



Setting Rates & Impact Fees

Andrew Greene & Katherine Van Zant
45th Annual Florida Rural Water Association
Conference
July 30, 2024

IMPACT FEES



NATIONAL
Florida is the fastest growing state,
Census data shows
The Sunshine State saw a 1.9 percent population increase from 2021 to 2022.



Over the past 15 years water and wastewater utility costs in the Southeast have increased more than inflation.

Water and Wastewater Annual Price Escalation Rates for Selected Cities Across the United States: 2023 Edition, Pacific Northwest National Laboratory for the US Dept of Energy

Water Revenues

Four Categories

1. Rates

- Monthly charges for services used including fixed costs such as debt repayment

2. Connection Charges

- Placement of new water meter or sewer stub-out

3. Other Fees

- Late charges, turn offs / ons, etc.

4. Utility Impact Fees / Capacity Fees

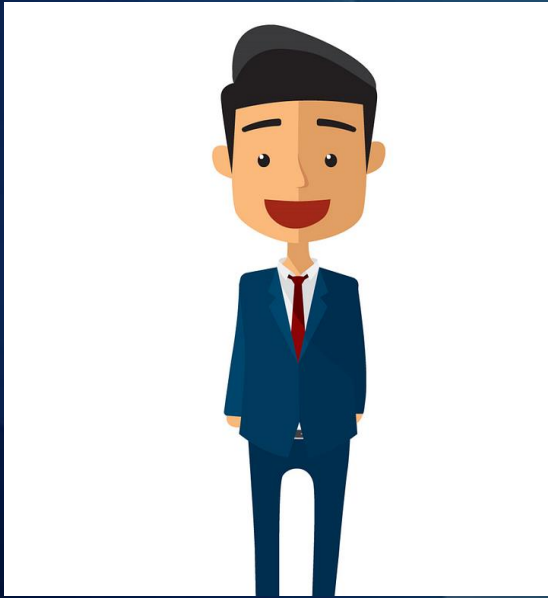
- One time capacity buy-in



Florida Rural Water Association

- Specialize water & wastewater rates and financing
- Serving over 1,400 cities, towns, special districts, and utilities throughout Florida
- Completed over 1,000 financing & rate studies.
- 30+ yrs advising Florida water & wastewater systems
 1. FRWA rate / fee studies have **never had legal challenge**
 2. Performed sound rational and methodical procedures
 3. Use tested utility industry standards – AWWA, GASB...
 4. Strong legal footing under Florida Statutes & case law

UTILITY IMPACT FEES (CAPACITY FEES)



**“I would like to
put a nice
development in
your town.”**





**HOW WILL WE TAKE CARE OF
THE UTILITIES FOR OUR
EXISTING CUSTOMERS MUCH
LESS THE GROWTH
KNOCKING AT OUR DOOR??**

“Should we charge a utility impact fee to these new developments?”





“Impact Fees can hurt a struggling economy and will stunt new home construction”

“It’s only fair that new growth pays for itself”

What are Capacity Fees

- **One-time Charge Assessed**
 - new connections to reimburse utility systems for capital / fixed costs needed to provide capacity to be used
- **Fixed Costs for Water and Wastewater Service**
 - wells, treatment plants, storage tanks, pumps, pipes, etc.
- **Utility Capital Expenses, not Operations**



Dealing with Growth & Infrastructure Decay

- Florida statute requires communities to maintain adequate levels of service for public facilities and **to anticipate and prepare for growth**
- It takes **many years to build capacity** into a system, it's impossible to provide it at the same time the new growth happens
- In addition, water and wastewater utilities must maintain infrastructure in **good operating condition**
- Requires adequate funding and continual **repair and replacement (R&R)** just to keep up with normal usage and aging



Capacity Fee Objectives

- New development pay its own way
- Fund major expansions
- Minimize debt or reduce need for future debt
- Maintain an appropriate level of retained earnings and cash reserves to meet capital needs

