# BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Application for increase in water and	)	Docket No. 20200139-WS
Wastewater rates in Charlotte, Highlands,	)	
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.

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

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## 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, retired status, 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.

## Q. What is the purpose of your direct testimony?

A. The purpose of my direct testimony is to present the results of my Used and Useful analyses of the individual systems that make up Utilities, Inc. of Florida and to sponsor the Engineering Schedule Section of Volume I of the Minimum Filing Requirements, also known as the "F" Schedules.

Q. Are you sponsoring any exhibits? Yes. I am sponsoring Exhibit (FS-1)\_\_\_\_ which is a summary of my A. 2 education and my experience as it pertains to water and wastewater 3 regulation. I am also sponsoring Exhibit (FS-2)\_\_\_\_ which is a summary 4 of the Used and Useful, Excess Unaccounted for Water (UAW) and 5 Excess I&I percentages of all the individual systems included in this 6 filing. As previously stated, I am also sponsoring the Engineering Section 7 of Volume I which is Exhibit (FS-3)\_\_\_\_. 8 9 Q. Would you please summarize the results of your used and useful 10 analyses? 11 12 A. Yes. As previously stated, the results of the used and useful analyses are contained in the "F" schedules section of each of the MFRs for the various 13 systems. For convenience, I have prepared Exhibit (FS-2)\_\_\_\_\_, which 14 summarizes the results for all of the systems. 15 16 Does that conclude your direct testimony? Q. 17 A. Yes, it does. 18 19

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Polk, and Seminole Counties by Utilities, Inc.	)	
of Florida.	)	
	)	Docket No. 20200139-WS

EXHIBIT (FS-1)\_\_\_\_

OF

FRANK SEIDMAN

on behalf of

Utilities, Inc. of Florida

Docket No. 20200139-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, now known as Management & Regulatory Consultants. 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.

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

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Engineer, retired status, 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:04/30/2020

# SUMMARY OF PROFESSIONAL EXPERTISE IN WATER and WASTEWATER REGULATION IN FLORIDA

#### **FRANK SEIDMAN**

#### I. Participation In Specific Water And Sewer Cases

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.

<u>Florida</u>

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.

<u>Florida</u>

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

Sponsor: Florida Cities Water Co.

Purpose: Prepare Rate Case and testify re Application.

<u>Florida</u>

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.

<u>Florida</u>

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.

<u>Florida</u>

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

Sponsor: Gulf Utility Company

Purpose: Prepare Rate Case and testimony re Application.

<u>Florida</u>

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.

<u>Florida</u>

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** 

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.

<u>Florida</u>

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

<u>Florida</u>

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

<u>Florida</u>

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

Sponsor: Sailfish Point Utility Corporation

Purpose: Prepare Rate Case

**Florida** 

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

Sponsor: Lake Griffin Utilities Inc.

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

<u>Florida</u>

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.

<u>Florida</u>

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

Sponsor: W.P. Utilities

Purpose: Request for Exemption from PSC Regulation

<u>Florida</u>

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.

<u>Florida</u>

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.

<u>Florida</u>

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.

<u>Florida</u>

Case: Undocketed; Rolling Oaks Utility, 1992.

Sponsor: Southern States

Purpose: Prepare duee diligence and valuation report.

<u>Florida</u>

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

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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

**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.

<u>Florida</u>

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.

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**Florida** 

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

Sponsor: Florida Waterworks Association

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

<u>Florida</u>

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.

<u>Florida</u>

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.

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Florida

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

Sponsor: Mid-County Services, Inc.

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

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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.

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.

<u>Florida</u>

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.

<u>Florida</u>

Case: Undocketed; PSC Annual Reports, 2001

Sponsor: Harbor Hills Utilities, Inc.

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

<u>Florida</u>

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.

<u>Florida</u>

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.

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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

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.

<u>Florida</u>

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.

<u>Florida</u>

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.

<u>Florida</u>

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.

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**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.

<u>Florida</u>

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.

<u>Florida</u>

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

Sponsor: Gold Coast Utility Corp.

Purpose: Prepare Used & Useful analysis.

<u>Florida</u>

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.

<u>Florida</u>

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.

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**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.

<u>Florida</u>

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.

<u>Florida</u>

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.

<u>Florida</u>

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

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

**Florida** 

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

Sponsor: 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.

<u>Florida</u>

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: Water Management Services, Inc.
Purpose: 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.

<u>Florida</u>

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

Sponsor: Sanlando Utilities, Inc.

Purpose: Prepare Used & Useful analysis.

<u>Florida</u>

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

Sponsor: Labrador Utilities, Inc.

Purpose: Prepare Used & Useful analysis.

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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.

<u>Florida</u>

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.

<u>Florida</u>

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

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**Florida** 

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

Sponsor: KW Resort Utilities Corp.

Purpose: Prepare Used & Useful analysis.

Florida

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

Sponsor: Ave Maria Utility Co., LLLP
Purpose: Prepare Used & Useful analysis.

**Florida** 

Case: Docket No. 160101-WS; Application for increase in rates and charges, 2015

Sponsor: Utilities, Inc. of Florida

Purpose: Prepare Used & Useful analysis for all systems and MFRs for the Cypress Lakes,

Lake Placid, Pennbrooke, Mid-County and Eagle Ridge systems.

Florida

Case: Docket No. 20170141-SU; Application for increase in rates and charges, 2017

Sponsor: KW Resort Utilities Corp.

Purpose: Prepare Used & Useful analysis.

--- END ---

# 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.	)	
	)	Docket No. 20200139-WS

EXHIBIT (FS-2)\_\_\_\_

OF

FRANK SEIDMAN

on behalf of

Utilities, Inc. of Florida

Docket No. 20200139-WS
Summary of Used and Useful, Excess Unaccounted for Water (EUW) and Excess I&I Percentages Requested by UIF
Exhibit FS-2\_\_\_\_\_\_\_

Page 1 of 1

							Page 1 of 1		
				U&U	U&U	U&U	U&U		
		COUNTY	Туре	W Plant	Stotage	WW Plant	Dist & Col.	EUW	Excess
	SYSTEM			Pct	Pct	Pct	Pct	%	% I&I
1 Cypress Lakes	OTOTEM	Polk	W/S	100.00%	100.00%	100.00%	100.00%	_	_
2 Eagle Ridge		Lee	S	-	-	100.00%	100.00%	_	_
2a Cross Creek		Lee	s	_		100.00%	100.00%	_	_
3 Labrador		Pasco	w/s	100.00%	100.00%	100.00%	100.00%	_	_
4 Lake Placid		Highland	W/S	100.00%	100.00%	100.00%	100.00%	10.00%	_
5 Lake Utility Services	(LUSI)	Lake	W/S	100.00%	100.00%	72.00%	100.00%	-	_
5a LUSI (Four Lake	•	Lake	W	100.00%	100.00%	-	100.00%	1.90%	_
5b LUSI (Lake Sau	•	Lake	w	100.00%	100.00%	_	100.00%	-	_
5c Barrington WW	•	Lake	s	-	-	100.00%	100.00%	_	_
6 Golden Hills/Crownw		Marion	w/s	100.00%	100.00%	78.44%	100.00%	8.80%	_
7 Mid-County	-	Pinellas	S	-	-	100.00%	100.00%	-	_
8 Crescent Heights		Orange	w	Purchased Treatment - Not appl.	100.00%	-	100.00%	_	_
9 Davis Shores		Orange	w	Purchased Treatment - Not appl.	100.00%	_	100.00%	_	_
10 Summertree		Pasco	W/S	Purchased Treatment - Not appl.	100.00%	Purchased Treatment - Not appl.	100.00%	_	_
	is-Bar, Buena Vista MHP)	Pasco	W/S	100.00%	100.00%	Purchased Treatment - Not appl.	100.00%	_	5.72%
12 Pennbrooke	,	Lake	W/S	100.00%	100.00%	100.00%	100.00%	_	_
13 Lake Tarpon		Pinellas	W	100.00%	100.00%	-	100.00%	-	-
14 Tierra Verde		Pinellas	S	-	-	Purchased Treatment - Not appl.	100.00%	-	-
15 Sandalhaven - EWD C	Capacity	Charlotte	S	•		51.62%	100.00%	-	-
15a <b>Sandalhaven - Trans</b> r	nission	Charlotte	S	•		100.00%	100.00%	-	-
Sanlando Utilities Co Longwood)	rp. (incl. Knollwood, DesPinar,	Seminole	W/S	100.00%	100.00%	100.00%	100.00%	2.10%	_
17 Bear Lake		Seminole	W	100.00%	100.00%	-	100.00%	-	-
18 Ravenna Park (incl. C	rystal Lake, Phillips)/ Lincoln Heights	Seminole	W/S	100.00%	100.00%	Purchased Treatment - Not appl.	100.00%	-	11.25%
19 Jansen		Seminole	W	100.00%	100.00%	-	100.00%	-	-
20 Little Wekiva		Seminole	W	100.00%	100.00%	-	100.00%	5.50%	-
21 Oakland Shores		Seminole	W	100.00%	100.00%	-	100.00%	-	-
22 Park Ridge		Seminole	W	100.00%	100.00%	-	100.00%	-	-
23 Weathersfield		Seminole	W/S	100.00%	100.00%	Purchased Treatment - Not appl.	100.00%		_

# 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.	)	
	)	Docket No. 20200139-WS

**EXHIBIT (FS-3)\_\_\_\_** 

**OF** 

FRANK SEIDMAN

on behalf of

Utilities, Inc. of Florida

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 1 of 243

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

Company: Utilities, Inc. of Florida - Cypress Lakes

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	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-19	5.633	5.345	0.000	4.561	0.403	0.382	7.2%
Feb-19	5.732	5.362	0.000	4.622	0.400	0.340	6.3%
Mar-19	7.211	6.678	0.000	4.487	0.333	1.858	27.8%
Apr-19	7.326	6.784	0.000	5.942	0.465	0.377	5.6%
May-19	7.746	7.312	0.000	4.602	0.862	1.847	25.3%
Jun-19	7.602	7.374	0.000	5.094	1.247	1.034	14.0%
<b>Jul-19</b>	7.501	7.325	0.000	4.363	3.131	-0.169	-2.3%
Aug-19	7.680	7.526	0.000	3.492	4.017	0.017	0.2%
Sep-19	6.575	6.443	0.000	3.232	2.358	0.853	13.2%
Oct-19	6.510	6.380	0.000	4.711	1.539	0.130	2.0%
Nov-19	6.817	6.681	0.000	5.042	1.688	-0.050	-0.7%
Dec-19	7.324	7.177	0.000	5.152	2.282	-0.257	-3.6%
Total	83.657	80.387	0.000	55.299	18.724	6.363	7.9%

(Above data in millions of gallons)

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

<sup>(1)</sup> 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. 20200139-WS F Schedules Exhibit FS-3 Page 2 of 243

**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 - Cypress Lakes

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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.

Mandh/	(1)	(2) Individual	(3) Plant Flows	(4)	(5)	(6) Total Purch.
Month/ Year	Cypress	(Name)	(Name)	(Name)	Total Plant Flows	Sewage Treatment
	Lakes					
Jan-19	3.722				3.722	0.000
Feb-19	3.692				3.692	0.000
Mar-19	3.993				3.993	0.000
Apr-19	3.468				3.468	0.000
<b>May-19</b>	2.932				2.932	0.000
Jun-19	2.887				2.887	0.000
Jul-19	3.299				3.299	0.000
Aug-19	3.164				3.164	0.000
Sep-19	2.798				2.798	0.000
Oct-19	3.286				3.286	0.000
Nov-19	3.244				3.244	0.000
Dec-19	3.553				3.553	0.000
Total	40.037				40.037	0.000
	=========	=========	=========	=========	==========	=========

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 3 of 243

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - Cypress Lakes

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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			202.000
The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanatio  MMADF			293,800 382,000
on the DEP operating or construction permit, provide an explanatio MMADF			362,000
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. Max day, no unusual occurrences		6/2/2019	416,000
3 Five Day Max. Year			
The five days with the highest pumpage rate from any one month	(1)	5/22/2019	286,000
in the test year. Provide an explanation if fire flow, line	(2)	5/5/2019	310,000
breaks or other unusual occurrences affected the flows on	(3)	5/20/2019	315,000
these days.	(4)	5/30/2019	341,000
	(5)	5/27/2019	406,000
		AVERAGE _	331,600
		Max Month	235,856
4 Average Daily Flow		Annual	220,238

5 Required Fire Flow 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. 20200139-WS F Schedules Exhibit FS-3 Page 4 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Cypress Lakes

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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	3/2019	128,807
3	Average Annual Daily Flow		109,691
3	Max 3 Month Average Daily Flow (3MADF)	Ending 3/2019	126,907

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. 20200139-WS F Schedules Exhibit FS-3 Page 5 of 243

**Used and Useful Calculations Water Treatment Plant** 

Florida Public Service Commission

Schedule F-5

Company: Utilities, Inc. of Florida - Cypress Lakes

Docket No.: 20200139-WS

Page 1 of 1 Test Year Ended: December 31, 2019 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		1,610	gpm
Firm Reliable well pumping capacity (la	argest well out), gpm	770	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 capacit	y (0.00%), gal.	0	gallons
Total usable storage, gal.		0	gallons
Maximum day demand		416,000	gpd
Peak hour demand = $2 \times maximum day$	/1440	578	gpm
Fire flow requirement	1,000 gpm x 2 hours	120,000	and
rne now requirement	1,000 gpm x 2 nours	120,000	gpu
Unaccounted for water	7.92% of water pumped	17,434	gpd, avg
Acceptable unaccounted for	10.00%	22,024	gpd, avg
Excess unaccounted for			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: 100.00%

A =	Peak demand	578	gpm
$\mathbf{B} =$	Property needed to serve five years after TY	74	gpm
C =	Fire flow demand	1,000	gpm
$\mathbf{D} =$	Excess unaccounted for water	0	gpm
$\mathbf{E} =$	Firm Reliable Capacity	770	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. 20200139-WS F Schedules Exhibit FS-3 Page 6 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Company: Utilities, Inc. of Florida - Cypress Lakes

Schedule F-6 Page 1 of 2

Docket No.: 20200139-WS

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

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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.	_			
1	(A)	Used and useful flow (000):		
2		3MADF - year 2019		126,907
3	<b>(B)</b>	Property needed for post test year period (see F-8)		12,463
4	(C)	Permitted capacity (3MADF)		190,000
5	<b>(D)</b>	Used and useful percentage		<u>73.35</u> %
6	(E)	Non-used and useful percentage	Use	100.00% 26.65%

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. In Docket No. 20160101-WS, that conclusion was reaffirmed.

**Used and Useful Calculations Wastewater Treatment Plant** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Cypress Lakes

Docket No.: 20200139-WS

Page 2 of 2

Test Year Ended: December 31, 2019 Preparer: Seidman, F.

## A. Infiltration allowance, excluding service laterals

				Allowance @			
Main	dia. Main lengt			gpd/inch-dia./	mile		
inche	s feet		miles	gpd	gpy		
1	4	0	0.000	0			
2	6	0	0.000	0			
	8	57,097	10.814	43,255			
	10	528	0.100	500			
	12	2,001	0.379	2,274			
3	15	0	0.000	0			
4 Total		59,626	11.293	46,029	16,800,646		
5 Estim	5 Estimated Inflow @ 10% of flows (l.10)				5,113,093		
6 Allow	able I&I				21,913,739		
	tual Inflow & Inf ewater treated	iltration (I&I)			40,037,058		
				Estimated			
	r Gallons (not cap	oped) sold to:		returned			
	ential WW		49,752,354	80%	39,801,883		
	Res. WW	_	1,378,580	90%	1,240,722		
10 Estin	nated flows return	ied	51,130,934		41,042,605		
12 Estim	ated I&I (treated	less returned) [1.7-	1.9]		-1,005,547		
13 Actua	al less allowable [l	.10-l.6]			-22,919,286		
14 Exces	s, if any [l.10-l.6,	if positive]			0		
15 Exces	s as percent of wa	astewater treated			0.00%		
	-						

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 8 of 243

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Cypress Lakes

Schedule F-7 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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.

In Docket No. 20160101-Ws that conclusion was reaffirmed.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 9 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Cypress Lakes

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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)

Post test year period per statute

U = Unit of measure utilized in U&U calculations

PN = Property needed expressed in U units

44.79 ERC/yr

5 yrs

0.328 gpm/ERC \*

74 gpm

## **Wastewater Treatment & Related Facilities**

 $PN = EG \times PT \times U$ 

where:

EG = Equivalent annual growth in ERCs (see F-10)

Post test year period per statute

U = Unit of measure utilized in U&U calculations

PN = Property needed expressed in U units

11,463 gpd

31.94 ERC/yr

5 yrs

78 gpd/ERC \*\*\*

## **Distribution & Collection Systems**

 $PN = EG \times PT \times U$ 

where:

EG = Equivalent annual growth in SFRs (see F-9)

Post test year period per statute

U = Unit of measure utilized in U&U calculations

PN = Property needed expressed in U units

33.09 SFR/yr

\*\*\*

5 yrs

1 SFR/lot

Property needed expressed in U units

165 SFR

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

<sup>\*</sup> Based on 2015 Peak hour demand from F-5 divided by ERCs from Schedule F-9.

<sup>\*\*</sup> Based on 2015 3MADF divided by ERCs fron Schedule F-10.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 10 of 243

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Cypress Lakes

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	1,416	1,498	1,457	40,703,771	27,937	44,584,391	1,596	
2	2016	1,498	1,521	1,510	42,618,914	28,234	43,947,704	1,557	-2.47%
3	2017	1,521	1,546	1,534	47,653,920	31,075	52,751,360	1,698	9.06%
4	2018	1,546	1,574	1,560	48,440,916	31,052	53,150,596	1,712	0.83%
5	2019	1,574	1,591	1,583	49,752,354	31,439	55,299,224	1,759	2.76%
					Ave	rage Growth Throug	gh 5-Year Period (Col. 8)		2.55%

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

		<u>X</u>	<u>Y</u>
Constant:	1519.774991	1	1,596
X Coefficient:	48.1156945	2	1,557
R^2:	0.809812398	3	1,698
		4	1,712
		5	1,759
		10	2001
Five year growth - Regression			242 Ercs
Annual average gro	owth		48.40 Ercs

Five year growth - Simple Average
Annual average growth

224 Ercs
44.79 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 11 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Cypress Lakes

Schedule F-10 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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	2015	1,416	1,498	1,457	40,703,771	27,937	42,040,061	1,505	
2	2016	1,498	1,521	1,510	42,618,914	28,234	43,947,704	1,557	3.44%
3	2017	1,521	1,546	1,534	47,653,920	31,075	49,219,790	1,584	1.76%
4	2018	1,546	1,574	1,560	48,440,916	31,052	49,732,796	1,602	1.12%
5	2019	1,574	1,591	1,583	49,752,354	31,439	51,130,934	1,626	1.55%
					Ave	rage Growth Throug	gh 5-Year Period (Col. 8)		1.96%

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

• •		<u>X</u>	<u>Y</u>
Constant:	1488.225959	1	1,505
X Coefficient:	28.80730431	2	1,557
R^2:	0.955372843	3	1,584
		4	1,602
		5	1,626
		10	1776
Five year growth	- Regression		150 Erc

Five year growth - Regression 150 Ercs Annual average growth 29.99 Ercs

Five year growth - Simple Average
Annual average growth
31.94 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 12 of 243

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

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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) I Plant Flows	(4)	(5)	(6) Total Purch.
Month/		muividua	i i iant riows		Total Plant	Sewage
Year	Eagle Ridge	Cross	(Name)	(Name)	Flows	Treatment
	Plant	Creek Plant				
Jan-19	6.811	2.484			9.295	0.000
Feb-19	6.275	2.501			8.776	0.000
Mar-19	6.634	2.896			9.530	0.000
Apr-19	6.039	1.981			8.020	0.000
<b>May-19</b>	5.961	1.293			7.254	0.000
Jun-19	5.823	1.153			6.976	0.000
Jul-19	6.601	0.181			6.782	0.000
Aug-19	6.028	1.342			7.370	0.000
Sep-19	5.323	1.141			6.464	0.000
Oct-19	5.894	1.422			7.316	0.000
Nov-19	5.937	1.752			7.689	0.000
Dec-19	6.345	1.835			8.180	0.000
_						
Total	73.671	19.981			93.652	0.000

Note: These plants are not interconnected.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 13 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Eagle Ridge

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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.

	EAGLE RIDGE PLANT	MONTH	GPD
	EAGLE RIDGE FLANT		
l	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	2/2019	214,000
}	Average Annual Daily Flow		201,838
4	Maximum Three Month Average Daily Flow	3/2019	219,272
	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)		
	CROSS CREEK PLANT	MONTH	GPD
	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	3/2019	93,419
3	Average Annual Daily Flow		54,742
	Maximum Three Month Average Daily Flow	3/2019	87,623

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. 20200139-WS F Schedules Exhibit FS-3 Page 14 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Company: Utilities, Inc. of Florida - Eagle Ridge

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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.

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	<b>(A)</b>	Used and useful flow, GPD (TMA	DF) (See F-4)	219,272
2	<b>(B)</b>	Less: Excess I&I (No indicate	ion of excess I/I - see note))	
3	<b>(C)</b>	Plus: Property needed for pos	st test year period ( See F-8)	
4	<b>(E)</b>	Permitted capacity		318,000
5	<b>(F)</b>	Used and useful percentage		<u>68.95</u> %
			Use 100% U&U, See note	100.00%
6	<b>(G)</b>	Non-used and useful percentage		31.05%

### NOTE:

In Docket No. 20160101-WS indicated that the Commission had previously determined this system to be 100% U&U and should continue to do so. In support of this, in Docket No. 080247-SU it was noted that the service area was virtually built out. Nothing has changed in that regard. The system is built out. The water use oer Wastewater SFR continues to decrease reflecting customer conservation. It has decreased from 266 gpd/SFR in 2007 to 202 gpd/SFR in 2019.

#### **CROSS CREEK**

1	<b>(A)</b>	Used and useful flow, GPD (MMA	ADF) (See F-4)	93,419
2	<b>(B)</b>	Less: Excess I&I (No indicat	ion of excess I/I - see note))	-
3	<b>(C)</b>	Plus: Property needed for po	st test year period ( See F-8)	
4	<b>(E)</b>	Permitted capacity		<u>249,000</u>
5	<b>(F)</b>	Used and useful percentage		<u>37.52</u> %
			Use 100% U&U, See note	100.00%
6	<b>(G)</b>	Non-used and useful percentage		62.48%

#### NOTE:

In Docket No. 20160101-WS indcated that the Commission had previously determined this system to be 100%~U&U and should continue to do so.

As with the Eagle Creek system, it should be noted that treated flows have decreased from 82 gpd/Condo unit in 2007 to only 60 gpd/Condo unit in 2019.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 15 of 243

**Used and Useful Calculations Wastewater Treatment Plant** 

Florida Public Service Commission

0.00%

Company: Utilities, Inc. of Florida - Eagle Ridge

Docket No.: 20200139-WS

Page 2 of 2

Test Year Ended: December 31, 2019 Preparer: Seidman, F.

### **EAGLE RIDGE**

# A. Infiltration allowance, excluding service laterals

1	Main dia. Mainches fee	in length t	miles 0 0	0.000 0.000	Allowance @ gpd/inch-dia. gpd 0	
2	8	<u> </u>	53,208	10.077	-	
3	10		0	0.000		
4	Total	4	53,208	10.077	40,309	14,712,818
5	Estimated Infl	ow @ 10% of gallons	s sold (L.10)			9,216,400
6	Allowable I&I	_				23,929,218
7	B. Actual Inflo Wastewater tro	w & Infiltration (I& eated	<b>zI</b> )			73,671,000
					Estimated	
	Gallons Billed	(not capped) to:			returned *	
8	SFR Residentia	al WW cust.		55,799,000		33,479,400
9	All Other			36,365,000	90%	32,728,500
10	Estimated flow	s returned		92,164,000		66,207,900
11 12 13	Management e	dge community is he stimates that a small wastewater treatme	er percentage	•		
14 15		(treated less returne allowable [L.11-L.6				7,463,100 -16,466,118
		T 44 T < 10	•			-,,

# CROSS CREEK PLANT

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

Excess as percent of wastewater treated

- 18 Cross Creek was originally developed and operated as a not-for-profit association. Wastewater
- 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
- 23 The treated WW flows for Cross Creek for the TY were 19,981,000 gallons or only 60 gpd per unit.
- 24 I&I does not appear to be a problem.

16

**17** 

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 16 of 243

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

Company: Utilities, Inc. of Florida - Eagle Ridge

Schedule F-7 Page 1 of 1

**Docket No.: 20200139-WS** 

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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. 20160101-WS the system was found to be 100% U&U. Nothing has changed. The systems should remain 100% Used and Useful.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 17 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Eagle Ridge

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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

 $PN = EG \times PT \times U$ 

where:

EG = Equivalent annual growth in ERCs (see F-10) 9 ERC/yr
PT = Post test year period per statute 5 yrs
U = Unit of measure utilized in U&U calculations 175 gpd/ERC \*\*
PN = Property needed expressed in U units 7,735 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.

<sup>\*\*</sup> Based on 2019 3MADF divided by ERCs fron Schedule F-10.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 18 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Eagle Ridge

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	776	764	770	57,722,000	74,964	99,584,000	1,328	
2	2016	764	762	763	54,839,000	71,873	93,802,000	1,305	-1.76%
3	2017	762	765	764	58,827,000	77,049	98,732,000	1,281	-1.82%
4	2018	765	758	762	168,928,000	221,836	208,146,000	938	-26.78%
5	2019	758	755	757	55,799,000	73,759	92,164,000	1,250	33.17%
					Ave	rage Growth Throug	gh 5-Year Period (Col. 8)		0.71%

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:	1377.945319	1	1,328
X Coefficient:	-52.46395407	2	1,305
R^2:	0.267218464	3	1,281
		4	938
		5	1,250
		10	853

Five year growth (396) Ercs Annual average growth -79.24 Ercs

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

Five year growth 44 Ercs Annual average growth @ 0.71% 8.82 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.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 19 of 243

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

Company: Utilities, Inc. of Florida - Labrador

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	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-19	2.428	2.461	0.000	2.017	0.068	0.376	15.3%
Feb-19	2.424	2.456	0.000	2.480	0.066	-0.091	-3.7%
Mar-19	2.794	2.831	0.000	2.267	0.056	0.508	17.9%
Apr-19	2.062	2.089	0.000	2.441	0.020	-0.372	-17.8%
<b>May-19</b>	1.517	1.514	0.000	1.730	0.065	-0.281	-18.6%
Jun-19	1.312	1.273	0.000	1.291	0.079	-0.097	-7.6%
Jul-19	1.312	1.273	0.000	1.243	0.035	-0.005	-0.4%
Aug-19	1.322	1.281	0.000	1.064	0.033	0.185	14.4%
Sep-19	1.669	1.619	0.000	1.305	0.187	0.126	7.8%
Oct-19	1.687	1.637	0.000	1.655	0.062	-0.081	-4.9%
Nov-19	2.103	2.039	0.000	1.533	0.083	0.423	20.7%
Dec-19	2.247	2.179	0.000	1.916	0.088	0.175	8.0%
Total	22.876	22.652	0.000	20.944	0.843	0.865	3.8%

<sup>(1)</sup> 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.

