrected for Per MORs - 1.086 1.192 0.055 -0.161

(Above data in millions of gallons)

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of gallons sold:

Reconciliation of gallons sold: The amounts on Sch. F-1 and F-9 are the same.

Sch. E-2 shows the total for Seminole County, consisting of nine systems - Bear Lake, Crystal Lake, Jansen, Little Wekiva, Oakland Shores, Park Ridge, Phillips, Revenna Park and Weathersfield. The amount on Sch E-2

170.920~mg.~The~aggregate~amount~of~sales~of~the~individual~systems~is~170.790.~The~difference~is~only~0.0761%.

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

 $Company:\ Utilities, Inc.\ of\ Florida-UIF-Seminole-Bear\ Lake\ (252-015)$

Docket No.: 160101-Ws Test Year Ended: December 31, 2015

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Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

						_
	(1)	(2)	(3)	(4)	(5)	(6)
		Individual	Plant Flows			Total Purch.
Month/					Total Plant	Sewage
Year	(Name)	(Name)	(Name)	(Name)	Flows	Treatment
Jan-15					0.000	0.000
Feb-15					0.000	0.000
Mar-15	N	ot Applicable - wate	r only system		0.000	0.000
Apr-15					0.000	0.000
May-15					0.000	0.000
Jun-15					0.000	0.000
Jul-15					0.000	0.000
Aug-15					0.000	0.000
Sep-15					0.000	0.000
Oct-15					0.000	0.000
Nov-15					0.000	0.000
Dec-15					0.000	0.000
Total	0.000				0.000	0.000
					=========	

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Bear Lake (252-015)

Docket No.: 160101-Ws

Schedule F-3 Page 1 of 1

Test Year Ended: December 31, 2015

Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

			Date	GPD
1 Plant Capacity				
The hydraulic rated capacity. If different from that shown				288,000
on the DEP operating or construction permit, provide an explanation.				
	AADF per Cup			79178
2 Maximum Day				
The single day with the highest pumpage rate for the test year.		_	5/14/2015	85,000
Explain, on a separate sheet of paper if fire flow, line breaks,				
or other unusual occurrences affected the flow this day.				
3 Five Day Max. Year				
The five days with the highest pumpage rate from any one month		(1)	5/17/2015	73,000
in the test year. Provide an explanation if fire flow, line		(2)	5/20/2015	80,000
breaks or other unusual occurrences affected the flows on		(3)	5/11/2015	82,000
these days.		(4)	5/18/2015	82,000
		(5)	5/14/2015	85,000
			AVERAGE	80,400
			Max Month	63,354
4 Average Daily Flow		_	Annual	39,324
5 Required Fire Flow			None	

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 150 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Bear Lake (252-015)

Docket No.: 160101-Ws

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained

from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

	Net Applicable and a color and a	MONTH	GPD
	Not Applicable - water only system		
1.	Plant Capacity		
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a)		

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods. Used and Useful Calculations

Florida Public Service Commission

Water Treatment Plant

Company: Utilities, Inc. of Florida - UIF - Seminole - Bear Lake (252-015) Schedule F-5
Docket No.: 160101-Ws Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	220 gpm
Firm Reliable well pumping capacity (largest well out), gpm	0 gpm
(0 1 1 1 1)	

(System has only one well)

Ground storage capacity, gal.	13,800 gallons
Usable ground storage (90%), gal.	12,420 gallons
Elevated Storage	0 gallons
Usable ground storage (100%), gal.	0 gallons
Hydropneumatic storage capacity, gal.	3,000 gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	12.420 gallons

Maximum day demand, 85,000 gpd Peak hour demand = 2x max day/1440 118 gpm

Fire flow requirement 0 gpd

Unaccounted for water 9.77% of water pumped 4,653 gpd, avg
Acceptable unaccounted for 10.00% 4,762 gpd, avg
Excess unaccounted for 0 gpd, avg

Used & Useful Analysis, in accordance with Rule 25-30.4325:

Water Treatment Plant

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where: 100.00%

A =	Peak demand	85,000 gpd
B =	Property needed to serve five years after TY	0 gpd
C =	Fire flow demand	0 gpd
D =	Excess Unaccounted for water	0 gpd
$\mathbf{E} =$	Firm Reliable Capacity	0 gpd

The above used and useful factor is applicable to all source of supply, pumping and treatment accounts.

Storage

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where:	100.00%
---	---------

A =	Peak demand	85,000 gallons
$\mathbf{B} =$	Property needed to serve five years after TY	0 gallons
C =	Fire flow demand	0 gallons
$\mathbf{D} =$	Excess Unaccounted for water	0 gallons
$\mathbf{E} =$	Firm Reliable Capacity	12,420 gallons

The above used and useful factor is applicable to the distribution reservoir accounts.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 152 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

 $Company: \ Utilities, Inc.\ of\ Florida-UIF-Seminole-Bear\ Lake\ (252-015)$

Docket No.: 160101-Ws

Test Year Ended: December 31, 2015

Schedule F-6 Page 1 of 1

Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Not Applicable - water only system.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 153 of 258

Used and Useful Calculations Florida Public Service Commission

Water Distribution and Wastewater Collection Systems

Company: Utilities, Inc. of Florida - UIF - Seminole - Bear Lake (252-015)

Schedule F-7

Docket No.: 160101-Ws

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution System

Used & useful was last set for this system in Docket Nos. 120209-WS. The water distribution system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 154 of 258

Margin Reserve Calculations Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Bear Lake (252-015)

Schedule F-8

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable. Used & useful was last set for this system in Docket Nos. 120209-WS. All water is purchased. The system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Bear Lake (252-015)

Docket No.: 160101-Ws

Test Year Ended: December 31, 2015

Schedule F-9 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	SFR Customers		SFR	Gallons/	Total	Total	Annual		
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	227	213	220	15,305,070	69,569	15,837,590	228	
2	2012	213	213	213	16,645,570	78,148	17,166,090	220	-3.51%
3	2013	213	215	214	15,833,103	73,986	16,636,736	225	2.37%
4	2014	215	212	214	14,692,045	68,815	15,227,382	221	-1.59%
5	2015	212	213	213	14,779,300	69,550	15,133,600	218	-1.67%
					Ave	Average Growth Through 5-Year Period (Col. 8)			-1.10%

$Regression\ Analysis\ per\ Rule\ 25\text{--}30.431(2)(C)$

		<u>X</u>	<u>Y</u>
Constant:	227.7607925	1	228
X Coefficient:	-1.850215642	2	220
R^2:	0.523863702	3	225
		4	221
		5	218
		10	209

Five year growth Annual average growth (8) Ercs -1.67 Ercs

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 156 of 258

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Bear Lake (252-015)

Docket No.: 160101-Ws

Test Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
		SFR Customers			SFR	Gallons/	Total	Total	Annual	
Line					Gallons	SFR	Gallons	ERCs	% Incr.	
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs	
—										
1	2011									
2	2012	Not Applicable - water only system.								
3	2013									
3	2013									
4	2014									
5	2015				~		5.1. (0.10)			
				A	Average Growth Through 5-Year Period (Col. 8)					

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Florida Public Service Commission

Schedule F-1

Company: Utilities, Inc. of Florida - UIF - Seminole - Combined Ravenna Park & Crystal Lake, Lincoln Heights

(252-344,091) Page 1 of 1 Docket No.: 160101-WS Preparer: Seidman, F.

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

1 Gallons imped • MORs 1.751 1.703 1.867 2.031 2.301 1.899	Total Gallons Corrected for Meter Error (1) 1.731 1.683 1.845 2.007 2.275 1.878	Gallons Purchased 0.000 0.000 0.000 0.000 0.000 0.000	Gallons Sold 1.596 1.699 1.690 1.799 1.928 2.031	Other Uses (2)(3) 	Unaccounted For Water (1)+(2)-(3)-(4) 	% Unaccounted For Water 7.2% -2.0% 7.7% 10.1% 14.9%
1.751 1.703 1.867 2.031 2.301	Meter Error (1) 1.731 1.683 1.845 2.007 2.275	0.000 0.000 0.000 0.000 0.000	1.596 1.699 1.690 1.799 1.928	0.010 0.019 0.013 0.007 0.009	0.125 -0.034 0.142 0.202 0.338	7.2% -2.0% 7.7% 10.1% 14.9%
1.751 1.703 1.867 2.031 2.301	1.731 1.683 1.845 2.007 2.275	0.000 0.000 0.000 0.000	1.699 1.690 1.799 1.928	0.019 0.013 0.007 0.009	-0.034 0.142 0.202 0.338	-2.0% 7.7% 10.1% 14.9%
1.703 1.867 2.031 2.301	1.683 1.845 2.007 2.275	0.000 0.000 0.000 0.000	1.699 1.690 1.799 1.928	0.019 0.013 0.007 0.009	-0.034 0.142 0.202 0.338	-2.0% 7.7% 10.1% 14.9%
1.867 2.031 2.301	1.845 2.007 2.275	0.000 0.000 0.000	1.690 1.799 1.928	0.013 0.007 0.009	0.142 0.202 0.338	7.7% 10.1% 14.9%
2.031 2.301	2.007 2.275	0.000 0.000	1.799 1.928	0.007 0.009	0.202 0.338	10.1% 14.9%
2.301	2.275	0.000	1.928	0.009	0.338	14.9%
						/ -
1.899	1.878	0.000	2.021	0.007	0.450	
		0.000	2.031	0.007	-0.160	-8.5%
1.905	1.884	0.000	1.711	0.006	0.166	8.8%
1.910	1.889	0.000	1.774	0.013	0.102	5.4%
1.827	1.807	0.000	1.709	0.055	0.042	2.3%
1.918	1.897	0.000	1.445	0.072	0.380	20.0%
2.126	2.102	0.000	1.627	0.348	0.127	6.0%
2.894	2.862	0.000	1.621	0.057	1.183	0.0%
24.132	23.860	0.000	20.631	0.616	2.613	11.0%
	2.126	2.126 2.102 2.894 2.862	2.126 2.102 0.000 2.894 2.862 0.000	2.126 2.102 0.000 1.627 2.894 2.862 0.000 1.621	2.126 2.102 0.000 1.627 0.348 2.894 2.862 0.000 1.621 0.057	2.126 2.102 0.000 1.627 0.348 0.127 2.894 2.862 0.000 1.621 0.057 1.183

(Above data in millions of gallons)

As of 11/25/2015, Crystal Lake was interconnected with Ravenna Park. Additional flows reflected in 12/2016 data. (1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of gallons sold:

Reconciliation of gallons sold: The amounts on Sch. F-1 and F-9 are the same.

Sch. E-2 shows the total for Seminole County, consisting of nine systems - Bear Lake, Crystal Lake, Jansen, Little Wekiva, Oakland Shores, Park Ridge, Phillips, Revenna Park and Weathersfield. The amount on Sch E-2

170.920 mg. The aggregate amount of sales of the individual systems is 170.790. The difference is only 0.0761%.

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARK & CRYSTAL LAKE FLOWS FOR FULL TY

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/ Year	Total Gallons Pumped Per MORs	Total Gallons Corrected for Meter Error (1)	Gallons Purchased	Gallons Sold	Other Uses (2)(3)	For Water (1)+(2)-(3)-(4)	Unaccounted For Water
Jan-15	2.566	2,555	0.000	2.402	0.010	0.143	5.6%
Feb-15	2,494	2.484	0.000	2.512	0.019	-0.047	-1.9%
Mar-15	2.822	2.812	0.000	2,442	0.014	0.356	12.7%
Apr-15	2.980	2.968	0.000	2.663	0.007	0.297	10.0%
May-15	3.714	3.715	0.000	2.981	0.009	0.725	19.5%
Jun-15	3.045	3.047	0.000	3.317	0.007	-0.278	-9.1%
Jul-15	2.884	2.882	0.000	2.695	0.006	0.181	6.3%
Aug-15	2.870	2.868	0.000	2.736	0.013	0.119	4.1%
Sep-15	2.660	2.656	0.000	2.445	0.056	0.156	5.9%
Oct-15	2.847	2.844	0.000	2.238	0.072	0.534	18.8%
Nov-15	2.873	2.864	0.000	2.465	0.437	-0.037	-1.3%
Dec-15	2.894	2.862	0.000	2.401	0.089	0.372	0.0%
Total	34.649	34.558	0.000	31.297	0.738	2.522	7.3%
	(Above data in m	nillions of gallons)	=======				

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

 $Company:\ Utilities, Inc.\ of\ Florida-UIF-Seminole-Combined\ Ravenna\ Park\ \&\ Crystal\ Lake, Lincoln\ Heights$

(252-344,091)

Page 1 of 1

Schedule F-2

Docket No.: 160101-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2015

 $\textbf{Explanation:} \ \ \textbf{Provide a schedule of gallons of was tewater treated by individual plant for each month of the}$

historical test year. Flow data should match the monthly operating reports sent to DEP.