Capacity Fee Determination

$$\frac{\text{Capacity Cost (\$)}}{\text{ERC}} \times \text{No. of ERCs represented by new user}$$

Capacity Cost per ERC:

- **\$/ERC** = $\frac{\text{Total Treatment Cost (\$)}}{\text{Total Treatment Capacity (gpd)}} \times \text{gpd/ERC}$



Typical FRWA Capacity Fee Study Results (per ERC)

- Water: \$1,030 - \$10,260
- Wastewater: \$1,880 - \$14,050
- Typical Combined W & WW: \$9,570

EXAMPLE

- 450,000 gpd wastewater treatment capacity
- Operating 50% of capacity
- Have 2,440 ERCs remaining
- At \$5,470/ERC represents **\$13,346,800**
Capacity Fees not yet collected



The community is the winner – infrastructure in good condition is available for existing and new users.

QUESTIONS ?



A blurred background image of a water treatment facility with blue pipes and structures under a clear sky.

Setting Utility Rates Using RevPlan

Andrew Greene

North Florida Finance Management Circuit Rider

45th Annual Florida Rural Water Association
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July 30, 2024

RevPlan: What is it?

RevPlan

Welcome to RevPlan!

The Florida Rural Water Association (FRWA), Florida Department of Environmental Protection (FDEP) State Revolving Loan (SRF) program, and Raftelis Financial Consultants have partnered to create this online financial tracking and revenue sufficiency model, RevPlan.

RevPlan is designed to enhance the asset and financial management for small Florida water utilities. The idea behind RevPlan is to provide an online tool for small water utilities to achieve financial resiliency and to maintain their utility assets for long-term sustainability. RevPlan will assist users in identifying the various utility funding requirements over a 5 to 20-year planning window. These funding requirements include capital funding, operating costs, and debt repayment. RevPlan allows the user to identify any rate adjustments necessary to meet the utility funding requirements and the impact rate increases may have on ratepayers.

RevPlan: Overview

- When a user logs in, they land on the “Overview” page.
- Here you can create a new rate model or continue working on an existing one.

The screenshot shows the RevPlan Overview page. The top navigation bar includes the RevPlan logo, 'Overview' (selected), 'Settings', 'Tools', and 'Help'. On the right, it says 'Hello, Andrew (log out)' and 'Florida Rural Water Association'. Below the navigation is a blue bar with 'Admin' and a dropdown arrow. A yellow warning box contains text about the administrative system. Below this are two main sections: 'Start a New Rate Model' and 'Continue an Existing Rate Model'. The 'Start a New Rate Model' section has four input fields: 'Rate Model Name' (text), 'Service Type' (dropdown), 'Fiscal Year' (dropdown), and 'Model Years' (dropdown). It includes 'Create & Begin' and 'Cancel' buttons. The 'Continue an Existing Rate Model' section shows a 'Test Holt' card with 'In Progress' status, a 'Continue' button, and details for 'Service Type: Water Only', 'Fiscal Year: 2024', 'Model Years: 5', and 'Created: July 11, 2024'. Below it is a 'Test FY24' card with 'Complete' status and a 'Continue' button.

RevPlan: Putting It All Together

- Let's work through a RevPlan on a fictional community together.
- We will name our community: Gatorville
 - › Where the sun always shines, and the Florida Gators always win.



RevPlan: System Statistics

System Statistics

System statistics are used to document high level information for reference in each new rate model. Additionally, these statistics are used to validate and provide a “check” against more granular information entered throughout this model.

When entering the number of water meters, enter the total number of meters regardless of meter size. You will be asked to enter more detailed information on later screens.