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 20 of 243

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 - Labrador

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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/					<b>Total Plant</b>	Sewage
Year	Forest	(Name)	(Name)	(Name)	Flows	Treatment
	Lakes					
Jan-19	2.143				2.143	0.000
Feb-19	2.649				2.649	0.000
Mar-19	2.686				2.686	0.000
Apr-19	1.802				1.802	0.000
<b>May-19</b>	1.136				1.136	0.000
Jun-19	1.215				1.215	0.000
<b>Jul-19</b>	1.694				1.694	0.000
Aug-19	2.507				2.507	0.000
Sep-19	1.551				1.551	0.000
Oct-19	1.824				1.824	0.000
Nov-19	2.046				2.046	0.000
Dec-19	1.929				1.929	0.000
Total	23.181				23.181	0.000
	=========	=========	=========	=========	=========	=========

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 21 of 243

**Water Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Labrador

Docket No.: 20200139-WS

5 Required Fire Flow

Test Year Ended: December 31, 2019

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.

1 District Councilla			Date	GPD
1 Plant Capacity The hydraulic rated capacity. If different from that shown	per Sanitary Survey			288,000
on the DEP operating or construction permit, provide an explanation	per CUP, AADF			99,785
2 Maximum Day				
The single day with the highest pumpage rate for the test year.			9/16/2019	135,000
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)	3/22/2019	111,000
in the test year. Provide an explanation if fire flow, line		<b>(2)</b>	3/1/2019	120,000
breaks or other unusual occurrences affected the flows on		(3)	3/29/2019	120,000
these days.		<b>(4)</b>	3/15/2019	122,000
		(5)	3/8/2019	124,000
			AVERAGE	119,400
			Max Month	91,326
4 Average Daily Flow			Annual	62,061

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. 20200139-WS F Schedules Exhibit FS-3 Page 22 of 243

Wastewater Treatment Plant Data

Company: Utilities, Inc. of Florida - Labrador

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

 $\label{thm:provide} \textbf{Explanation: Provide the following information for each wastewater treatment plant. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.}$ 

Florida Public Service Commission

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

	MONTH	GPD	
1. Plant Capacity (3MRADF)		<u>216,000</u>	
The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation.			
2. Maximum 3MRADF	3/2019	83,447	
3 Average Annual Daily Flow		63,510	

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. 20200139-WS F Schedules Exhibit FS-3 Page 23 of 243

Used and Useful Calculations Water Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - Labrador

Docket No.: 20200139-WS

Schedule F-5 Page 1 of 1

Test Year Ended: December 31, 2019

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	1,075 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,	135,000 gpd
Peak hour demand = $2x \max day/1440$	188 gpm

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

Unaccounted for water	3.82% of water pumped	2,370 gpd, avg
Acceptable unaccounted for	10.00%	6,189 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%
---	---------

(System has Ground Storage)

$\mathbf{A} =$	Peak demand	135,000 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	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.

# **Storage**

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

A =	Peak demand	135,000 gallons
$\mathbf{B} =$	Property needed to serve five years after TY	0 gallons
<b>C</b> =	Fire flow demand	60,000 gallons
<b>D</b> =	Excess Unaccounted for water	0 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. 20160101-WS, the Commission found the WTP & Stotage to be 100% used and useful. There has been no change in circumstances. It should continue to be 100% used and useful.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 24 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Company: Utilities, Inc. of Florida - Labrador

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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.	=		
	Labr	ador (Forest Lake Estates) WWTP	
1	(A)	Used and useful flow (000):	
2		3MRADF - year 2019	83,447
3	<b>(B)</b>	Property needed for post test year period (see F-8)	<u>589.28</u>
4	(C)	Permitted capacity	216,000
5	<b>(D)</b>	Used and useful percentage	<u>38.91</u> %
6	<b>(E)</b>	Non-used and useful percentage	<u>61.09</u> %
7	[ <b>F</b> ]	Used and useful percentage for rate case purposes (see note).	USE: <u>100.00</u> %

NOTE: 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 75 gpd/ERC (down from 78 in 2015) 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 Docket No. 140135-WS, and again in Docket No. 20160101-WS, the Commission rejected the argument to use 100% because an 11.6% parcel within the service area, owned by the developer has remained vacant may have potential for development. The Commission opted to allow 79.94%, the highest U&U allowed in a previous order, consistent with its policy to recognize the effects of conservation. The developer has now indicated that it has plans to finally develop the parcel for 36 manufactured homes. That will use all of the parcel and the service area will be built out. Under these circumstances, there is no longer any justification to deny finding the WWTP 100% used 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. 20200139-WS F Schedules

Exhibit FS-3
Florida Public Service Camen Sion 243

Used and Useful Calculations Wastewater Treatment Plant

Company: Utilities, Inc. of Florida - Labrador

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

Schedule F-6 Page 2 of 2

Preparer: Seidman, F.

# A. Infiltration allowance, excluding service laterals

1 2 3 4 5 6	Main dia. inches 4 6 8 10 Total Estimated Allowable	Inflow @ 10% of g	miles 0 0 33,989 0 33,989 allons sold (L.10)	0.000 0.000 6.437 0.000 6.437	Allowance @ 500 gpd/inch-dia./mil gpd gpy 0 0 25,749 0 25,749	e
7	B. Actual I Wastewate	nflow & Infiltration r treated	n (I&I)			23,181,200
	C II DI				Estimated	
8		lled (not capped) to ential WW cust.	:	16,542,478	returned * 80%	13,233,982
9	All Other	citiai vv vv cust.		3,629,940	90%	3,266,946
10	Estimated 1	flows returned		20,172,418		16,500,928
11	<b>Estimated</b>	I&I (treated less re	turned) [L.7-L.10]			6,680,272
12	Actual I&I	less allowable [L.1	1-L.6]			-4,735,444
13		ny [L.11-L.6, if pos	-			0
14	Excess as p	ercent of wastewat	er treated			0.00%

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 26 of 243

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

Company: Utilities, Inc. of Florida - Labrador

Schedule F-7 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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 the last three cases, Docket Nos. 110264-WS, 140135-WS and 20160101-WS, the Commission found the distribution & collection systems to be 100% used and useful. They should continue to be so.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 27 of 243

### **Margin Reserve Calculations**

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Labrador

Schedule F-8 Page 1 of 1

Docket No.: 20200139-WS Test Year Ended: December 31, 2019

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)

Post test year period per statute

U = Unit of measure utilized in U&U calculations

PN = Property needed expressed in U units

1.39 ERC/yr

5 yrs

1.20 gpd/ERC \*\*

829 gpd

System built out. Use: 0 gpd

### Wastewater Treatment & Related Facilities

 $PN = EG \times PT \times U$ 

where:

### **Distribution & Collection Systems**

The distribution & collection lines serving customers are 100 U&U. See F-7.

 $<sup>\</sup>ensuremath{^{**}}$  MDD from F-5 divided by average ERCs from F-9.

 $<sup>\</sup>ensuremath{^{**}}$  3MRADF from F-6 divided by average ERCs from F-9.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 28 of 243

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Labrador

Schedule F-9 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019 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	2015	879	893	886	13,571,318	15,318	17,200,248	1,123	
2	2016	893	883	888	13,001,852	14,642	16,275,632	1,112	-1.01%
3	2017	883	888	886	12,924,521	14,596	16,512,611	1,131	1.78%
4	2018	888	882	885	14,937,445	16,878	19,292,015	1,143	1.03%
5	2019	882	900	891	16,542,478	18,566	20,943,668	1,128	-1.31%
					Ave	rage Growth Throug	gh 5-Year Period (Col. 8)		0.12%

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

		<u> </u>	<u> </u>
Constant:	1114.872401	1	1,123
X Coefficient:	4.168349819	2	1,112
R^2:	0.328386677	3	1,131
		4	1,143
		5	1,128
		10	1157

Five year growth 29 Ercs 5.70 Ercs Annual average growth

The Coefficient of determination -  $R^{\mbox{\scriptsize $n$}}2$  is very weak. Use simple average growth rate:

6.9 Ercs Five year growth Annual average growth @ 0.12% 1.39 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 29 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Labrador

Schedule F-10 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2015	879	893	886	13,571,318	15,318	16,556,448	1,081	
2	2016	893	883	888	13,001,852	14,642	15,501,572	1,059	-2.05%
3	2017	883	888	886	12,924,521	14,596	15,643,081	1,072	1.23%
4	2018	888	882	885	14,937,445	16,878	18,412,985	1,091	1.79%
5	2019	882	900	891	16,542,478	18,566	20,172,418	1,087	-0.40%
					Ave	rage Growth Throug	h 5-Year Period (Col. 8)		0.14%

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

		<u> </u>	
Constant:	1064.724153	1	1,081
X Coefficient:	4.34497786	2	1,059
R^2:	0.287006867	3	1,072
		4	1,091
		5	1,087
		10	1108

Five year growth 22 Ercs Annual average growth 4.33 Ercs

The Coefficient of determination -  $R^{\wedge}2$  is very weak. Use simple average growth rate:

Five year growth 8 Ercs Annual average growth @ 0.14% 1.53 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 30 of 243

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

Company: Utilities, Inc. of Florida - Lake Placid

Florida Public Service Commission

in Thousands of Gallons

Schedule F-1 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	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-19	0.751	0.770	0.000	0.415	0.005	0.350	45.5%
Feb-19	0.758	0.777	0.000	0.694	0.000	0.083	10.7%
Mar-19	0.859	0.881	0.000	0.661	0.000	0.220	25.0%
Apr-19	0.677	0.694	0.000	0.574	0.017	0.103	14.8%
<b>May-19</b>	0.728	0.746	0.000	0.601	0.000	0.145	19.5%
Jun-19	0.925	0.948	0.000	0.553	0.230	0.165	17.4%
Jul-19	0.569	0.583	0.000	0.445	0.000	0.138	23.7%
Aug-19	0.550	0.544	0.000	0.301	0.002	0.241	44.3%
Sep-19	0.536	0.516	0.000	0.510	0.000	0.007	1.3%
Oct-19	0.612	0.589	0.000	0.625	0.000	-0.035	-6.0%
Nov-19	0.634	0.611	0.000	0.421	0.000	0.190	31.1%
Dec-19	0.625	0.603	0.000	0.559	0.000	0.044	7.2%
Total	8.221	8.263	0.000	6.359	0.255	1.650	20.0%

<sup>(1)</sup> 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.

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 31 of 243

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

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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) I Plant Flows	(4)	(5)	(6) Total Purch.
Month/					<b>Total Plant</b>	Sewage
Year	Sun'N	(Name)	(Name)	(Name)	Flows	Treatment
	Lake Plant					
Jan-19	0.516				0.516	0.000
Feb-19	0.587				0.587	0.000
Mar-19	0.477				0.477	0.000
Apr-19	0.411				0.411	0.000
<b>May-19</b>	0.331				0.331	0.000
Jun-19	0.461				0.461	0.000
<b>Jul-19</b>	0.514				0.514	0.000
Aug-19	0.550				0.550	0.000
Sep-19	0.307				0.307	0.000
Oct-19	0.150				0.150	0.000
Nov-19	0.376				0.376	0.000
Dec-19	0.522				0.522	0.000
Total	5.201				5.201	0.000
	=========	=========	=========	=========	==========	=========

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 32 of 243

500 gpm for 2 hours

**Water Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid

Docket No.: 20200139-WS

5 Required Fire Flow

Test Year Ended: December 31, 2019

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 Sanitary Survey			288,000
2 Maximum Day			
The single day with the highest pumpage rate for the test year.		6/3/2019	152,200
Explain, on a separate sheet of paper if fire flow, line breaks,		Main b	reak
or other unusual occurrences affected the flow this day. Max day w/o unusual occurrence	-	6/4/2019	106,000
3 Five Day Max. Year			
The five days with the highest pumpage rate from any one month	(1)	6/1/2019	52,800
in the test year. Provide an explanation if fire flow, line	(2)	6/7/2019	56,500
breaks or other unusual occurrences affected the flows on	(3)	6/5/2019	61,300
these days.	(4)	6/4/2019	106,000
	(5)	6/3/2019	152,200
		AVERAGE	85,760
		Max Month	31,602
4 Average Daily Flow		Annual	22,640

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. 20200139-WS F Schedules Exhibit FS-3 Page 33 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

Schedule F-4 Page 1 of 1

Preparer: Seidman, F.

 $\label{lem:explanation:Provide the following information for each was tewater treatment plant. All flow data must be obtained from the monthly operating reports (MORs) sent to the Department of Environmental Protection.$ 

		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)	2/2019	20,968
	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		14,250

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 34 of 243

Used and Useful Calculations Water Treatment Plant Florida Public Service Commission

400 gpm

Company: Utilities, Inc. of Florida - Lake Placid Schedule F-5
Docket No.: 20200139-WS Page 1 of 1

Test Year Ended: December 31, 2019 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	200 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.	5,000 gallons

Hydropneumatic storage capacity, gal.5,000 gallonsUsable hydropneumatic storage capacity (0.00%), gal.0 gallonsTotal usable storage, gal.0 gallons

Maximum day demand, 106,000 gpd Peak hour demand = 2x max day/1440 147 gpm

Fire flow requirement 500 gpm for 2 hours 500 gpm

Unaccounted for water 19.96% of water pumped 4,497 gpd, avg
Acceptable unaccounted for 10.00% 2,246 gpd, avg
Excess unaccounted for 2,250 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% (No usable atorage)

$\mathbf{A} =$	Peak demand	147 gpm
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpm
C =	Fire flow demand	500 gpm
$\mathbf{D} =$	Excess Unaccounted for water	1.6 gpm
$\mathbf{E} =$	Firm Reliable Capacity (16 hours)	200 gpm

NOTE: In Docket No. 20160101-WS, this water plant, storage and related facilities were found to be 100% U&U. 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. 20200139-WS F Schedules Exhibit FS-3 Page 35 of 243

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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)	<u>14,250</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)	<del></del>
4 (E) Permitted capacity (see Note)	90,000
5 (F) Used and useful percentage	<u>15.83</u> %
6 System essentially built out (F-7), Use	<u>100.00</u> %
7 (G) Non-used and useful percentage	<u>84.17</u> %
8 System essentially built out (F-7), Use	<u>0.00</u> %

In Docket No. 20160101-WS, Lake Placid requested 100% U&U based on build out. Thee Commission allowed 29.79%, as calculated by OPC and indicated there were signs of growth. In this case the growth is negative (see F-10) and the calculated U&U has dropped to 15.83%. This utility had extremely low 54 gpd/ERC treated flows in the last case and it is now only 43 gpd/ERC. As indicated in the previous case, if full permitted capacity were utilized, the flows would be 258 gpd/ERC, which is reasonable design capacity. Since the system is not over built, there is no potential for growth, and the only reason for a low U&U calculation is very low average use, the WWTP should be considered 100% U&U.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 36 of 243

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

Schedule F-6 Page 2 of 2

Preparer: Seidman, F.

# A. Infiltration allowance, excluding service laterals

			Al	lowance @ 500	)
	Main dia. Main l	ength	gp	d/inch-dia./mile	
	inches feet	miles	gp	od gpy	
	4	0	0.000	0	
1	6	0	0.000	0	
2	8	5,531	1.048	4,190	
3	10	0	0.000	0	
4	Total	5,531	1.048	4,190	1,529,405
5	Estimated Inflow (	@ 10% of gallons sold (L.10)			774,291
6	Allowable I&I				2,303,696
	B. Actual Inflow &	Infiltration (I&I)			
7	Wastewater treate	d			5,201,300
			Es	stimated	
	Gallons Billed (not	capped) to:	re	turned	
8	SFR Residential W	W cust.	2,609,778	80%	2,087,822
9	All Other		5,133,130	90%	4,619,817
10	Estimated flows re	turned	7,742,908		6,707,639
			_		
11	,	ated less returned) [L.7-L.10	J		-1,506,339
12	Actual I&I less allo				-3,810,036
13	Excess, if any [L.1]	· •			0
14	Excess as percent of	of wastewater treated			0.00%

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 37 of 243

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

Company: Utilities, Inc. of Florida - Lake Placid

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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

In the two previous dockets the Commission found the distribution and collection systems to be 100% U&U. In Docket No. 20160101-Ws that conclusion was reaffirmed.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 38 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

Page 1 of 1 Preparer: Seidman, F.

---**F**...-, -

Schedule F-8

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

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

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

Not applicable - Residential system is built out. The water system is 100% U&U.

The growth in WW ERCs is erratic and currently negative.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 39 of 243

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid

Schedule F-9 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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	2015	103	113	108	2,088,930	19,342	4,658,650	241	
2	2016	113	117	115	2,452,330	21,325	5,449,430	256	6.10%
3	2017	117	116	117	2,460,560	21,121	6,275,762	297	16.28%
4	2018	116	116	116	2,518,712	21,713	5,860,480	270	-9.16%
5	2019	116	109	113	2,609,778	23,198	6,359,088	274	1.56%
					Ave	rage Growth Throug	h 5-Year Period (Col. 8)		3.69%

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

	<u> 21</u>	
243.2474217	1	241
8.088865766	2	256
0.367423218	3	297
	4	270
	5	274
	10	324
	8.088865766	243.2474217 1 8.088865766 2 0.367423218 3 4

Five year growth Annual average growth 50 Ercs 10.00 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 percentage differences. As the system is built out, there is no request at this time for a growth allowance

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 40 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Placid

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	103	113	108	2,088,930	19,342	6,564,210	339	
2	2016	113	117	115	2,452,330	21,325	6,855,780	321	-5.27%
3	2017	117	116	117	2,460,560	21,121	7,507,832	355	10.57%
4	2018	116	116	116	2,609,778	22,498	7,288,236	324	-8.87%
5	2019	116	109	113	2,609,778	23,198	7,742,908	334	3.03%
					Ave	rage Growth Throug	h 5-Year Period (Col. 8)		-0.13%

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

		<u>A</u>	<u>1</u>
Constant:	337.439537	1	339
X Coefficient:	-0.875205403	2	321
R^2:	0.010294089	3	355
		4	324
		5	334
		10	329

Five year growth (5) Ercs Annual average growth -1.02 Ercs

NOTE: This a no growth system with regard to residential development, as evidenced above. However there has been growth in the gallons usage within the general service sector, but on an ERC basis, it is erratic. Being a small system, changes like this result in large perntage differences. As the residential system is built out and the ERC changes are erratic and in this case negative, there is no request at this time for a growth allowance

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 41 of 243

Gallons of Water Pumped, Sold and Unaccounted For

Florida Public Service Commission

Schedule F-1 Page 1 of 3

Preparer: Seidman, F.

In Thousands of Gallons

Docket No.: 20200139-WS

Historical Year Ended: December 31, 2019

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.

Company: Utilities Inc. of Florida - Lake Utilities Services. Excl. Four Lakes & Lake Saunders

	(1)		(2)	(3)	(4)	(5) Unaccounted	(6) %
Month/	<b>Total Gallons</b>	<b>Total Gallons</b>	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-19	118.825	118.70	0.000	106.891	0.188	11.625	9.8%
Feb-19	108.616	108.48	0.000	105.003	0.273	3.202	3.0%
Mar-19	141.293	141.89	0.000	103.073	0.176	38.639	27.2%
Apr-19	139.305	139.59	0.000	133.056	0.197	6.338	4.5%
<b>May-19</b>	165.550	165.80	0.000	129.167	0.143	36.488	22.0%
Jun-19	149.015	149.50	0.000	156.705	1.270	-8.475	-5.7%
Jul-19	136.242	137.25	0.000	138.133	0.221	-1.103	-0.8%
Aug-19	128.327	129.36	0.000	113.826	2.446	13.088	10.1%
Sep-19	153.219	154.37	0.000	132.967	0.398	21.005	13.6%
Oct-19	158.832	159.89	0.000	143.105	0.356	16.425	10.3%
Nov-19	141.717	142.68	0.000	137.360	0.322	5.002	3.5%
Dec-19	124.562	125.41	0.000	133.278	0.303	-8.175	-6.5%
Total	1,665,502	1,672,916	0.000	1,532,564	6,293	134.059	8.0%

<sup>(1)</sup> 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.

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

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

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Utilities Services - Four Lakes

Schedule F-1 Page 2 of 3

**Docket No.: 20200139-WS** 

Preparer: Seidman, F.

Historical Year Ended: June 30, 2010

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (2)	(1)+(2)-(3)-(4)	For Water (3)
	Per MORs	Meter Error (1)					
Jan-19	0.488	0.485	0.000	0.375	0.006	0.104	21.5%
Feb-19	0.445	0.442	0.000	0.389	0.005	0.048	10.8%
Mar-19	0.686	0.680	0.000	0.386	0.006	0.288	42.4%
Apr-19	0.514	0.505	0.000	0.614	0.021	-0.130	-25.6%
May-19	0.727	0.714	0.000	0.440	0.003	0.271	37.9%
Jun-19	0.586	0.575	0.000	0.616	0.004	-0.045	-7.8%
Jul-19	0.507	0.498	0.000	0.540	0.006	-0.048	-9.6%
Aug-19	0.426	0.418	0.000	0.402	0.005	0.011	2.6%
Sep-19	0.544	0.535	0.000	0.386	0.005	0.143	26.8%
Oct-19	0.533	0.524	0.000	0.433	0.013	0.077	14.7%
Nov-19	0.491	0.482	0.000	0.434	0.010	0.038	7.8%
Dec-19	0.455	0.447	0.000	0.441	0.009	-0.004	-0.8%
Total	6.402	6.306	0.000	5.458	0.094	0.753	11.9%

<sup>(1)</sup> 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.

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

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

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Utilities Services - Lake Saunders

Schedule F-1 Page 3 of 3

Docket No.: 20200139-WS

Preparer: Seidman, F.

Historical Year Ended: June 30, 2010

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	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-19	0.253	0.261	0.000	0.177	0.075	0.008	3.3%
Feb-19	0.261	0.269	0.000	0.151	0.109	0.009	3.5%
Mar-19	0.407	0.416	0.000	0.171	0.094	0.151	36.3%
Apr-19	0.400	0.397	0.000	0.287	0.150	-0.040	-10.0%
May-19	0.353	0.351	0.000	0.231	0.067	0.053	15.0%
Jun-19	0.400	0.398	0.000	0.247	0.082	0.069	17.5%
<b>Jul-19</b>	0.284	0.282	0.000	0.300	0.052	-0.070	-24.9%
Aug-19	0.270	0.268	0.000	0.201	0.053	0.014	5.2%
Sep-19	0.339	0.337	0.000	0.165	0.060	0.112	33.2%
Oct-19	0.365	0.362	0.000	0.287	0.073	0.003	0.7%
Nov-19	0.302	0.300	0.000	0.255	0.059	-0.014	-4.6%
Dec-19	0.284	0.282	0.000	0.228	0.059	-0.005	-1.7%
Total	3.920	3.924	0.000	2.699	0.934	0.291	7.4%

<sup>(1)</sup> 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.

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 44 of 243

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

Schedule F-2

Company: Utilities Inc. of Florida - Lake Utilities Services. Excl. Four Lakes & Lake Saunders

Page 1 of 2

Docket No.: 20200139-WS

Preparer: Seidman, F.

Historical Year Ended: December 31, 2019

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.

<b>3</b> 4 . 4 /	(1)	(2) Individual	(3) I Plant Flows	(4)	(5)	(6) Total Purch.
Month/ Year	Lake Groves	(Name)	(Name)	(Name)	Total Plant Flows	Sewage Treatment
Jan-19	16.55				16.55	-
Feb-19	15.19				15.19	-
Mar-19	16.61				16.61	-
Apr-19	16.27				16.27	-
<b>May-19</b>	16.27				16.27	-
Jun-19	16.10				16.10	-
Jul-19	17.53				17.53	-
Aug-19	17.32				17.32	-
Sep-19	16.11				16.11	-
Oct-19	17.03				17.03	-
Nov-19	16.83				16.83	-
Dec-19	17.86				17.86	-
Total	199.66				199.66	
10001	=========	========	========	========	=========	========

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 45 of 243

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

Schedule F-2

 $Company: \ Utilities \ Inc. \ of \ Florida \ - \ Lake \ Utilities \ Services. \ Excl. \ Four \ Lakes \ \& \ Lake \ Saunders$ 

Page 2 of 2

Docket No.: 20200139-WS

Preparer: Seidman, F.