Month/	(1)	(2) Individua	(3) l Plant Flows	(4)	(5) Total Plant	(6) Total Purch. Sewage
Year	Lincoln	(Name)	(Name)	(Name)	Flows	Treatment*
Jan-15	Heights 0.000				0.000	2.199
Feb-15	0.000				0.000	2.055
Mar-15	0.000				0.000	1.972
Apr-15	0.000				0.000	1.784
May-15	0.000				0.000	1.559
Jun-15	0.000				0.000	1.540
Jul-15	0.000				0.000	1.867
Aug-15	0.000				0.000	2.528
Sep-15	0.000				0.000	2.771
Oct-15	0.000				0.000	2.087
Nov-15	0.000				0.000	1.506
Dec-15	0.000				0.000	1.433
Total	0.000				0.000	23.302
	========	=========	=========	========	==========	=========

^{*} Bulk interconnect; all sewage treated by City of Sanford

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Combined Ravenna Park & Crystal Lake,

Lincoln Heights (252-344,091)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-3 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

			Date	GPD
As of 11/25/2015, Crystal Lake was interconnected with Ravenna Par	k. Additional flows re	flected	in 12/2016 data	
l Plant Capacity				
± *	Day per San. Survey			360,000
	AADF per CUP			122,100
2 Maximum Day			12/22/2015	122 000
The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks,		Ī	12/23/2015 ncludes flows from	132,000 n Crystal Lake
or other unusual occurrences affected the flow this day.		_	1101101101101101101	ii Orjouii Zuiic
		_	5/23/2015	112,000
3 Five Day Max. Year (excluding flow from Crystal Lake)				
The five days with the highest pumpage rate from any one month		(1)	5/30/2015	89,000
in the test year. Provide an explanation if fire flow, line		(2)	5/9/2015	92,000
breaks or other unusual occurrences affected the flows on		(3)_	5/29/2015	101,000
these days.		(4) (5)	5/2/2015 5/23/2015	104,000 112,000
		(3)_	3/23/2013	112,000
			AVERAGE	99,600
			Max Month	73,396
4 Average Daily Flow		_	Annual	65,371
- D			lone	
5 Required Fire Flow		-	.0110	
The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.				
Organization or by a governmental agency ordinance. Provide	K & CRYSTAL LAKI	E FLOV	WS FOR 2015	
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARIL		E FLO	WS FOR 2015	360,000
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI 1 Plant Capacity	X & CRYSTAL LAKI Day per San. Survey	E FLOV	WS FOR 2015	360,000
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		E FLOV	WS FOR 2015	,
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown Max on the DEP operating or construction permit, provide an explanation. Maximum Day	Day per San. Survey	E FLO		122,100
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown Max	Day per San. Survey	E FLOY	WS FOR 2015 5/23/2016	ŕ
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation. Maximum Day The single day with the highest pumpage rate for the test year.	Day per San. Survey	E FLOY		122,100
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown Max on the DEP operating or construction permit, provide an explanation. Maximum Day The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day.	Day per San. Survey	E FLOV		122,100
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown Max on the DEP operating or construction permit, provide an explanation. Maximum Day The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day.	Day per San. Survey	_	5/23/2016	122,100 189,000
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown Max on the DEP operating or construction permit, provide an explanation. Maximum Day The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day.	Day per San. Survey	(1)		122,100
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation. Maximum Day The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day. Five Day Max. Year The five days with the highest pumpage rate from any one month in the test year. Provide an explanation if fire flow, line breaks or other unusual occurrences affected the flows on	Day per San. Survey	(1) _ (2) _ (3) _	5/23/2016 5/30/2016 5/9/2016 5/2/2016	122,100 189,000 145,000 148,000 155,000
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation. Maximum Day The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day. Five Day Max. Year The five days with the highest pumpage rate from any one month in the test year. Provide an explanation if fire flow, line	Day per San. Survey	(1) _ (2) _ (3) _ (4) _	5/23/2016 5/30/2016 5/9/2016 5/2/2016 5/29/2016	122,100 189,000 145,000 148,000 155,000 173,000
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation. Maximum Day The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day. Five Day Max. Year The five days with the highest pumpage rate from any one month in the test year. Provide an explanation if fire flow, line breaks or other unusual occurrences affected the flows on	Day per San. Survey	(1) _ (2) _ (3) _	5/23/2016 5/30/2016 5/9/2016 5/2/2016	145,000 148,000 155,000
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation. Maximum Day The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day. Five Day Max. Year The five days with the highest pumpage rate from any one month in the test year. Provide an explanation if fire flow, line breaks or other unusual occurrences affected the flows on	Day per San. Survey	(1) _ (2) _ (3) _ (4) _	5/23/2016 5/30/2016 5/9/2016 5/2/2016 5/29/2016	122,100 189,000 145,000 148,000 155,000 173,000
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation. Maximum Day The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day. Five Day Max. Year The five days with the highest pumpage rate from any one month in the test year. Provide an explanation if fire flow, line breaks or other unusual occurrences affected the flows on	Day per San. Survey	(1) _ (2) _ (3) _ (4) _	5/23/2016 5/30/2016 5/9/2016 5/2/2016 5/29/2016 5/23/2016	122,100 189,000 145,000 148,000 155,000 173,000 189,000
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation. Maximum Day The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day. Five Day Max. Year The five days with the highest pumpage rate from any one month in the test year. Provide an explanation if fire flow, line breaks or other unusual occurrences affected the flows on	Day per San. Survey	(1) _ (2) _ (3) _ (4) _	5/23/2016 5/30/2016 5/9/2016 5/2/2016 5/29/2016 5/23/2016 AVERAGE	122,100 189,000 145,000 148,000 155,000 173,000 189,000
Organization or by a governmental agency ordinance. Provide documents to support this calculation. PROFORMA - 2015 RESTATED, COMBINING RAVENNA PARI Plant Capacity The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation. Maximum Day The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day. Five Day Max. Year The five days with the highest pumpage rate from any one month in the test year. Provide an explanation if fire flow, line breaks or other unusual occurrences affected the flows on	Day per San. Survey	(1) _ (2) _ (3) _ (4) _	5/23/2016 5/30/2016 5/9/2016 5/2/2016 5/29/2016 5/23/2016	122,100 189,000 145,000 148,000 155,000 173,000 189,000

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 160 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Combined Ravenna Park & Crystal Lake,

Lincoln Heights (252-344,091)

Schedule F-4 Page 1 of 1

Docket No.: 160101-WS Test Year Ended: December 31, 2015

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

Not Applicable - Sewage treated by City of Sanford

1. Plant Capacity

The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.

2. Average Daily Flow Max Month (a)

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods. **Used and Useful Calculations**

Florida Public Service Commission

Water Treatment Plant

Company: Utilities, Inc. of Florida - UIF - Seminole - Combined Ravenna Park & Crystal

Lake, Lincoln Heights (252-344,091)

Schedule F-5
Docket No.: 160101-WS Page 1 of 1
Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

BASED ON COMBINED FLOWS FROM RAVENNA PARK and CRYSTAL LAKE

INPUT INFORMATION:

Total well pumping capacity, gpm	440 gpm
Firm Reliable well pumping capacity (largest well out), gpm	200 gpm

Ground storage capacity, gal.	20,000 gallons
Usable ground storage (90%), gal.	18,000 gallons
Elevated Storage	0 gallons
Usable ground storage (100%), gal.	0 gallons
Hydropneumatic storage capacity, gal.	3,000 gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	18,000 gallons

Maximum day demand, 189,000 gpd Peak hour demand = 2x max day/1440 263 gpm

Fire flow requirement 0 gpd

Unaccounted for water 7.30% of water pumped 6,911 gpd, avg
Acceptable unaccounted for 10.00% 9,468 gpd, avg
Excess unaccounted for 0 gpd, avg

Used & Useful Analysis, in accordance with Rule 25-30.4325:

Water Treatment Plant

Percent Used & Useful = (A + B + C - D)/E x 100%, where: 98.44% Use: 100.00%

Used & useful was last set for this system in Docket Nos. 120209-WS. The system was found to be built out and 100% used & useful. The combined systems are each built out and remain 100% used & useful

A =	Peak demand	189,000 gpd
B =	Property needed to serve five years after TY	0 gpd
C =	Fire flow demand	0 gpd
D =	Excess Unaccounted for water	0 gpd
$\mathbf{E} =$	Firm Reliable Capacity (16 hours)	192,000 gpd

The above used and useful factor is applicable to all source of supply, pumping and treatment accounts as well as the land and structures accounts.

Storage

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where:

$\mathbf{A} =$	Peak demand	189,000 gallons
$\mathbf{B} =$	Property needed to serve five years after TY	0 gallons
C =	Fire flow demand	0 gallons
$\mathbf{D} =$	Excess Unaccounted for water	0 gallons
$\mathbf{E} =$	Firm Reliable Capacity	18,000 gallons

The above used and useful factor is applicable to the distribution reservoir accounts.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 162 of 258

Used and Useful Calculations Florida Public Service Commission

Wastewater Treatment Plant

Company: Utilities, Inc. of Florida - UIF - Seminole - Combined Ravenna Park & Crystal Lake,

Lincoln Heights (252-344,091)

Schedule F-6
Docket No.: 160101-WS Page 1 of 1
Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Not Applicable - water only system.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 163 of 258

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Combined Ravenna Park & Crystal Lake,

Lincoln Heights (252-344,091)

Schedule F-6
Docket No.: 160101-WS
Page 2 of 2
Test Year Ended: December 31, 2015
Preparer: Seidman, F.

LINCOLN HEIGHTS

A. Infiltration allowance, excluding service laterals

				llowance @ 500	
	Main dia. Main length		gr	od/inch-dia./mile	
	inches feet	miles	gr	od gpy	
	4	0	0.000	0	
1	6	0	0.000	0	
2	8	6,018	1.140	4,559	
3	10	0	0.000	0	
4	Total	6,018	1.140	4,559	1,664,068
5	Estimated Inflow @ 10% of f	lows (l.10)			1,490,333
6	Allowable I&I				3,154,401
	B. Actual Inflow & Infiltratio	n (I&I)			
7	Wastewater treated				23,302,461
			Es	stimated	
	Gallons Billed (not capped) to	:		stimated turned *	
8	Gallons Billed (not capped) to SFR Residential WW cust.	:			10,826,735
8 9	` 11 /	:	re	turned *	10,826,735 1,933,786
	SFR Residential WW cust.	:	re 12,888,970	turned * 84%	, ,
9	SFR Residential WW cust. All Other Estimated flows returned		re 12,888,970 2,014,360 14,903,330	turned * 84%	1,933,786
9	SFR Residential WW cust. All Other		re 12,888,970 2,014,360 14,903,330	turned * 84%	1,933,786
9	SFR Residential WW cust. All Other Estimated flows returned		re 12,888,970 2,014,360 14,903,330	turned * 84%	1,933,786
9 10	SFR Residential WW cust. All Other Estimated flows returned * Based on reasoning in Orde	r No. PSC-07-0505-	re 12,888,970 2,014,360 14,903,330	turned * 84%	1,933,786 12,760,520
9 10	SFR Residential WW cust. All Other Estimated flows returned * Based on reasoning in Orde Estimated I&I (treated less re	r No. PSC-07-0505-; sturned) [1.7-1.10]	re 12,888,970 2,014,360 14,903,330	turned * 84%	1,933,786 12,760,520 10,541,941
9 10 11 12	SFR Residential WW cust. All Other Estimated flows returned * Based on reasoning in Orde Estimated I&I (treated less re Actual less allowable [1.11-1.6]	r No. PSC-07-0505- cturned) [1.7-1.10]	re 12,888,970 2,014,360 14,903,330	turned * 84%	1,933,786 12,760,520 10,541,941 7,387,540
9 10	SFR Residential WW cust. All Other Estimated flows returned * Based on reasoning in Orde Estimated I&I (treated less re	r No. PSC-07-0505- cturned) [1.7-1.10] ive]	re 12,888,970 2,014,360 14,903,330	turned * 84%	1,933,786 12,760,520 10,541,941

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 164 of 258

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Combined Ravenna Park &

Crystal Lake, Lincoln Heights (252-344,091)

Docket No.: 160101-WS

Page 1 of 1

Test Year Ended: December 31, 2015

Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution System

Used & useful was last set for th Crystal Lake and Ravenna Park distribution and collection systems in Docket Nos. 120209-WS. The water distribution systems were each found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Used & useful was last set for this system in Docket Nos. 120209-WS. The system was found to be built out and 100% used & useful. The combined systems are each built out and remain 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 165 of 258

Margin Reserve Calculations Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Combined Ravenna Park

Docket No.: 160101-WS Schedule F-8

Test Year Ended: December 31, 2015 Page 1 of 1

Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not Applicable

Used & useful was last set for this system in Docket Nos. 120209-WS. The system was found to be built out and 100% used & useful. The combined systems are each built out and remain 100% used & useful.