Number of Water Meters ?	<input type="text" value="400"/>
Number of Wastewater Connections ?	<input type="text" value="300"/>
Water Production ?	<input type="text" value="1,000,000"/> gallons/day
Wastewater Treatment ?	<input type="text" value="500,000"/> gallons/day

RevPlan: Capital Financing Plan

Capital Financing Plan

Like system statistics, the capital financing plan is high level information about the system. It is designed to obtain information similar to that requested by Florida Department of Environmental Protection (FDEP) State Revolving Loan Fund (SRF), when applying for new loans. This information may generally be obtained from Comprehensive Annual Financial Reports (CAFRs) or Annual Budgets.

Note the following:

- Revenues and expenses should only include those related to water and wastewater.
- Grants should not be included in revenues here.
- Interest income should not include principal and interest expenses.

	Allocation	Fiscal Year 2022	Fiscal Year 2023
(a) Operating Revenues ?			
Drinking Water Rate Revenues ?	100% Water	\$ 100,000.00	\$ 200,000.00
Wastewater Rate Revenues ?	100% Wastewater	\$ 300,000.00	\$ 400,000.00

RevPlan: Capital Financing Plan

(c) Other Incomes [?](#)

Sewer Penalties/late fees	100% Wastewater	▼	\$	50.00	\$	70.00
Sewer Late Notice Fee	100% Wastewater	▼	\$	50.00	\$	70.00
Sewer New Set Up Fee	100% Wastewater	▼	\$	50.00	\$	70.00
Water Penalties/late fees	100% Water	▼	\$	50.00	\$	70.00
Water Late Notice Fee	100% Water	▼	\$	50.00	\$	70.00
Water Disconnect Fee	100% Water	▼	\$	50.00	\$	70.00
Water Reconnect Fee	100% Water	▼	\$	50.00	\$	70.00
Water New Set Up Fee	100% Water	▼	\$	50.00	\$	70.00
Water New Account Fee	100% Water	▼	\$	50.00	\$	70.00

[+ Add another Income Source](#)

(d) Total Revenues

\$410,450.00

\$620,630.00

RevPlan: Capital Financing Plan

(e) Operating Expenses (excluding interest on debt, depreciation, and other non-cash items) ?

45% Water 55% Wastewater

\$

400,000.00

\$

500,000.00

(f) Net Revenues (f = d - e)

\$10,450.00

\$120,630.00

Save

Cancel

RevPlan: Assets

City of Gatorville FY24

Summary Data	—————
Capital Financing Plan	—————
Assets	—————
Existing Debt	—————
Operating Expenses & Maintenance	—————
Capital Improvement Plan	—————
Anticipated Debt	—————
Customer Data & Revenue	—————
Other Revenues	—————

RevPlan: Existing Debt

RevPlan
Overview
Data Entry
Output
Settings
Tools
Help
Hello, Andrew (log out)

City of Gatorville ▼

FY24

Capital Financing Plan

Existing Debt

Identify the existing debts held by your system. Note that annual debt service should include both principal and interest.

After identifying debts, a schedule of annual debt service by fiscal year will be shown below.

Identify Existing Debts

↕ Description ?	↕ Allocation ?	Annual Debt Service (Principal + Interest) ?	Percent Coverage ?	Edit ?
Description	Choose... ▼	\$ -	- %	✓ ✕
DW180101	100% Water	\$465,749.76	115%	✎ 🗑️
CW180130	100% Wastewater	\$48,289.30	115%	✎ 🗑️
CW180131	100% Wastewater	\$930,216.00	115%	✎ 🗑️

RevPlan: Operating Expenses & Maintenance

RevPlan
Overview
Data Entry
Output
Settings
Tools
Help
Hello, Andrew (log out)

City of Gatorville ▼

FY24

Operating Expenses & Maintenance

On this screen you will identify the operating expenses & maintenance line items budgeted for your system. Note that depreciation should not be included.

The historical year data is not strictly necessary. It is included in outputs, but not used in calculations. If it is included, it should be obtained from the same source as the budgeted year.

Capital projects and equipment should not be entered here. They should instead be entered in the Capital Improvement Plan on the next screen.