Historical Year Ended: December 31, 2019

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) I Plant Flows	(4)	(5)	(6) Total Purch.
Month/					<b>Total Plant</b>	Sewage
Year	Barrington (1)	(Name)	(Name)	(Name)	Flows	Treatment
 Jan-19	0.720				0.720	
Feb-19	0.648				0.648	-
Mar-19	0.711				0.711	-
Apr-19	0.716				0.716	-
<b>May-19</b>	0.746				0.746	-
Jun-19	0.704				0.704	-
Jul-19	0.666				0.666	-
Aug-19	0.749				0.749	-
Sep-19	0.687				0.687	-
Oct-19	0.697				0.697	-
Nov-19	0.683				0.683	-
Dec-19	0.740				0.740	-
Total	8.467	-	-		8.467	
	=========	=========	=========		=========	========

<sup>(1) -</sup> Not conneccted to Lake Groves plant

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 46 of 243

### **Water Treatment Plant Data**

Florida Public Service Commission

Company: Utilities Inc. of Florida - Lake Utilities Services. Excl. Four Lakes & Lake Saunders

Docket No.: 20200139-WS

Historical Year Ended: December 31, 2019

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 on the DEP operating or construction permit, provide an explanation.	Combined Max Da	y Design Capacit;	13,776,000
[Cumulative design capacity of all well systems in LUSI]	Combined Ann. Av	g. Day per CUP	5,316,000
2 Maximum Day (see Sch. F-1)			
The single day with the highest pumpage rate for the test year.		5/30/2019	8,120,000
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)	5/29/2019	6,580,000
in the test year. Provide an explanation if fire flow, line	(2)	5/26/2019	6,994,000
breaks or other unusual occurrences affected the flows on	(3)	5/27/2019	7,030,000
these days.	(4)	5/31/2019	7,556,000
	(5)	5/30/2019	8,120,000
		AVERAGE	7,256,000
		Max Month	5,348,334
4 Average Daily Flow		Annual	4,583,331

### 5 Required Fire Flow [Lake County Code]

500 gpm x 2 hrs

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. 20200139-WS F Schedules Exhibit FS-3 Page 47 of 243

# **Water Treatment Plant Data**

# Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Utilities Services - Four Lakes

Docket No.: 20200139-WS

Page

Historical Year Ended: December 31, 2019

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.		5/27/2019	43,980
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)	5/30/2019	29,441
in the test year. Provide an explanation if fire flow, line	(2)	5/20/2019	31,815
breaks or other unusual occurrences affected the flows on	(3)	5/25/2019	36,816
these days.	(4)	5/26/2019	36,816
	(5)	5/27/2019	43,980
		AVERAGE	35,773
		Max Month	23,041
4 Average Daily Flow		Annual	17,276

# 5 Required Fire Flow [Lake County Code]

1200 gpm x 2 hrs

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. 20200139-WS F Schedules Exhibit FS-3 Page 48 of 243

Water Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Utilities Services - Lake Saunders

Docket No.: 20200139-WS

Schedule F-3 Page 3 of 3

Historical Year Ended: December 31, 2019 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	on.		432,000
[Limited by Water Use Permit peak month withdrawal]	per CUP, Ann. Avg Day		12,329
2 Maximum Day (see Sch. F-1, page 2)			
The single day with the highest pumpage rate for the test year.		4/23/2019	65,030
Explain, on a separate sheet of paper if fire flow, line breaks,	-	PRV To	esting
or other unusual occurrences affected the flow this day.	Peak Day w/o unusual occurrence	6/18/2019	31,320
3 Five Day Max. Year (see Sch. F-1, page 2)			
The five days with the highest pumpage rate from any one month	(1)	3/24/2019	16,960
in the test year. Provide an explanation if fire flow, line	(2)	3/27/2019	18,930
breaks or other unusual occurrences affected the flows on	(3)	3/30/2019	19,105
these days.	(4)	3/31/2019	19,105
	(5)	3/11/2019	19,770
		AVERAGE	18,774
		Max Month	13,422
4 Average Daily Flow		Annual	10,750

5 Required Fire Flow [Lake County Code]

1200 gpm x 2 hrs

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. 20200139-WS F Schedules Exhibit FS-3 Page 49 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

 $Company: \ \ Utilities \ Inc. \ of \ Florida-Lake \ \ Utilities \ Services. \ Excl. \ Four \ Lakes \ \& \ Lake \ Saunders$ 

Docket No.: 20200139-WS

Historical Year Ended: December 31, 2019

Schedule F-4 Page 1 of 2

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 (Lake Groves)	(AADF)		999,000
	The hydraulic rated capacity. If different f			
	on the DEP operating or construction perm	-		
	Note: Although the plant was expanded to 1 at .499 mgd as long as the AADF remains b			
2.	Average Daily Flow Max Month (a)		Dec, 2019	576,258
	Annual Average Daily Flow			547,022

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. 20200139-WS F Schedules Exhibit FS-3 Page 50 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities Inc. of Florida - Lake Utilities Services. Excl. Four Lakes & Lake Saunders

Docket No.: 20200139-WS

Historical Year Ended: December 31, 2019

Schedule F-4 Page 2 of 2

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 (Barrington)	(AADF)		49,000
	The hydraulic rated capacity. If different			
	on the DEP operating or construction per			
	Note: Although the plant was expanded to	, , , , , , , , , , , , , , , , , , ,		
	at .499 mgd as long as the AADF remains	below .500 mgd.		
2.	Average Daily Flow Max Month (a)		Aug, 2019	24,967
	Annual Average Daily Flow			23,197

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. 20200139-WS F Schedules Exhibit FS-3 Page 51 of 243

**Used and Useful Calculations Water Treatment Plant** 

Florida Public Service Commission

Company: Utilities Inc. of Florida - Lake Utilities Services. Excl. Four Lakes & Lake Saunders

Docket No.: 20200139-WS

Schedule F-5 Page 1 of 4

Historical Year Ended: December 31, 2019 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	12,455 gpm
Firm Reliable well pumping capacity (largest well out), gpm	9.455 gpm

Ground storage capacity, gal.	2,624,685 gallons
Usable ground storage (90%), gal.	2.362.217 gallons

**Elevated Storage** 

Usable elevated storage (100%)

Hydropneumatic storage capacity, gal. 810,400 gallons Usable hydropneumatic storage capacity (0.00%), gal. 0 gallons Total usable storage, gal. 2,362,217 gallons

8,120,000 gpd Maximum day demand, Peak hour demand =  $2 \times \max \frac{day}{1440}$ 11,278 gpd

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

367,284 gpd, avg **Unaccounted for water** 8.01% of water pumped Acceptable unaccounted for 10.00% 458,333 gpd, avg 0 gpd, avg Excess unaccounted for

# Used & Useful Analysis, inaccordance with Rule 25-30.4325;

# Water Treatment Facilities, usable storage

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

$\mathbf{A} =$	Peak demand (Max Day)	8,120,000 gpd
$\mathbf{B} =$	Property needed to serve five years after TY	1,486,931 gpd
C =	Fire flow demand	60,000 gpd
$\mathbf{D} =$	Excess Unaccounted for water	0 gpd
$\mathbf{E} =$	Firm Reliable Capacity (16 hours)	9.076.800 gpd

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

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

$\mathbf{A} =$	Peak demand (Max Day)	8,120,000 gpd
$\mathbf{B} =$	Property needed to serve five years after TY	1,486,931 gpd
C =	Fire flow demand	60,000 gpd
$\mathbf{D} =$	Excess Unaccounted for water	0 gpd
$\mathbf{E} =$	Firm Reliable Capacity (Usable Capacity)	2,362,217 gallons

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 52 of 243

100.00%

Used and Useful Calculations Florida Public Service Commission

**Water Treatment Plant** 

Company: Utilities, Inc. of Florida - Lake Utilities Services - Four Lakes

Schedule F-5

Docket No.: 20200139-WS

Page 2 of 4

Historical Year Ended: December 31, 2019 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	g
Usable elevated storage (100%)	
Hydropneumatic storage capacity, gal.	<b>2,000</b> gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	0 gallons

Maximum day demand,	43,980 gpd
Peak hour demand = $2 \times \max \frac{day}{1440}$	61 gpm

Fire flow requirement	500 gpm for x 2 hours	500 gpm
Unaccounted for water Acceptable unaccounted for Excess unaccounted for	11.95% of water pumped 10.00%	1.433 gpm 1.200 gpm 0.234 gpm

# Used & Useful Analysis, inaccordance with Rule 25-30.4325;

# <u>Water Treatment Facilities, no usable storage</u> Percent Used & Useful = $(A + B + C - D)/E \times 100\%$ , where:

$\mathbf{A} =$	Peak demand (Max Day) - Peak hour	61 gpm
$\mathbf{B} =$	Property needed to serve five years after TY	0.0 gpm
C =	Fire flow demand	500 gpm
$\mathbf{D} =$	Excess Unaccounted for water	0.23 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.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 53 of 243

Used and Useful Calculations Florida Public Service Commission

**Water Treatment Plant** 

Company: Utilities, Inc. of Florida - Lake Utilities Services - Lake Saunders

Schedule F-5

Docket No.: 20200139-WS

Page 3 of 4

Historical Year Ended: December 31, 2019 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.

Usable hydropneumatic storage capacity (0.00%), gal.

Total usable storage, gal.

5,000 gallons
0 gallons

Maximum day demand, 31,320 gpd
Peak hour demand = 2 x max day/1440 44 gpm

Fire flow requirement 500 gpm for x 2 hours 500 gpm

Unaccounted for water 7.41% of water pumped 0.553 gpm Acceptable unaccounted for 10.00% 0.746 gpm Excess unaccounted for 0 gpm

# Used & Useful Analysis, inaccordance with Rule 25-30.4325;

# Water Treatment Facilities, no usable storage

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

$\mathbf{A} =$	Peak demand (Max Day) - Peak hour	44 gpm
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpm
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.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 54 of 243

Company: Utilities Inc. of Florida - Lake Utilities Services. Excl. Four Lakes & Lake Saunders

Docket No.: 20200139-WS

Historical Year Ended: December 31, 2019

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.

		Wells							
<u>Name</u> <u>LUSI North</u> Lake Louisa WTP	PWS ID # 3354883-02	<u>Location</u> Vistas Vistas	Well No. 1/AAH6658 3/AAH2778	Yr Drilled 1988 2003	Pump Capacity gpm 1,000 625	Max Day Design, gpd 2,520,000	Storage MG 1.0000 incl.	Type G	Source Sanitary Survey 6/21/2018
Vistas	3354883-03	Vistas	2/AAH6686	1993	750	822,000	0.1000 0.0150	G H	Sanitary Survey 6/21/2018
Lake Ridge Club	3354883-05	L. Ridge Club	1/Unknown	1990	650	468,000	0.0070	Н	Sanitary Survey 6/21/2018
Amber Hill	3354883-06	Amber Hill	1/Unknown	1985	500	396,000	0.0075	H	Sanitary Survey 6/21/2018
Clermont #1	3354883-07	Four Winds	1/AAH6674 2/AAH6675	1940 1980	236 54	115,000	0.0010 0.0009	H H	Sanitary Survey 6/21/2018
Clermont #2	3354883-08	Carr Water System	1/AAH6677 2/AAH6676	1939 1963	45 75	71,000	0.0035	H	Sanitary Survey 6/21/2018
Crescent Bay	3354883-09	Crescent Bay	2/AAH6683	1995	700	396,000	0.0100	Н	Sanitary Survey 6/21/2018
The Oranges	3354883-10	The Oranges	1/AAH6684	1986	530	396,000	0.0045	H	Sanitary Survey 6/21/2018
C.R. 561	3354883-12	L. Crescent Hills Crescent West Highland Point	2/AAH6681 3/Unknown* 1/AAH4420*	1991 1987 1986	600 690 600	2,592,000	0.7500 0.0010 0.0100	G H H	Sanitary Survey 6/21/2018
LUSI South	3354881	Greater Groves	AAH6688 AAH6687 AAI5838	1991 1992 2005	1,200 1,200 3,000	6,000,000	- 0.5000 1.0000 0.0247	H G G	Sanitary Survey 6/21/2018
Totals - LUSI North &	South			•	12,455	13,776,000	2.6247 0.8104	G H	
Stand Alone Systems					Capacity	Design, gpd	Gal	Туре	
Lake Saunders	PWS ID # 3354695	Location L. Saunders L. Saunders	Well No. AAH6670 AAH6671	Yr Drilled 1984 1984	gpm 300 300	432,000	5,000	Н	Sanitary Survey 5/18/2018
Four Lakes	PWS ID # 3354647	Location Four Lakes Four Lakes	Well No. AAH6673 AAH6672	Yr Drilled 1980 1980	Pump Capacity gpm 90 90	Max Day Design, gpd 151,200	Storage Gal 2,000	Туре Н	Sanitary Survey 7/10/18

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 55 of 243

Used and Useful Calculations

Wastewater Treatment Plant

FPSC

 $Company: \ \ Utilities \ Inc. \ of \ Florida-Lake \ \ Utilities \ Services. \ Excl. \ Four \ Lakes \ \& \ Lake \ Saunders$ 

Docket No.: 20200139-WS

Schedule F-6 Page 1 of 4

Historical Year Ended: December 31, 2019

Preparer: Seidman, F.

547,022

547,022

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 LAKE GROVES

Net Used and useful flow, GPD

No.

1 (A) Used and useful flow, GPD 2 AADF

Less: Excessive I&I (from Sch. F-6, page 2) 0

3 (B) Property needed for post test year period ( See F-8) 174,004

4 (C) Permitted capacity 999,000

5 (D) Used and useful percentage 72.00 %

6 (D1) <u>100.00</u> %

7 (E) Non-used and useful percentage  $\frac{28.00}{\%}$ 

8 (E1) <u>0.00</u> %

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.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 56 of 243

Used and Useful Calculations Wastewater Treatment Plant **FPSC** 

Company: Utilities Inc. of Florida - Lake Utilities Services. Excl. Four Lakes & Lake Saunders

Docket No.: 20200139-WS

Historical Year Ended: December 31, 2019

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).

#### LAKE GROVES

#### A. Infiltration allowance, excluding service laterals

	Main dia.	Main length	_		ce @ 500 -dia./mile
	inches	feet	miles	gpd	gpy
1	6	0	0.000	0	
2	8	156,126	29.569	118,277	
3	10	0	0.000	0	
4	Total	156,126	29.569	118,277	43,171,205
5	Estimated Inflow @ 100	% of flows (l.8)			18,628,436
6	Allowable I&I				61,799,641
	B. Actual Inflow & Infil	tration (I&I)			
7	Wastewater treated				199,663,000
			]	Estimated	
	Water Gallons used by	WW cust.	1	returned *	
8	Residential WW		490,222,001	38%	186,284,360
	Non Res WW		24,920,390	90%	22,428,351
9	Estimated flows returne	ed	515,142,391		208,712,711

<sup>\*</sup> Homes & common areas are heavily landscaped and the soil is very porous, like sugar sand. From F-10, average water use is 10,370 per month per SFR, up from 8944 per month in the last case. Assuming just 4,000 gallons per mo per SFR for basic water, 4,000/10,370 equates to a 38% return ro wasterwater. In the last case it was 48% and the case before that, 30% return.

10	Estimated I&I (treated less returned) [1.7-1.9]	-9,049,711
11	Actual less allowable [l.10-l.6]	-70,849,352
12	Excess, if any [l.10-l.6, if positive]	0
13	Excess as percent of wastewater treated	0.00%

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 57 of 243

Used and Useful Calculations Wastewater Treatment Plant **FPSC** 

Company: Utilities Inc. of Florida - Lake Utilities Services. Excl. Four Lakes & Lake Saunders

Docket No.: 20200139-WS

Historical Year Ended: December 31, 2019

Schedule F-6 Page 3 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).

Rec	Recap Schedules: A-6,A-10,B-14							
Line No.		BARRINGTON						
1 2	(A)	Used and useful flow, GPD AADF	23,197					
		Less: Excessive I&I (from Sch. F-6, page 2)	<u>0</u>					
		Net Used and useful flow, GPD	23,197					
3	<b>(B)</b>	Property needed for post test year period ( See F-8)	0					
	( <b>C</b> )	Permitted capacity	49,000					
4	(C)	Usable Capacity	<u>23,197</u>					
		The agreement to purchase Barrington included the right of the						
		trustee to use all the permitted capacity of the WWTP, rapid infiltration						
		basins and lift station, present & future, not needed to serve						
		Barrington Estates, which is utility service area. Therefore, the U&U of						
		the capacity utilized by the utility is always 100%.						
5	( <b>D</b> )	Used and useful percentage	100.00 %					
6	(D1		%					
7	<b>(E)</b>	Non-used and useful percentage	0.00 %					
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.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 58 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  **FPSC** 

 $Company: \ Utilities \ Inc. \ of \ Florida - Lake \ Utilities \ Services. \ Excl. \ Four \ Lakes \ \& \ Lake \ Saunders$ 

Docket No.: 20200139-WS

Historical Year Ended: December 31, 2019

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).

# **BARRINGTON**

# A. Infiltration allowance, excluding service laterals

				Allowand	e @ 500
	Main dia.	Main length		gpd/inch-	dia./mile
	inches	feet	miles	gpd	gpy
1	6		0.000	0	_
2	8	8,685	1.645	6,580	
3	10		0.000	0	
4	Total	8,685	1.645	6,580	2,401,534
5	<b>Estimated Inflow</b> @ 1	10% of flows (1.8)			1,919,460
6	Allowable I&I				4,320,995
	B. Actual Inflow & In	nfiltration (I&I)			
7	Wastewater treated				8,467,000
				Estimated returned *	
8	Water Gallons used b	ov WW cust.	23,993,256		19,194,605
9	Estimated flows return	•		30,0	19,194,605

10	Estimated I&I (treated less returned) [1.7-1.9]	-10,727,605
11	Actual less allowable [l.10-l.6]	-15,048,599
12	Excess, if any [l.10-l.6, if positive]	0
13	Excess as percent of wastewater treated	0.00%

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 59 of 243

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Company: Utilities Inc. of Florida - Lake Utilities Services

Docket No.: 20200139-WS

Historical Year Ended: December 31, 2019

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**

In Docke No. 100426-WS, the Commission found that all the water & wastewater distribution & collection mains are contributed to the Utility in all service areas, including Four Lakes & Lake Saunders, and should be considered 100% used and usef In Docket No. 20160101-Ws that conclusion was reaffirmed.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 60 of 243

Margin Reserve Calculations - Historic

Florida Public Service Commission

Company: Utilities Inc. of Florida - Lake Utilities Services

Docket No.: 20200139-WS

Historical Year Ended: December 31, 2019

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)
442.86 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) 671.52 max day gpd/ERC

PN = Property needed expressed in U units 1,486,931 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) 151.19 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) 132.14 avg day gpd/ERC

PN = Property needed expressed in U units 99,889 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 prepaid lots not served in 2019. New phases of development have opened up in the Lake Groves service area, of which 967 had not connected at the end of the 2019TY. During 2019, the average SFRs increased by 351 (from F-10.) LUSI indicates that they average 30 new taps per month in 2020, which is consistent with the past year growth.

At that rate, the prepaid connections will be connected within 3 years. Regression analyses reflects a trend of only 151.19 ERCs growth per year. To better reflect actual new growth being experienced, adjust by (360-151.19) = 208.81 Ercs/yr for 2.69 yrs = 560.89 prepaid lots in the 5 year period.

560.89 prepaid lots 132.14 gpd/ERC 74,115 gpd

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 61 of 243

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities Inc. of Florida - Lake Utilities Services. Excl. Four Lakes & Lake Saunders

Schedule F-9 Page 1 of 3

Docket No.: 20200139-WS

Preparer: Seidman, F.

Historical Year Ended: December 31, 2019

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)
		5	SFR Customers		SFR	Gallons/	Total	Total	Annual
Line	<b>T</b> 7	<del></del>	F 11	<del></del>	Gallons	SFR (5) (4)	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2015	9,601	9,904	9,753	1,205,523,153	123,612	1,304,373,114	10,552	
2	2016	9,904	9,996	9,950	1,293,894,884	130,040	1,496,336,662	11,507	9.05%
3	2017	9,996	10,144	10,070	1,332,731,220	132,347	1,415,864,120	10,698	-7.03%
4	2018	10,144	11,099	10,622	1,323,221,560	124,580	1,414,229,761	11,352	6.11%
5	2019	11,099	11,666	11,383	1,442,640,263	126,742	1,532,564,469	12,092	6.52%
						Average Growth T	hrough 5-Year Period (Col. 8)		3.66%

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

		<u>A</u>	<u>1</u>	r ear
Constant:	10362.75378	1	10,552	2011 Actual
X Coefficient:	292.4903693	2	11,507	2012 Actual
R^2:	0.542719899	3	10,698	2013 Actual
		4	11,352	2014 Actual
		5	12,092	2015 Actual
		10	13 288	Hist TV + 5 vrs

HISTORIC

Five year growth per regression equation: Five year growth, simple average of 3.5% 1,196 ERCs 2,214

As regression os poor fit, use simple average

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 62 of 243

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Utilities Services - Four Lakes

Schedule F-9
Page 2 of 3

Docket No.: 20200139-WS

Page 2 of 3

Historical Year Ended: December 31, 2019

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	2015	67	68	68	5,994,400	88,806	5,994,400	68	
2	2016	68	71	70	6,128,743	88,183	6,128,743	70	2.96%
3	2017	71	70	71	6,495,700	92,138	6,495,700	71	1.44%
4	2018	70	71	71	5,631,340	79,877	5,631,340	71	0.00%
5	2019	71	71	71	5,458,150	76,875	5,458,150 rough 5-Year Period (Col. 8)	71	0.71% 1.28%

Regression	Analysis ner	Rule 25-30	) 431(2)(C)

		<u>X</u>	<u>Y</u>	Year
Constant:	67.4	1	68	2011 Actual
X Coefficient:	0.80	2	70	2012 Actual
R^2:	0.82	3	71	2013 Actual
		4	71	2014 Actual
		5	71	2015 Actual
		10	75	Hist $TY + 5$ yrs

#### HISTORIC

Five year growth per regression equation:

4.40 ERCs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 63 of 243

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Lake Utilities Services - Lake Saunders

Docket No.: 20200139-WS

Historical Year Ended: December 31, 2019

Schedule F-9 Page 3 of 3

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	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	2015	40	39	40	2,284,430	57,834	2,284,430	40	
2	2016	39	42	41	2,572,130	63,509	2,572,130	41	2.53%
3	2017	42	42	42	2,252,461	53,630	2,252,461	42	3.70%
4	2018	42	43	43	2,322,380	54,644	2,322,380	43	1.19%
5	2019	43	45	44	2,699,060	61,342	2,699,060	44	3.53%
						Average Growth Th	rough 5-Year Period (Col. 8)		2.74%

D	Analysis ner	DL. 25 20	421(2)(0)
Regression	Analysis ner	Riile 25-30	1431(2)((*)

		<u>X</u>	<u>Y</u>	Year
Constant:	38.4	1	40	2011 Actual
X Coefficient:	1.1	2	41	2012 Actual
R^2:	0.983739837	3	42	2013 Actual
		4	43	2015 Actual
		5	44	2015 Actual
		10	49	Hist TY + 5 vrs

#### HISTORIC

Five year growth per regression equation:

5.40 ERCs

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**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities Inc. of Florida - Lake Utilities Services. Excl. Four Lakes & Lake Saunders

Docket No.: 20200139-WS

Historical Year Ended: December 31, 2019

Schedule F-10 Page 1 of 2

Preparer: Seidman, F.

#### LAKE GROVE PLANT

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) To 4 I	(8)	(9)
Line		8	FR Customers	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	2015	3,164	3,325	3,245	348,872,774	107,527	369,110,368	3,433	
2	2016	3,325	3,328	3,327	357,534,935	107,481	380,237,455	3,538	3.06%
3	2017	3,328	3,472	3,400	374,595,333	110,175	397,785,893	3,610	2.06%
4	2018	3,472	3,706	3,589	419,172,184	116,794	446,164,554	3,820	5.81%
5	2019	3,706	4,173	3,940	490,222,001	124,438	515,142,391	4,140	8.37%
					Avei	age Growth Through	h 5-Year Period (Col. 8)		4.82%

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:	3199.209705	1	3,433	2011 Actual
X Coefficient:	169.6498757	2	3,538	2012 Actual
R^2:	0.918710328	3	3,610	2013 Actual
		4	3,820	2014 Actual
		5	4,140	2015 Actual
		10	4 896	Hiet TV + 5 yrs

HISTORIC

Five year growth per regression equation:

**756 ERCs** 

Five year growth per 5% per year maximum

1,144 ERCs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 65 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities Inc. of Florida - Lake Utilities Services. Excl. Four Lakes & Lake Saunders

Docket No.: 20200139-WS

Historical Year Ended: December 31, 2019

Schedule F-10 Page 2 of 2

Preparer: Seidman, F.

#### BARRINGTON PLANT

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) SFR 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	2015	N/A	N/A	N/A	N/A	N/A	N/A		
2	2016	N/A	N/A	N/A	N/A	N/A	N/A		
3	2017	N/A	N/A	N/A	N/A	N/A	N/A		
4	2018	N/A	N/A	N/A	N/A	N/A	N/A		
5	2019	148	148	148	23,993,256 Aver	162,117 rage Growth Through	23,993,256 n 5-Year Period (Col. 8)	148	0.00%

NOTE: LUSI took over operation in March, 2019. There is no data available for prior periods, however, this is a stable, residential community. Gallons reflected are 8 months actual, then annualized.

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

		<u>X</u>	<u>Y</u>	Year
Constant:	-59.2	1	0	2011 Actual
X Coefficient:	29.6	2	0	2012 Actual
R^2:	0.5	3	0	2013 Actual
		4	0	2014 Actual
		5	148	2015 Actual
		10	237	Hist TY + 5 yrs
HISTORIC				
Five year growth per regression equation:		N	N/A	ERCs
Five year growth per 5% per year maximum		N	N/A	ERCs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 66 of 243

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

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Marion -Golden Hills/Crownwood

Schedule F-1 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	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-19	3.678	3.627	0.000	3.069	0.021	0.538	14.8%
Feb-19	3.708	3.657	0.000	2.919	0.235	0.503	13.7%
Mar-19	4.834	4.767	0.000	2.977	0.018	1.772	37.2%
Apr-19	4.499	4.437	0.000	3.892	0.058	0.487	11.0%
May-19	5.751	5.672	0.000	3.551	0.021	2.099	37.0%
Jun-19	6.270	6.183	0.000	3.600	0.356	2,228	36.0%
Jul-19	4,227	4.169	0.000	4.314	0.206	-0.351	-8.4%
Aug-19	3.870	3.817	0.000	3.646	0.080	0.090	2.4%
Sep-19	4.491	4.445	0.000	2.926	0.030	1.490	33.5%
Oct-19	4.735	4.687	0.000	3.579	0.064	1.044	22.3%
Nov-19	4.167	4.124	0.000	4.008	0.153	-0.036	-0.9%
Dec-19	3.929	3.889	0.000	3.557	0.144	0.188	4.8%
Total	54.159	53.474	0.000	42.038	1.387	10.050	18.8%

 $<sup>(</sup>Above\ data\ in\ millions\ of\ gallons)$ 

<sup>(1)</sup> 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.

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 67 of 243

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

Company: Utilities, Inc. of Florida - UIF - Marion -Golden Hills/Crownwood

Schedule F-2 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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-19	0.875				0.875	0.00
Feb-19	0.675				0.675	0.00
Mar-19	0.710				0.710	0.00
Apr-19	0.785				0.785	0.00
May-19	0.696				0.696	0.00
Jun-19	0.439				0.439	0.00
Jul-19	0.588				0.588	0.00
Aug-19	0.762				0.762	0.00
Sep-19	0.528				0.528	0.00
Oct-19	0.515				0.515	0.00
Nov-19	0.494				0.494	0.00
Dec-19	0.564				0.564	0.00
Total	7.631	0.000			7.631	0.00
	=======================================	=========	=======================================	=========	=======================================	========

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 68 of 243

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Marion -Golden Hills/Crownwood

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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.

1 Plant Capacity	Max Design Day per			Date	GPD 636,000
The hydraulic rated capacity. If on the DEP operating or constru		(Max Day Per CUP)			244,900
2 Maximum Day					
The single day with the highest p	umpage rate for the test year.			6/7/2019	582,000
Explain, on a separate sheet of pa or other unusual occurrences affe	• ,		_		
3 Five Day Max. Year					
The five days with the highest pu	mpage rate from any one month		(1)	6/6/2019	380,000
in the test year. Provide an expla	nation if fire flow, line		(2)	6/8/2019	382,000
breaks or other unusual occurren	nces affected the flows on		(3)	6/4/2019	395,000
these days.			(4)	6/5/2019	580,000
			(5)	6/7/2019	582,000
				AVERAGE	463,800
				Max Month	206,116
4 Average Daily Flow				Annual	146,505

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.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 69 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Marion -Golden Hills/Crownwood Schedule F-4

Docket No.: 20200139-WS Page 1 of 1
Test Year Ended: December 31, 2019 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
•	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)	Feb-19	24,107
	Highest TMADF	Mar-19	26,434

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. 20200139-WS F Schedules Exhibit FS-3 Page 70 of 243

Schedule F-5

Page 1 of 1

Used and Useful Calculations Florida Public Service Commission

**Water Treatment Plant** 

Company: Utilities, Inc. of Florida - UIF - Marion -Golden Hills/Crownwood

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019 Preparer: Seidman, F.

 $\label{provide all calculations} Explanation: \ Provide all calculations, analyses and governmental requirements \ used to determine the used and useful percentages for the water treatment plant(s) for the historical test year and \ analyses are provided by the provided percentages for the plant(s) for the historical test year and \ analyses are provided by the provided percentages for the plant(s) for the historical test year and \ analyses are provided by the provided percentages for the plant(s) for the historical test year and \ analyses are provided by the provided percentages for the plant(s) for the historical test year and \ analyses are provided by the provided percentages for the plant(s) for the historical test year and \ analyses are provided by the provided percentages for the plant(s) for the historical test year and \ analyses are provided by the provided percentages for the plant(s) for the historical test year and \ analyses are provided by the provided percentages for the plant(s) for the historical test year and \ analyses are provided by the provid$ 

the projected test year (if applicable).

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

#### INPUT INFORMATION:

Total well pumping capacity, gpm 740 gpm
Firm Reliable well pumping capacity (largest well out), gpm 290 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. 10,000 gallons
Usable hydropneumatic storage capacity (0.00%), gal. 0 gallons
Total usable storage, gal. 0 gallons

Maximum day demand, 582,000 gpd
Peak hour demand = 2x max day/1440 808 gpm

Fire flow requirement 500 gpm

Unaccounted for water 18.79% of water pumped 19.12 gpm
Acceptable unaccounted for 10.00% 10.17 gpm
Excess unaccounted for 8.95 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 demand808 gpmB =Property needed to serve five years after TY5 gpmC =Fire flow demand500 gpmD =Excess Unaccounted for water9 gpmE =Firm Reliable Capacity290 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.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 71 of 243

**Used and Useful Calculations** Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Marion -Golden Hills/Crownwood

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 2019	26,434				
3	<b>(B)</b>	Property needed for post test year period (see F-8)	4,942				
4	(C)	Permitted capacity (3MADF)	40,000				
5	<b>(D)</b>	Used and useful percentage	<u>78.44</u> %				
6	<b>(E)</b>	Non-used and useful percentage	<u>21.56</u> %				

The above used and useful factor is applicable to all treatment and disposal plant accounts.