Equivalent Residential Connections - Water

Florida Public Service Commission

Schedule F-9

Company: Utilities, Inc. of Florida - UIF - Seminole - Combined Ravenna Park & Crystal Lake, Lincoln Heights (252-344,091)

Docket No.: 160101-WS

Page 1 of 1 Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2) S	(3) FR Custome	(4)	(5) SFR	(6) Gallons/	(7) Total	(8) Total	(9) Annual
Line		2.	i i custome		Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	497	501	499	31,325,248	62,776	34,774,468	554	
2	2012	501	506	504	30,116,563	59,814	33,089,633	553	-0.13%
3	2013	506	504	505	29,763,176	58,937	32,264,536	547	-1.04%
4	2014	504	509	507	30,012,596	59,255	31,695,326	535	-2,29%
5	2015	509	511	510	29,282,603 Ave	57,417 erage Growth Throug	31,296,963 gh 5-Year Period (Col. 8)	545	1.90% -0.39%
				Regression Anal	lysis per Rule 25-30.4	31(2)(C)	Y	v	

		<u> </u>	
Constant:	557.723531	1	554
X Coefficient:	-3.603027504	2	553
R^2:	0.547712412	3	547
		4	535
		5	545
		10	522

(23) Ercs Five year growth Annual average growth -4.68 Ercs

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Schedule F-10

Company: Utilities, Inc. of Florida - UIF - Seminole - Combined Ravenna Park & Crystal Lake, Lincoln Heights (252-344,091)

Docket No.: 160101-WS

Page 1 of 1 Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Customer	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	227	225	226	13,564,385	60,019	17,013,605	283	
2	2012	225	230	228	13,117,143	57,658	16,090,213	279	-1.55%
3	2013	230	230	230	12,894,423	56,063	15,395,783	275	-1.59%
4	2014	230	230	230	13,285,531	57,763	14,968,261	259	-5.64%
5	2015	230	234	232	12,888,970	55,556	14,903,330	268	3.52%
					Average Growth 7	Through 5-Year	r Period (Col. 8)		-1.32%
]	Regression A	Analysis per Rule 2	25-30.431(2)(C)			
							<u>X</u>	<u>Y</u>	
					Constant:	288.01376	1	283	
					X Coefficient:	-5.035288	2	2 279	
					R^2:	0.6970163	3	3 275	
							4	259	
							5		
							#	238	
					Five year grow	rth		(31)	Ercs
					Annual averag	e growth		-6.12	Ercs

Equivalent Residential Connections - Water

Florida Public Service Commission

Schedule F-9

Company: Utilities, Inc. of Florida - UIF - Seminole - Combined Ravenna Park & Crystal Lake, Lincoln Heights (252-344,091)

Docket No.: 160101-WS

Page 1 of 1 Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	497	501	499	31,325,248	62,776	34,774,468	554	
2	2012	501	506	504	30,116,563	59,814	33,089,633	553	-0.13%
3	2013	506	504	505	29,763,176	58,937	32,264,536	547	-1.04%
4	2014	504	509	507	30,012,596	59,255	31,695,326	535	-2.29%
5	2015	509	511	510	29,282,603 Av	57,417 verage Growth Throug	31,296,963 gh 5-Year Period (Col. 8)	545	1.90% -0.39%
				Regression Ana	Av lysis per Rule 25-30.	3	gh 5-Year Period (Col. 8)		-0.3
							X	Y	

		<u> </u>	
Constant:	557.723531	1	554
X Coefficient:	-3.603027504	2	553
R^2:	0.547712412	3	547
		4	535
		5	545
		10	522

(23) Ercs Five year growth Annual average growth -4.68 Ercs Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Company: Utilities, Inc. of Florida - UIF - Seminole - Crystal Lake (252-091)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased *	Sold	Uses (2)(3)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)					
Jan-15	-	-	0.825	0.806	0.000	0.019	2.3%
Feb-15	-	-	0.800	0.814	0.000	-0.013	-1.7%
Mar-15	-	-	0.966	0.752	0.000	0.215	22.2%
Apr-15	-	-	0.960	0.865	0.000	0.095	9.9%
May-15	-	-	1.440	1.053	0.000	0.387	26.9%
Jun-15	-	-	1.169	1.286	0.000	-0.117	-10.0%
Jul-15	-	-	0.999	0.984	0.000	0.015	1.5%
Aug-15	-		0.979	0.962	0.000	0.017	1.7%
Sep-15	-		0.850	0.736	0.000	0.114	13.4%
Oct-15	-		0.948	0.793	0.000	0.155	16.3%
Nov-15	-		0.762	0.838	0.088	-0.164	-21.5%
Dec-15	-	-	0.000	0.780	0.032	-0.812	0.0%
Total			10.698	10.666	0.122	-0.091	-0.8%

(Above data in millions of gallons)

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of Gallons Sold shown in Schedules F-1, F-9 and E-2:

The total gallons sold for Marion County, as shown on Schedule F-1 and F-9 are the same.

The total gallons sold for per Schedule E-2 is 48.170 mg, a 0/239% difference.

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

^{*} Plant decommissioned due to frequent pump failure from pumping sand and silt. As of 11/25/2015, Crystal Lake is now interconnected wit and served by Ravenna Park. During the transition period, water was supplied by the City of Sanford using the emergency interconnect.

Gallons of Wastewater Treated In Thousands of Gallons

Florida Public Service Commission

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

Company: Utilities, Inc. of Florida - UIF - Seminole - Crystal Lake (252-091)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

	(1)	(2) Individual	(3) Plant Flows	(4)	(5)	(6) Total Purch.
Month/ Year	(Name)	(Name)	(Name)	(Name)	Total Plant Flows	Sewage Treatment
1 cai	(Manie)	(Maine)	(Maine)	(Ivame)	Flows	Treatment
Jan-15					0.000	0.000
Feb-15					0.000	0.000
Mar-15	No	ot Applicable - wate	r only system		0.000	0.000
Apr-15					0.000	0.000
May-15					0.000	0.000
Jun-15					0.000	0.000
Jul-15					0.000	0.000
Aug-15					0.000	0.000
Sep-15					0.000	0.000
Oct-15					0.000	0.000
Nov-15					0.000	0.000
Dec-15					0.000	0.000
Total	0.000				0.000	0.000
		=========	=========	=========		=========

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 171 of 258

Florida Public Service Commission **Water Treatment Plant Data** Company: Utilities, Inc. of Florida - UIF - Seminole - Crystal Lake (252-091) Schedule F-3 **Docket No.: 160101-WS** Page 1 of 1 Test Year Ended: December 31, 2015 Preparer: Seidman, F. Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection. **GPD** Date NOT APPLICABLE - PLANT TAKEN OUT OF SERVICE - Water purchased from City of Sanford during 2015 * Plant decommissioned due to frequent pump failure from pumping sand and silt. As of 11/25/2015, Crystal Lake is now interconnected with and served by Ravenna Park. During the transition period, water was supplied by the City of Sanford using the emergency interconnect. 1 Plant Capacity 288,000 The hydraulic rated capacity. If different from that shown (Max Day per San. Survey) on the DEP operating or construction permit, provide an explanation. **AADF** per Cup 55315 2 Maximum Day The single day with the highest pumpage rate for the test year. Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day. 3 Five Day Max. Year The five days with the highest pumpage rate from any one month in the test year. Provide an explanation if fire flow, line breaks or other unusual occurrences affected the flows on these days. AVERAGE 0 Max Month 4 Average Daily Flow Annual 5 Required Fire Flow None

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide

documents to support this calculation.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 172 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Crystal Lake (252-091)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

 $\textbf{Explanation:} \ \ \textbf{Provide the following information for each was tewater treatment plant.} \ \ \textbf{All flow data must be obtained}$

from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

	Not Applicable - water only system	MONTH	GPD
1.	Plant Capacity		
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a)		

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

0 gpm

Used and Useful Calculations Florida Public Service Commission

Water Treatment Plant

Company: Utilities, Inc. of Florida - UIF - Seminole - Crystal Lake (252-091) Schedule F-5
Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Total well pumping capacity, gpm

Recap Schedules: A-5,A-9,B-13

NOT APPLICABLE - PLANT TAKEN OUT OF SERVICE

INPUT INFORMATION: SEE SCH. F-1 and F-3

Firm Reliable well pumping capacity (largest well out), gpm	0 gpm
(System has only one well)	
Cusumd stances consister sol	0 11

Ground storage capacity, gal.	0 gallons
Usable ground storage (90%), gal.	0 gallons
Elevated Storage	0 gallons
Usable ground storage (100%), gal.	0 gallons
Hydropneumatic storage capacity, gal.	0 gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	0 gallons

Maximum day demand,	0 gpd
Peak hour demand = $2x \max day/1440$	0 gpm

Fire flow requirement	0 gpm

Unaccounted for water	#REF! of water pumped	#REF! gpm
Acceptable unaccounted for	10.00%	#REF! gpm
Excess unaccounted for		#REF! gpm

Used & Useful Analysis, in accordance with Rule 25-30.4325:

No usable storage

Water Treatment Plant, no usable storage

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where: 100.00%

A =	Peak demand		0 gpm
$\mathbf{B} =$	Property needed to serve five years after TY		0 gpm
C =	Fire flow demand		0 gpm
D =	Excess Unaccounted for water	#REF!	gpm
$\mathbf{E} =$	Firm Reliable Capacity		0 gpm

The above used and useful factor is applicable to all source of supply, pumping, treatment and storage.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 174 of 258

Used and Useful Calculations Florida Public Service Commission

Wastewater Treatment Plant

Company: Utilities, Inc. of Florida - UIF - Seminole - Crystal Lake (252-091)

Schedule F-6

Docket No.: 160101-WS

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Not Applicable - water only system.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 175 of 258

Used and Useful Calculations

Florida Public Service Commission

Water Distribution and Wastewater Collection Systems

Company: Utilities, Inc. of Florida - UIF - Seminole - Crystal Lake (252-091)

Schedule F-7 Page 1 of 1

Docket No.: 160101-WS

Page 1 of

Test Year Ended: December 31, 2015

Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution System

Used & useful was last set for this system in Docket Nos. 120209-WS. The water distribution system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 176 of 258

Margin Reserve Calculations Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Crystal Lake (252-091) Schedule F-8
Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable. Used & useful was last set for this system in Docket Nos. 120209-WS. All water is purchased. The system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Crystal Lake (252-091)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-9 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

-	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Sl	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line No.	Year	Beginning	Ending	Average	Gallons Sold	SFR (5)/(4)	Gallons Sold	ERCs (7)/(6)	% Incr. in ERCs
1	2011	170	175	173	10,969,830	63,593	10,969,830	173	
2	2012	175	177	176	10,779,387	61,247	10,779,387	176	2.03%
3	2013	177	176	177	10,779,387	61,073	10,779,387	177	0.28%
4	2014	176	180	178	10,661,661	59,897	10,661,661	178	0.85%
5	2015	180	178	179	10,666,406 Ave	59,589 rage Growth Throug	10,666,406 th 5-Year Period (Col. 8)	179	0.56%

$Regression\ Analysis\ per\ Rule\ 25\text{--}30.431(2)(C)$

		<u>X</u>	<u>Y</u>
Constant:	171.9	1	173
X Coefficient:	1.5	2	176
R^2:	0.910931174	3	177
		4	178
		5	179
		10	187

Five year growth Annual average growth 8 Ercs 1.58 Ercs

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 178 of 258

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Crystal Lake (252-091)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers the largest customer class should be used as a substitute

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Customer	's	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
		· ——				·			
1	2011								
2	2012	N	lot Applicabl	e - water only	system.				
3	2013								
3	2013								
4	2014								
5	2015								
				A	verage Growth T	Through 5-Year	Period (Col. 8)		

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Company: Utilities, Inc. of Florida - UIF - Seminole - Jansen (252-204)

Docket No.: 160101-Ws

Test Year Ended: December 31, 2015

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The othe uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (2)(3)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)					
Jan-15	1.550	1.599	0.000	1.462	0.014	0.123	7.7%
Feb-15	1.346	1.388	0.000	1.494	0.012	-0.117	-8.4%
Mar-15	1.689	1.742	0.000	1.406	0.012	0.324	18.6%
Apr-15	1.762	1.817	0.000	1.675	0.042	0.099	5.5%
May-15	2.320	2.289	0.000	1.953	0.047	0.288	12.6%
Jun-15	1.897	1.857	0.000	2.020	0.046	-0.209	-11.2%
Jul-15	1.687	1.651	0.000	1.651	0.019	-0.019	-1.1%
Aug-15	1.590	1.556	0.000	1.485	0.038	0.033	2.1%
Sep-15	1.795	1.764	0.000	1.334	0.186	0.244	13.8%
Oct-15	1.708	1.672	0.000	1.398	0.055	0.219	13.1%
Nov-15	1.650	1.616	0.000	1.513	0.016	0.086	5.4%
Dec-15	1.687	1.651	0.000	1.613	0.093	-0.055	-3.3%
Total	20,681	20.602	0.000	19,005	0.579	1.018	4.9%

(Above data in millions of gallons)

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of gallons sold:

Reconciliation of gallons sold: The amounts on Sch. F-1 and F-9 are the same.