↕ Fund/Account ?	↕ Type of Expense ?	↕ Cost Allocation ?	↕ Description ?	Historical 2023 ?	Budgeted 2024 ?	Escalation Factor ?	Edit ?
Fund/Account	Choose... ▼	Choose... ▼	Description	\$ -	\$ -	CPI ▼	✓ ✕
401.5331.101200	Personnel	100% Water	Salary	\$421,765.00	\$439,462.00	CPI	✎ 🗑

RevPlan: Capital Improvement Plan

The screenshot displays the RevPlan web application interface. At the top, a blue navigation bar contains the RevPlan logo, menu items (Overview, Data Entry, Output, Settings, Tools, Help), a user greeting (Hello, Andrew (log out)), and the Florida Rural Water Association logo. Below the navigation bar, the page title is "City of Gatorville" with a dropdown arrow, followed by "FY24". A horizontal progress bar with ten segments is shown, with the sixth segment highlighted in blue. The main heading is "Capital Improvement Plan". Below this heading, there are three paragraphs of instructional text. The first paragraph explains the purpose of the screen. The second paragraph describes how data from the Assets screens is used to calculate replacement costs. The third paragraph provides a note about the Future Loan funding source and its impact on the Anticipated Debt screen.

RevPlan Overview Data Entry Output Settings Tools Help Hello, Andrew (log out) Florida Rural Water Association

City of Gatorville ▼
FY24

Capital Improvement Plan

On this screen you will identify all capital improvement projects, individually, that are anticipated for your system over the next 10 fiscal years.

Data entered on the [Assets](#) screens, will be used by RevPlan to calculate the annual replacement costs of your system's assets. If you have entered asset data, these costs will appear as Water Distribution and Wastewater Collection line items below.

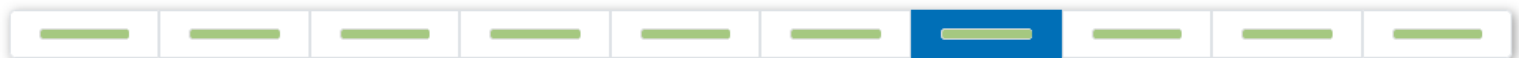
Note that a line item entered here using the Future Loan funding source (found in the drop down box under Funding Source in table below) will automatically create a corresponding debt on the [Anticipated Debt](#) screen which follows. For these line items, the Loan Name field will specify the name used for that debt. Modifying the fiscal year expenditures here will automatically update the details of the associated debt.

RevPlan: Capital Improvement Plan

Description	Funding Source	Loan Name (if applicable)	Fiscal Year						
			2024	2025	2026	2027	2028	2029	2030
<input type="text" value="Description"/>	<input type="text" value="Choose..."/>	<input type="text" value="Loan Name"/>	\$ <input type="text" value="-"/>	\$ <input type="text" value="-"/>	\$ <input type="text" value="-"/>	\$ <input type="text" value="-"/>	\$ <input type="text" value="-"/>	\$ <input type="text" value="-"/>	\$ <input type="text" value="-"/>
25% of Budget(Asset Replacement Reserve)	Wastewater Revenues		\$0.00	\$78,925.00	\$81,293.00	\$83,732.00	\$86,243.00	\$88,831.00	\$9
401.5352.909306 Reserve for WW Infrastructure	Wastewater Revenues		\$300,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
401.5352.606400 Capitalized Equip.	Wastewater Revenues		\$126,667.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
401.5351.606400 Capitalized Equip.	Wastewater Revenues		\$11,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
401.5351.606300 Projects 532,533,534,535,536,537)	Grant		\$5,011,120.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
401.5351.606300 Screw Press (City 1/2)	Wastewater Revenues		\$850,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
401.5351.606300 Screw									

RevPlan: Anticipated Loans

City of Gatorville 
FY24









Anticipated Debt

Identify the future debts anticipated for your system.