Used and Useful Calculations Wastewater Treatment Plant

Florida Public Service Cananission 243

Company: Utilities, Inc. of Florida - UIF - Marion -Golden Hills/Crownwood

Docket No.: 20200139-WS

Page 2 of 2

Schedule F-6

Test Year Ended: December 31, 2019

Preparer: F. Seidman

# A. Infiltration allowance, excluding service laterals

inches feet miles gpd gpy  1 6 0 0.000 0  2 8 3,451 0.654 2,614  3 10 0 0.000 0  4 Total 3,451 0.654 2,614 954,254  5 Estimated Inflow @ 10% of flows (l.10) 706,917  6 Allowable I&I 1,661,171  B. Actual Inflow & Infiltration (I&I)  7 Wastewater treated		Main dia. Main length			owance @ 500	
1 6 0 0.000 0 2 8 3,451 0.654 2,614 3 10 0 0.000 0 4 Total 3,451 0.654 2,614 954,254 5 Estimated Inflow @ 10% of flows (1.10) 706,917 6 Allowable I&I 1,661,171  B. Actual Inflow & Infiltration (I&I) 7 Wastewater treated 7,631,000  Estimated Gallons Billed (not capped) to: returned *  8 SFR Residential WW cust. 2,053,879 80% 1,643,103 9 All Other 5,015,289 90% 4,513,760 10 Estimated flows returned 7,069,168 6,156,863		8	miles		_	
2 8 3,451 0.654 2,614 3 10 0 0.000 0 4 Total 3,451 0.654 2,614 954,254 5 Estimated Inflow @ 10% of flows (l.10) 706,917 6 Allowable I&I 1,661,171  B. Actual Inflow & Infiltration (I&I) 7 Wastewater treated 7,631,000  Estimated Gallons Billed (not capped) to: returned * 8 SFR Residential WW cust. 2,053,879 80% 1,643,103 9 All Other 5,015,289 90% 4,513,760 10 Estimated flows returned 7,069,168 6,156,863	1			<b>9</b>	020	
3 10 0 0.000 0 4 Total 3,451 0.654 2,614 954,254 5 Estimated Inflow @ 10% of flows (l.10) 706,917 6 Allowable I&I 1,661,171  B. Actual Inflow & Infiltration (I&I) 7 Wastewater treated 7,631,000  Estimated Gallons Billed (not capped) to: returned * 8 SFR Residential WW cust. 2,053,879 80% 1,643,103 9 All Other 5,015,289 90% 4,513,760 10 Estimated flows returned 7,069,168 6,156,863						
4 Total 3,451 0.654 2,614 954,254  5 Estimated Inflow @ 10% of flows (l.10) 706,917  6 Allowable I&I 1,661,171  B. Actual Inflow & Infiltration (I&I)  7 Wastewater treated 7,631,000  Estimated Gallons Billed (not capped) to: returned *  8 SFR Residential WW cust. 2,053,879 80% 1,643,103  9 All Other 5,015,289 90% 4,513,760  10 Estimated flows returned 7,069,168 6,156,863		-	,		*	
5 Estimated Inflow @ 10% of flows (l.10) 706,917 6 Allowable I&I 1,661,171  B. Actual Inflow & Infiltration (I&I) 7,631,000   Estimated returned *  8 SFR Residential WW cust. 2,053,879 80% 1,643,103 9 All Other 5,015,289 90% 4,513,760 10 Estimated flows returned 7,069,168 6,156,863			-		*	054.254
6 Allowable I&I 1,661,171  B. Actual Inflow & Infiltration (I&I)  7 Wastewater treated 7,631,000  Estimated returned *  8 SFR Residential WW cust. 2,053,879 80% 1,643,103  9 All Other 5,015,289 90% 4,513,760  10 Estimated flows returned 7,069,168 6,156,863	-		,	0.034	2,014	*
B. Actual Inflow & Infiltration (I&I)  7 Wastewater treated 7,631,000  Estimated returned *  8 SFR Residential WW cust. 2,053,879 80% 1,643,103  9 All Other 5,015,289 90% 4,513,760  10 Estimated flows returned 7,069,168 6,156,863			1 110WS (1.1U)			*
7,631,000    Estimated   February   February	0	Allowable 1&1				1,001,171
7,631,000    Estimated   February   February		D. Astual Inflam & Inflitus	tion (I P-I)			
Estimated Gallons Billed (not capped) to:  8 SFR Residential WW cust. 2,053,879 80% 1,643,103 9 All Other 5,015,289 90% 4,513,760 10 Estimated flows returned 7,069,168 6,156,863	-		tion (1&1)			7 (21 000
Gallons Billed (not capped) to:  8	/	wastewater treated				7,031,000
Gallons Billed (not capped) to:  8						
8 SFR Residential WW cust. 2,053,879 80% 1,643,103 9 All Other 5,015,289 90% 4,513,760 10 Estimated flows returned 7,069,168 6,156,863  11 Estimated I&I (treated less returned) [l.7-l.10] 1,474,137				Est	imated	
9 All Other 5,015,289 90% 4,513,760 10 Estimated flows returned 7,069,168 6,156,863 11 Estimated I&I (treated less returned) [l.7-l.10] 1,474,137		Gallons Billed (not capped)	to:	ret	urned *	
9 All Other 5,015,289 90% 4,513,760 10 Estimated flows returned 7,069,168 6,156,863 11 Estimated I&I (treated less returned) [l.7-l.10] 1,474,137	8	,,		2,053,879	80%	1,643,103
10 Estimated flows returned 7,069,168 6,156,863  11 Estimated I&I (treated less returned) [l.7-l.10] 1,474,137	9	All Other			90%	
11 Estimated I&I (treated less returned) [l.7-l.10] 1,474,137	10	Estimated flows returned				
, , ,				.,,=		3,223,332
, , ,						
, , ,						
, , ,						
, , ,						
		Estimated I&I (treated less	returned) [1.7-1.10]			1,474,137
12 Actual less allowable [l.11-l.6] -187,034	11					107.024
	11 12	Actual less allowable [l.11-l	.6]			-187,034
13 Excess, if any [l.11-l.6, if positive] 0	12	-	-			· · · · · · · · · · · · · · · · · · ·
12 Actual less allowable   1.11-1.6   -187.034	10	Estimated flows returned	,		90%	6,156,863 1,474,137
13 Excess, if any [l.11-l.6, if positive] 0	12	-	-			,

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 73 of 243

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Marion -Golden Hills/Crownwood

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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. 20160101-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.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 74 of 243

#### **Margin Reserve Calculations**

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Marion -Golden Hills/Crownwood

Schedule F-8

Docket No.: 20200139-WS

Page 1 of 1

Test Year Ended: December 31, 2019 Preparer: Seidman, F.

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

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	0.66 ERCs/yr
PT =	Post test year period per statute	5 yrs
$\mathbf{U} =$	Unit of measure utilized in U&U calculations.	1.54 gpm/ERC *
PN =	Property needed expressed in U units	5 gpm

<sup>\*</sup> Based on the 2019 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	10.87 ERCs/yr
PT =	Post test year period per statute	5 yrs
U =	Unit of measure utilized in U&U calculations. *	91 gpd/ERC
PN =	Property needed expressed in U units	4942 gpd

<sup>\*</sup> Based on the 2019 TMADF (Sch. F-6) divided 2019 ERCs (Sch F-10).

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 75 of 243

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

-1.97%

0.13%

524

Company: Utilities, Inc. of Florida - UIF - Marion -Golden Hills/Crownwood

491

Docket No.: 20200139-WS

2019

499

Test Year Ended: December 31, 2019

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.

495

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		S	FR Custome	rs	SFR	Gallons/	Total	Total	Annual
Line	¥7	Desirates	Endino.	A	Gallons Sold	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Solu	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2015	488	491	490	41,295,220	84,362	43,976,890	521	
					, ,	,			
2	2016	491	490	491	46,310,680	94,415	50,049,450	530	1.69%
3	2017	490	496	493	45,580,988	92,456	49,322,918	533	0.64%
4	2018	496	499	498	40,364,882	81,135	43,347,682	534	0.15%

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

39,730,560

		<u>X</u>	<u> Y</u>
Constant:	525.85073	1	521
X Coefficient:	0.907444891	2	530
R^2:	0.06094317	3	533
		4	534
		5	524
		10	535
Five year growth			11
Annual average			2

Average Growth Through 5-Year Period (Col. 8)

42,037,570

80,264

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

Five year growth 3 Ercs Annual average growth @ 0.85% 0.66 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 76 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Marion -Golden Hills/Crownwood

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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)
		SF	R Custom	ers	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	2015	82	84	83	2,021,740	24,358	6,144,683	252	
2	2016	84	82	83	2,258,610	27,212	6,656,191	245	-3.04%
3	2017	82	86	84	2,302,780	27,414	6,790,304	248	1.26%
4	2018	86	85	86	2,273,480	26,590	7,068,739	266	7.32%
5	2019	85	84	85	2,053,879	24,306	7,069,168	291	9.40%
					Average Gro	owth Through 5-Y	ear Period (Col. 8)		3.74%

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

		<u>X</u>	<u>Y</u>
Constant:	230.73168	1	252
X Coefficient:	9.8384605	2	245
R^2:	0.6754389	3	248
		4	266
		5	291
		10	329
Five year growth			38
Annual average			8

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

Five year growth 54 Ercs Annual average growth @ 1.13% 10.87 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 77 of 243

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

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

\_\_\_\_\_\_\_\_

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

Company: Utilities, Inc. of Florida - Mid-County

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	Mid-County	(Name)	(Name)	(Name)	Flows	Sewage Treatment
Jan-19	23.444				23.444	0.000
Feb-19	24.026				24.026	0.000
Mar-19	27.099				27.099	0.000
Apr-19	23.629				23.629	0.000
<b>May-19</b>	23.710				23.710	0.000
Jun-19	31.260				31.260	0.000
Jul-19	39.129				39.129	0.000
Aug-19	37.411				37.411	0.000
Sep-19	26.995				26.995	0.000
Oct-19	26.636				26.636	0.000
<b>Nov-19</b>	22.031				22.031	0.000
Dec-19	23.871				23.871	0.000
Total	329.241				329.241	0.000
	=========	=========	=========	=========	==========	=========

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 78 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Mid-County

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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)	Jul-19	1,262,226

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. 20200139-WS F Schedules Exhibit FS-3 Page 79 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Schedule F-6

Page 1 of 2

 ${\bf Company:\ Utilities, Inc.\ of\ Florida-Mid-County}$ 

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019 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)			902,030
2	<b>(B)</b>	Less: Excess I&I (No indication	on of excess I/I - see note))		-
3	(C)	Plus: Property needed for post	test year period ( See F-8)		46,770
4	<b>(E)</b>	Permitted capacity			<u>900,000</u>
5 6	<b>(F)</b>	Used and useful percentage	see Note	Use	105.42% 100.00%
7 8	( <b>G</b> )	Non-used and useful percentage	ee Note	Use	- <u>5.42</u> % <u>0.00</u> %

Note: Used & Useful Evaluation

In Docket No. 20160101-WS, Mid-County requested 100% U&U. There is virtually no growth in customers, although there is growth in demand as the charateristics of the customer base changes. The Order set U&U at 93.67% based on TY flows. In this case, calculated U&U exceeds 100%, partly due to a very wet year. U&U should be set at 100% and maintained at that level in coming years.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 80 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Company: Utilities, Inc. of Florida - Mid-County

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

Schedule F-6 Page 2 of 2

0.00%

Preparer: Seidman, F.

# A. Infiltration allowance, excluding service laterals

	Main dia. Ma	nin length t	miles	Allowance gpd/inch-digpd	
	4			000	0
1	6	2,020		383 1,14	*
2	8	179,039		909 135,63	
3	10	1.5,005		000	0
4	Total	181,059			83 49,925,917
5	Estimated Inflo	ow @ 10% of gallons sold			31,150,900
6	Allowable I&I	, 8	()		81,076,817
					, ,
	B. Actual Inflo	w & Infiltration (I&I)			
7	Wastewater tre	eated			329,241,000
		(not capped) to:		Estimated returned *	
8	SFR Residentia	al WW cust.	145,839,0		-,- ,
9	All Other		165,670,0		
10	Estimated flow	s returned	311,509,0	000	265,774,200
11	Estimated I&I	(treated less returned) [L.	7-L.10]		63,466,800
12		allowable [L.11-L.6]			-17,610,017
					,,

13

14

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

Excess as percent of wastewater treated

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 81 of 243

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

Company: Utilities, Inc. of Florida - Mid-County

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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

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 still 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 and.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 82 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Mid-County

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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) 22 ERC/yr 5 yrs PT = Post test year period per statute

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

PN = Property needed expressed in U units 46,770 gpd

<sup>\*</sup> Based on 2019 AADF divided by TY equivalent ERCs from Schedule F-10

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 83 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Mid-County

Schedule F-10 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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)
т !		Meter	Equivalent	ERCs	SFR	Gallons/	Total	Total	Annual
Line No.	Year	Beginning Note A	Ending Note A	Average Note A	Gallons Sold Note A&B	SFR (5)/(4) Note A&B	Gallons Sold Note A&B	ERCs (7)/(6)	% Incr. in ERCs
1	2015	2,001	2,005	2,003	N/A	N/A	N/A	2,003	
2	2016	2,005	2,053	2,029	N/A	N/A	N/A	2,029	1.30%
3	2017	2,053	2,063	2,058	N/A	N/A	N/A	2,058	1.43%
4	2018	2,063	2,082	2,073	N/A	N/A	N/A	2,073	0.70%
5	2019	2,082	2,082	2,082	145,839,000 Ave	N/A rage Growth Throug	311,509,000 th 5-Year Period (Col. 8)	2,082	0.46%

#### 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:

Note: TY Gallons per MFR Schedule E 14

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

		<u>A</u>	<u> Y</u>
Constant:	1988.45	1	2,003
X Coefficient:	20.15	2	2,029
R^2:	0.958006937	3	2,058
		4	2,073
		5	2,082
		10	2190

108 Ercs Five year growth Annual average growth 21.59 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. 20200139-WS F Schedules Exhibit FS-3 Page 84 of 243

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

Company: Utilities, Inc. of Florida -Crescent Heights

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased (1)(3)	Sold	Uses (2)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)	w/meter correction				
Jan-19	-	-	1.564	1.642	0.0001	-0.078	-5.0%
Feb-19	-	-	1.476	1.407	0.0001	0.069	4.7%
Mar-19	-	-	1.649	1.414	0.0026	0.232	14.1%
Apr-19	-	-	1.767	1.479	0.0023	0.286	16.2%
May-19	-	-	1.812	1.549	0.0001	0.264	14.5%
Jun-19	-	-	1.540	1.760	0.0001	-0.221	-14.3%
Jul-19	-	-	2.349	1.543	0.0001	0.806	34.3%
Aug-19	-	-	2.002	1.961	0.0001	0.041	2.0%
Sep-19	-	-	2.088	2.193	0.0001	-0.105	-5.0%
Oct-19	-	-	1.694	1.871	0.0001	-0.177	-10.4%
Nov-19	-	-	1.611	1.726	0.0001	-0.115	-7.1%
Dec-19	-	-	1.828	1.548	0.0001	0.279	15.3%
Total	-	-	21.380	20.091	0.006	1.283	6.0%
	==========		=======================================	========	========	==========	=========

(Above data in millions of gallons)

- (2) Other Uses includes such uses as line breaks, flushing and water quality testing
- (3) Treated water purchased from the Orlando Utilities Commission

<sup>(1)</sup> 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.

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 -Crescent Heights

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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-19					0.000	0.000
Feb-19					0.000	0.000
Mar-19	N	ot Applicable - wate	er only system		0.000	0.000
Apr-19					0.000	0.000
<b>May-19</b>					0.000	0.000
Jun-19					0.000	0.000
<b>Jul-19</b>					0.000	0.000
Aug-19					0.000	0.000
Sep-19					0.000	0.000
Oct-19					0.000	0.000
Nov-19					0.000	0.000
Dec-19					0.000	0.000
Total	0.000				0.000	0.000

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 86 of 243

Water Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida -Crescent Heights

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	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		
these days.		
4.4 D. 11 El		
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. 20200139-WS F Schedules Exhibit FS-3 Page 87 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida -Crescent Heights

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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. 20200139-WS F Schedules Exhibit FS-3 Page 88 of 243

Florida Public Service Commission

Used and Useful Calculations

**Water Treatment Plant** 

Company: Utilities, Inc. of Florida -Crescent Heights Schedule F-5
Docket No.: 20200139-WS Page 1 of 1

Test Year Ended: December 31, 2019 Preparer: Seidman, F.

 $\label{provide all calculations} Explanation: \ Provide all calculations, analyses and governmental requirements \ used to determine the used and useful percentages for the water treatment plant(s) for the historical test year and$ 

the projected test year (if applicable).

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

Not Applicable - all water purchased

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 89 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Company: Utilities, Inc. of Florida -Crescent Heights

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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. 20200139-WS F Schedules Exhibit FS-3 Page 90 of 243

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

Company: Utilities, Inc. of Florida -Crescent Heights

Schedule F-7 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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

In Docket No. 20160101-WS, the system was found to br 100% U&U Circumstances have not changed. The syrem remains 100% U&U.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 91 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida -Crescent Heights

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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

Not applicable. Used & useful was last set for this system in Docket No. 20160101-WS.

All water is purchased. The system was found to be built out and 100% U&U. Circumstances have not chan

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida -Crescent Heights

Schedule F-9 Page 1 of 1

Docket No.: 20200139-WS Test Year Ended: December 31, 2019

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	2015	261	266	264	17,131,538	65,015	17,436,268	268	
2	2016	266	266	266	18,441,192	69,328	18,993,762	274	2.16%
3	2017	266	270	268	18,982,534	70,830	19,377,364	274	-0.14%
4	2018	270	267	269	19,066,864	71,013	19,458,686	274	0.16%
5	2019	267	269	268	19,695,333	73,490	20,091,301	273	-0.23%
					Ave	rage Growth Throug	h 5-Year Period (Col. 8)		0.49%

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

		<u>X</u>	$\underline{\mathbf{Y}}$
Constant:	269.4927143	1	268
X Coefficient:	1.044924997	2	274
R^2:	0.438002434	3	274
		4	274
		5	273
		10	280

Five year growth 7 Ercs
Annual average growth 1.31 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 93 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida -Crescent Heights

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	<b>ERCs</b>	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
		<u> </u>				<del>-</del>			
1	2015								
2	2016	N	Not Applicabl	e - water only	system.				
2	2017								
3	2017								
4	2018								
5	2019								
				Av	erage 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 -Davis Shores

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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/ Year	Total Gallons Pumped	Total Gallons Corrected for	Gallons Purchased (1)(3)	Gallons Sold	Other Uses (2)	For Water (1)+(2)-(3)-(4)	Unaccounted For Water
	Per MORs	Meter Error (1)					
Jan-19	-	-	0.357	0.327	0.0001	0.030	8.3%
Feb-19	-	-	0.363	0.298	0.0001	0.065	17.8%
Mar-19	-	-	0.319	0.353	0.0001	-0.035	-10.9%
Apr-19	-	-	0.352	0.342	0.0001	0.010	2.8%
<b>May-19</b>	-	-	0.329	0.326	0.0001	0.003	0.9%
Jun-19	-	-	0.282	0.444	0.0001	-0.162	-57.2%
Jul-19	-	-	0.405	0.324	0.0001	0.081	19.9%
Aug-19	-	-	0.278	0.330	0.0001	-0.051	-18.5%
Sep-19	-	-	0.310	0.404	0.0001	-0.094	-30.4%
Oct-19	-	-	0.274	0.308	0.0001	-0.033	-12.2%
Nov-19	-	-	0.250	0.314	0.0001	-0.064	-25.4%
Dec-19	-	-	0.282	0.297	0.0001	-0.015	-5.3%
Total	-		3.802	4.067	0.001	-0.266	-7.0%

- (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 is purchased from the Orange County. The quantity of water purchased is measured by the County with its own master meter. Sales are based on the utility meter readings. The discrepancy favors the customer.

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 -Davis Shores

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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)	Total Plant Flows	Sewage Treatment
					0.000	0.000
Jan-19						0.000
Feb-19			_		0.000	0.000
Mar-19	N	ot Applicable - wat	er only system		0.000	0.000
Apr-19					0.000	0.000
<b>May-19</b>					0.000	0.000
Jun-19					0.000	0.000
Jul-19					0.000	0.000
Aug-19					0.000	0.000
Sep-19					0.000	0.000
Oct-19					0.000	0.000
Nov-19					0.000	0.000
Dec-19					0.000	0.000
Total	0.000				0.000	0.000
	=======	=======	=======	=======	=========	========

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 96 of 243

### Water Treatment Plant Data

### Florida Public Service Commission

Company: Utilities, Inc. of Florida -Davis Shores

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	Water Purchased	*
on the DEP operating or construction permit, provide an explanation.	This Schedule not applica	able
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.		
st 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		
these days.		
		-
4 Average Daily Flow		
i internge zonij i itili		

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. 20200139-WS F Schedules Exhibit FS-3 Page 97 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida -Davis Shores

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 -
	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.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 98 of 243

**Used and Useful Calculations Water Treatment Plant** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida -Davis Shores Schedule F-5
Docket No.: 20200139-WS Page 1 of 1

Test Year Ended: December 31, 2019 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

Not Applicable - all water purchased

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 99 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Company: Utilities, Inc. of Florida -Davis Shores

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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. 20200139-WS F Schedules Exhibit FS-3 Page 100 of 243

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

Company: Utilities, Inc. of Florida -Davis Shores

Schedule F-7 Docket No.: 20200139-WS Page 1 of 1

Test Year Ended: December 31, 2019 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 No. 20160101-WS. The system remains 100% used & useful.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 101 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida -Davis Shores

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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

Not applicable. Used & useful was last set for this system in Docket No. 20160101-WS. All water is purchased. The system remains 100% U&U.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 102 of 243

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida -Davis Shores

Schedule F-9 Page 1 of 1

Docket No.: 20200139-WS Test Year Ended: December 31, 2019

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	2015	44	43	44	3,718,120	85,474	3,718,120	44	
2	2016	43	44	44	3,790,180	87,131	3,790,180	44	0.00%
3	2017	44	45	45	4,036,130	90,700	4,036,130	45	2.30%
4	2018	45	45	45	3,443,510	76,522	3,443,510	45	1.12%
5	2019	45	46	46	4,067,210	89,389	4,067,210	46	1.11%
					Ave	rage Growth Throug	h 5-Year Period (Col. 8)		1.13%

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

		<u>X</u>	<u>Y</u>
Constant:	42.75	1	44
X Coefficient:	0.55	2	44
R^2:	0.9453125	3	45
		4	45
		5	46
		10	48

Five year growth 3 Ercs
Annual average growth 0.55 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 103 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

 ${\bf Company:\ Utilities,\ Inc.\ of\ Florida\ -Davis\ Shores}$ 

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	<b>ERCs</b>	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
		<del>-</del>				<u> </u>			
1	2015								
2	2016	N	Not Applicable	le - water only	system.				
3	2017								
3	2017								
4	2018								
5	2019								
				Ave	erage Growth T	Through 5-Year	Period (Col. 8)		

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 104 of 243

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

Company: Utilities, Inc. of Florida - UIF - Pasco - Summertree

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (1)	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error					
Jan-19			4.778	2.794	1.262	0.721	15.1%
Feb-19			3.322	2.942	0.362	0.018	0.5%
Mar-19			3.065	2.555	0.033	0.477	15.6%
Apr-19			3.507	2.550	0.709	0.248	7.1%
<b>May-19</b>			4.690	2.241	2.234	0.215	4.6%
Jun-19			4.242	2.323	1.726	0.192	4.5%
Jul-19			4.443	2.042	1.749	0.652	14.7%
Aug-19			4.107	1.946	1.932	0.229	5.6%
Sep-19			4.704	1.943	2.361	0.400	8.5%
Oct-19			4.682	2.338	2.083	0.261	5.6%
Nov-19			3.182	2.336	0.607	0.239	7.5%
Dec-19			2.997	2.260	0.269	0.468	15.6%
Total	-	-	47.718	28.271	15.329	4.119	8.6%

(Above data in millions of gallons)

<sup>(1)</sup> Other Uses includes such uses as line breaks, flushing and water quality testing. Summertree purchases chloraminated waster from Pasco County. It does not hold its chlorine redual well at the system extremities, resulting in a high amount of flushing. Summertree is exploring a program to using chlorine dioxide in order to maintain residuals while reducing flushing and costs.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 105 of 243

**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 - UIF - Pasco - Summertree

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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) I Plant Flows	(4)	(5)	(6) Total Purch.
Month/ Year	(Name)	(Name)	(Name)	(Name)	Total Plant Flows	Sewage Treatment
 Jan-19					0.000	3.11
Feb-19					0.000	3.130
Mar-19					0.000	3.113
Apr-19					0.000	2.975
May-19					0.000	2.660
Jun-19					0.000	2.818
Jul-19					0.000	2.54
Aug-19					0.000	2.73
Sep-19					0.000	3.664
Oct-19					0.000	2.868
Nov-19					0.000	2.79
Dec-19					0.000	3.07
Total	0.000				0.000	35.48

All sewage pumped to Pasco County

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 106 of 243

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Pasco - Summertree

Docket No.: 20200139-WS

**5 Required Fire Flow** 

Test Year Ended: December 31, 2019

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 Not Applicable - All water Purchased -	Dute	312
The hydraulic rated capacity. If different from that shown		
on the DEP operating or construction permit, provide an explanation.		
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). Utility		
does submit an MOR, but readings are not daily.		
3 Five Day Max. Year		
The five days with the highest pumpage rate from any one month	(1)	
in the test year. Provide an explanation if fire flow, line	(2)	
breaks or other unusual occurrences affected the flows on	(3)	
these days.	(4)	
	(5)	
	AVERAGE	
	Max Month	
4 Average Daily Flow	Annual	

(Mixed single & multi-family)

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. 20200139-WS F Schedules Exhibit FS-3 Page 107 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Pasco - Summertree

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 - all sewage pumped to Pasco County	MONTH	GPD
	Two rippieusic an sewage pumpeu to raises county	<del></del>	
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. 20200139-WS F Schedules Exhibit FS-3 Page 108 of 243

**Used and Useful Calculations** 

Florida Public Service Commission

Schedule F-5

Page 1 of 1

**Water Treatment Plant** 

Company: Utilities, Inc. of Florida - UIF - Pasco - Summertree Docket No.: 20200139-WS

Test Year Ended: December 31, 2019 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 -

## INPUT INFORMATION:

Total well pumping capacity, g Firm Reliable well pumping ca	gpm gpm	
Ground storage capacity, gal.		0 gallons
Usable ground storage (90%), g	gal.	0 gallons
Elevated Storage		0 gallons
Usable ground storage (100%),	gal.	0 gallons
Hydropneumatic storage capac	ity, gal.	gallons
Usable hydropneumatic storage	e capacity (0.00%), gal.	0 gallons
Total usable storage, gal.		0 gallons
Maximum day demand, Peak hour demand = 2x max da	ay/1440	0 <b>gpd</b> 0 <b>gpm</b>
Fire flow requirement		gpd
Unaccounted for water	of water pumped	gpm
Acceptable unaccounted for	10.00%	0 <b>gpm</b>
Excess unaccounted for		0 <b>gpm</b>

# 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: #DIV/0!

$\mathbf{A} =$	Peak demand	0 <b>gpm</b>
<b>B</b> =	Property needed to serve five years after TY	0 <b>gpm</b>
<b>C</b> =	Fire flow demand	gpm
<b>D</b> =	Excess Unaccounted for water	0 <b>gpm</b>
$\mathbf{E} =$	Firm Reliable Capacity	0 <b>gpm</b>

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 109 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Schedule F-6

Page 1 of 2

Company: Utilities, Inc. of Florida - UIF - Pasco - Summertree

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019 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. 20200139-WS F Schedules

Exhibit FS-3

Florida Public Service Pagentission 243

Used and Useful Calculations Wastewater Treatment Plant

Company: Utilities, Inc. of Florida - UIF - Pasco - Summertree

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

Schedule F-6 Page 2 of 2

Preparer: F. Seidman

## SUMMERTREE PURCHASES

## A. Infiltration allowance, excluding service laterals

	Main dia.	Main length		gi	pd/inch-dia./mi	le
	inches	feet	miles	gi	pd gp	y
	4	1	0	0.000	0	
1		5	0	0.000	0	
2	5	3	37,851	7.169	28,675	
3	10	)	0	0.000	0	
4	Total		37,851	7.169	28,675	10,466,375
5	Estimated	Inflow @ 10% of fl	ows (l.10)			2,803,270
6	Allowable	1&1				13,269,645
	B. Actual	Inflow & Infiltratio	n (I&I)			
7	Wastewate	er treated by Pasco	County			35,487,000
	Gallons Bi	lled (not capped) to	:	_	stimated eturned *	
8	SFR Resid	ential WW cust.		27,473,426	80%	21,978,741
9	All Other			559,270	90%	503,343
10	Estimated	flows returned		28,032,696		22,482,084
11	Estimated	I&I (treated less re	turned) [l.7-l.10]			13,004,916
12	Actual less	allowable [l.11-l.6]				-264,728
13	Excess, if a	any [l.11-l.6, if posit	ive]			0
14	Excess as p	percent of wastewat	er treated			0.00%

Allowance @ 500

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 111 of 243

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

Company: Utilities, Inc. of Florida - UIF - Pasco - Summertree

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 determined to be 100% U&U in Docket No. 20160101-WS. The system remains 100% used & useful.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 112 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Pasco - Summertree

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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

Used & useful was determined to be 100% U&U in Docket No. 20160101-WS.