Sch. E-2 shows the total for Seminole County, consisting of nine systems - Bear Lake, Crystal Lake, Jansen, Little Wekiva, Oakland Shores, Park Ridge, Phillips, Revenna Park and Weathersfield. The amount on Sch E-2

 $170.920\ mg.\ The\ aggregate\ amount\ of\ sales\ of\ the\ individual\ systems\ is\ 170.790.\ The\ difference\ is\ only\ 0.0761\%.$

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

 $Company:\ Utilities, Inc.\ of\ Florida-UIF-Seminole-Jansen\ (252-204)$

Docket No.: 160101-Ws

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

						_
	(1)	(2)	(3)	(4)	(5)	(6)
		Individual	Plant Flows			Total Purch.
Month/					Total Plant	Sewage
Year	(Name)	(Name)	(Name)	(Name)	Flows	Treatment
Jan-15					0.000	0.000
Feb-15					0.000	0.000
Mar-15	N	ot Applicable - wate	r only system		0.000	0.000
Apr-15					0.000	0.000
May-15					0.000	0.000
Jun-15					0.000	0.000
Jul-15					0.000	0.000
Aug-15					0.000	0.000
Sep-15					0.000	0.000
Oct-15					0.000	0.000
Nov-15					0.000	0.000
Dec-15					0.000	0.000
Total	0.000				0.000	0.000
					=========	

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Jansen (252-204)

Docket No.: 160101-Ws

5 Required Fire Flow

160101-Ws

Test Year Ended: December 31, 2015

Schedule F-3 Page 1 of 1

Preparer: Seidman, F.

None

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

4 W G V			Date	GPD
1 Plant Capacity	W D D : G !! G			200 (00
The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanat	Max Day Design per Sanitary Survion.	vey		309,600
	AADF per Cup			79,123
2 Maximum Day				
The single day with the highest pumpage rate for the test year.			6/17/2015	100,000
Explain, on a separate sheet of paper if fire flow, line breaks,		_		
or other unusual occurrences affected the flow this day.				
3 Five Day Max. Year				
The five days with the highest pumpage rate from any one month	((1)	5/10/2015	97,000
in the test year. Provide an explanation if fire flow, line	((2)	5/17/2015	97,000
breaks or other unusual occurrences affected the flows on	((3)	5/18/2015	97,000
these days.	((4)	5/11/2015	98,000
	((5)	5/14/2015	98,000
			AVERAGE_	97,400
			Max Month	73,835
4 Average Daily Flow			Annual	56,443

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 182 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Jansen (252-204)

Docket No.: 160101-Ws

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

Not Applicable - water only system

1. Plant Capacity

The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.

2. Average Daily Flow Max Month (a)

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

Used and Useful Calculations

Florida Public Service Commission

Water Treatment Plant

Company: Utilities, Inc. of Florida - UIF - Seminole - Jansen (252-204) Schedule F-5
Docket No.: 160101-Ws Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	440 gpm
Firm Reliable well pumping capacity (largest well out), gpm	200 gpm
(System has only one well)	

Ground storage capacity, gal.	0 gallons
Usable ground storage (90%), gal.	0 gallons
Elevated Storage	0 gallons
Usable ground storage (100%), gal.	0 gallons
Hydropneumatic storage capacity, gal.	3,000 gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	0 gallons

Maximum day demand,	100,000 gpd
Peak hour demand = $2x \max \frac{day}{1440}$	139 gpm

Fire flow requirement	0 gpd

Unaccounted for water	4.94% of water pumped	1.94 gpm
Acceptable unaccounted for	10.00%	3.92 gpm
Excess unaccounted for		0 gpm

Used & Useful Analysis, in accordance with Rule 25-30.4325:

No usable storage

Water Treatment Plant

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where:		69.44%
	Use:	100.00%

The demand on the system continues to decreased over the last two cases. In Docket No. 120209-WS, the Commission recognized that the system is built out, is not oversized, and should be considered 100% used and useful.

A =	Peak demand	139 gpm
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpm
$\mathbf{C} =$	Fire flow demand	0 gpm
D =	Excess Unaccounted for water	0 gpm
$\mathbf{E} =$	Firm Reliable Capacity	200 gpm

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 184 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Jansen (252-204)

Docket No.: 160101-Ws

Test Year Ended: December 31, 2015

Schedule F-6 Page 1 of 1

Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Not Applicable - water only system.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 185 of 258

Used and Useful Calculations Florida Public Service Commission

Water Distribution and Wastewater Collection Systems

Company: Utilities, Inc. of Florida - UIF - Seminole - Jansen (252-204) Schedule F-7
Docket No.: 160101-Ws Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution System

Used & useful was last set for this system in Docket Nos. 120209-WS. The water distribution system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 186 of 258

Margin Reserve Calculations

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Jansen (252-204)

Schedule F-8 Page 1 of 1

Docket No.: 160101-Ws Test Year Ended: December 31, 2015

Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable. Used & useful was last set for this system in Docket Nos. 120209-WS. All water is purchased. The system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Jansen (252-204)

Docket No.: 160101-Ws

Test Year Ended: December 31, 2015

Schedule F-9 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	250	249	250	21,757,323	87,204	21,885,143	251	
2	2012	249	247	248	23,102,653	93,156	23,259,333	250	-0.51%
3	2013	247	253	250	21,075,151	84,301	21,281,746	252	1.11%
4	2014	253	253	253	19,387,055	76,629	19,513,100	255	0.87%
5	2015	253	255	254	18,926,738	74,515	19,005,088	255	0.16%
					Ave	rage Growth Throug	gh 5-Year Period (Col. 8)		0.41%

$Regression\ Analysis\ per\ Rule\ 25\text{--}30.431(2)(C)$

		<u>X</u>	<u>Y</u>
Constant:	248.6186298	1	251
X Coefficient:	1.313438113	2	250
R^2:	0.806467241	3	252
		4	255
		5	255
		10	262

Five year growth Annual average growth 7 Ercs 1.34 Ercs

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 188 of 258

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Jansen (252-204)

Schedule F-10 Page 1 of 1

Docket No.: 160101-Ws

Preparer: Seidman, F.

Test Year Ended: December 31, 2015

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers the largest customer class should be used as a substitute

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Line		S	FR Custome	rs	SFR Gallons	Gallons/ SFR	Total Gallons	Total ERCs	Annual % Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011								
2	2012	N	Not Applicabl	e - water only	system.				
3	2013								
4	2014								
5	2015								
				Av	verage Growth '	Through 5-Year	Period (Col. 8)		

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Company: Utilities, Inc. of Florida - UIF - Seminole - Little Wekiva (252-247)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The othe uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (2)(3)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)					
Jan-15	0.382	0.378	0.000	0.267	0.098	0.013	3.4%
Feb-15	0.363	0.359	0.000	0.251	0.084	0.023	6.5%
Mar-15	0.438	0.433	0.000	0.252	0.102	0.079	18.3%
Apr-15	0.444	0.440	0.000	0.305	0.099	0.036	8.2%
May-15	0.486	0.490	0.000	0.279	0.114	0.098	19.9%
Jun-15	0.458	0.464	0.000	0.420	0.101	-0.057	-12.2%
Jul-15	0.485	0.492	0.000	0.333	0.114	0.045	9.2%
Aug-15	0.484	0.490	0.000	0.333	0.060	0.097	19.8%
Sep-15	0.404	0.410	0.000	0.267	0.013	0.130	31.7%
Oct-15	0.419	0.425	0.000	0.224	0.009	0.192	45.1%
Nov-15	0.296	0.299	0.000	0.271	0.002	0.027	9.0%
Dec-15	0.268	0.271	0.000	0.218	0.002	0.051	18.7%
Total	4,926	4.951	0.000	3.420	0.798	0.734	14.8%

(Above data in millions of gallons)

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of gallons sold:

Reconciliation of gallons sold: The amounts on Sch. F-1 and F-9 are the same.

 $Sch.\ E-2\ shows\ the\ total\ for\ Seminole\ County,\ consisting\ of\ nine\ systems\ -\ Bear\ Lake,\ Crystal\ Lake,\ Jansen,$

 $Little\ Wekiva, Oakland\ Shores, Park\ Ridge, Phillips, Revenna\ Park\ and\ Weathers field.\ The\ amount\ on\ Sch\ E-2$

170.920~mg.~The~aggregate~amount~of~sales~of~the~individual~systems~is~170.790.~The~difference~is~only~0.0761%.

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2 Page 1 of 1

 $Company: \ Utilities, Inc.\ of\ Florida\ -\ UIF\ -\ Seminole\ -\ Little\ Wekiva\ (252-247)$

Preparer: Seidman, F.

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

Month/	(1)	(2) Individual	(3) Plant Flows	(4)	(5) Total Plant	(6) Total Purch. Sewage
Year	(Name)	(Name)	(Name)	(Name)	Flows	Treatment
Jan-15					0.000	0.000
Feb-15					0.000	0.000
Mar-15	No	t Applicable - water	only system		0.000	0.000
Apr-15					0.000	0.000
May-15					0.000	0.000
Jun-15					0.000	0.000
Jul-15					0.000	0.000
Aug-15					0.000	0.000
Sep-15					0.000	0.000
Oct-15					0.000	0.000
Nov-15					0.000	0.000
Dec-15					0.000	0.000
Total	0.000				0.000	0.000

Florida Public Service Commission **Water Treatment Plant Data**

Company: Utilities, Inc. of Florida - UIF - Seminole - Little Wekiva (252-247)

Docket No.: 160101-WS

Schedule F-3 Page 1 of 1

Test Year Ended: December 31, 2015

Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		Date	GPD
1 Plant Capacity			
The hydraulic rated capacity. If different from that shown	Max Day Design per Sanitary Surve	y	48,000
on the DEP operating or construction permit, provide an explana	tion.		
	AADF per Cup		24,000
2 Maximum Day			
The single day with the highest pumpage rate for the test year.		2/17/2015	29,500
Explain, on a separate sheet of paper if fire flow, line breaks,			
or other unusual occurrences affected the flow this day.			
3 Five Day Max. Year			
The five days with the highest pumpage rate from any one month	(1)	5/11/2015	19,000
in the test year. Provide an explanation if fire flow, line	(2)	5/27/2015	19,100
breaks or other unusual occurrences affected the flows on	(3)	5/4/2015	19,600
these days.	(4)	5/26/2015	20,000
	(5)	5/18/2015	20,400
		AVERAGE_	19,620
		Max Month	15,822
4 Average Daily Flow		Annual	13,564
5 Required Fire Flow		None	

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 192 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Little Wekiva (252-247)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained

from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

	Not Applicable - water only system	MONTH	GPD
1.	Plant Capacity		
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a)		

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods. Used and Useful Calculations

Florida Public Service Commission

Water Treatment Plant

Company: Utilities, Inc. of Florida - UIF - Seminole - Little Wekiva (252-247)

Schedule F-5

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	100 gpm
Firm Reliable well pumping capacity (largest well out), gpm	0 gpm
(System has only one well)	SI.
Ground storage capacity, gal.	0 gallons
Usable ground storage (90%), gal.	0 gallons
Elevated Storage	0 gallons
Usable ground storage (100%), gal.	0 gallons
Hydropneumatic storage capacity, gal.	1,500 gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	0 gallons
Morimum day domand	20 500 and
Maximum day demand,	29,500 gpd
Peak hour demand = $2x \max \frac{day}{1440}$	41 gpm
Fire flow requirement	0 gpd
Unaccounted for water 14.82% of water pumped	1.4 gpm
Acceptable unaccounted for 10.00%	0.9 gpm
Excess unaccounted for	0.5 gpm
Used & Useful Analysis, in accordance with Rule 25-30.4325:	

No usable storage

Water Treatment Plant

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where:

41 gpm
0 gpm
0 gpm
.5 gpm
0 gpm
,

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 194 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Little Wekiva (252-247)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-6 Page 1 of 1

Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Not Applicable - water only system.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 195 of 258

Used and Useful Calculations Florida Public Service Commission

Water Distribution and Wastewater Collection Systems

Company: Utilities, Inc. of Florida - UIF - Seminole - Little Wekiva (252-247)

Schedule F-7

Docket No.: 160101-WS

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution System

Used & useful was last set for this system in Docket Nos. 120209-WS. The water distribution system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 196 of 258

Margin Reserve Calculations Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Little Wekiva (252-247)

Schedule F-8
Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable. Used & useful was last set for this system in Docket Nos. 120209-WS. All water is purchased. The system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Little Wekiva (252-247)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-9 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	57	58	58	3,990,100	69,393	3,990,100	58	
2	2012	58	60	59	4,080,230	69,156	4,080,230	59	2.61%
3	2013	60	60	60	3,831,091	63,852	3,831,091	60	1.69%
4	2014	60	60	60	3,724,349	62,072	3,724,349	60	0.00%
5	2015	60	61	61	3,419,754	56,525	3,419,754	61	0.83%
					Ave	rage Growth Throug	th 5-Year Period (Col. 8)		1.28%

$Regression\ Analysis\ per\ Rule\ 25\text{--}30.431(2)(C)$

	,,,,	<u>X</u>	$\underline{\mathbf{Y}}$
Constant:	57.3	1	58
X Coefficient:	0.7	2	59
R^2:	0.859649123	3	60
		4	60
		5	61
		10	64

Five year growth Annual average growth 4 Ercs 0.76 Ercs

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 198 of 258

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Little Wekiva (252-247)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers the largest customer class should be used as a substitute

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
—		. ——				. ——			
1	2011								
2	2012	N	Not Applicabl	e - water only	system.				
3	2013								
3	2013								
4	2014								
5	2015				~		5.1. (0.10)		
				A	verage Growth '	Through 5-Year	Period (Col. 8)		

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Company: Utilities, Inc. of Florida - UIF - Seminole - Oakland Shores (252-295)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The othe uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (2)(3)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)					
Jan-15	1.570	1.611	0.001	1.429	0.004	0.179	11.1%
Feb-15	1.423	1.460	-	1.248	0.004	0.208	14.2%
Mar-15	1.908	1.958	-	1.455	0.004	0.499	25.5%
Apr-15	1.945	1.996	0.001	1.835	0.071	0.091	4.6%
May-15	2.617	2.717	-	2.097	0.004	0.616	22.7%
Jun-15	2.068	2.151	0.031	2.370	0.004	-0.192	-8.8%
Jul-15	1.725	1.794	-	1.729	0.004	0.061	3.4%
Aug-15	1.666	1.733	0.003	1.548	0.005	0.183	10.5%
Sep-15	2.082	2.166	0.001	1.378	0.196	0.592	27.3%
Oct-15	2,282	2.374	0.071	2.090	0.121	0.234	9.6%
Nov-15	2.151	2.238	-	2.059	0.005	0.175	7.8%
Dec-15	2.087	2.171	-	1.810	0.013	0.348	16.0%
Total	23.524	24.369	0.108	21.049	0.434	2.995	12.2%

(Above data in millions of gallons)

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of gallons sold:

Reconciliation of gallons sold: The amounts on Sch. F-1 and F-9 are the same.

Sch. E-2 shows the total for Seminole County, consisting of nine systems - Bear Lake, Crystal Lake, Jansen,

Little Wekiva, Oakland Shores, Park Ridge, Phillips, Revenna Park and Weathersfield. The amount on Sch E-2

170.920 mg. The aggregate amount of sales of the individual systems is 170.790. The difference is only 0.0761%.

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

^{*} Emergency interconnect with City of Altamonte Springs

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2

 $Company:\ Utilities,\ Inc.\ of\ Florida-UIF-Seminole-Oakland\ Shores\ (252-295)$

Page 1 of 1

Docket No.: 160101-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

	(1)	(2) Individual	(3) Plant Flows	(4)	(5)	(6) Total Purch.
Month/					Total Plant	Sewage
Year	(Name)	(Name)	(Name)	(Name)	Flows	Treatment
Jan-15					0.000	0.000
Feb-15					0.000	0.000
Mar-15	No	t Applicable - water	r only system		0.000	0.000
Apr-15					0.000	0.000
May-15					0.000	0.000
Jun-15					0.000	0.000
Jul-15					0.000	0.000
Aug-15					0.000	0.000
Sep-15					0.000	0.000
Oct-15					0.000	0.000
Nov-15					0.000	0.000
Dec-15					0.000	0.000
Total	0.000				0.000	0.000

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Oakland Shores (252-295)

Docket No.: 160101-WS

. 160101 WC

Test Year Ended: December 31, 2015

Schedule F-3

Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

			Date	GPD
1 Plant Capacity				
The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explana	Max Day Design per Sanitary Surv ation.	vey		332,898
	AADF per Cup			96,877
2 Maximum Day				
The single day with the highest pumpage rate for the test year.			9/4/2015	205,500
Explain, on a separate sheet of paper if fire flow, line breaks,		N	Aain break	
or other unusual occurrences affected the flow this day.			5/28/2015	126,200
		N	Next highest day, 1	no incidents
3 Five Day Max. Year				
The five days with the highest pumpage rate from any one montl	1 (1)	5/21/2015	103,500
in the test year. Provide an explanation if fire flow, line	((2)	5/14/2015	116,000
breaks or other unusual occurrences affected the flows on	((3)	5/27/2015	116,600
these days.	((4)	5/17/2015	120,100
	((5)	5/28/2015	126,200
			AVERAGE	116,480
			_	,
			Max Month	87,660
4 Average Daily Flow			Annual	66,765

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

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Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Oakland Shores (252-295)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained

from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

	Not Applicable - water only system	MONTH	GPD
1.	Plant Capacity		
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a)		

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

Used and Useful Calculations Water Treatment Plant Florida Public Service Commission

water Treatment Plant

Company: Utilities, Inc. of Florida - UIF - Seminole - Oakland Shores (252-295)

Schedule F-5 Page 1 of 1

Docket No.: 160101-WS Test Year Ended: December 31, 2015

Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	300 gpm
Firm Reliable well pumping capacity (largest well out), gpm	0 gpm

(System has only one well)

Ground storage capacity, gal.	16,800 gallons
Usable ground storage (90%), gal.	15,120 gallons
Elevated Storage	0 gallons
Usable ground storage (100%), gal.	0 gallons
Hydropneumatic storage capacity, gal.	7,000 gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	15,120 gallons

Maximum day demand, with no incidents	126,200 gpd
Peak hour demand = $2x \max \frac{day}{1440}$	175 gpm

Fire flow requirement	600 gpm for 2 hours	72,000 gpd
-----------------------	---------------------	------------

Unaccounted for water	12.23% of water pumped	8,204 gpd
Acceptable unaccounted for	10.00%	6,706 gpd
Excess unaccounted for		1,498 gpd

Used & Useful Analysis, in accordance with Rule 25-30.4325:

No usable storage

Water Treatment Plant

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where:

A =	Peak demand	126,200 gpd
B =	Property needed to serve five years after TY	0 gpd
C =	Fire flow demand	0 gpd
D =	Excess Unaccounted for water	1,498 gpd
$\mathbf{E} =$	Firm Reliable Capacity	0 gpd

Storage

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where: 100.00%

A =	Peak demand	126,200 gallons
B =	Property needed to serve five years after TY	0 gallons
C =	Fire flow demand	0 gallons
$\mathbf{D} =$	Excess Unaccounted for water	1,498 gallons
$\mathbf{E} =$	Firm Reliable Capacity	15,120 gallons

The above used and useful factor is applicable to the distribution reservoir accounts.

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Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Oakland Shores (252-295)

Schedule F-6 **Docket No.: 160101-WS** Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Not Applicable - water only system.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 205 of 258

Used and Useful Calculations

Florida Public Service Commission

Water Distribution and Wastewater Collection Systems

Company: Utilities, Inc. of Florida - UIF - Seminole - Oakland Shores (252-295) Schedule F-7
Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution System

Used & useful was last set for this system in Docket Nos. 120209-WS. The water distribution system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 206 of 258

Margin Reserve Calculations

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Oakland Shores (252-295) Schedule F-8
Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable. Used & useful was last set for this system in Docket Nos. 120209-WS. All water is purchased. The system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Oakland Shores (252-295)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-9 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Sl	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line No.	Year	Beginning	Ending	Average	Gallons Sold	SFR (5)/(4)	Gallons Sold	ERCs (7)/(6)	% Incr. in ERCs
1	2011	232	217	225	21,974,960	97,884	22,102,840	226	
2	2012	217	215	216	21,089,790	97,638	21,175,660	217	-3.95%
3	2013	215	213	214	20,007,484	93,493	20,056,144	215	-1.09%
4	2014	213	221	217	18,967,368	87,407	19,125,028	219	2.00%
5	2015	221	217	219	20,182,530 Ave	92,158 rage Growth Throug	21,048,730 sh 5-Year Period (Col. 8)	228	4.39% 0.34%

$Regression\ Analysis\ per\ Rule\ 25\text{--}30.431(2)(C)$

		<u>X</u>	$\underline{\mathbf{Y}}$
Constant:	218.7489681	1	226
X Coefficient:	0.71095967	2	217
R^2:	0.035705272	3	215
		4	219
		5	228
		10	226

Five year growth Annual average growth (3) Ercs -0.51 Ercs

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 208 of 258

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Oakland Shores (252-295)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers the largest customer class should be used as a substitute

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011								
	2012	•							
2	2012	N	ot Applicabl	e - water only	system.				
3	2013								
Ü	2010								
4	2014								
5	2015								
				A	verage Growth [Through 5-Year	Period (Col. 8)		

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Company: Utilities, Inc. of Florida - UIF - Seminole - Park Ridge (252-312)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The othe uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted

(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Pumped	Corrected for	Purchased	Sold	Uses (2)(3)	(1)+(2)-(3)-(4)	For Water
Per MORs	Meter Error (1)					
0.444	0.431	0.000	0.402	0.007	0.022	5.1%
0.423	0.411	0.000	0.446	0.003	-0.037	-9.0%
0.507	0.493	0.000	0.426	0.002	0.066	13.3%
0.525	0.510	0.000	0.451	0.001	0.058	11.4%
0.652	0.638	0.000	0.527	0.001	0.110	17.2%
0.526	0.515	0.000	0.652	0.001	-0.138	-26.8%
0.546	0.535	0.000	0.482	0.001	0.052	9.8%
0.478	0.468	0.000	0.597	0.001	-0.130	-27.7%
0.457	0.448	0.000	0.414	0.001	0.033	7.3%
0.700	0.686	0.000	0.472	0.197	0.017	2.5%
0.503	0.493	0.000	0.425	0.001	0.067	13.6%
0.474	0.464	0.000	0.525	0.001	-0.062	-13.4%
				0.210	0.057	0.9%
	Total Gallons Pumped Per MORs 0.444 0.423 0.507 0.525 0.652 0.526 0.546 0.478 0.457 0.700 0.503	Total Gallons Pumped Per MORs Total Gallons Corrected for Meter Error (1) 0.444 0.431 0.423 0.411 0.507 0.493 0.525 0.510 0.652 0.638 0.526 0.515 0.546 0.535 0.478 0.468 0.457 0.448 0.700 0.686 0.503 0.493 0.474 0.464	Total Gallons Pumped Per MORs Total Gallons Meter Error (1) Gallons Purchased 0.444 0.431 0.000 0.423 0.411 0.000 0.527 0.493 0.000 0.525 0.510 0.000 0.652 0.638 0.000 0.526 0.515 0.000 0.546 0.535 0.000 0.478 0.468 0.000 0.457 0.448 0.000 0.503 0.493 0.000 0.503 0.493 0.000 0.474 0.464 0.000	Total Gallons Pumped Per MORs Total Gallons Meter Error (1) Gallons Purchased Gallons Sold 0.444 0.431 0.000 0.402 0.423 0.411 0.000 0.446 0.507 0.493 0.000 0.426 0.525 0.510 0.000 0.451 0.652 0.638 0.000 0.527 0.526 0.515 0.000 0.652 0.546 0.535 0.000 0.482 0.478 0.468 0.000 0.597 0.457 0.448 0.000 0.414 0.700 0.686 0.000 0.472 0.503 0.493 0.000 0.425 0.474 0.464 0.000 0.525	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Total Gallons Pumped Per MORs Total Gallons Corrected for Meter Error (1) Gallons Purchased Gallons Sold Other Uses (2)(3) Unaccounted For Water (1)+(2)-(3)-(4) 0.444 0.431 0.000 0.402 0.007 0.022 0.423 0.411 0.000 0.446 0.003 -0.037 0.507 0.493 0.000 0.451 0.002 0.066 0.525 0.510 0.000 0.451 0.001 0.058 0.652 0.638 0.000 0.527 0.001 0.110 0.526 0.515 0.000 0.652 0.001 -0.138 0.546 0.535 0.000 0.482 0.001 0.052 0.478 0.468 0.000 0.597 0.001 -0.130 0.457 0.448 0.000 0.414 0.001 0.033 0.700 0.686 0.000 0.472 0.197 0.017 0.503 0.493 0.000 0.425 0.001 0.067 0.474

(Above data in millions of gallons)

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of gallons sold:

Reconciliation of gallons sold: The amounts on Sch. F-1 and F-9 are the same.