The system remains 100% used & useful.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 113 of 243

Y

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Pasco - Summertree

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	1,161	1,167	1,164	26,377,016	22,661	27,357,926	1,207	
2	2016	1,167	1,182	1,175	26,878,054	22,885	28,239,484	1,234	2.21%
3	2017	1,182	1,186	1,184	26,454,270	22,343	27,466,220	1,229	-0.38%
4	2018	1,186	1,177	1,182	27,091,769	22,930	27,856,399	1,215	-1.18%
5	2019	1,177	1,198	1,188	27,473,426	23,136	28,270,938	1,222	0.59%
					Ave	rage Growth Throug	th 5-Year Period (Col. 8)		0.31%

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

		_	_
Constant:	1218.41007	1	1,207
X Coefficient:	1.022426511	2	1,234
R^2:	0.022566641	3	1,229
		4	1,215
		5	1,222
		10	1229

Five year growth 7 Ercs Annual average growth 1.33 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 114 of 243

Y

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Pasco - Summertree

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	1,161	1,167	1,164	26,377,016	22,661	27,184,926	1,200	
2	2016	1,167	1,182	1,175	26,878,054	22,885	28,075,714	1,227	2.27%
3	2017	1,182	1,186	1,184	26,454,270	22,343	27,338,530	1,224	-0.27%
4	2018	1,186	1,177	1,182	27,091,769	22,930	27,720,349	1,209	-1.20%
5	2019	1,177	1,198	1,188	27,473,426	23,136	28,032,696	1,212	0.23%
					Ave	rage Growth Throug	th 5-Year Period (Col. 8)		0.26%

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

		_	_
Constant:	1212.293819	1	1,200
X Coefficient:	0.612070118	2	1,227
R^2:	0.007591469	3	1,224
		4	1,209
		5	1,212
		10	1218

Five year growth 7 Ercs Annual average growth 1.35 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 115 of 243

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

Company: Utilities, Inc. of Florida - UIF - Pasco - Orangewood, Buena Vista, Wis-Bar

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	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-19	5.911	5.907	0.000	7.009	0.013	-1.115	-18.9%
Feb-19	5.506	5.502	0.000	6.649	0.019	-1.166	-21.2%
Mar-19	5.981	6.005	0.000	5.805	0.020	0.180	3.0%
Apr-19	5.675	5.705	0.000	6.072	0.012	-0.379	-6.7%
<b>May-19</b>	6.049	5.761	0.000	6.430	0.019	-0.688	-11.9%
Jun-19	6.474	6.803	0.000	6.158	0.031	0.614	9.0%
<b>Jul-19</b>	7.327	7.361	0.000	5.683	0.013	1.666	22.6%
Aug-19	7.079	7.116	0.000	6.255	0.031	0.830	11.7%
Sep-19	6.676	6.712	0.000	5.807	0.020	0.885	13.2%
Oct-19	6.495	6.532	0.000	5.572	0.017	0.943	14.4%
Nov-19	6.409	6.446	0.000	5.804	0.022	0.619	9.6%
Dec-19	6.646	6.694	0.000	5.354	0.023	1.317	19.7%
Total	76.229	76.544	0,000	72,599	0.239	3.706	4.8%

(Above data in millions of gallons)

<sup>(1)</sup> 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.

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 116 of 243

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

Schedule F-2

 $Company:\ Utilities, Inc.\ of\ Florida-UIF-Pasco-Orangewood, Buena\ Vista, Wis-Bar$ 

Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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) Individua	(3) I Plant Flows	(4)	(5) Total Plant	(6) Total Purch. Sewage
Year	(Name)	(Name)	(Name)	(Name)	Flows	Treatment
Jan-19					0.000	0.421
Feb-19					0.000	0.406
Mar-19					0.000	0.365
Apr-19					0.000	0.340
<b>May-19</b>					0.000	0.312
Jun-19					0.000	0.343
Jul-19					0.000	0.500
Aug-19					0.000	0.737
Sep-19					0.000	0.753
Oct-19					0.000	0.366
Nov-19					0.000	0.347
Dec-19					0.000	0.365
Total	0.000				0.000	5.256

(Above data in millions of gallons)

Wastewater collection is provide to the Wis-Bar area only, and is pumped to Pasco County for treatment & disposal.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 117 of 243

Water Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Pasco - Orangewood, Buena Vista, Wis-Bar

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 per CUP)		346,000
on the DEP operating or construction permit, provide an explanation. (Ann. Average day per CUP)		260,000
Design Capacity per Sanitary Survey		1,240,000
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.	7/18/2019	298,000
3 Five Day Max. Year		
The five days with the highest pumpage rate from any one month	(1) 7/3/2019	265,300
in the test year. Provide an explanation if fire flow, line	(2) 7/16/2019	276,600
breaks or other unusual occurrences affected the flows on	(3) 7/19/2019	281,000
these days.	(4) 7/6/2019	282,500
	(5) 7/18/2019	298,000
	AVERAGE	280,680
	Max Month	237,456
4 Average Daily Flow	Annual	209,710
5 Required Fire Flow	500 gpm for 2 hour	s

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. 20200139-WS F Schedules Exhibit FS-3 Page 118 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Pasco - Orangewood, Buena Vista, Wis-Bar

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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
	Wastewater collection is provided to the Wis-Bar area		
	only, and is pumped to Pasco County for treatment & disposal.		
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. 20200139-WS F Schedules Exhibit FS-3 Page 119 of 243

7 gpm

Used and Useful Calculations Florida Public Service Commission

**Water Treatment Plant** 

Company: Utilities, Inc. of Florida - UIF - Pasco - Orangewood, Buena Vista, Wis-Bar

Schedule F-5
Docket No.: 20200139-WS
Page 1 of 1

Test Year Ended: December 31, 2019 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, a Firm Reliable well pumping ca	919 gpm 678 gpm	
Ground storage capacity, gal. Usable ground storage (90%), Elevated Storage Usable ground storage (100%)		0 gallons 0 gallons 0 gallons 0 gallons
Hydropneumatic storage capa Usable hydropneumatic storag Total usable storage, gal.	38,870 gallons 0 gallons 0 gallons	
Maximum day demand, Peak hour demand = 2x max d	lay/1440	298,000 gpd 414 gpm
Fire flow requirement	500 gpm for 2 hours	60,000 gpd
Unaccounted for water Acceptable unaccounted for	4.84% of water pumped 10.00%	7 gpm 0 gpm

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

### Water Treatment Plant, no usable storage

**Excess unaccounted for** 

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	0 gpm
C =	Fire flow demand	500 gpm
<b>D</b> =	Excess Unaccounted for water	7 gpm
$\mathbf{E} =$	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. 20200139-WS F Schedules Exhibit FS-3 Page 120 of 243

Used and Useful Calculations Florida Public Service Commission

**Wastewater Treatment Plant** 

Company: Utilities, Inc. of Florida - UIF - Pasco - Orangewood, Buena Vista, Wis-Bar Schedule F-6
Docket No.: 20200139-WS Page 1 of 2

Test Year Ended: December 31, 2019 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. 20200139-WS F Schedules Exhibit FS-3

Florida Public Service Cagnant 25 ion 243

Used and Useful Calculations Wastewater Treatment Plant

Company: Utilities, Inc. of Florida - UIF - Pasco - Orangewood, Buena Vista, Wis-Bar

Docket No.: 20200139-WS

Test Year Ended: December 31, 2011

Schedule F-6 Page 2 of 2

Preparer: F. Seidman

## ORANGEWOOD (WIS-BAR)

## A. Infiltration allowance, excluding service laterals

			A	Allowance @ 500	1
	Main dia. Main length		g	pd/inch-dia./mile	<u>;</u>
	inches feet	miles	g	gpd gpy	
	4	0	0.000	0	
1	6	0	0.000	0	
2	8	5,265	0.997	3,989	
3	10	0	0.000	0	
4	Total	5,265	0.997	3,989	1,455,852
5	Estimated Inflow @ 10% o	f flows (l.10)			388,108
6	Allowable I&I				1,843,960
	B. Actual Inflow & Infiltra	tion (I&I)			
7	Wastewater treated (purch	ased)			5,256,224
			F	Estimated	
	Gallons Billed (not capped)		r	eturned *	
8	SFR Residential WW cust.		3,812,374	80%	3,049,899
9	All Other		68,708	90%	61,837
10	Estimated flows returned		3,881,082		3,111,736
11	Estimated I&I (treated less	,			2,144,488
12	Actual less allowable [l.11-	l.6]			300,527
13	Excess, if any [l.11-l.6, if po	sitivel			300,527
	Excess as percent of waster	•			/-

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 122 of 243

**Used and Useful Calculations** 

Water Distribution and Wastewater Collection Systems

Florida Public Service C

Company: Utilities, Inc. of Florida - UIF - Pasco - Orangewood, Buena Vista, Wis-Bar

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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 and Collection Systems**

Used & useful was last set for this system in Docket No. 20160101-WS and found to be 100% U&U. The system remains 100% used & useful.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 123 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Schedule F-8

Company: Utilities, Inc. of Florida - UIF - Pasco - Orangewood, Buena Vista, Wis-Bar

Docket No.: 20200139-WS

39-WS Page 1 of 1

Test Year Ended: December 31, 2019 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. 20160101-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. 20200139-WS F Schedules Exhibit FS-3 Page 124 of 243

 $\mathbf{X}$ 

Y

**Equivalent Residential Connections - Water** 

### Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Pasco - Orangewood, Buena Vista, Wis-Bar

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	1,664	1,685	1,675	55,082,893	32,895	60,929,574	1,852	
2	2016	1,685	1,705	1,695	57,536,546	33,945	63,984,710	1,885	1.77%
3	2017	1,705	1,694	1,700	57,934,664	34,089	65,027,191	1,908	1.20%
4	2018	1,694	1,688	1,691	61,852,580	36,578	71,644,399	1,959	2.68%
5	2019	1,688	1,694	1,691	62,900,582	37,197	72,599,310	1,952	-0.36%
					Ave	rage Growth Throug	gh 5-Year Period (Col. 8)		1.32%

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

		_	_
Constant:	1829.215976	1	1,852
X Coefficient:	27.27418655	2	1,885
R^2:	0.920883146	3	1,908
		4	1,959
		5	1,952
		10	2102

Five year growth 150 Ercs Annual average growth 30.04 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 125 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - UIF - Pasco - Orangewood, Buena Vista, Wis-Bar

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	160	158	159	3,622,137	22,781	3,721,347	163	
2	2016	158	160	159	3,933,166	24,737	3,973,786	161	-1.66%
3	2017	160	159	160	3,912,825	24,532	3,944,345	161	0.09%
4	2018	159	154	157	4,250,845	27,162	4,353,335	160	-0.32%
5	2019	154	146	150	3,812,374	25,416	3,881,082	153	-4.72%
					Ave	rage Growth Throug	h 5-Year Period (Col. 8)		-1.65%

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

			-
Constant:	166.0533383	1	163
X Coefficient:	-2.167206939	2	161
R^2:	0.727110626	3	161
		4	160
		5	153
		10	144

Five year growth (8) Ercs Annual average growth -1.66 Ercs Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Company: Utilities, Inc. of Florida - Pennbrooke

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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.

Total Gallons Corrected for Meter Error (1) 9.348 8.984 11.752 11.280	Gallons Purchased  0.000 0.000 0.000	Gallons Sold 7.981 8.121	Other Uses (2) 	For Water (1)+(2)-(3)-(4) ————————————————————————————————————	Unaccounted For Water
Meter Error (1) 9.348 8.984 11.752	0.000 0.000	7.981			
9.348 9.8984 0.11.752	0.000		0.002	1.364	14.60/
8.984 11.752	0.000		0.002	1.364	11.00
11.752	*****	8.121		1,001	14.6%
	0.000		0.022	0.842	9.4%
11.280	0.000	10.225	0.024	1.504	12.8%
	0.000	9.953	0.023	1.304	11.6%
13.179	0.000	12.202	0.061	0.917	7.0%
11.550	0.000	11.326	0.008	0.217	1.9%
10.747	0.000	11.834	0.001	-1.089	-10.1%
8.733	0.000	7.540	0.004	1.188	13.6%
11.362	0.000	10.115	0.006	1.240	10.9%
3 12.783	0.000	11.670	0.005	1.108	8.7%
11.172	0.000	10.730	0.000	0.442	4.0%
9.824	0.000	10.455	0.003	-0.633	-6.4%
		120 151	0.150	0.404	6.4%
	9.824 3 130.714				·

(Above data in millions of gallons)

<sup>(1)</sup> 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.

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

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 - Pennbrooke

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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)
Month/		Individual	l Plant Flows		Total Plant	Total Purch. Sewage
Year	Pennbrooke	(Name)	(Name)	(Name)	Flows	Treatment
 Jan-19	1.928				1.928	0.000
Feb-19	1.772				1.772	0.000
<b>Mar-19</b>	2.166				2.166	0.000
Apr-19	1.905				1.905	0.000
<b>May-19</b>	1.638				1.638	0.000
Jun-19	1.539				1.539	0.000
<b>Jul-19</b>	1.666				1.666	0.000
Aug-19	2.240				2.240	0.000
Sep-19	1.759				1.759	0.000
Oct-19	1.766				1.766	0.000
Nov-19	1.833				1.833	0.000
Dec-19	1.996				1.996	0.000
Total	22.208				22.208	0.000
	=========	=========	=========	=========	==========	=========

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 128 of 243

**Water Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pennbrooke

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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 per Sanitary Survey on the DEP operating or construction permit, provide an explanation Annual Average per CUP			864,000 454,000
2 Maximum Day			
The single day with the highest pumpage rate for the test year.		5/31/2019	716,000
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)	5/26/2019	530,000
in the test year. Provide an explanation if fire flow, line	(2)	5/22/2019	542,000
breaks or other unusual occurrences affected the flows on	(3)	5/25/2019	543,000
these days.	(4) (5)	5/29/2019 5/31/2019	605,000 716,000
	(-),	AVERAGE	587,200
		-	
		Max Month	425,135
4 Average Daily Flow		Annual	358,120

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. 20200139-WS F Schedules Exhibit FS-3 Page 129 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pennbrooke

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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)		72,258
	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		60,844

**Used and Useful Calculations Water Treatment Plant** 

Florida Public Service Commission

0 gpd, avg

Company: Utilities, Inc. of Florida - Pennbrooke

**Docket No.: 20200139-WS** 

Schedule F-5 Page 1 of 1

Test Year Ended: December 31, 2019

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	2,050 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,	716,000 gpd

waxiiiuiii uay uciiiaiiu,	/10,000 gpu
Peak hour demand = $2x \max day/1440$	994 gpm

Fire flow requirement	1200 gpm for 2 hours	144,000 gpd	
Unaccounted for water	6.43% of water pumped	1,945 gpd, avg	
Acceptable unaccounted for	10.00%	3,018 gpd, avg	

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

## **Water Treatment Plant**

**Excess unaccounted for** 

Percent Used & Useful = $(A + B + C - D)/E \times 100\%$ , where	·e:	89.58%
	Use:	100.00%

In Docket No. 20160101-WS, the Commission found this system to be 100% U&U based on actual 2015 flows. The number of ERC's has remained virtually unchanged, but peak fay demand has dropped by 16%, from 894 kgpd to 716. Consistent with PSC policy and rules, U&U should remain 100% to reflect reduced demand due to repression and conservation.

$\mathbf{A} =$	Peak demand	716,000 gpd
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpd
$\mathbf{C} =$	Fire flow demand	144,000 gpd
$\mathbf{D} =$	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.

## **Storage**

Percen	It Used & Useful = $(A + B + C - D)/E \times 100\%$ , where:	100.00%
$\mathbf{A} =$	Peak demand	716,000 gallons
$\mathbf{B} =$	Property needed to serve five years after TY	0 gallons
$\mathbf{C} =$	Fire flow demand	144,000 gallons
$\mathbf{D} =$	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. 20200139-WS F Schedules Exhibit FS-3 Page 131 of 243

**Used and Useful Calculations Wastewater Treatment Plant** 

Florida Public Service Commission

Schedule F-6

Company: Utilities, Inc. of Florida - Pennbrooke

Docket No.: 20200139-WS

Page 1 of 2

Test Year Ended: December 31, 2019 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 N

No.	<u>-</u>				
1	<b>(A)</b>	Used and useful flow, GPD (AAD	OF)		60,844
2	<b>(B)</b>	Less: Excess I&I (No indica	tion of excess I/I - see note))		-
3	( <b>C</b> )	Plus: Property needed for po	ost test year period ( See F-8)		
4	<b>(E)</b>	Permitted capacity			180,000
5	<b>(F)</b>	Used and useful percentage			33.80%
6			System essentially built out (F-7),	Use	<u>100.00</u> %
_	(C)	N 1 1 61 4			CC 200/
7	( <b>G</b> )	Non-used and useful percentage			<u>66.20</u> %
8			System essentially built out (F-7),	Use	<u>0.00</u> %

**Note: Used & Useful Evaluation** 

In Docket No. 20160101-WS, and in the previous four dockets, the Commission 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 drop, from a low 79 gpd/ERC in 2015 to 48 gpd/ERC i There is no indication of I&I problems. Used & useful should remain at 100%.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 132 of 243

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pennbrooke

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

Schedule F-6 Page 2 of 2

Preparer: Seidman, F.

# A. Infiltration allowance, excluding service laterals

			All	lowance @ 3	500
	Main dia. Main length		gp	d/inch-dia./n	nile
	inches feet	miles	gp	d g	ру
	4	0	0.000	0	
1	6	0	0.000	0	
2	8	44,295	8.389	33,557	
3	10	0	0.000	0	
4	Total	44,295	8.389	33,557	12,248,239
5	Estimated Inflow @ 10% of a	gallons sold (L.10)			9,734,509
6	Allowable I&I	_			21,982,748
	B. Actual Inflow & Infiltration	on (I&I)			
7	Wastewater treated				22,208,000
			Es	timated	
	Gallons Billed (not capped) to	0:	ret	urned *	
8	SFR Residential WW cust.		95,411,931	80%	76,329,545
9	All Other		1,933,160	90%	1,739,844
10	<b>Estimated flows returned</b>		97,345,091		78,069,389

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]	-55,861,389
12	Actual I&I less allowable [L.11-L.6]	-77,844,137
13	Excess, if any [L.11-L.6, if positive]	0
14	Excess as percent of wastewater treated	0.00%

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 133 of 243

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

Company: Utilities, Inc. of Florida - Pennbrooke

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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 System

The service area is essentially built out. The distribution & collection systems should be considered 100% used & useful as they were in Docket Nos. 20160101-WS, 120037-WS and previous dockets.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 134 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pennbrooke

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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

Not applicable - System is built out. See Docket Nos. 20160101-WS, 120037-WS and previous dockets.

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pennbrooke

Schedule F-9 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

Treparer. Sciuman, 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		81	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	2015	1,218	1,227	1,223	103,670,894	84,802	130,036,753	1,533	
2	2016	1,227	1,234	1,231	117,035,211	95,112	149,130,782	1,568	2.25%
3	2017	1,234	1,231	1,233	100,861,974	81,835	131,803,862	1,611	2.72%
4	2018	1,231	1,234	1,233	95,792,887	77,722	121,228,490	1,560	-3.16%
5	2019	1,234	1,236	1,235	95,411,931 Aver	77,257 rage Growth Throug	122,150,711 gh 5-Year Period (Col. 8)	1,581	1.37% 0.80%

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

Constant: 1544.405229 1 1,533 X Coefficient: 8.719936337 2 1,568 R^2: 0.236294585 3 1,611 4 1,560 5 1,581 10 1632

Five year growth Annual average growth 51 Ercs 10.10 Ercs

11 Ercs

2.29 Ercs

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Pennbrooke

Schedule F-10 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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 Custome	(4)	(5) SFR	(6) Gallons/	(7) Total	(8) Total	(9) Annual
Line			r K Custome		Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2015	1,218	1,227	1,223	103,670,894	84,802	105,711,344	1,247	
2	2016	1,227	1,234	1,231	117,035,211	95,112	118,301,511	1,244	-0.22%
3	2017	1,234	1,231	1,233	100,861,974	81,835	102,323,494	1,250	0.53%
4	2018	1,231	1,234	1,233	95,792,887	77,722	96,992,997	1,248	-0.19%
5	2019	1,234	1,236	1,235	95,411,931	77,257	97,345,091	1,260	0.97%
					Ave	rage Growth Throug	gh 5-Year Period (Col. 8)		0.27%

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

		<u>X</u>	<u>Y</u>
Constant:	1240.424615	1	1,247
X Coefficient:	3.104986666	2	1,244
R^2:	0.62370263	3	1,250
		4	1,248
		5	1,260
		10	1271

Five year growth Annual average growth Gallons of Water Pumped, Sold and Unaccounted For In Thousands of Gallons

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	<b>Corrected for</b>	Purchased	Sold	<b>Uses (2)</b>	(1)+(2)-(3)-(4)	For Water
	Per MORs	Meter Error (1)					
Jan-19	1.408	1.338	0.000	1.361	0.001	-0.024	-1.8%
<b>Feb-19</b>	1.505	1.430	0.000	1.395	0.001	0.034	2.4%
<b>Mar-19</b>	1.489	1.415	0.102	1.431	0.001	0.085	5.6%
Apr-19	1.453	1.380	0.000	1.383	0.001	-0.003	-0.2%
<b>May-19</b>	1.319	1.253	0.000	1.126	0.001	0.127	10.1%
Jun-19	1.056	1.003	0.000	1.202	0.025	-0.224	-22.3%
Jul-19	1.008	0.958	0.000	0.898	0.001	0.059	6.2%
Aug-19	0.941	0.894	0.006	0.906	0.001	-0.007	-0.8%
Sep-19	1.070	1.017	0.000	0.781	0.000	0.236	23.2%
Oct-19	1.198	1.138	0.000	0.975	0.001	0.163	14.3%
<b>Nov-19</b>	1.271	1.207	0.000	1.060	0.001	0.147	12.2%
Dec-19	1.371	1.302	0.000	1.331	0.001	-0.029	-2.2%
Total	15.089	14.335	0.108	13.847	0.031	0.565	3.9%

(Above data in millions of gallons)

<sup>(1)</sup> 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.

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 138 of 243

Gallons of Wastewater Treated In Thousands of Gallons

Test Year Ended: December 31, 2019

Florida Public Service Commission

Schedule F-2 Page 1 of 1

 $\ \ \, \textbf{Company: Utilities, Inc. of Florida -UIF - Pinellas \, -Lake \, Tarpon } \\$ 

Preparer: Seidman, F.

**Docket No.: 20200139-WS** 

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/					<b>Total Plant</b>	Sewage
Year	(Name)	(Name)	(Name)	(Name)	Flows	Treatment
Jan-19					0.000	0.000
Feb-19					0.000	0.000
<b>Mar-19</b>	Not Applicable - V	Water only system			0.000	0.000
Apr-19					0.000	0.000
<b>May-19</b>					0.000	0.000
Jun-19					0.000	0.000
<b>Jul-19</b>					0.000	0.000
Aug-19					0.000	0.000
Sep-19					0.000	0.000
Oct-19					0.000	0.000
Nov-19					0.000	0.000
Dec-19					0.000	0.000
Total	0.000		<b></b>		0.000	0.000

**Water Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon

**Docket No.: 20200139-WS** 

**5** Required Fire Flow

Schedule F-3 Page 1 of 1

None

Test Year Ended: December 31, 2019

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	MALE CUD			152.000
The hydraulic rated capacity. If different from that shown on the DEP operating or construction permit, provide an explanation	MMAF per CUP Annual Average per CUP			172,000 84,300
2 Maximum Day				
The single day with the highest pumpage rate for the test year.			2/18/2019	78,000
Explain, on a separate sheet of paper if fire flow, line breaks, or other unusual occurrences affected the flow this day.			No reporte	ed incidents
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.  * 2/22 and 2/23 are a Sunday & Monday, read on Monday.		(1) (2) (3) (4) (5)	3/18/2019 3/9/2019 3/26/2019 3/14/2019 3/22/2019	59,500 61,000 61,000 65,000 67,000
Amounts shown = equal allocation. Experinced a main break on 2/22. Amounts shown are not adjusted for the break			AVERAGE _	62,700
				<b>2</b> 4 0.52
A Assessed Della Floor			Max Month	51,063
4 Average Daily Flow			Annual	39,273

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 - Pinellas -Lake Tarpon

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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	
	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.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 141 of 243

Used and Useful Calculations

**Water Treatment Plant** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon

Schedule F-5

Docket No.: 20200139-WS

Page 1 of 1

Test Year Ended: December 31, 2019 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	500 gpm 0 gpm
Ground storage capacity, gal. Usable ground storage (90%), gal.	0 gallons 0 gallons
Elevated Storage Usable ground storage (100%), gal. Hydropneumatic storage capacity, gal.	0 gallons 0 gallons 10,000 gallons
Usable hydropneumatic storage capacity (0.00%), gal. Total usable storage, gal.	0 gallons 0 gallons

Maximum day demand,	78,000 gpd
Peak hour demand = $2x \max \frac{day}{1440}$	108 gpm

Fire flow requirement	0 gpd
-----------------------	-------

Unaccounted for water	3.91% of water pumped	1 gpm
Acceptable unaccounted for	10.00%	3 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 =  $(A + B + C - D)/E \times 100\%$ , where:

$\mathbf{A} =$	Peak demand	108 gpm
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpm
$\mathbf{C} =$	Fire flow demand	0 gpm
$\mathbf{D} =$	Excess Unaccounted for water	0 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. 20200139-WS F Schedules Exhibit FS-3 Page 142 of 243

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon

**Docket No.: 20200139-WS** 

Page 1 of 1

Test Year Ended: December 31, 2019

Preparer: Seidman, F.

Schedule F-6

 $\label{lem:explanation: Provide all calculations, analyses and governmental requirements \ used to determine the used and useful percentages for the wastewater treatment plant(s) for the historical test year$ 

and the projected test year (if applicable).

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

**NOT APPLICABLE - Water System Only** 

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 143 of 243

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

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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 No. 120160101-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. 20200139-WS F Schedules Exhibit FS-3 Page 144 of 243

Margin Reserve Calculations Florida Public Service Commission

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon

Schedule F-8

Docket No.: 20200139-WS

Page 1 of 1

Test Year Ended: December 31, 2019 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 No. 20160101-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.

26 Ercs

**5.11 Ercs** 

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon

Docket No.: 20200139-WS

Schedule F-9 Page 1 of 1

Test Year Ended: December 31, 2019

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	<b>ERCs</b>	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2015	502	498	500	11,348,390	22,697	12,847,930	566	
2	2016	498	506	502	11,536,600	22,981	13,668,450	595	5.07%
3	2017	506	501	504	11,418,960	22,679	12,781,261	564	-5.25%
4	2018	501	501	501	11,801,910	23,557	13,731,490	583	3.43%
5	2019	501	509	505	11,498,860	22,770	13,847,440	608	4.33%
					Ave	rage Growth Throug	gh 5-Year Period (Col. 8)		1.90%

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

		<u>A</u>	<u>1</u>
Constant:	561.4021059	1	566
X Coefficient:	7.229771143	2	595
R^2:	0.364289644	3	564
		4	583
		5	608
		10	634

Five year growth
Annual average growth

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 146 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida -UIF - Pinellas -Lake Tarpon

**Docket No.: 20200139-WS** 

Page 1 of 1

Schedule F-10

Test Year Ended: December 31, 2019

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 Custome	(4)	(5) SFR	(6) Gallons/	(7) Total	(8) Total	(9) Annual
Year	Beginning	Ending	Average	Gallons Sold	SFR (5)/(4)	Gallons Sold	ERCs (7)/(6)	% Incr. in ERCs
2015								
2016	N	ot Applicabl	e - water only	system.				
2017								
2018								
2019						D 1 1/G 1 0)		
	Year 2015 2016 2017 2018	Year Beginning  2015  2016  2017  2018	Year Beginning Ending  2015  2016 Not Applicable  2017  2018	Year Beginning Ending Average  2015  2016 Not Applicable - water only 2017  2018  2019	Year Beginning Ending Average Sold  2015  2016 Not Applicable - water only system.  2017  2018  2019	Year Beginning Ending Average Sold (5)/(4)  2015  2016 Not Applicable - water only system.  2017  2018	Year   SFR Customers   SFR   Gallons   Total   Gallons   SFR   Gallons   Gallons   SFR   Gallons   Gallons	SFR Customers SFR Gallons/ Total Total Gallons SFR Gallons SFR Gallons Year Beginning Ending Average Sold (5)/(4) Sold (7)/(6)  2015  2016 Not Applicable - water only system.  2017 2018

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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 Florida - Tierra Verde

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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/					<b>Total Plant</b>	Sewage
Year	(Name)	(Name)	(Name)	(Name)	Flows	Treatment
Jan-19					0.000	8.817
Feb-19						9.193
<b>Mar-19</b>					0.000	8.638
Apr-19					0.000	8.991
<b>May-19</b>					0.000	8.996
Jun-19					0.000	9.841
Jul-19					0.000	10.456
Aug-19					0.000	13.445
Sep-19					0.000	9.432
Oct-19					0.000	11.721
Nov-19					0.000	10.299
Dec-19					0.000	6.852
Total	0.000				0.000	116.681
	========	=======	========	========	=========	========

(Above data in millions of gallons)

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 148 of 243

**Wastewater Treatment Plant Data** 

# Florida Public Service Commission

Company: Utilities, Inc. of Florida - Tierra Verde

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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. 20200139-WS F Schedules Exhibit FS-3 Page 149 of 243

Used and Useful Calculations FPSC

**Wastewater Treatment Plant** 

Company: Utilities, Inc. of Florida - Tierra Verde

Docket No.: 20200139-WS

Schedule F-6

Page 1 of 2

Test Year Ended: December 31, 2019 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	<b>(A)</b>	Used and useful flow, GPD (AADF, 12 mo ending 6/30/05)	<u>0</u>	
3	<b>(B)</b>	Less: Excess I&I	0	
4	(C)	Plus: Property needed for post test year period ( See F-8)	<u>0</u>	
5	<b>(D)</b>	Total Flows	0	
6	<b>(E)</b>	Permitted capacity	<u>0</u>	
7	<b>(F)</b>	Used and useful percentage		%
8	( <b>G</b> )	Non-used and useful percentage		%

**Used and Useful Calculations Wastewater Treatment Plant** 

Schedule F-6

**FPSC** 

Company: Utilities, Inc. of Florida - Tierra Verde Docket No.: 20200139-WS

Page 2 of 2

Test Year Ended: December 31, 2019

Preparer: F. Seidman

### A. Infiltration allowance, excluding service laterals

				Allowanc gpd/inch-	
	Main dia.	Main ler	ngth	gpd	gpy
	inches	feet	miles		
1	8	72,920	13.811	55,242	
2	10	0	0.000	0	
	12	0	0.000	0	
	15	0	0.000	0	
3	18	<u>0</u>	0.000	<u>0</u>	
4	Total	72,920	13.811	$55,24\overline{2}$	20,163,485
5	<b>Estimated Inflow @</b> 1	10% of flows (1.10)			

5 Estimated Inflow @ 1076 of flows (1.1

6 Allowable I&I

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

7 Wastewater treated 116,681,203

		Est	timated (2)
	Gallons billed to WW cust. (1)	1	returned
8	Residential	N/A	100%
	Multi-Units	N/A	100%
9	Commercial	<u>N/A</u>	<u>100%</u>
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) [l.7-l.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. In the TY 2007 case, 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 (data was available then,). The Utilit initiated I&I studies, tracked down the masjor sources of I/I and continued to carry out maintenance and and repairs as needed. As a result, the City is now treating only 117.038 mg annually with an increase in average residential meter equivalents (from F-10), a reduction of 84 mg annually. This more than eliminates the 29 mg excess I/I found in 2007. It appears that the Utility has been effectively eliminationg excess I/I.

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**Used and Useful Calculations** 

Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Tierra Verde

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 builout, 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. Docket No. 20160101-WS confirmed this. There has been no change to the collection system. It should remain 100% used and useful.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 152 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Tierra Verde

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

Schedule F-8 Page 1 of 1

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.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 153 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Tierra Verde

Schedule F-10 Page 1 of 1

Docket No.: 20200139-WS Test Year Ended: December 31, 2019

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)
		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	2015	937	952	945	N/A	N/A	N/A	945	-
3	2016	952	943	948	N/A	N/A	N/A	948	0.32%
4	2017	943	948	946	N/A	N/A	N/A	946	-0.21%
5	2018	948	957	953	N/A	N/A	N/A	953	0.74%
6	2019	957	969	963	N/A	N/A	N/A	963	1.10%
					Average G	rowth Through 5-1	Year Period (Col. 8)		0.54%

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:	933.4	1	945		
	X Coefficient:	5.35	2	948		
	R^2:	0.77910854	3	946		
			4	953		
			5	963		
•	based on regression					
Projected :	5 year growth past TY	•			11	<b>ERCs</b>
Average an	nual growth				2.10	ERCs
Projection	based on averages					
Projected :	5 year growth past TY	•			26	<b>ERCs</b>
Average an	nual growth				5.24	ERCs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 154 of 243

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

Utilities, Inc. of Florida - Sandalhaven

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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)	(7)
Month/	Ţ	ndividual Plant I	Flows (000 000)		Total Plant	Purchased Sewage	Total Sewage
Year	N/A	N/A		Treatment *	Treatment		
	1771	1771	11/11	17/11	TIOWS	Treatment	Treatment
Jan-19					-	4.071	4.07
<b>Feb-19</b>					-	4.087	4.08
<b>Mar-19</b>					-	4.402	4.402
Apr-19					-	4.143	4.14.
<b>May-19</b>					-	3.300	3.300
Jun-19					-	2.314	2.31
<b>Jul-19</b>					-	3.413	3.41
Aug-19					-	2,642	2.642
Sep-19					-	2.134	2.134
Oct-19					-	2.751	2.75
<b>Nov-19</b>					-	3.364	3.364
Dec-19	<u> </u>					3.859	3.859
Total	-	-	_	-	-	40.480	40.486

<sup>\*</sup> Sewage treated by Englewood Water District (EWD)

**Wastewater Treatment Plant Data** 

Florida Public Service Commissions

F Schedules

Utilities, Inc. of Florida - Sandalhaven

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

Schedule F-4 Exhibit FS-3 Page 1 of 1 Page 155 of 243

Preparer: Seidman, F.

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

	MONTH	GPD
1. Purchased Capacity, Englewood Water District (EWD) (AADF)		300,000
2.		
Average Daily Flow Max Month -	Mar, 2019	142,000
Average Annual Daily Flow		110,903

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** 

Utilities, Inc. of Florida - Sandalhaven

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

Florida Public Service Commission

F Schedules Exhibit FS-3

Schedule Fpage 156 of 243

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.

## ALL FLOWS TO ENGLEWOOD WATER DISTRICT

1	(A)	TY Flows to EWD, GPD, AADF	110,903	
2	<b>(B)</b>	Plus: Imputed flows to bring treated flows to level experienced in a prior year, 2010. See Note	43,947	
3	(C)	Total Flows to be Treated, GPD, AADF	154,850	
4	<b>(D)</b>	EWD Purchased Capacity, AADF	300,000	ı
5	<b>(E)</b>	Used and useful percentage	51.62	%
6	<b>(F)</b>	Non-used and useful percentage	48.38	%

Note: In Docket No. 20160101-WS, Order No. PSC-2019-0363-PAA-WS, the PSC determined U&U to be 42.24% based on actual flows for the 2015 TY of 138,285 gpd , adjusted for excess I&I. Flows in the 2019 TY have fallen to 110,903. The PSC typically defaults to a U&U based on the higher flows experienced in prior years so as to not penalize the utility for providing capacity previously needed. Based on that, the PSC should defer to the 2010 TY flow of 154,850 presented before Charlotte County. Sandalhaven requests those higher flows in determining U&U and recognize it as the default minimum going forward.

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

Schedule F-6

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**Used and Useful Calculations Wastewater Treatment Plant** 

Utilities, Inc. of Florida - Sandalhaven **Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

Page 2 of 2 Preparer: Seidman, F.

## A. Infiltration allowance, excluding service laterals

					Allowance @ 500		
	Main dia.		Main length		gpd/inch-diamile		
	inches	Type	feet	miles	gpd		
1	4		0	0.000	0		
	6	PVC	0	0.000	0		
2	6		0	0.000	0		
3	8	PVC	44,045	8.342	33,367		
4	10		0	0.000	0		
5	12		0	0.000	0		
6	15		0	0.000	0		
7	Total		44,045	8.342	33,367	12,179,110	
8	<b>Estimated I</b>	nflow @ 10%	of flows sold (I	L.15)		3,649,900	
9	Allowable I	&I				15,829,010	
10	B. Calculati Wastewater		Inflow & Infiltr	ation (I&I)		40,479,756	F-2
	Water Gallo	ons (not capp	ed) sold to:	_	Estimated return	ed *	
11	Residential	WW SFR		21,141,000	80%	16,912,800	F-10
14	<b>General Ser</b>	vice		15,358,000	90% _	13,822,200	
15	Estimated f	lows returned	I	36,499,000	84%	30,735,000	F-10
16	Estimated I	&I (treated le	ess returned) [L	.10-L.15]		9,744,756	
17	Actual less a	allowable [L.1	16-L.9]			-6,084,254	
18	Excess, if ar	ny [L.17, if po	sitive]			0	
19	Excess as pe	ercent of wast	tewater treated			0.00%	
20	Excess as pe	ercent to be u	sed for filing			0.00%	

# \* - Notes:

- 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** Water Distribution and Wastewater Collection Systems

Utilities, Inc. of Florida - Sandalhaven Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

Florida Public Service Commission-WS F Schedules

Exhibit FS-3 Schedule F-7 Docket No.: 20200139-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 are contributed by the developers. Under the circumstances, a used & useful analysis was not deemed necessary nor performed. In Docket No. 20160101-WS, the PSC found the collection system to br 100% U&U. The cirmstances have not changed. The system should still be considered 100% U&U.

#### Master 12 "Force Main and Associated Lift Station Transmission System

In Docket No. 20160101-WS, the PSC concluded that theat this tranmission system, being the sole meand of delivering flows to the Eenglewood Water District (EWD) for treatment is 100% U&U.

**Margin Reserve Calculations** 

Florida Public Service Commissionet No. 20200139-WS

Utilities, Inc. of Florida - Sandalhaven

Docket No.: 20200139-WS

Page 1 of 1

Schedule F-8

F Schedules Exhibit FS-3 Page 159 of 243

Test Year Ended: December 31, 2019

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-6, F-7

# Wastewater Treatment & Related Facilities -

## NOT APPLICABLE

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.

**Equivalent Residential Connections - Wastewater** 

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Utilities, Inc. of Florida - Sandalhaven

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

Schedule F-10 Page 1 of 1

Preparer: Seidman, F.

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) SFR	(6) Gallons/	(7) Total	(8) Total	(9) Annual
Line No.	Year	Beginning	FR Customers Ending	Average	Gallons Sold	SFR (5)/(4)	Gallons Sold	ERCs (7)/(6)	% Incr. in ERCs
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 Growt	h Through 5-Y	ear Period (Col.	1,608	-7.74%

Note: Above shows total sales (not capped) to WW Customers.

		$\underline{\mathbf{X}}$	$\underline{\mathbf{Y}}$
Regression Analysis per	Rule 25-30.431(2)(C)	<del>_</del>	_
Constant:	2121.350769	_	
X Coefficient:	-151.7430723	1	1,898 Actual
R^2:	0.925067974	2	1,928 Actual
		3	1,662 Actual
		4	1,477 Actual
		5	1,365 Actual
		10	604 Projected
5 year growth			(761)
Annual average growth			(152)
Annual average growth	@	-7.74%	(106)

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.

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.

 $Utilities, Inc.\ of\ Florida\ -\ Sanlando\ \ (includes\ Knollwood,\ Des\ Pinar,\ Longwood)$ 

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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

	(1)	(2)	(3)	(4)	(5)	(6) Unaccounted	(7) %
Month/	<b>Total Gallons</b>	<b>Total Gallons</b>	Gallons	Gallons	Other	For Water	Unaccounted
Year	Pumped	Corrected for	Purchased	Sold	Uses (3)	(1)+(2)-(3)-(4)	For Water
	Per MORs (1)	Meter Error (2)					
Jan-19	163.204	163.642	0.001	154.240	0.851	8.552	5.2%
Feb-19	146.469	144.781	0.083	127.052	2.778	15.034	10.4%
Mar-19	190.291	189.587	0.000	127.187	0.641	61.759	32.6%
Apr-19	186.910	188.481	0.000	147.717	0.529	40.234	21.3%
<b>May-19</b>	226.235	227.572	0.000	197.247	0.157	30.169	13.3%
Jun-19	193.929	192.927	0.000	205.933	0.237	-13.243	-6.9%
Jul-19	189.514	188.484	0.000	163.612	0.829	24.043	12.8%
Aug-19	166.897	165.772	0.006	146.622	0.759	18.397	11.1%
Sep-19	183.815	182.922	0.000	148.374	2.212	32.336	17.7%
Oct-19	178.665	177.747	0.000	173.698	0.349	3.700	2.1%
Nov-19	171.820	170.819	0.000	132.721	1.139	36.958	21.6%
Dec-19	159.417	158.348	0.002	156.222	0.262	1.866	1.2%
Total	2,157.167	2,151.082	0.092	1,880.626	10.743	259.805	12.1%

(Above data in millions of gallons)

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

<sup>(1)</sup> Sum of Des Pinar, Knollwood & Wekiva (including Longwood) Plants

<sup>(2)</sup> 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. 20200139-WS F Schedules

Exhibit FS-3

Gallons of Wastewater Treated In Thousands of Gallons

Florida Public Servil@@anfalssifo243

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

 $Utilities, Inc.\ of\ Florida\ -\ Sanlando\ \ (includes\ Knollwood,\ Des\ Pinar,\ Longwood)$ 

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	nt Flows (000,000)		Total Plant	Sewage
Year	Wekiva	N/A	N/A	N/A	Flows	Treatment
Jan-19	59.867				59.867	-
Feb-19	55.572				55.572	-
Mar-19	52,198				52.198	-
Apr-19	46,289				46.289	-
<b>May-19</b>	56.844				56.844	-
Jun-19	63.143				63.143	-
Jul-19	63.306				63.306	-
Aug-19	75.897				75.897	-
Sep-19	58.352				58.352	-
Oct-19	63.876				63.876	-
Nov-19	60.259				60.259	-
Dec-19	56.490				56.490	-
Total	712.093				712.093	

Docket No. 20200139-WS

F Schedules Exhibit FS-3

Water Treatment Plant Data

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 $Utilities, Inc.\ of\ Florida\ -\ Sanlando\ \ (includes\ Knollwood, Des\ Pinar, Longwood)$ 

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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, Annual average day				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  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		5/26/19		10,998,100
	the flow this day.				
3.	Five-Day Max Month	(1) (2)	5/27/19 5/23/19		8,589,900 9,056,200
	The five days with the highest pumpage rate from the month with the highest	(3)	5/29/19		9,292,200
	pumpage rate during the test year. Explain, on a separate page, if fire flow,	(4)	5/30/19		10,783,800
	line-breaks or other unusual occurrences affected the flows on these days.	(5)	5/26/19		10,998,100
				AVERAGE	9,744,040
5.	Average Daily Flow		Max Month		7,341,039
			Annual		5,893,376

# 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. 20200139-WS F Schedules

Exhibit FS-3

**Wastewater Treatment Plant Data** 

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Utilities, Inc. of Florida - Sanlando (includes Knollwood, Des Pinar, Longwood)

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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 (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	8/2019	2,448,290
3	Average Annual Daily Flow		1,950,940

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. 20200139-WS

F Schedules Exhibit FS-3

Used and Useful Calculations Water Treatment Plant Florida Public Service Commissique 165 of 243

100.00%

Utilities, Inc. of Florida - Sanlando (includes Knollwood, Des Pinar, Longwood)

Docket No.: 20200139-WS

Schedule F-5 Page 1 of 1

Test Year Ended: December 31, 2019

Preparer: Seidman, F. Revised:9/8/2014

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 Firm Reliable well pumping capacity	17,376 13,876	01	
Ground storage capacity, gal. Usable ground storage (90%), gal. Elevated Storage Usable elevated storage Hydropneumatic storage capacity, gal Usable hydropneumatic storage capac Total usable storage, gal.		0 10,000	gallons gallons gallons gallons gallons
Maximum day demand Peak hour demand = 2 x maximum da	ny/1440	10,998,100 15,275	O.
Fire flow requirement	1250 gpm x 2 hours	150,000	gpd
Unaccounted for water Acceptable unaccounted for Excess unaccounted for	12.08% of water pumped 10.00%	589,338	gpd, avg gpd, avg gpd, avg

#### 5. Used & Useful Analysis in accordance with Rule 25-30.4325

#### **Water Treatment Plant**

3.4.

Percent Used & Useful = (A	86.48%	
	Used and useful percentage for rate case purposes (see note).	100.00%

Note: The capacity of this system has remained unchanged since bfeore 2010, although the demand varies, year to year. In Docket No. 20110257-WS and again in Docket 20160101-WS, actual demand and the rate growth growth resulted in a calculated 100% U&U. In Docket No. 201140060-WS, the calculated demand was less than 100%, but the Commission recognized U&U as 100%. Demand has decreased in recent years, most likely due to conservation and response to the changes in rates. The PSC should continue to recognize that impact and again find U&U to be 100%.

A =	Peak demand	10,998,100	gpd
$\mathbf{B} =$	Property needed to serve five years after TY	493,765	gpd
<b>C</b> =	Fire flow demand	150,000	gpd
$\mathbf{D} =$	Excess unaccounted for water	122,458	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 = $(A + B + C - D)/E \times D$	100%, where:
--	--------------

A =	Peak demand	10,998,100	gallons
$\mathbf{B} =$	Property needed to serve years after TY	493,765	gallons
C =	Fire flow demand	150,000	gallons
$\mathbf{D} =$	Excess unaccounted for water	122,458	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. 20200139-WS F Schedules

Exhibit FS-3

**Used and Useful Calculations Wastewater Treatment Plant** 

Florida Public Service **Cogentission** 243

Utilities, Inc. of Florida - Sanlando (includes Knollwood, Des Pinar, Longwood)

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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	iva Plant	
1	(A)	Used and useful flow (000):	
2	` '	AADF - year 2019	1,950,940
3	<b>(B)</b>	Property needed for post test year period (see F-8)	48,487
4	(C)	Permitted capacity	2,900,000
5	<b>(D)</b>	Used and useful percentage	<u>68.95</u> %
6	<b>(E)</b>	Non-used and useful percentage	<u>31.05</u> %
_			100.001
7	[F]	Used and useful percentage for rate case purposes (see note).	<u>100.00</u> %

NOTE: In Docket No. 900338-WS, the Commission recognized the expansion of plant capacity to its currenr level as a prudent economic decision resulting from DER requirements. In every case since then, the Commission has found the WWTP to be 100% used and useful. Th plant should continue to be found 100% used 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

Exhibit FS-3

**Used and Useful Calculations** 

**Wastewater Treatment Plant** 

Utilities, Inc. of Florida - Sanlando (includes Knollwood, Des Pinar, Longwood) Schedule F-6 Docket No.: 20200139-WS Page 2 of 2 Test Year Ended: December 31, 2019 Preparer: Seidman, F.

#### A. Infiltration allowance, excluding service laterals

				wance @ 500	
	Main dia.	Main length	gpd	/inch-dia./mile	
	inches	feet	miles	gpd	
1	4	0	0.000	0	_
2	6	1,461	0.277	830	
3	8	502,366	95.145	380,580	
4	10	45,681	8.652	43,259	
5	12	583	0.110	663	
6	15	0	0.000	0	
7	Total	550,091	104.184	425,331	155,245,975
8	Estimated Iı	nflow @ 10% of flo	ws (L.14)		138,427,661
9 .	Allowable I	&I			293,673,636
			0.7.00	•	
		on of Actual Inflow	& Infiltration (1&	<u>1)</u>	
0	Wastewater	treated			712,093,000

Water Gallons (not capped)	Estimated returne			
11 Residential WW SFR	1,149,059,246	54.4%	625,448,000	F-10
12 General Service	235,217,361	90%	211,695,625	F-10
14 Estimated flows returned	1,384,276,607		837,143,625	

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 almost 12,000 gallons. 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 625,448,000.

16 Estimated I&I (treated less returned) [L.10-L.15]	-125,050,625
17 Actual less allowable [L.16-L.9]	-418,724,261
18 Excess, if any [L.17, if positive]	0
19 Excess as percent of wastewater treated	0.00%

Docket No. 20200139-WS F Schedules Exhibit FS-3

Used and Useful Calculations
Water Distribution and Wastewater Collection Systems

Florida Public Service Commissions

Utilities, Inc. of Florida - Sanlando (includes Knollwood, Des Pinar, Longwood)

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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

#### **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-WS and Docket No. 110257-WS and reaffirmed in Docket No. 20160101-WS.

Exhibit FS-3

## **Margin Reserve Calculations**

Florida Public Service Commission 243

Utilities, Inc. of Florida - Sanlando (includes Knollwood, Des Pinar, Longwood) Schedule F-8 Docket No.: 20200139-WS Page 1 of 1

Test Year Ended: December 31, 2019 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 =	<b>Equivalent annual growth in ERCs (see F-9)</b>	110 ERC/yr	
PT =	Post test year period per statute	5 yrs	
U =	Unit of measure utilized in U&U calculations	902 gpd/ERC	**
PN =	Property needed expressed in U units	493,765 gpd	

<sup>\*\*</sup> MDD from F-5 divided by average ERCs from F-9.

#### **Wastewater Treatment & Related Facilities (Wekiva)**

 $PN = EG \times PT \times U$ 

#### where:

EG =	Equivalent annual growth in ERCs (see F-9)	48 ERC/yr	*
PT =	Post test year period per statute	5 yrs	
U =	Unit of measure utilized in U&U calculations	202 gpd/ERC	**
PN =	Property needed expressed in U units	48,487 gpd	

<sup>\*\*</sup> AADF from F-6 divided by average ERCs from Schedule F-10.

## **Distribution & Collection Systems**

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

Docket No. 20200139-WS F Schedules Exhibit FS-3

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Page 170 of 243

Utilities, Inc. of Florida - Sanlando (includes Knollwood, Des Pinar, Longwood)

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	9,489	9,653	9,571	1,781,066,618	186,090	2,208,923,784	11,870	
2	2016	9,653	9,574	9,614	1,824,014,766	189,735	2,265,149,731	11,939	0.58%
3	2017	9,574	9,638	9,606	1,738,832,310	181,015	2,155,703,020	11,909	-0.25%
4	2018	9,638	9,636	9,637	1,466,115,545	152,134	1,869,883,109	12,291	3.21%
5	2019	9,636	9,673	9,655	1,488,787,420 Ave	154,207 crage Growth Throu	1,880,625,534 gh 4-Year Period (Col. 8)	12,195	-0.78% 0.73%

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

Multifamily customers.			v	V
Regr	ession Analysis per R	ule 25-30.431(2)(C)	<u>X</u>	<u>Y</u>
For 7	For Treatment Related Facilities			
Cons	stant:	11739.90262	1	11,870 Actual
X Co	efficient:	100.3114268	2	11,939 Actual
R^2:		0.701238497	3	11,909 Actual
			4	12,291 Actual
			5	12,195 Actual
			10	12,743 Projected
Projected 5 year gre	owth	<b>548 ERCs</b>		
Annual average gro	owth	110		

Docket No. 20200139-WS

F Schedules Exhibit FS-3

Florida Public Service CommissionPage 171 of 243

**Equivalent Residential Connections - Wastewater** 

 $\begin{tabular}{ll} Utilities, Inc. of Florida - Sanlando (includes Knollwood, Des Pinar, Longwood) \\ Docket No.: 20200139-WS \end{tabular}$ 

Test Year Ended: December 31, 2019

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) SFR Customers	(3)	(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
	Teni	Degining	Zhung	Tiverage	Solu	(5)/(4)		(7)/( <b>0</b> )	III ERCS
1	2015	7,963	8,067	8,015	1,359,475,839	169,616	1,615,766,910	9,526	
2	2016	8,067	7,995	8,031	1,393,886,984	173,563	1,653,562,863	9,527	0.01%
3	2017	7,995	8,011	8,003	1,325,606,820	165,639	1,575,974,998	9,515	-0.13%
4	2018	8,011	7,994	8,003	1,121,016,027	140,083	1,359,956,345	9,708	2.04%
5	2019	7,994	8,039	8,017	1,149,059,246	143,337	1,384,276,607	9,658	-0.52%
					Average Gr	owth Through 5	5-Year Period (Col. 8)		0.46%

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 Rule For Treatment Related Facili	<u>X</u>	<u>Y</u>	
Constant:	9453.456655	1	9,526 Actual
X Coefficient:	44.40742565	2	9,527 Actual
R^2:	0.619165003	3	9,515 Actual
		4	9,708 Actual
		5	9,658 Actual
		10	9,898 Projected

Projected 5 year growth 240 ERCs Annual average growth 48

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 172 of 243

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

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Bear Lake

Schedule F-1 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	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)	Corrected (1)				
Jan-19	0.898	0.907	0.350	1.243	0.018	-0.004	-0.3%
Feb-19	1.122	1.133	0.095	1.121	0.020	0.088	7.1%
Mar-19	1.526	1.541	0.000	1.243	0.018	0.281	18.2%
Apr-19	1.490	1.505	0.000	1.309	0.017	0.179	11.9%
May-19	1.687	1.702	0.000	1.478	0.018	0.206	12.1%
Jun-19	1.364	1.374	0.057	1.346	0.018	0.067	4.7%
Jul-19	1.350	1.360	0.038	1.277	0.020	0.101	7.3%
Aug-19	1.363	1.373	0.015	1.221	0.018	0.149	10.7%
Sep-19	1.532	1.543	0.000	1.434	0.017	0.092	6.0%
Oct-19	1.497	1.508	0.000	1.475	0.018	0.014	0.9%
Nov-19	1.456	1.467	0.000	1.219	0.018	0.230	15.7%
Dec-19	1.183	1.192	0.266	1.385	0.018	0.055	3.8%
Total	16.467	16.605	0.822	15.750	0.220	1.457	8.4%

(Above data in millions of gallons)

<sup>(1)</sup> The Utility does annual flow meter calibration, including the interrconnect meter. 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.