 $Sch.\ E-2\ shows\ the\ total\ for\ Seminole\ County,\ consisting\ of\ nine\ systems\ -\ Bear\ Lake,\ Crystal\ Lake,\ Jansen,$

 $Little\ Wekiva, Oakland\ Shores, Park\ Ridge, Phillips, Revenua\ Park\ and\ Weathersfield.\ The\ amount\ on\ Sch\ E-2$

 $170.920\ mg.\ The\ aggregate\ amount\ of\ sales\ of\ the\ individual\ systems\ is\ 170.790.\ The\ difference\ is\ only\ 0.0761\%.$

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2

Company: Utilities, Inc. of Florida - UIF - Seminole - Park Ridge (252-312)

Page 1 of 1

Docket No.: 160101-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

Month/	(1)	(2) Individual	(3) Plant Flows	(4)	(5) Total Plant	(6) Total Purch. Sewage
Year	(Name)	(Name)	(Name)	(Name)	Flows	Treatment
Jan-15					0.000	0.000
Feb-15					0.000	0.000
Mar-15	No	ot Applicable - wate	r only system		0.000	0.000
Apr-15					0.000	0.000
May-15					0.000	0.000
Jun-15					0.000	0.000
Jul-15					0.000	0.000
Aug-15					0.000	0.000
Sep-15					0.000	0.000
Oct-15					0.000	0.000
Nov-15					0.000	0.000
Dec-15					0.000	0.000
Total	0.000				0.000	0.000
					=========	

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Park Ridge (252-312)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-3

Page 1 of 1 Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		Date	GPD
1 Plant Capacity			
The hydraulic rated capacity. If different from that shown	Max Day Design per Sanitary Surve	ey	246,000
on the DEP operating or construction permit, provide an explana	tion.		
	AADF per Cup		25,753
2 Maximum Day			
The single day with the highest pumpage rate for the test year.		10/5/2015	135,800
Explain, on a separate sheet of paper if fire flow, line breaks,		Main break	
or other unusual occurrences affected the flow this day.		7/25/2015	28,900
		Next highest day,	no incidents
3 Five Day Max. Year			
The five days with the highest pumpage rate from any one month	(1	10/2/2015	21,500
in the test year. Provide an explanation if fire flow, line	(2	10/4/2015	23,400
breaks or other unusual occurrences affected the flows on	(3	10/1/2015	24,100
these days.	(4	10/6/2015	74,800
	(5	10/5/2015	135,800
		AVERAGE	55,920
		Max Month	20,565
4 Average Daily Flow		Annual	16,690
5 Required Fire Flow		None	

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 212 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Park Ridge (252-312)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained

from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

	Not Applicable - water only system	MONTH	GPD
1.	Plant Capacity		
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a)		

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods. Used and Useful Calculations Water Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Park Ridge (252-312)

Docket No.: 160101-WS

- Park Ridge (252-312) Schedule F-5 Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	300 gpm
Firm Reliable well pumping capacity (largest well out), gpm	0 gpm

(System has only one well)

Ground storage capacity, gal.	10,000 gallons
Usable ground storage (90%), gal.	9,000 gallons
Elevated Storage	0 gallons
Usable ground storage (100%), gal.	0 gallons
Hydropneumatic storage capacity, gal.	3,000 gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	9,000 gallons

Maximum day demand, with no incidents	28,900 gpd
Peak hour demand = $2x \max day/1440$	40 gpm

Fire flow requirement	0 g	gpd

Unaccounted for water	0.94% of water pumped	157 gpd
Acceptable unaccounted for	10.00%	1,669 gpd
Excess unaccounted for		0 gpd

<u>Used & Useful Analysis, in accordance with Rule 25-30.4325:</u>

Water Treatment Plant

Percent Used & Useful = (A + B + C - D)/E x 100%, where: 100.00%

A =	Peak demand	28,900 gpd
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpd
C =	Fire flow demand	0 gpd
D =	Excess Unaccounted for water	0 gpd
$\mathbf{E} =$	Firm Reliable Capacity	0 gpd

Storage

Percent Used & Useful = (A + B + C - D)/E x 100%, where: 100.00%

$\mathbf{A} =$	Peak demand	28,900 gallons
$\mathbf{B} =$	Property needed to serve five years after TY	0 gallons
C =	Fire flow demand	0 gallons
$\mathbf{D} =$	Excess Unaccounted for water	0 gallons
$\mathbf{E} =$	Firm Reliable Capacity	9,000 gallons

The above used and useful factor is applicable to the distribution reservoir accounts.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 214 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Park Ridge (252-312)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-6 Page 1 of 1

Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Not Applicable - water only system.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 215 of 258

Used and Useful Calculations Florida Public Service Commission

Water Distribution and Wastewater Collection Systems

Company: Utilities, Inc. of Florida - UIF - Seminole - Park Ridge (252-312) Schedule F-7
Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution System

Used & useful was last set for this system in Docket Nos. 120209-WS. The water distribution system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 216 of 258

Margin Reserve Calculations Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Park Ridge (252-312) Schedule F-8
Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable. Used & useful was last set for this system in Docket Nos. 120209-WS. All water is purchased. The system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Park Ridge (252-312)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-9 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	100	104	102	5,751,309	56,385	5,751,309	102	
2	2012	104	98	101	5,819,600	57,620	5,819,600	101	-0.98%
3	2013	98	99	99	5,580,494	56,655	5,580,494	99	-2.48%
4	2014	99	105	102	5,648,470	55,377	5,648,700	102	3.56%
5	2015	105	101	103	5,815,210	56,458	5,816,310	103	1.00%
					Ave	rage Growth Throug	h 5-Year Period (Col. 8)		0.27%

$Regression\ Analysis\ per\ Rule\ 25\text{--}30.431(2)(C)$

		<u>X</u>	<u>Y</u>
Constant:	100.3917913	1	102
X Coefficient:	0.304312012	2	101
R^2:	0.078001282	3	99
		4	102
		5	103
		10	103

Five year growth Annual average growth 0 Ercs 0.08 Ercs

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 218 of 258

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Park Ridge (252-312)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers the largest customer class should be used as a substitute

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
_	2011								
1	2011								
2	2012		Jot Applicabl	e - water only s	evetom				
4	2012	1	ot Applicabl	c - water only	system.				
3	2013								
4	2014								
5	2015								
				Av	verage Growth T	Through 5-Year	Period (Col. 8)		

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Company: Utilities, Inc. of Florida - UIF - Seminole - Phillips (252-320)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The othe uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased,	Sold	Uses (2)(3)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)	Adjusted*				
Jan-15	0.431	0.444	0.043	0.382	0.008	0.098	20.0%
Feb-15	0.258	0.266	0.098	0.414	0.009	-0.059	-16.2%
Mar-15	0.352	0.363	0.116	0.343	0.006	0.130	27.1%
Apr-15	0.480	0.494	-	0.428	0.005	0.061	12.4%
May-15	0.632	0.652	0.062	0.440	0.005	0.270	37.8%
Jun-15	0.569	0.593	0.012	0.650	0.009	-0.054	-9.0%
Jul-15	0.523	0.546	0.000	0.593	0.004	-0.050	-9.2%
Aug-15	0.482	0.496	0.002	0.437	0.015	0.045	9.1%
Sep-15	0.355	0.365	-	0.386	0.015	-0.036	-9.8%
Oct-15	0.549	0.565	-	0.345	0.022	0.198	35.0%
Nov-15	0.484	0.498	-	0.497	0.018	-0.016	-3.3%
Dec-15	0.538	0.554	0.007	0.420	0.013	0.128	22.8%
Total	5,654	5.835	0,341	5,334	0.128	0.714	11.6%

(Above data in millions of gallons)

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of gallons sold:

Reconciliation of gallons sold: The amounts on Sch. F-1 and F-9 are the same.

Sch. E-2 shows the total for Seminole County, consisting of nine systems - Bear Lake, Crystal Lake, Jansen,

Little Wekiva, Oakland Shores, Park Ridge, Phillips, Revenna Park and Weathersfield. The amount on Sch E-2

170.920 mg. The aggregate amount of sales of the individual systems is 170.790. The difference is only 0.0761%.

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

^{*} Interconnect with City of Sanford

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2 Page 1 of 1

Company: Utilities, Inc. of Florida - UIF - Seminole - Phillips (252-320)

Page 1 of Docket No.: 160101-WS

Prepare

Preparer: Seidman, F.

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

Month/	(1)	(2) Individual	(3) Plant Flows	(4)	(5) Total Plant	(6) Total Purch.
Year	(Name)	(Name)	(Name)	(Name)	Flows	Sewage Treatment
Jan-15					0.000	0.000
Feb-15					0.000	0.000
Mar-15	N	ot Applicable - wat	er only system		0.000	0.000
Apr-15					0.000	0.000
May-15					0.000	0.000
Jun-15					0.000	0.000
Jul-15					0.000	0.000
Aug-15					0.000	0.000
Sep-15					0.000	0.000
Oct-15					0.000	0.000
Nov-15					0.000	0.000
Dec-15					0.000	0.000
Total	0.000				0.000	0.000
	========	========	========	========	=========	========

Florida Public Service Commission **Water Treatment Plant Data**

Company: Utilities, Inc. of Florida - UIF - Seminole - Phillips (252-320)

Docket No.: 160101-WS

Schedule F-3 Page 1 of 1

Test Year Ended: December 31, 2015

Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

			Date	GPD
1 Plant Capacity				
The hydraulic rated capacity. If different from that shown	Max Day Design per Sanitary Surv	ey		79,200
on the DEP operating or construction permit, provide an explanat	ion.			
	AADF per Cup			27,534
2 Maximum Day				
The single day with the highest pumpage rate for the test year.			5/29/2015	43,113
Explain, on a separate sheet of paper if fire flow, line breaks,				
or other unusual occurrences affected the flow this day.				
3 Five Day Max. Year				
The five days with the highest pumpage rate from any one month	(1	l)	5/26/2015	27,429
in the test year. Provide an explanation if fire flow, line	(2	2)	5/28/2015	29,725
breaks or other unusual occurrences affected the flows on	(3	3)	5/30/2015	30,222
these days.	(4	1)	5/23/2015	31,476
	(5	5)	5/29/2015	43,113
			AVERAGE	32,393
			Max Month	21,034
4 Average Daily Flow		_	Annual	15,988
5 Required Fire Flow			None	

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 222 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Phillips (252-320)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained

from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

	Not Applicable - water only system	MONTH	GPD
1.	Plant Capacity		
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a)		

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods. Used and Useful Calculations

Florida Public Service Commission

Water Treatment Plant

Company: Utilities, Inc. of Florida - UIF - Seminole - Phillips (252-320) Schedule F-5
Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm Firm Reliable well pumping capacity (largest well out), gpm (System has only one well)	100 gpm 0 gpm
Ground storage capacity, gal.	0 gallons
Usable ground storage (90%), gal.	0 gallons
Elevated Storage	0 gallons
Usable ground storage (100%), gal	0 gallong

Elevated Storage 0 gallons
Usable ground storage (100%), gal. 0 gallons
Hydropneumatic storage capacity, gal. 3,000 gallons
Usable hydropneumatic storage capacity (0.00%), gal. 0 gallons
Total usable storage, gal. 0 gallons

Maximum day demand, 43,113 gpd
Peak hour demand = 2x max day/1440 60 gpm

Fire flow requirement 0 gpd

Unaccounted for water 11.56% of water pumped 1.4 gpm
Acceptable unaccounted for 10.00% 1.2 gpm
Excess unaccounted for 0.2 gpm

<u>Used & Useful Analysis, in accordance with Rule 25-3</u>0.4325:

No usable storage

Water Treatment Plant

Percent Used & Useful = (A + B + C - D)/E x 100%, where: 100.00%

Peak demand	43,113 gpm
Property needed to serve five years after TY	0 gpm
Fire flow demand	0 gpm
Excess Unaccounted for water	0.2 gpm
Firm Reliable Capacity	0 gpm
	Property needed to serve five years after TY Fire flow demand Excess Unaccounted for water

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 224 of 258

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Schedule F-6

Page 1 of 1

Company: Utilities, Inc. of Florida - UIF - Seminole - Phillips (252-320)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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

Recap Schedules: A-6,A-10,B-14

Not Applicable - water only system.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 225 of 258