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 173 of 243

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

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

In Thousands of Gallons

 ${\bf Company:}\ \ {\bf Utilities, Inc.}\ \ {\bf of}\ \ {\bf Florida-Seminole-Bear}\ \ {\bf Lake}$ 

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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/					<b>Total Plant</b>	Sewage
Year	(Name)	(Name)	(Name)	(Name)	Flows	Treatment
Jan-19					0.000	0.000
Feb-19					0.000	0.000
Mar-19	N	ot Applicable - wate	er only system		0.000	0.000
Apr-19					0.000	0.000
<b>May-19</b>					0.000	0.000
Jun-19					0.000	0.000
Jul-19					0.000	0.000
Aug-19					0.000	0.000
Sep-19					0.000	0.000
Oct-19					0.000	0.000
Nov-19					0.000	0.000
Dec-19					0.000	0.000
Total	0.000				0.000	0.000
101111	=======	========	========	========	=========	=======

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 174 of 243

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Bear Lake

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 per Sanitary Survey on the DEP operating or construction permit, provide an explanation.	y		288,000
AADF per Cu	o		79178
2 Maximum Day	•		
The single day with the highest pumpage rate for the test year.		5/192020	83,900
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)	5/2/2020	66,600
in the test year. Provide an explanation if fire flow, line	(2)	5/22/2020	70,100
breaks or other unusual occurrences affected the flows on	(3)	5/28/2020	80,500
these days.	(4)	5/26/2020	83,300
	(5)	5/192020	83,900
		AVERAGE	76,880
		Max Month	54,893
4 Average Daily Flow	-	Annual	45,492
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. 20200139-WS F Schedules Exhibit FS-3 Page 175 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Bear Lake

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 176 of 243

Used and Useful Calculations Water Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Bear Lake

Docket No.: 20200139-WS

Schedule F-5 Page 1 of 1

Test Year Ended: December 31, 2019

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

0 gpm

(System has only one well)

Ground storage capacity, gal.

Usable ground storage (90%), gal.

Elevated Storage

Usable ground storage (100%), gal.

Usable ground storage (100%), gal.

Usable ground storage (100%), gal.

Usable hydropneumatic storage capacity, gal.

Usable hydropneumatic storage capacity (0.00%), gal.

Total usable storage, gal.

12,420 gallons

Maximum day demand, 83,900 gpd Peak hour demand = 2x max day/1440 117 gpm

Fire flow requirement 0 gpd

Unaccounted for water 8.36% of water pumped 3,992 gpd, avg
Acceptable unaccounted for 10.00% 4,774 gpd, avg
Excess unaccounted for 0 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:

$\mathbf{A} =$	Peak demand	83,900 gpd
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpd
C =	Fire flow demand	0 gpd
<b>D</b> =	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	83,900 gallons
$\mathbf{B} =$	Property needed to serve five years after TY	0 gallons
<b>C</b> =	Fire flow demand	0 gallons
<b>D</b> =	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. 20200139-WS F Schedules Exhibit FS-3 Page 177 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Bear Lake

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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. 20200139-WS F Schedules Exhibit FS-3 Page 178 of 243

**Used and Useful Calculations** 

Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Bear Lake

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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**

In Docket No. 20160101-WS, U&U was raffirmed to be 100%.

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. 20200139-WS F Schedules Exhibit FS-3 Page 179 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Bear Lake

Docket No.: 20200139-WS

Schedule F-8

Page 1 of 1

Test Year Ended: December 31, 2019 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 No. 20160101-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. 20200139-WS F Schedules Exhibit FS-3 Page 180 of 243

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Bear Lake

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	214	213	214	14,779,300	69,224	15,133,600	219	
2	2016	213	214	214	15,272,034	71,532	15,789,964	221	0.97%
3	2017	214	217	216	14,396,039	66,803	14,854,109	222	0.73%
4	2018	217	207	212	15,088,400	71,172	15,773,010	222	-0.33%
5	2019	207	217	212	14,949,415	70,516	15,749,975	223	0.78%
					Ave	rage Growth Throug	gh 5-Year Period (Col. 8)		0.54%

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

	==	-
218.2331657	1	219
1.034795725	2	221
0.828055316	3	222
	4	222
	5	223
	10	229
	1.034795725	1.034795725       2         0.828055316       3         4       5

Five year growth 5 Ercs Annual average growth 1.05 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 181 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Bear Lake

Docket No.: 20200139-WS

Schedule F-10 Page 1 of 1

Test Year Ended: December 31, 2019

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.

<b>(1)</b>	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	S.	FR Custome	rs					Annual % Incr.
Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
	· ——			<del></del>	· ——			
2015								
2016	N	ot Applicabl	e - water only	system.				
2017								
2018								
2010								
2019			A	anaga Charrith T	Thuangh & Vaan	Dowlad (Cal. 9)		
	Year 2015 2016 2017 2018	Year Beginning  2015 2016 2017 2018	Year Beginning Ending  2015  2016 Not Applicable 2017  2018	Year Beginning Ending Average  2015 2016 Not Applicable - water only 2017 2018 2019	Year Beginning Ending Average Sold  2015  2016 Not Applicable - water only system.  2017  2018  2019	Year   SFR Customers   SFR   Gallons   SFR	Year   SFR Customers   SFR Gallons   Sold   Sold	Year SFR Customers SFR Gallons SFR Gallons ERCs  Year Beginning Ending Average Sold (5)/(4) Sold (7)/(6)  2015  2016 Not Applicable - water only system.  2017  2018  2019

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 - Seminole - Combined Ravenna Park, Phillips, Lincoln Heights

**Docket No.: 20200139-WS** 

Test Year Ended: December 31, 2019

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) %
<b>Total Gallons</b>	<b>Total Gallons</b>	Gallons	Gallons	Other	For Water	Unaccounted
Pumped	<b>Corrected for</b>	Purchased (2)	Sold	<b>Uses</b> )(3)	(1)+(2)-(3)-(4)	For Water
Per MORs (1)	Meter Error (2)					
3.197	3.244	0.000	3.232	0.095	-0.083	-2.6%
3.018	3.047	0.001	2.824	0.089	0.135	4.4%
3.346	3.331	0.000	2.856	0.106	0.370	11.1%
3.440	3.425	0.001	3.251	0.095	0.079	2.3%
4.084	4.064	0.000	3.474	0.086	0.504	12.4%
3.487	3.470	0.001	3.572	0.094	-0.195	-5.6%
3.357	3.340	0.002	3.128	0.062	0.152	4.6%
3.426	3.417	0.002	3.174	0.087	0.158	4.6%
3.401	3.384	0.002	3.345	0.085	-0.044	-1.3%
3.376	3.359	0.001	3.195	0.096	0.069	2.0%
3.215	3.199	0.002	3.130	0.369	-0.299	-9.3%
3.202	3.186	0.009	3.050	0.069	0.076	0.0%
40.550	40.468	0.021	38.233	1.334	0.921	2.3%
-	Pumped Per MORs (1)  3.197 3.018 3.346 3.440 4.084 3.487 3.357 3.426 3.401 3.376 3.215 3.202	Pumped Per MORs (1)         Corrected for Meter Error (2)           3.197         3.244           3.018         3.047           3.346         3.331           3.440         3.425           4.084         4.064           3.487         3.470           3.357         3.340           3.426         3.417           3.401         3.384           3.376         3.359           3.215         3.199           3.202         3.186	Pumped Per MORs (1)         Corrected for Meter Error (2)         Purchased (2)           3.197         3.244         0.000           3.018         3.047         0.001           3.346         3.331         0.000           3.440         3.425         0.001           4.084         4.064         0.000           3.487         3.470         0.001           3.357         3.340         0.002           3.426         3.417         0.002           3.401         3.384         0.002           3.376         3.359         0.001           3.215         3.199         0.002           3.202         3.186         0.009	Pumped Per MORs (1)         Corrected for Meter Error (2)         Purchased (2)         Sold           3.197         3.244         0.000         3.232           3.018         3.047         0.001         2.824           3.346         3.331         0.000         2.856           3.440         3.425         0.001         3.251           4.084         4.064         0.000         3.474           3.487         3.470         0.001         3.572           3.357         3.340         0.002         3.128           3.426         3.417         0.002         3.174           3.401         3.384         0.002         3.345           3.376         3.359         0.001         3.195           3.215         3.199         0.002         3.130           3.202         3.186         0.009         3.050	Pumped Per MORs (1)         Corrected for Meter Error (2)         Purchased (2)         Sold         Uses )(3)           3.197         3.244         0.000         3.232         0.095           3.018         3.047         0.001         2.824         0.089           3.346         3.331         0.000         2.856         0.106           3.440         3.425         0.001         3.251         0.095           4.084         4.064         0.000         3.474         0.086           3.487         3.470         0.001         3.572         0.094           3.357         3.340         0.002         3.128         0.062           3.426         3.417         0.002         3.174         0.087           3.401         3.384         0.002         3.345         0.085           3.376         3.359         0.001         3.195         0.096           3.215         3.199         0.002         3.130         0.369           3.202         3.186         0.009         3.050         0.069	Total Gallons         Total Gallons         Gallons         Gallons         Other Uses )(3)         For Water (1)+(2)-(3)-(4)           Per MORs (1)         Meter Error (2)         -0.000         3.232         0.095         -0.083           3.018         3.047         0.001         2.824         0.089         0.135           3.346         3.331         0.000         2.856         0.106         0.370           3.440         3.425         0.001         3.251         0.095         0.079           4.084         4.064         0.000         3.474         0.086         0.504           3.487         3.470         0.001         3.572         0.094         -0.195           3.357         3.340         0.002         3.128         0.062         0.152           3.426         3.417         0.002         3.174         0.087         0.158           3.401         3.384         0.002         3.345         0.085         -0.044           3.376         3.359         0.001         3.195         0.096         0.069           3.215         3.199         0.002         3.130         0.369         -0.299           3.202         3.186         0.009 <t< td=""></t<>

(Above data in millions of gallons)

- (3) Emergency Interconnect w. Lake Mary & Sanford
- (4) Other Uses includes such uses as line breaks, flushing and water quality testing

<sup>(1)</sup> In matching to MORs, January & February, Ravenna & Phillips plants filed separately; after that , flows reported together.

<sup>(2)</sup> 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. 20200139-WS F Schedules Exhibit FS-3 Page 183 of 243

Schedule F-2

**Gallons of Wastewater Treated** In Thousands of Gallons

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Combined Ravenna Park, Phillips, Lincoln Heights

Page 1 of 1 Docket No.: 20200139-WS Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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) l Plant Flows	(4)	(5)	(6) Total Purch.
Month/					<b>Total Plant</b>	Sewage
Year		(Name)	(Name)	(Name)	Flows	Treatment*
Jan-19					0.000	2.861
<b>Feb-19</b>					0.000	2.121
<b>Mar-19</b>					0.000	2.090
Apr-19					0.000	1.930
<b>May-19</b>					0.000	1.863
Jun-19					0.000	1.783
Jul-19					0.000	1.041
Aug-19					0.000	1.364
Sep-19					0.000	2.556
Oct-19					0.000	1.349
<b>Nov-19</b>					0.000	0.837
Dec-19					0.000	0.392
Total	0.000				0.000	20.187
	=========		=========	=========	==========	

<sup>\*</sup> Bulk interconnect; all sewage treated by City of Sanford

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Combined Ravenna Park, Phillips, Lincoln Heights

Schedule F-3 Page 1 of 1

None

Docket No.: 20200139-WS

Page 1 of 1
Test Year Ended: December 31, 2019

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 per San. So on the DEP operating or construction permit, provide an explanation.	Survey		360,000
AADF pe	r CUP		122,100
2 Maximum Day			
The single day with the highest pumpage rate for the test year.	_	5/27/2019	192,150
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 (excluding flow from Crystal Lake)	_		
The five days with the highest pumpage rate from any one month	(1)_	5/1/2019	162,855
in the test year. Provide an explanation if fire flow, line	(2)_	5/29/2019	170,912
breaks or other unusual occurrences affected the flows on	(3)_	5/23/2019	178,500
these days.	(4) (5)	5/26/2019	192,150
	(5)_	5/27/2019	192,150
		AVERAGE	179,313
		Max Month	131,109
4 Average Daily Flow		Annual	110,870

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. 20200139-WS F Schedules Exhibit FS-3 Page 185 of 243

Wastewater Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Combined Ravenna Park, Phillips, Lincoln Heights

Schedule F-4 Page 1 of 1

Docket No.: 20200139-WS

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	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.

Test Year Ended: December 31, 2019

**Used and Useful Calculations** 

Florida Public Service Commission

**Water Treatment Plant** 

Company: Utilities, Inc. of Florida - Seminole - Combined Ravenna Park, Phillips, Lincoln Heights

Schedule F-5
Docket No.: 20200139-WS
Page 1 of 1
Test Year Ended: December 31, 2019
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 & PHILLIPS

#### INPUT INFORMATION:

Total well pumping capacity, gpm 540 gpm Firm Reliable well pumping capacity (largest well out), gpm 300 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.

Total usable storage, gal.

105,000 gallons

0 gallons

6,000 gallons

105,000 gallons

Maximum day demand, 192,150 gpd
Peak hour demand = 2x max day/1440 267 gpm

Fire flow requirement 0 gpd

Unaccounted for water 2.28% of water pumped 2,524 gpd, avg
Acceptable unaccounted for 10.00% 11,087 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: 66.72%
Use: 100.00%

Used & useful was set for this system in Docket Nos. 120209-WS. The system was found to be built out and 100% used & useful. This was reaffirmed in Docket No. 20160101-WS. Since the the last case, the Phillips distribution system has been interconnected., which provided the system the redundancy of another well. This benefits the utility by providing an alternative to having to supplement capacity through higher cost purchases from another system.

That addition results in reducing the calculated U&U below 100%. In Docket No. 20160101-WS, the Phillips system was evaluated separately and found to be 100% U&U as was the Ravenna system. Both were found to be built out. Now that thay are combined, it shoul not change the conclusion that the combined systems are built out and remain 100% used & useful.

$\mathbf{A} =$	Peak demand	192,150 gpd
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpd
<b>C</b> =	Fire flow demand	0 gpd
$\mathbf{D} =$	Excess Unaccounted for water	0 gpd
$\mathbf{E} =$	Firm Reliable Capacity (16 hours)	288,000 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	192,150 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	94,500 gallons

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 187 of 243

Used and Useful Calculations Florida Public Service Commission

**Wastewater Treatment Plant** 

Company: Utilities, Inc. of Florida - Seminole - Combined Ravenna Park, Phillips, Lincoln Heights

Schedule F-6
Docket No.: 20200139-WS
Page 1 of 1
Test Year Ended: December 31, 2019
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

All treatment purchased -not applicable

Docket No. 20200139-WS F Schedules Exhibit FS-3

Used and Useful Calculations

Florida Public Service Commission

**Wastewater Treatment Plant** 

Company: Utilities, Inc. of Florida - Seminole - Combined Ravenna Park, Phillips, Lincoln Heights

Schedule F-6
Docket No.: 20200139-WS
Test Year Ended: December 31, 2019
Preparer: Seidman, F.

## LINCOLN HEIGHTS

## A. Infiltration allowance, excluding service laterals

			All	owance @ 500	
	Main dia. Main length		gpo	l/inch-dia./mile	
	inches feet	miles	gpo	l gpy	
	4	0	0.000	0	
1	6	0	0.000	0	
2	8	14,049	2.661	10,643	
3	10	0	0.000	0	
4	Total	14,049	2.661	10,643	3,884,761
5	Estimated Inflow @ 10% of	flows (l.10)			1,471,098
6	Allowable I&I				5,355,859
	B. Actual Inflow & Infiltrati	ion (I&I)			
7	Wastewater treated				20,186,973
			Est	imated	
	Gallons Billed (not capped)	to:		imated urned *	
8	Gallons Billed (not capped) SFR Residential WW cust.	to:			10,938,757
8 9		to:	ret	urned *	10,938,757 1,621,104
	SFR Residential WW cust.	to:	reto 13,022,330	urned * 84%	
9	SFR Residential WW cust. All Other Estimated flows returned		reto 13,022,330 1,688,650 14,710,980	urned * 84%	1,621,104
9	SFR Residential WW cust. All Other		reto 13,022,330 1,688,650 14,710,980	urned * 84%	1,621,104
9	SFR Residential WW cust. All Other Estimated flows returned		reto 13,022,330 1,688,650 14,710,980	urned * 84%	1,621,104
9 10	SFR Residential WW cust. All Other Estimated flows returned * Based on reasoning in Ord	ler No. PSC-07-050:	reto 13,022,330 1,688,650 14,710,980	urned * 84%	1,621,104 12,559,861
9 10	SFR Residential WW cust. All Other Estimated flows returned  * Based on reasoning in Ord  Estimated I&I (treated less	ler No. PSC-07-050: returned) [1.7-1.10]	reto 13,022,330 1,688,650 14,710,980	urned * 84%	1,621,104 12,559,861 7,627,111
9 10	SFR Residential WW cust. All Other Estimated flows returned * Based on reasoning in Ord Estimated I&I (treated less a Actual less allowable [1.11-1.	ler No. PSC-07-0509 returned) [1.7-1.10] 6]	reto 13,022,330 1,688,650 14,710,980	urned * 84%	1,621,104 12,559,861 7,627,111 2,271,252
9 10 11 12	SFR Residential WW cust. All Other Estimated flows returned  * Based on reasoning in Ord  Estimated I&I (treated less	ler No. PSC-07-0509 returned) [1.7-1.10] 6] sitive]	reto 13,022,330 1,688,650 14,710,980	urned * 84%	1,621,104 12,559,861 7,627,111

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 189 of 243

Schedule F-7

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

Company: Utilities, Inc. of Florida - Seminole - Combined Ravenna Park, Phillips, Lincoln Heights

Docket No.: 20200139-WS

Page 1 of 1 Test Year Ended: December 31, 2019 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 at 100% for this system in Docket No. 20160101-WS.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 190 of 243

## **Margin Reserve Calculations**

## Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Combined Ravenna Park, Phillips, Lincoln Heights

Schedule F-8

Docket No.: 20200139-WS

Page 1 of 1

Test Year Ended: December 31, 2019

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 at 100% in Docket No. 20160101-WS. The combined systems are each built out and remain 100% used & useful.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 191 of 243

### **Equivalent Residential Connections - Water**

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Combined Ravenna Park, Phillips, Lincoln Heights

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	586	594	590	34,662,623	58,750	36,684,633	624	
2	2016	594	601	598	36,172,525	60,540	38,637,955	638	2.21%
3	2017	601	599	600	35,179,781	58,633	37,559,021	641	0.37%
4	2018	599	605	602	34,678,427	57,605	36,913,867	641	0.04%
5	2019	605	608	607	36,487,289	60,160	38,233,399	636	-0.82%
					Ave	rage Growth Throug	gh 5-Year Period (Col. 8)		0.45%

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

	<u>21</u>	
628.4711193	1	624
2.479632073	2	638
0.335330673	3	641
	4	641
	5	636
	10	653
	2.479632073	2.479632073 2 0.335330673 3 4 5

Five year growth 18 Ercs Annual average growth 3.55 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 192 of 243

### **Equivalent Residential Connections - Wastewater**

### Florida Public Service Commission

Schedule F-10

Page 1 of 1

 $Company:\ Utilities, Inc.\ of\ Florida-Seminole-Combined\ Ravenna\ Park, Phillips, Lincoln\ Heights$ 

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019 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 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	2015	230	234	232	12,888,970	55,556	14,903,330	268	
2	2016	234	236	235	13,294,040	56,570	15,723,740	278	3.61%
3	2017	236	237	237	12,998,420	54,962	15,359,810	279	0.54%
4	2018	237	234	236	12,604,091	53,521	14,615,621	273	-2.28%
5	2019	234	235	235	13,022,330	55,532	14,710,980	265	-2.99%
				A	verage Growth T	hrough 5-Year	Period (Col. 8)		-0.28%

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

• •		<u>X</u>	Y
Constant:	276.2027	1	268
X Coefficient:	-1.156546	2	278
R^2:	0.086914	3	279
		4	273
		5	265
		#	265

Five year growth (0) Ercs Annual average growth -0.05 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 193 of 243

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

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Jansen

Schedule F-1 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	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-19	1.585	1.624	0.000	1.711	0.018	-0.105	-6.5%
Feb-19	1.416	1.439	0.000	1.287	0.012	0.140	9.8%
Mar-19	1.839	1.859	0.000	1.600	0.120	0.140	7.5%
Apr-19	1.669	1.684	0.000	1.659	0.018	0.008	0.5%
<b>May-19</b>	2.136	2.160	0.000	1.704	0.026	0.430	19.9%
Jun-19	1.831	1.851	0.000	1.871	0.036	-0.055	-3.0%
Jul-19	1.817	1.838	0.000	1.740	0.041	0.057	3.1%
Aug-19	1.729	1.749	0.000	1.654	0.020	0.075	4.3%
Sep-19	2.333	2.403	0.000	1.797	0.086	0.520	21.7%
Oct-19	2,212	2,283	0.000	1.747	0.083	0.453	19.9%
Nov-19	1.721	1.750	0.000	1.539	0.036	0.176	10.0%
Dec-19	1.709	1.731	0.000	1.727	0.017	-0.013	-0.7%
Total	21.996	22.371	0.000	20.034	0.511	1.826	8.2%

(Above data in millions of gallons)

<sup>(1)</sup> 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.

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 194 of 243

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 - Seminole - Jansen

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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/					<b>Total Plant</b>	Sewage
Year	(Name)	(Name)	(Name)	(Name)	Flows	Treatment
Jan-19					0.000	0.000
Feb-19					0.000	0.000
Mar-19	N	ot Applicable - wate	r only system		0.000	0.000
Apr-19					0.000	0.000
<b>May-19</b>					0.000	0.000
Jun-19					0.000	0.000
Jul-19					0.000	0.000
Aug-19					0.000	0.000
Sep-19					0.000	0.000
Oct-19					0.000	0.000
Nov-19					0.000	0.000
Dec-19					0.000	0.000
Total	0.000				0.000	0.000
		========	========	========	=========	=========

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 195 of 243

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Jansen

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 Survey	•	309,600
on the DEP operating or construction permit, provide an explanat	ion.		
	AADF per Cup		75,000
2 Maximum Day			
The single day with the highest pumpage rate for the test year.		1/9/2020	110,000
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)	9/23/2020	92,200
in the test year. Provide an explanation if fire flow, line	(2)	9/9/2020	95,600
breaks or other unusual occurrences affected the flows on	(3)	9/8/2020	95,700
these days.	(4)	9/30/2020	100,200
•	(5)	9/29/2020	100,300
		AVERAGE	96,800
		Max Month	77,509
4 Average Daily Flow		Annual	61,290
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. 20200139-WS F Schedules Exhibit FS-3 Page 196 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Jansen

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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. 20200139-WS F Schedules Exhibit FS-3 Page 197 of 243

Used and Useful Calculations Water Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Jansen Schedule F-5
Docket No.: 20200139-WS Page 1 of 1

Test Year Ended: December 31, 2019 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	190 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.	6,000 gallons
Usable hydropneumatic storage capacity (0.00%), gal.	0 gallons
Total usable storage, gal.	0 gallons

Maximum day demand,	110,000 gpd
Peak hour demand = $2x \max \frac{day}{1440}$	153 gpm

Fire flow requirement	0 gpd

Unaccounted for water	8.16% of water pumped	3.47 gpm
Acceptable unaccounted for	10.00%	4.26 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:		80.41%
	Use:	100.00%

The demand on the system continues at a decreased level. 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. In Docket No. 20160101-WS U&U was confirmed to be 100%.

$\mathbf{A} =$	Peak demand	153 gpm
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpm
<b>C</b> =	Fire flow demand	0 gpm
$\mathbf{D} =$	Excess Unaccounted for water	0 gpm
$\mathbf{E} =$	Firm Reliable Capacity	190 gpm

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 198 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Jansen

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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. 20200139-WS F Schedules Exhibit FS-3 Page 199 of 243

**Used and Useful Calculations** 

Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Schedule F-7

Company: Utilities, Inc. of Florida - Seminole - Jansen

Docket No.: 20200139-WS Page 1 of 1 Test Year Ended: December 31, 2019 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 No. 20160101-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. 20200139-WS F Schedules Exhibit FS-3 Page 200 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Jansen Schedule F-8
Docket No.: 20200139-WS Page 1 of 1

Test Year Ended: December 31, 2019 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 No. Docket No. 20160101-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. 20200139-WS F Schedules Exhibit FS-3 Page 201 of 243

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Jansen

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	250	251	251	18,870,518	75,331	18,948,868	252	
2	2016	251	251	251	19,707,570	78,516	19,825,250	252	0.38%
3	2017	251	253	252	18,834,120	74,739	18,893,130	253	0.12%
4	2018	253	249	251	18,818,520	74,974	18,872,330	252	-0.42%
5	2019	249	250	250	19,653,860	78,773	20,033,830	254	1.04%
					Ave	rage Growth Throug	gh 5-Year Period (Col. 8)		0.28%

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

		==	_
Constant:	251.1381519	1	252
X Coefficient:	0.478598927	2	252
R^2:	0.465990824	3	253
		4	252
		5	254
		10	256

Five year growth 2 Ercs Annual average growth 0.32 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 202 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Jansen

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	rs .	SFR	Gallons/	Total	Total	Annual
Line					Gallons	SFR	Gallons	<b>ERCs</b>	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2015								
2	2016	N	Not Applicabl	e - water only	system.				
3	2017								
4	2018								
•	2010								
5	2019								
				Av	verage Growth T	Through 5-Year	Period (Col. 8)		

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 203 of 243

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

Company: Utilities, Inc. of Florida - Seminole - Little Wekiva

Florida Public Service Commission

Schedule F-1 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	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-19	0.288	0.285	0.000	0.303	0.002	-0.021	-7.3%
Feb-19	0.255	0.255	0.000	0.229	0.002	0.023	9.1%
Mar-19	0.320	0.328	0.000	0.250	0.023	0.056	16.9%
Apr-19	0.325	0.333	0.000	0.280	0.021	0.032	9.5%
<b>May-19</b>	0.380	0.389	0.000	0.334	0.026	0.029	7.4%
Jun-19	0.319	0.327	0.000	0.318	0.002	0.007	2.2%
Jul-19	0.313	0.320	0.000	0.266	0.004	0.050	15.6%
Aug-19	0.285	0.292	0.000	0.274	0.004	0.014	4.8%
Sep-19	0.298	0.305	0.000	0.250	0.003	0.051	16.8%
Oct-19	0.440	0.451	0.000	0.317	0.002	0.131	29.1%
Nov-19	0.475	0.483	0.000	0.233	0.020	0.230	47.7%
Dec-19	0.289	0.286	0.000	0.256	0.002	0.027	9.5%
Total	3.987	4.055	0.000	3.311	0.114	0.630	15.5%

(Above data in millions of gallons)

<sup>(1)</sup> 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.