Used and Useful Calculations Florida Public Service Commission

Water Distribution and Wastewater Collection Systems

Company: Utilities, Inc. of Florida - UIF - Seminole - Phillips (252-320) Schedule F-7
Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution System

Used & useful was last set for this system in Docket Nos. 120209-WS. The water distribution system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 226 of 258

Margin Reserve Calculations Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Phillips (252-320) Schedule F-8
Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable. Used & useful was last set for this system in Docket Nos. 120209-WS. All water is purchased. The system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Phillips (252-320)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-9 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

-	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		SFR Customers		SFR	Gallons/	Total	Total	Annual	
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	80	79	80	6,330,740	79,632	6,330,740	80	
2	2012	79	79	79	5,587,036	70,722	5,587,036	79	-0.63%
3	2013	79	80	80	4,842,644	60,914	4,842,644	80	0.63%
4	2014	80	83	82	5,188,260	63,660	5,188,260	82	2.52%
5	2015	83	84	84	5,334,190	63,883	5,334,190	84	2.45%
					Ave	rage Growth Throug	h 5-Year Period (Col. 8)		1.24%

$Regression\ Analysis\ per\ Rule\ 25\text{--}30.431(2)(C)$

		<u>X</u>	<u>Y</u>
Constant:	77.45	1	80
X Coefficient:	1.05	2	79
R^2:	0.776408451	3	80
		4	82
		5	84
		10	88

Five year growth Annual average growth 4 Ercs 0.89 Ercs

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 228 of 258

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Seminole - Phillips (252-320)
Docket No.: 160101-WS

Schedule F-10 Page 1 of 1

Test Year Ended: December 31, 2015

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers the largest customer class should be used as a substitute

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Line No.	Year	SFR Customers Beginning Ending Average			SFR Gallons Sold	Gallons/ SFR (5)/(4)	Total Gallons Sold	Total ERCs (7)/(6)	Annual % Incr. in ERCs	
1	2011									
2	2012	N	Not Applicable - water only system.							
3	2013									
4	2014									
5	2015									
				A	verage Growth [Through 5-Year	Period (Col. 8)			

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Preparer: Seidman, F.

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon (252-451)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (2)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)					
Jan-15	1.404	1.438	0.001	1.341	0.004	0.094	6.5%
Feb-15	1.757	1.821	0.000	1.279	0.159	0.382	21.0%
Mar-15	1.676	1.786	0.005	1.365	0.005	0.420	23.5%
Apr-15	1.467	1.537	0.000	1.493	0.000	0.044	2.9%
May-15	1.207	1.265	0.000	1.087	0.000	0.178	14.1%
Jun-15	1.140	1.195	0.000	0.907	0.000	0.288	24.1%
Jul-15	1.253	1.313	0.000	0.997	0.019	0.298	22.7%
Aug-15	1.099	1.152	0.000	0.714	0.048	0.389	33.8%
Sep-15	0.956	1.002	0.000	0.739	0.010	0.253	25.2%
Oct-15	1.354	1.419	0.001	0.826	0.102	0.492	34.7%
Nov-15	1.246	1.306	0.000	1.038	0.010	0.258	19.8%
Dec-15	1.268	1.329	0.003	1.061	0.018	0.252	18.9%
Total	15.827	16.562	0.010	12.848	0.376	3.348	20.2%

(Above data in millions of gallons)

our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

Reconciliation of Gallons Sold shown in Schedules F-1, F-9 and E-2:

The total gallons sold for Lake Tarpon, as shown on Schedule F-1 and F-9 are the same.

The total gallons sold for per Schedule E-2 is 12.869 mg, a 0.163% difference.

This is most likely due to the fact that the amounts on F-1 and F-9 are the sums of actual readings whereas the amount on E-2 is taken from the billing analysis which is rounded to the nearest 1,000 gallons.

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

Schedule F-2

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon (252-451)

Page 1 of 1

Docket No.: 160101-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

	(1)	(2)	(3)	(4)	(5)	(6)
		Individual	Plant Flows			Total Purch.
Month/					Total Plant	Sewage
Year	(Name)	(Name)	(Name)	(Name)	Flows	Treatment
Jan-15	·				0.000	0.000
Feb-15					0.000	0.000
Mar-15	Not Applicable - W	ater only system			0.000	0.000
Apr-15					0.000	0.000
May-15					0.000	0.000
Jun-15					0.000	0.000
Jul-15					0.000	0.000
Aug-15					0.000	0.000
Sep-15					0.000	0.000
Oct-15					0.000	0.000
Nov-15					0.000	0.000
Dec-15					0.000	0.000
Total	0.000				0.000	0.000

Water Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon (252-451)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-3 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

g Day, Max Month per CUP				
g Day, Max Month per CUP				
				172,000
		2/23/2015		161,500
	Ī	Main break &	weeke	nd reading
Max Day, no incidents	_	10/5/2015		113,500
	(1) _ (2) _ (3) _ (4) _ (5) _	2/21/2015 2/19/2015 2/20/2015 2/22/2015 2/23/2015 AVERAGE	* *	106,000 109,000 128,000 161,500 161,500
		Max Month		65,024 45,376
	Max Day, no incidents	Max Day, no incidents (1) (2) (3) (4) (5)	Main break & 10/5/2015	Main break & weeke 10/5/2015 (1) 2/21/2015 (2) 2/19/2015 (3) 2/20/2015 (4) 2/22/2015 * (5) 2/23/2015 * AVERAGE Max Month Annual

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 232 of 258

Wastewater Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon (252-451)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained

from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

	N.A. P. D. W.A. J. A.	MONTH	GPD
	Not Applicable - Water only system		
1.	Plant Capacity		
	The hydraulic rated capacity. If different from that shown		
	on the DEP operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a)		

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods. Used and Useful Calculations Florida Public Service Commission

Water Treatment Plant

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon (252-451)

Schedule F-5

Docket No.: 160101-WS

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

 $\label{lem:explanation: Provide all calculations, analyses and governmental requirements \ used to determine the used and useful percentages for the water treatment plant(s) for the historical test year and$

the projected test year (if applicable).

Recap Schedules: A-5,A-9,B-13

INPUT INFORMATION:

Total well pumping capacity, gpm	500 gpm
Firm Reliable well pumping capacity (largest well out), gpm	0 gpm

Ground storage capacity, gal.

Usable ground storage (90%), gal.

Elevated Storage

Usable ground storage (100%), gal.

Usable ground storage (100%), gal.

Usable ground storage capacity, gal.

Usable hydropneumatic storage capacity (0.00%), gal.

Usable hydropneumatic storage capacity (0.00%), gal.

Usable storage, gal.

Maximum day demand, 113,500 gpd Peak hour demand = 2x max day/1440 158 gpm

Fire flow requirement 0 gpd

Unaccounted for water 20.20% of water pumped 6 gpm
Acceptable unaccounted for 10.00% 3 gpm
Excess unaccounted for 3 gpm

Used & Useful Analysis, in accordance with Rule 25-30.4325:

No usable storage

Water Treatment Plant, no usable storage

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$, where: 100.00%

$\mathbf{A} =$	Peak demand	158 gpm
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpm
C =	Fire flow demand	0 gpm
D =	Excess Unaccounted for water	3 gpm
$\mathbf{E} =$	Firm Reliable Capacity	0 gpm

The above used and useful factor is applicable to all source of supply, pumping, storage and treatment accounts.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 234 of 258

Used and Useful Calculations Florida Public Service Commission

Wastewater Treatment Plant

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon (252-451)

Schedule F-6

Docket No.: 160101-WS

Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

 $\label{lem:explanation:provide all calculations, analyses and governmental requirements \ used to determine the used and useful percentages for the wastewater treatment plant(s) for the historical test year$

and the projected test year (if applicable).

Recap Schedules: A-6,A-10,B-14

NOT APPLICABLE - Water System Only

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 235 of 258

Used and Useful Calculations Water Distribution and Wastewater Collection Systems Florida Public Service Commission

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon (252-451)

Docket No.: 160101-WS Test Year Ended: December 31, 2015 Schedule F-7 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution System

Used & useful was last set for this system in Docket Nos. 120209-WS.

The water distribution system was found to be built out and 100% U&U. Circumstances have not changed.

The system remains 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 236 of 258

Margin Reserve Calculations Florida Public Service Commission

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon (252-451) Schedule F-8
Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable. Used & useful was last set for this system in Docket Nos. 120209-WS. All water is purchased. The system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon (252-451)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-9 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

-	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	502	501	502	12,720,022	25,364	14,099,672	556	
2	2012	501	497	499	12,960,048	25,972	14,159,858	545	-1.92%
3	2013	497	501	499	12,013,990	24,076	13,850,670	575	5.52%
4	2014	501	502	502	11,579,720	23,090	13,639,510	591	2.68%
5	2015	502	500	501	11,348,390	22,651	12,847,930	567	-3.98%
					Ave	rage Growth Throug	th 5-Year Period (Col. 8)		0.57%

$Regression\ Analysis\ per\ Rule\ 25\text{--}30.431(2)(C)$

		<u>X</u>	<u>Y</u>
Constant:	546.419825	1	556
X Coefficient:	6.81229718	2	545
R^2:	0.377499068	3	575
		4	591
		5	567
		10	615

Five year growth Annual average growth 47 Ercs 9.47 Ercs **Equivalent Residential Connections - Wastewater**

Florida Public Service Commission

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon (252-451)

Docket No.: 160101-WS

Schedule F-10 Page 1 of 1

Test Year Ended: December 31, 2015

Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011								
2	2012	N	lot Applicabl	e - water only	system.				
	2012								
3	2013								
4	2014								
5	2015								
				Av	erage Growth T	hrough 5-Year	Period (Col. 8)		

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Preparer: Seidman, F.

Company: Utilities, Inc. of Florida (252-084-Crescent Heights)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	Total Gallons	Total Gallons	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped Per MORs	Corrected for Meter Error (1)	Purchased (3)	Sold	Uses (2)	(1)+(2)-(3)-(4)	For Water
Jan-15	-	-	1.392	1.276	0.0001	0.116	8.4%
Feb-15	-	-	1.241	1.366	0.0001	-0.126	-10.1%
Mar-15	-	-	1.536	1.313	0.0001	0.223	14.5%
Apr-15	-	-	1.418	1.261	0.0001	0.157	11.0%
May-15	-	-	1.577	1.356	0.0001	0.221	14.0%
Jun-15	-	-	1.645	1.593	0.0001	0.052	3.2%
Jul-15	-	-	1.453	1.482	0.0002	-0.028	-2.0%
Aug-15	-	-	1.580	1.605	0.0002	-0.025	-1.6%
Sep-15	-	-	1.390	1.547	0.0002	-0.158	-11.4%
Oct-15	-	-	1.536	1.448	0.0002	0.088	5.7%
Nov-15	-	-	1.629	1.558	0.0001	0.071	4.3%
Dec-15	-	-	1.459	1.632	0.0001	-0.173	-11.9%
Total			17.855	17.436	0.002	0.418	2.39
	==========		=========	========	=========	=======================================	=========

(Above data in millions of gallons)

- (1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the percent correction determined in the most recent calibration.
- (2) Other Uses includes such uses as line breaks, flushing and water quality testing
- (3) Treated water purchased from the Orlando Utilities Commission

Reconciliation of gallons sold: The amounts on Sch. F-1 and F-9 are the same. Sch. E-2 shows the total for Orange County, consisting of Crescent Heights and Davis Shores. The amount on Sch E-2 is the same as the totals of those shown on Sch. F-1 and F-9 for Crescent Heights and Davis Shores.

Gallons of Wastewater Treated In Thousands of Gallons Florida Public Service Commission

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Schedule F-2

Company: Utilities, Inc. of Florida (252-084-Crescent Heights)

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Page 1 of 1
Preparer: Seidman, F.

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

(1) (2) (3) (4) (5) (6) **Individual Plant Flows Total Purch.** Month/ **Total Plant** Sewage Year (Name) (Name) (Name) (Name) **Flows** Treatment 0.000 Jan-15 0.000 Feb-15 0.000 0.000 Mar-15 Not Applicable - water only system 0.000 0.000 Apr-15 0.000 0.000 0.000 May-15 0.000 Jun-15 0.000 0.000 Jul-15 0.000 0.000 Aug-15 0.000 0.000 Sep-15 0.000 0.000 Oct-15 0.000 0.000 0.000 Nov-15 0.000 Dec-15 0.000 0.000 **Total** 0.000 0.000 0.000

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Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 241 of 258

Schedule F-3

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida (252-084-Crescent Heights)

Docket No.: 160101-WS Page 1 of 1
Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

	Date	GPD
1 Plant Capacity		
The hydraulic rated capacity. If different from that shown	Water Purchased *	* Water Purchased *
on the DEP operating or construction permit, provide an explanation.	This Schedule not applica	ble
2 Maximum Day		
The single day with the highest pumpage rate for the test year.		
Explain, on a separate sheet of paper if fire flow, line breaks,	-	
or other unusual occurrences affected the flow this day.		
* All water is purchased from Orland Utilities Commission (OUC).		
3 Five Day Max. Year		
The five days with the highest pumpage rate from any one month		
in the test year. Provide an explanation if fire flow, line	-	
breaks or other unusual occurrences affected the flows on	<u> </u>	
these days.	-	
4 Average Daily Flow		
	·	

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

There is a single hydrant.