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 204 of 243

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

Schedule F-2 Page 1 of 1

Preparer: Seidman, F.

In Thousands of Gallons

Company: Utilities, Inc. of Florida - Seminole - Little Wekiva

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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)	Total Plant Flows	Sewage Treatment
	(=)		(- ()	()		
Jan-19					0.000	0.000
Feb-19					0.000	0.000
Mar-19	No	t Applicable - wate	er only system		0.000	0.000
Apr-19					0.000	0.000
<b>May-19</b>					0.000	0.000
Jun-19					0.000	0.000
Jul-19					0.000	0.000
Aug-19					0.000	0.000
Sep-19					0.000	0.000
Oct-19					0.000	0.000
Nov-19					0.000	0.000
Dec-19					0.000	0.000
Total	0.000				0.000	0.000
		========	========	========	==========	========

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 205 of 243

Water Treatment Plant Data

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Little Wekiva

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 Survey		48,000
on the DEP operating or construction permit, provide an explanation.			
	AADF per Cup		24,000
2 Maximum Day			
The single day with the highest pumpage rate for the test year.	<u>-</u>	10/22/2019	30,300
Explain, on a separate sheet of paper if fire flow, line breaks,		Unexplained an	omoly
or other unusual occurrences affected the flow this day.		Use MMADF,	below
3 Five Day Max. Year			
The five days with the highest pumpage rate from any one month	(1)	11/4/2019	24,300
in the test year. Provide an explanation if fire flow, line	(2)	11/8/2019	24,300
breaks or other unusual occurrences affected the flows on	(3)	11/10/2019	24,900
these days.	(4)	11/6/2019	25,600
	(5)	11/12/2019	29,200
		AVERAGE	25,660
		Max Month	16,097
4 Average Daily Flow	-	Annual	11,108
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. 20200139-WS F Schedules Exhibit FS-3 Page 206 of 243

### **Wastewater Treatment Plant Data**

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Little Wekiva

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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. 20200139-WS F Schedules Exhibit FS-3 Page 207 of 243

**Used and Useful Calculations Water Treatment Plant** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Little Wekiva

Schedule F-5 Docket No.: 20200139-WS Page 1 of 1

Test Year Ended: December 31, 2019 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)	

0 gallons Ground storage capacity, gal. Usable ground storage (90%), gal. 0 gallons 0 gallons **Elevated Storage** 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

Maximum day demand, 16,097 gpd Peak hour demand =  $2x \max \frac{day}{1440}$ 22 gpm

Fire flow requirement 0 gpd

Unaccounted for water 15.54% of water pumped 1.2 gpm Acceptable unaccounted for 10.00% 0.8 gpm **Excess unaccounted for** 0.4 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: 100.00%

$\mathbf{A} =$	Peak demand	22 gpm
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpm
<b>C</b> =	Fire flow demand	0 gpm
$\mathbf{D} =$	Excess Unaccounted for water	0.4 gpm
$\mathbf{E} =$	Firm Reliable Capacity	0 gpm

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 208 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Little Wekiva

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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. 20200139-WS F Schedules Exhibit FS-3 Page 209 of 243

**Used and Useful Calculations** 

Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Schedule F-7

Company: Utilities, Inc. of Florida - Seminole - Little Wekiva

Docket No.: 20200139-WS

Page 1 of 1 Test Year Ended: December 31, 2019 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 No. Docket No. 20160101-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. 20200139-WS F Schedules Exhibit FS-3 Page 210 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Schedule F-8

Company: Utilities, Inc. of Florida - Seminole - Little Wekiva Docket No.: 20200139-WS

Docket No.: 20200139-WS Page 1 of 1
Test Year Ended: December 31, 2019 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 No. Docket No. 20160101-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. 20200139-WS F Schedules Exhibit FS-3 Page 211 of 243

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Little Wekiva

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	60	61	61	3,419,754	56,525	3,419,754	61	
2	2016	61	62	62	3,492,390	56,787	3,492,390	62	1.65%
3	2017	62	61	62	3,395,665	55,214	3,395,665	62	0.00%
4	2018	61	61	61	3,423,051	56,116	3,423,051	61	-0.81%
5	2019	61	60	61	3,310,760	54,723	3,310,760	61	-0.82%
					Ave	rage Growth Throug	th 5-Year Period (Col. 8)		0.01%

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

		<u>A</u>	
Constant:	61.15	1	61
X Coefficient:	-0.05	2	62
R^2:	0.025	3	62
		4	61
		5	61
		10	61

Five year growth 0 Ercs Annual average growth 0.03 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 212 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Little Wekiva

Docket No.: 20200139-WS

Page 1 of 1

Test Year Ended: December 31, 2019

Preparer: Seidman, F.

Schedule F-10

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	<b>ERCs</b>	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
		·				·			
1	2015								
2	2016	N	lot Applicabl	e - water only	system.				
•	2015								
3	2017								
4	2018								
-	2010								
5	2019								
				Av	verage Growth T	Through 5-Year	Period (Col. 8)		

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 213 of 243

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

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Oakland Shores

Schedule F-1 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	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-19	1.958	1.939	0.001	1.969	0.003	-0.033	-1.7%
Feb-19	1.781	1.763	-	1.624	0.003	0.136	7.7%
Mar-19	2,225	2,202	-	1.945	0.003	0.254	11.5%
Apr-19	2.256	2,233	0.001	2.259	0.004	-0.029	-1.3%
<b>May-19</b>	2.724	2.753	0.171	2.355	0.015	0.554	19.0%
Jun-19	2.415	2.508	-	2.468	0.006	0.034	1.3%
Jul-19	2.109	2.190	-	2.113	0.003	0.074	3.4%
Aug-19	2.039	2.118	0.004	2.084	0.003	0.035	1.6%
Sep-19	2.342	2.433	-	1.924	0.003	0.506	20.8%
Oct-19	2.715	2.820	0.067	2.382	0.003	0.501	17.4%
Nov-19	2.368	2.460	0.012	2.475	0.015	-0.019	-0.8%
Dec-19	1.972	2.048	-	2.336	0.003	-0.292	-14.3%
Total	26.905	27.466	0.256	25.935	0.067	1.720	6.2%
1000	(Above data in m	=========	========	========	=======	=======================================	========

<sup>\*</sup> Emergency interconnect with City of Altamonte Springs

<sup>(1)</sup> 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.

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 214 of 243

**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 - Seminole - Oakland Shores

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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
Jan-19					0.000	0.000
Feb-19					0.000	0.000
Mar-19	N	ot Applicable - wate	er only system		0.000	0.000
Apr-19					0.000	0.000
<b>May-19</b>					0.000	0.000
Jun-19					0.000	0.000
Jul-19					0.000	0.000
Aug-19					0.000	0.000
Sep-19					0.000	0.000
Oct-19					0.000	0.000
Nov-19					0.000	0.000
Dec-19					0.000	0.000
Total	0.000				0.000	0.000
	========	========	========	========	=========	========

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 215 of 243

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Oakland Shores

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	Max Day Design per Sanitary Sur ion.	vey		332,898
• • • • • • • • • • • • • • • • • • • •	AADF per Cup			96,877
2 Maximum Day				
The single day with the highest pumpage rate for the test year.			5/30/2019	163,400
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)	5/29/2019	131,400
in the test year. Provide an explanation if fire flow, line		(2)	5/26/2019	136,600
breaks or other unusual occurrences affected the flows on		(3)	5/27/2019	136,600
these days.		(4)	5/23/2019	138,000
		(5)	5/30/3019	163,400
			AVERAGE_	141,200
			Max Month	88,821
4 Average Daily Flow		_	Annual	75,249

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. 20200139-WS F Schedules Exhibit FS-3 Page 216 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Oakland Shores

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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. 20200139-WS F Schedules Exhibit FS-3 Page 217 of 243

Used and Useful Calculations

**Water Treatment Plant** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Oakland Shores Schedule F-5
Docket No.: 20200139-WS Page 1 of 1

Test Year Ended: December 31, 2019 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	163,400 gpd
Peak hour demand = $2x \max day/1440$	227 gpm

Fire flow requirement 600	0 gpm for 2 hours	72,000 gpd
---------------------------	-------------------	------------

Unaccounted for water	6.21% of water pumped	4,713 gpd
Acceptable unaccounted for	10.00%	7,595 gpd
Excess unaccounted for		0 gpd

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

No usable storage

**Water Treatment Plant** 

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

$\mathbf{A} =$	Peak demand	163,400 gpd
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpd
C =	Fire flow demand	72,000 gpd
<b>D</b> =	Excess Unaccounted for water	0 gpd
$\mathbf{E} =$	Firm Reliable Capacity	0 gpd

#### **Storage**

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

$\mathbf{A} =$	Peak demand	163,400 gallons
$\mathbf{B} =$	Property needed to serve five years after TY	0 gallons
<b>C</b> =	Fire flow demand	72,000 gallons
<b>D</b> =	Excess Unaccounted for water	0 gallons
$\mathbf{E} =$	Firm Reliable Capacity	15,120 gallons

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 218 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Oakland Shores

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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. 20200139-WS F Schedules Exhibit FS-3 Page 219 of 243

**Used and Useful Calculations** 

Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Schedule F-7

Company: Utilities, Inc. of Florida - Seminole - Oakland Shores

Docket No.: 20200139-WS

Page 1 of 1 Test Year Ended: December 31, 2019 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 No. Docket No. 20160101-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. 20200139-WS F Schedules Exhibit FS-3 Page 220 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Schedule F-8

Page 1 of 1

Company: Utilities, Inc. of Florida - Seminole - Oakland Shores Docket No.: 20200139-WS

Test Year Ended: December 31, 2019 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 No. 20160101-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. 20200139-WS F Schedules Exhibit FS-3 Page 221 of 243

 $\mathbf{X}$ 

Y

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Oakland Shores

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	210	211	211	20,155,370	95,750	21,021,570	220	
2	2016	211	212	212	22,378,150	105,807	24,020,310	227	3.40%
3	2017	212	210	211	21,525,960	102,019	23,193,530	227	0.14%
4	2018	210	210	210	23,356,720	111,222	25,098,370	226	-0.74%
5	2019	210	212	211	23,564,750	111,681	25,934,500	232	2.91%
					Ave	rage Growth Throug	th 5-Year Period (Col. 8)		1.43%

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

		_
219.1630417	1	220
2.398357491	2	227
0.695967316	3	227
	4	226
	5	232
	10	243
	2.398357491	2.398357491 2 0.695967316 3 4 5

Five year growth 11 Ercs Annual average growth 2.19 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 222 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Oakland Shores

Docket No.: 20200139-WS

Schedule F-10 Page 1 of 1

Test Year Ended: December 31, 2019

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	<b>ERCs</b>	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2015								
2	2016	N	Not Applicabl	e - water only	system.				
3	2017								
4	2018								
•	2010								
5	2019								
				Av	verage Growth T	Through 5-Year	Period (Col. 8)		

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 223 of 243

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

Company: Utilities, Inc. of Florida - Seminole - Park Ridge

Florida Public Service Commission

III Thousands of Ganons

Schedule F-1 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	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-19	0.486	0.481	0.000	0.501	0.008	-0.028	-5.8%
Feb-19	0.475	0.469	0.000	0.416	0.008	0.045	9.6%
Mar-19	0.521	0.510	0.000	0.443	0.008	0.059	11.6%
Apr-19	0.519	0.508	0.000	0.466	0.008	0.035	6.9%
<b>May-19</b>	0.590	0.578	0.000	0.522	0.008	0.049	8.4%
Jun-19	0.592	0.580	0.000	0.521	0.008	0.051	8.7%
Jul-19	0.556	0.544	0.000	0.490	0.008	0.047	8.6%
Aug-19	0.540	0.529	0.000	0.541	0.008	-0.020	-3.8%
Sep-19	0.527	0.516	0.000	0.438	0.008	0.070	13.5%
Oct-19	0.499	0.489	0.000	0.565	0.008	-0.084	-17.2%
Nov-19	0.497	0.486	0.000	0.444	0.008	0.034	7.0%
Dec-19	0.493	0.483	0.000	0.505	0.008	-0.030	-6.2%
Total			0.000		0.005	0.227	2.70/
Total	6.293	6.174	0.000	5.852	0.095	0.227	3.7%

(Above data in millions of gallons)

<sup>(1)</sup> 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.

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 224 of 243

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 - Seminole - Park Ridge

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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/					<b>Total Plant</b>	Sewage
Year	(Name)	(Name)	(Name)	(Name)	Flows	Treatment
Jan-19					0.000	0.000
Feb-19					0.000	0.000
Mar-19	N	ot Applicable - wate	er only system		0.000	0.000
Apr-19					0.000	0.000
<b>May-19</b>					0.000	0.000
Jun-19					0.000	0.000
Jul-19					0.000	0.000
Aug-19					0.000	0.000
Sep-19					0.000	0.000
Oct-19					0.000	0.000
Nov-19					0.000	0.000
Dec-19					0.000	0.000
Total	0.000				0.000	0.000
	=========	========	========	========		========

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 225 of 243

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Park Ridge

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 Su	rvey		246,000
on the DEP operating or construction permit, provide an explanat	ion.			
	AADF per Cup			25,753
2 Maximum Day				
The single day with the highest pumpage rate for the test year.		_	5/29/2019	29,900
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)	6/11/2019	21,500
in the test year. Provide an explanation if fire flow, line		(2)	6/1/2019	24,100
breaks or other unusual occurrences affected the flows on		(3)	6/2/2019	26,200
these days.		(4)	6/3/2019	26,200
		(5)	6/5/2019	28,600
			AVERAGE	25,320
			Max Month	19,334
4 Average Daily Flow		-	Annual	16,915
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. 20200139-WS F Schedules Exhibit FS-3 Page 226 of 243

**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Park Ridge

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 227 of 243

Used and Useful Calculations

Florida Public Service Commission

Water Treatment Plant

Company: Utilities, Inc. of Florida - Seminole - Park Ridge Docket No.: 20200139-WS

Schedule F-5 Page 1 of 1

Test Year Ended: December 31, 2019

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
(6 - 4 1 1 11)	

(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	29,900 gpd
Peak hour demand = $2x \max \frac{day}{1440}$	42 gpm

Fire flow requirement	0 gpd

Unaccounted for water	3.67% of water pumped	621 gpd
Acceptable unaccounted for	10.00%	1,691 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%

$\mathbf{A} =$	Peak demand	29,900 gpd
$\mathbf{B} =$	Property needed to serve five years after TY	0 gpd
<b>C</b> =	Fire flow demand	0 gpd
<b>D</b> =	Excess Unaccounted for water	0 gpd
$\mathbf{E} =$	Firm Reliable Capacity	0 gpd

### Storage

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

$\mathbf{A} =$	Peak demand	29,900 gallons
$\mathbf{B} =$	Property needed to serve five years after TY	0 gallons
$\mathbf{C} =$	Fire flow demand	0 gallons
<b>D</b> =	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. 20200139-WS F Schedules Exhibit FS-3 Page 228 of 243

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Park Ridge

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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. 20200139-WS F Schedules Exhibit FS-3 Page 229 of 243

**Used and Useful Calculations** 

Water Distribution and Wastewater Collection Systems

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Park Ridge

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 No. Docket No. 20160101-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. 20200139-WS F Schedules Exhibit FS-3 Page 230 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Park Ridge

Docket No.: 20200139-WS

Schedule F-8

Page 1 of 1

Test Year Ended: December 31, 2019 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 No. Docket No. 20160101-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. 20200139-WS F Schedules Exhibit FS-3 Page 231 of 243

X

Y

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Park Ridge

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	100	99	100	5,815,210	58,444	5,816,310	100	
2	2016	99	98	99	5,877,390	59,669	5,878,410	99	-1.01%
3	2017	98	99	99	5,798,085	58,864	5,799,025	99	0.00%
4	2018	99	99	99	6,133,381	61,953	6,134,201	99	0.50%
5	2019	99	107	103	5,830,519	56,607	5,852,099	103	4.41%
					Ave	rage Growth Throug	h 5-Year Period (Col. 8)		0.98%

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

	<del></del>	
97.32298444	1	100
0.822094891	2	99
0.401873345	3	99
	4	99
	5	103
	10	106
	0.822094891	97.32298444 1 0.822094891 2 0.401873345 3 4 5

Five year growth 2 Ercs Annual average growth 0.43 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 232 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Park Ridge

Docket No.: 20200139-WS

Schedule F-10 Page 1 of 1

Test Year Ended: December 31, 2019

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 No.	Year	Beginning	Ending	Average	Gallons Sold	SFR (5)/(4)	Gallons Sold	ERCs (7)/(6)	% Incr. in ERCs
								(*)/(*)	
1	2015								
2	2016	N	Not Applicabl	e - water only	system.				
3	2017								
4	2018								
5	2019								
				Av	erage Growth T	Through 5-Year	Period (Col. 8)		

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

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Weathersfield

Schedule F-1 Page 1 of 1

Docket No.: 20200139-WS

Preparer: Seidman, F.

Test Year Ended: December 31, 2019

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/	<b>Total Gallons</b>	<b>Total Gallons</b>	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-19	6.013	6.073	-	5.606	0.070	0.397	6.5%
Feb-19	5.576	5.631	-	5.148	0.046	0.436	7.8%
Mar-19	6.533	6.598	-	6.208	0.119	0.271	4.1%
Apr-19	6.496	6.560	-	6.072	0.056	0.433	6.6%
<b>May-19</b>	7.262	7.346	-	6.761	0.069	0.516	7.0%
Jun-19	6.456	6.552	-	6.127	0.076	0.349	5.3%
Jul-19	6.064	6.154	0.499	6.207	0.069	0.376	5.7%
Aug-19	6.212	6.304	-	5.977	0.053	0.274	4.3%
Sep-19	6.408	6.503	-	6.079	0.055	0.369	5.7%
Oct-19	6.270	6.363	-	5.953	0.091	0.318	5.0%
Nov-19	5.179	5.256	0.893	5.662	0.165	0.322	5.2%
Dec-19	6.146	6.237	-	5.783	0.074	0.380	6.1%
Total	74.615	75.576	1.392	71.583	0.943	4.441	5.8%

(Above data in millions of gallons)

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

<sup>(1)</sup> 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.

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**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 - Seminole - Weathersfield

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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.

<b></b>	(1)	(2) Individual	(3) Plant Flows	(4)	(5)	(6) Total Purch.
Month/ Year	(Name)	(Name)	(Name)	(Name)	Total Plant Flows	Sewage Treatment
 Jan-19	0.000				0.000	3.924
Feb-19	0.000				0.000	3.604
Mar-19	0.000				0.000	4.346
Apr-19	0.000				0.000	4.250
May-19	0.000				0.000	4.732
Jun-19	0.000				0.000	4.289
Jul-19	0.000				0.000	4.345
Aug-19	0.000				0.000	4.184
Sep-19	0.000				0.000	4.255
Oct-19	0.000				0.000	4.167
Nov-19	0.000				0.000	3.963
Dec-19	0.000				0.000	4.048
Total	0.000				0.000	50.108
		=========		=========	==========	=========

All sewage treated by City of Sanford

Note: By agreement with Altamonte Springs, WW flow is assumed to be 70% of water sold and billed accordingly. The above flows equal 70% of water sales to WW customers.

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\* 1,250 gpm for 2 hours

Water Treatment Plant Data Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Weathersfield

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 Survey		864,000
on the DEP operating or construction permit, provide an explanation.	Buy Besign per summary survey		301,000
	Annual Avg. day per CUP		237,014
2 Maximum Day		<b>5</b> /20/2010	200.000
The single day with the highest pumpage rate for the test year.  Explain, on a separate sheet of paper if fire flow, line breaks,		5/28/2019	298,000
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)	5/27/2019	272,000
in the test year. Provide an explanation if fire flow, line	(2)	5/26/2019	273,000
breaks or other unusual occurrences affected the flows on	(3)	5/7/2019	276,000
these days.	(4)	5/30/2019	289,000
	(5)	5/28/2019	298,000
		AVERAGE	281,600
		Max Month	236,979
4 Average Daily Flow		Annual	207,056

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

(Mixed residential/commercial)

5 Required Fire Flow

<sup>\*</sup> Land Development Code of Seminloe County Single family & duplexes - 600 gpm minimum All others - 1,250 gpm minimum

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**Wastewater Treatment Plant Data** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Weathersfield

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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.

3 Max 3 Month Average Daily Flow (3MADF)

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. 20200139-WS F Schedules Exhibit FS-3 Page 237 of 243

Used and Useful Calculations Water Treatment Plant Florida Public Service Commission

56.57%

Company: Utilities, Inc. of Florida - Seminole - Weathersfield

Docket No.: 20200139-WS

Schedule F-5 Page 1 of 1

Test Year Ended: December 31, 2019

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 Firm Reliable well pumping capacity (larg	1,550 550	gpm gpm	
Ground storage capacity, gal.		100,000	gallons
Usable ground storage (90%), gal.		90,000	gallons
Elevated storage		0	gallons
Usable elevated storage		0	gallons
Hydropneumatic storage capacity, gal.	10,000	gallons	
Usable hydropneumatic storage capacity (	0	gallons	
Total usable storage, gal.	90,000	gallons	
Maximum day demand Peak hour demand = 2 x maximum day/14	298,000 414	gpd gpm	
Fire flow requirement	1250 gpm x 2 hours	150,000	gpd
Unaccounted for water	5.77% of water pumped	12,167	gpd, avg
Acceptable unaccounted for	10.00%	20,706	gpd, avg
Excess unaccounted for		0.0	gpd, avg

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

		Use: 1	00.00%	
A =	Peak demand	2	298,000	gpd
$\mathbf{B} =$	Property needed to serve five years after TY		0	gpd
<b>C</b> =	Fire flow demand	1	150,000	gpd
<b>D</b> =	Excess unaccounted for water		0	gpd
$\mathbf{E} =$	Firm Reliable Capacity	7	792,000	gpd

In Docket No. 20160101-WS, all WTP facilities, including Weathersfield, were found to be 100% U&U, by stipulation. This system is built out. No significant factors have changed.

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.

# Storage

Percent Used & Useful = (A + B + C - D)/E x 100%, where: 100.00%

$\mathbf{A} =$	Peak demand	298,000 gallons
$\mathbf{B} =$	Property needed to serve five years after TY	0 gallons
<b>C</b> =	Fire flow demand	150,000 gallons
$\mathbf{D} =$	Excess Unaccounted for water	0 gallons
$\mathbf{E} =$	Firm Reliable Capacity	90,000 gallons

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

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 238 of 243

Used and Useful Calculations Wastewater Treatment Plant Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Weathersfield

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 S	Recap Schedules: A-6,A-10,B-14								
Line No.	_	Not applicable - All sewage treatment purchased from City of Sanford							
1 2	(A)	Used and useful flow (000): 3MADF - year 2015							
3	<b>(B)</b>	Property needed for post test year period (see F-8)	<del>_</del>						
4	(C)	Permitted capacity (3MADF)	<del>-</del>						
5	<b>(D)</b>	Used and useful percentage	<u>0.00</u> %						
6	<b>(E)</b>	Non-used and useful percentage	0.00%						

**Used and Useful Calculations Wastewater Treatment Plant**  Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Weathersfield Schedule F-6
Docket No.: 20200139-WS Page 2 of 2

Test Year Ended: December 31, 2019 Preparer: Seidman, F.

# A. Infiltration allowance, excluding service laterals

Main dia.	Main length	_	gpo	owance @ 500 l/inch-dia./mile	
inches	feet	miles	gpo	d gpy	
1 4	ļ		0.000	0	
6			0.000	0	
2 8	3	49,930	9.456	37,826	
3 10		0	0.000	0	
12	2		0.000	0	
15	5		0.000	0	
4 Total		49,930	9.456	37,826	13,806,402
5 Estimated	Inflow @ 10% of flo	ows (l.10)			7,070,316
6 Allowable	I&I				20,876,718
7 Wastewate	er treated		Est	imated	50,108,215
Water Gal	lons (not capped) so	ld to:	ret	urned	
8 Residentia	l WW		69,281,202	80%	55,424,962
9 Non-Res. V	VW		1,421,960	90%	1,279,764
10 Estimated	flows returned		70,703,162		56,704,726
12 Estimated	I&I (treated less ret	urned) [l.7-l.9]			-6,596,510
13 Actual less	allowable [l.10-l.6]				-27,473,228
14 Excess, if a	ny [l.10-l.6, if positi	ve]			0
15 Excess as p	percent of wastewate	er 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 - Seminole - Weathersfield

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 No. 20160101-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. 20200139-WS F Schedules Exhibit FS-3 Page 241 of 243

**Margin Reserve Calculations** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Weathersfield

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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

Not applicable. Used & useful was last set for this system in Docket No. 20160101-WS. The system was found to be built out and 100% U&U. Circumstances have not changed. The system remains 100% used & useful.

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 242 of 243

**Equivalent Residential Connections - Water** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Weathersfield

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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 Customers SFR Gallons/	Gallons/	Total	Total	Annual	
Line					Gallons	SFR	Gallons	ERCs	% Incr.
No.	Year	Beginning	Ending	Average	Sold	(5)/(4)	Sold	(7)/(6)	in ERCs
1	2015	1,162	1,164	1,163	68,094,273	58,551	69,837,603	1,193	
2	2016	1,164	1,163	1,164	69,502,152	59,735	71,705,170	1,200	0.64%
3	2017	1,163	1,167	1,165	67,730,265	58,138	69,543,685	1,196	-0.35%
4	2018	1,167	1,164	1,166	69,080,396	59,271	70,933,656	1,197	0.05%
5	2019	1,164	1,168	1,166	69,402,772	59,522	71,387,372	1,199	0.22%
					Ave	rage Growth Throug	gh 5-Year Period (Col. 8)		0.14%

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

		<u>X</u>	<u>Y</u>
Constant:	1194.234359	1	1,193
X Coefficient:	0.952283742	2	1,200
R^2:	0.255985343	3	1,196
		4	1,197
		5	1,199
		10	1204

Five year growth 4 Ercs
Annual average growth 0.88 Ercs

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

Five year growth 8 Ercs Annual average growth @ 0.14% 1.65 Ercs

Docket No. 20200139-WS F Schedules Exhibit FS-3 Page 243 of 243

**Equivalent Residential Connections - Wastewater** 

Florida Public Service Commission

Company: Utilities, Inc. of Florida - Seminole - Weathersfield

Docket No.: 20200139-WS

Test Year Ended: December 31, 2019

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	2015	1,160	1,160	1,160	67,975,143	58,599	69,509,103	1,186	
2	2016	1,160	1,161	1,161	69,308,422	59,723	70,865,922	1,187	0.03%
3	2017	1,161	1,165	1,163	67,582,115	58,110	68,920,845	1,186	-0.05%
4	2018	1,165	1,162	1,164	68,912,826	59,229	70,430,306	1,189	0.26%
5	2019	1,162	1,166	1,164	69,281,202	59,520	70,703,162	1,188	-0.10%
					Ave	rage Growth Throug	gh 5-Year Period (Col. 8)		0.04%

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

		<u>X</u>	<u>Y</u>
Constant:	1185.370391	1	1,186
X Coefficient:	0.596854944	2	1,187
R^2:	0.513251193	3	1,186
		4	1,189
		5	1,188
		10	1191

Five year growth 3 Ercs
Annual average growth 0.69 Ercs

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

Five year growth 2 Ercs Annual average growth @ 0.48% 0.43 Ercs

# **CERTIFICATE OF SERVICE**

HEREBY CERTIFY that on the 30th day of June 2020, a true and correct copy of the

foregoing Prefiled Direct Testimony has been served via email to:

Walter Trierweiler, Esquire Office of General Counsel wtrierwe@psc.state.fl.us

Stephanie Morse, Esquire Office of Public Counsel morse.stephanie@leg.state.fl.us

/s/ Martin S. Friedman

MARTIN S. FRIEDMAN