5 Required Fire Flow

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 242 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida (252-084-Crescent Heights)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

	Not Applicable - water only system	MONTH	GPD
1.	Plant Capacity		
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a)		

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 243 of 258

Used and Useful Calculations Water Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida (252-084-Crescent Heights)

Schedule F-5

Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

Not Applicable - all water purchased

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 244 of 258

Schedule F-6

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida (252-084-Crescent Heights)

Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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

and the projected test year (if applicable).

Recap Schedules: A-6,A-10,B-14

Not Applicable - water only system.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 245 of 258

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Schedule F-7

Company: Utilities, Inc. of Florida (252-084-Crescent Heights)

Docket No.: 160101-WS
Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution System

Used & useful was last set for this system in Docket Nos. 120209-WS.

The water distribution system was found to be built out and 100% U&U. Circumstances have not changed.

The system remains 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 246 of 258

Margin Reserve Calculations

Florida Public Service Commission

Schedule F-8

Company: Utilities, Inc. of Florida (252-084-Crescent Heights)

Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable. Used & useful was last set for this system in Docket Nos. 120209-WS.

All water is purchased. The system was found to be built out and 100% U&U. Circumstances have not changed.

Schedule F-9

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida (252-084-Crescent Heights)

Docket No.: 160101-WSPage 1 of 1Test Year Ended: December 31, 2015Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	SFR Customers		SFR	Gallons/	Total	Total	Annual
Line	Vana	Basinaina	Fadina	A	Gallons	SFR (E) ((a)	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011	257	252	255	18,406,700	72,325	18,804,410	260	
2	2012	252	260	256	16,973,537	66,303	17,211,957	260	-0.16%
3	2012	260	266	263	17,335,388	65,914	17,699,698	269	3.44%
4	2014	266	266	266	16,858,887	63,379	17,126,967	270	0.63%
5	2015	266	266	266	17,131,538	64,404	17,436,268	271	0.19%
						Average Growth Thro	ugh 5-Year Period (Col. 8)		1.03%

Regression Analysis per Rule 25-30.431(2)(C)

		_	<u></u>
Constant:	256.186932	1	260
X Coefficient:	3.209902319	2	260
R^2:	0.834146495	3	269
		4	270
		5	271
		10	288

Five year growth 18 Ercs
Annual average growth 3.51 Ercs

Schedule F-10

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida (252-084-Crescent Heights)

Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Customer	s	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2011								
2	2012	N	lot Applicable	- water only s	system.				
2	2042								
3	2013								
4	2014								
7	2014								
5	2015								
-					Average Growt	h Through 5-Yea	r Period (Col. 8)		
					3	3	, ,		

Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Preparer: Seidman, F.

Company: Utilities, Inc. of Florida (252-097-Davis Shores)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of water pumped, sold and unaccounted for each month of the test year. The gallons pumped should match the flows shown on the monthly operating reports sent to DEP. The other uses may include plant use, flushing of hydrants and water and sewer lines, line breakages and fire flows. Provide all calculations to substantiate the other uses. If unaccounted for water is greater than 10%, provide an explanation as to the reasons why; if less than 10%, then Columns 4 & 5 may be omitted.

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/ Year	Total Gallons Pumped	Total Gallons Corrected for	Gallons Purchased (3)	Gallons Sold	Other Uses (2)	For Water (1)+(2)-(3)-(4)	Unaccounted For Water
	Per MORs	Meter Error (1)					
Jan-15	-	-	0.250	0.246	0.0001	0.004	1.6%
Feb-15	-	-	0.229	0.260	0.0001	-0.031	-13.7%
Mar-15	-	-	0.322	0.265	0.0001	0.057	17.6%
Apr-15	-	-	0.328	0.288	0.0001	0.040	12.0%
May-15	-	-	0.418	0.350	0.0001	0.068	16.3%
Jun-15	-	-	0.393	0.447	0.0021	-0.056	-14.3%
Jul-15	-	-	0.293	0.425	0.0002	-0.132	-45.1%
Aug-15	-	-	0.267	0.283	0.0002	-0.016	-5.9%
Sep-15	-	-	0.244	0.267	0.0002	-0.023	-9.4%
Oct-15	-	-	0.281	0.264	0.0003	0.016	5.6%
Nov-15	-	-	0.339	0.255	0.0001	0.084	24.8%
Dec-15	-	-	0.315	0.369	0.0088	-0.062	-19.8%
Total	-	-	3.678	3.718	0.012	-0.053	-1.49

(1) The Utility does an annual flow meter calibration. A correction factor is calculated that reflects the difference between our flow meter and a strap-on meter positioned directly adjacent to our meter to give highest confidence of meter accuracy. Meters are not necessarily repaired or modified after a calibration test. Instead, it is assumed that the measured error will be present consistently thereafter or until a subsequent flow test indicates otherwise. The corrected gallons = the gallons reported in the MOR + the

(2) Other Uses includes such uses as line breaks, flushing and water quality testing

(3) Treated water purchased from the Orange County

percent correction determined in the most recent calibration.

(Above data in millions of gallons)

Reconciliation of gallons sold: The amounts on Sch. F-1 and F-9 are the same. Sch. E-2 shows the total for Orange County, consisting of Crescent Heights and Davis Shores. The amount on Sch E-2 is the same as the totals of those shown on Sch. F-1 and F-9 for Crescent Heights and Davis Shores.

Gallons of Wastewater Treated In Thousands of Gallons

Florida Public Service Commission

Schedule F-2

Company: Utilities, Inc. of Florida (252-097-Davis Shores)

Page 1 of 1 Docket No.: 160101-WS Preparer: Seidman, F.

Test Year Ended: December 31, 2015

Explanation: Provide a schedule of gallons of wastewater treated by individual plant for each month of the historical test year. Flow data should match the monthly operating reports sent to DEP.

	(1)	(2) Individual	(3) Plant Flows	(4)	(5)	(6) Total Purch.
Month/ Year				(Name)	Total Plant Flows	Sewage Treatment
Teal	(Ivaille)	(Name)	(Name)	(Ivaille)	riows	meatment
Jan-15					0.000	0.000
Feb-15					0.000	0.000
Mar-15	N	lot Applicable - water	only system		0.000	0.000
Apr-15					0.000	0.000
May-15					0.000	0.000
Jun-15					0.000	0.000
Jul-15					0.000	0.000
Aug-15					0.000	0.000
Sep-15					0.000	0.000
Oct-15					0.000	0.000
Nov-15					0.000	0.000
Dec-15					0.000	0.000
Total	0.000				0.000	0.000
	========	========	========	========	=========	========

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 251 of 258

Schedule F-3

Page 1 of 1

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida (252-097-Davis Shores)

Docket No.: 160101-WS

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide the following information for each water treatment plant. If the system has water plants that are interconnected, the data for these plants may be combined. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

		Date	GPD
1 Plant Capacity			
The hydraulic rated capacit	y. If different from that shown	Water Purchased *	Water Purchased *
on the DEP operating or co	nstruction permit, provide an explanation.	This Schedule not applicab	le
2 Maximum Day			
The single day with the high	hest pumpage rate for the test year.		
Explain, on a separate shee	t of paper if fire flow, line breaks,		
or other unusual occurrenc	es affected the flow this day.		
* All water is purchased from	om Orland Utilities Commission (OUC).		
3 Five Day Max. Year			
The five days with the high	est pumpage rate from any one month		
in the test year. Provide an	explanation if fire flow, line	<u></u>	
breaks or other unusual occ	currences affected the flows on	<u></u>	
these days.			
4 Average Daily Flow			
5 Required Fire Flow	There is a single hydrant.		

The standards will be those as set by the Insurance Service Organization or by a governmental agency ordinance. Provide documents to support this calculation.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 252 of 258

Wastewater Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida (252-097-Davis Shores)

Docket No.: 160101-WS

Schedule F-4 Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.

	Not Applicable - water only system	MONTH	GPD
1.	Plant Capacity		
	The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.		
2.	Average Daily Flow Max Month (a)		

An average of the daily flows during the peak usage month during the test year. Explain, on a separate page, if this peak-month was influenced by abnormal infiltration due to rainfall periods.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 253 of 258

Used and Useful Calculations Water Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida (252-097-Davis Shores)

Schedule F-5 Page 1 of 1

Docket No.: 160101-WS

Test Year Ended: December 31, 2015

Preparer: Seidman, F.

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).

Recap Schedules: A-5,A-9,B-13

Not Applicable - all water purchased

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 254 of 258

Schedule F-6

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Commission

Company: Utilities, Inc. of Florida (252-097-Davis Shores)

Docket No.: 160101-WS Page 1 of 1
Test Year Ended: December 31, 2015 Preparer: Seidman, F.

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

and the projected test year (if applicable).

Recap Schedules: A-6,A-10,B-14

Not Applicable - water only system.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 255 of 258

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Schedule F-7

Company: Utilities, Inc. of Florida (252-097-Davis Shores)

Docket No.: 160101-WS Page 1 of 1
Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide all calculations, analyses and governmental requirements used to determine the used and useful percentages for the water distribution and wastewater collection systems for the historical and the projected test year (if applicable). The capacity should be in terms of ability to serve a designated number of connections. It should then be related to actual connected density for historical year calculations. Explain all assumptions for projected calculations. If the distribution and collection systems are entirely contributed or built-out, this schedule is not required.

Recap Schedules: A-5,A-6,A-9,A-10,B-13,B-14

Water Distribution System

Used & useful was last set for this system in Docket Nos. 120209-WS.

The water distribution system was found to be built out and 100% U&U. Circumstances have not changed.

The system remains 100% used & useful.

Docket No. 160101-WS F-Schedules Exhibit FS-2 (Part 2) Page 256 of 258

Margin Reserve Calculations

Florida Public Service Commission

Company: Utilities, Inc. of Florida (252-097-Davis Shores) Schedule F-8

Docket No.: 160101-WS Page 1 of 1

Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: If a margin reserve is requested, provide all calculations and analyses used to

determine the amount of margin reserve for each portion of used and useful plant.

Recap Schedules: F-5,F-6,F-7

Not applicable. Used & useful was last set for this system in Docket Nos. 120209-WS.

All water is purchased. The system was found to be built out and 100% U&U. Circumstances have not changed.

The system remains 100% used & useful.

Schedule F-9

Equivalent Residential Connections - Water

Florida Public Service Commission

Company: Utilities, Inc. of Florida (252-097-Davis Shores)

Docket No.: 160101-WS Page 1 of 1
Test Year Ended: December 31, 2015 Preparer: Seidman, F.

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3) FR Customer	(4)	(5) SFR	(6) Gallons/	(7) Total	(8) Total	(9) Annual
Line No.	Year	Beginning	Ending	Average	Gallons Sold	SFR (5)/(4)	Gallons Sold	ERCs (7)/(6)	% Incr.
1	2011	43	45	44	4,231,290	96,166	4,231,290	44	
2	2012	45	45	45	4,026,590	89,480	4,026,590	45	2.27%
3	2012	45	45	45	3,168,970	70,422	3,168,970	45	0.00%
4	2014	45	44	45	3,509,550	78,866	3,509,550	45	-1.11%
5	2015	44	43	44	3,718,120	85,474 Average Growth Throu	3,718,120 ugh 5-Year Period (Col. 8)	44	-2.25% -0.27%

Regression Analysis per Rule 25-30.431(2)(C)

		_	<u></u>
Constant:	44.85	1	44
X Coefficient:	-0.15	2	45
R^2:	0.132352941	3	45
		4	45
		5	44
		10	43

Five year growth (0) Ercs
Annual average growth -0.03 Ercs

Equivalent Residential Connections - Wastewater

Florida Public Service Commission

Company: Utilities, Inc. of Florida (252-097-Davis Shores)

Docket No.: 160101-WS

Preparer: Seidman, F.

Schedule F-10

Page 1 of 1

Test Year Ended: December 31, 2015

Explanation: Provide the following information in order to calculate the average growth in ERCs for the last five years, including the test year. If the utility does not have single-family residential (SFR) customers, the largest customer class should be used as a substitute.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Customer	s	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
						<u> </u>			
1	2011								
2	2012	N	lot Applicable	e - water only s	system.				
3	2013								
4	2014								
5	2015				Average Growt	h Through 5-Yea	r Period (Col. 8)		
					Average Grown				