Note that line items entered in the [Capital Improvement Plan](#) using the Future Loan funding source are automatically created here using default values for details such as issuance cost and interest rate. These details may be modified on this screen. However, in order to modify the Project Funds amount you must modify the fiscal year expenditures of the corresponding line item on the Capital Improvement Plan.

After identifying debts, a schedule of annual debt service by fiscal year will be shown below.

Identify Anticipated Debts

Description 	Allocation 	Project Funds 	Issuance Cost 	Total Funding 	Repayment Term 	Interest Rate 	Percent Coverage 	Year Debt Service Begins 	Edit 
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RevPlan: Customer Data

Identify Customer Classes

On this screen you will identify the customer classes used by your system, indicating which services rates are designated for each and whether the rates for those services differ inside vs outside city limits.

A set of common customer classes have been provided below. You may rename, delete, and add customer classes as needed. But you must identify at least one customer class for your system. If your system does not have different rate structures for different classes of customers, a single customer class may be used for all customers.

On the following screens you will enter more detailed rate information about each of the customer classes identified here.

Class Name	Does your utility currently have designated rates for this class?	Does your utility currently have separate rates for inside vs outside city?		Delete
		Drinking Water	Wastewater	
Residential	<input checked="" type="checkbox"/> Drinking Water <input checked="" type="checkbox"/> Wastewater	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Non-Residential/Commercial	<input checked="" type="checkbox"/> Drinking Water <input checked="" type="checkbox"/> Wastewater	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Seniors	<input checked="" type="checkbox"/> Drinking Water <input checked="" type="checkbox"/> Wastewater	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input checked="" type="radio"/> Yes <input type="radio"/> No	

RevPlan: Customer Data

Drinking Water Base Charges and Number of Connections for Residential (Fiscal Year 2024) ?

Meter Size ?	Base Charge Inside City ?	Base Charge Outside City ?	Connections Inside City ?	Connections Outside City ?
5/8-inch	\$ 24.39	\$ 30.49	300	50
1-inch	\$ -	\$ -	-	-
1.5-inch	\$ -	\$ -	-	-
2-inch	\$ -	\$ -	-	-
3-inch	\$ -	\$ -	-	-
4-inch	\$ -	\$ -	-	-
6-inch	\$ -	\$ -	-	-
8-inch	\$ -	\$ -	-	-
Other	\$ -	\$ -	-	-

Save Cancel

RevPlan: Customer Data

Block ?	Gallonge Range ?		Rate per Thousand Gallons ?				Percent of Water Billed Annually (leave cells below blank if percentages are not known) ?	
	From	To	Rate Inside City		Rate Outside City		Percent Inside City	Percent Outside City
Block 1	– gal	2,000 gal	\$	– per kgal	\$	– per kgal	– %	– %
Block 2	2,001 gal	4,000 gal	\$	5.75 per kgal	\$	5.75 per kgal	– %	– %
Block 3	4,001 gal	6,000 gal	\$	6.33 per kgal	\$	6.33 per kgal	– %	– %
Block 4	6,001 gal	8,000 gal	\$	6.96 per kgal	\$	6.96 per kgal	– %	– %
Block 5	8,001 gal	10,000 gal	\$	7.66 per kgal	\$	7.66 per kgal	– %	– %
Block 6	10,001 gal	– gal	\$	8.42 per kgal	\$	8.42 per kgal	– %	– %

[+ Add Another Block](#)

Save Cancel

RevPlan: Customer Data

Drinking Water Billed Annually in Thousands of Gallons for Residential (Projected for Fiscal Year 2024) ?

	Water Billed Inside City ?	Water Billed Outside City ?
Drinking Water	9,000 kgal	389 kgal

Save

Cancel

Based on the Number of Connections and the Annual Gallons Billed entered for this customer class, the average monthly use per customer of this class is 2.5 thousand gallons per month (2,500 gallons per month). ×

RevPlan: Utility Reserves

Demo Model

Utility Reserves

On this screen you may enter reserves held by your system.

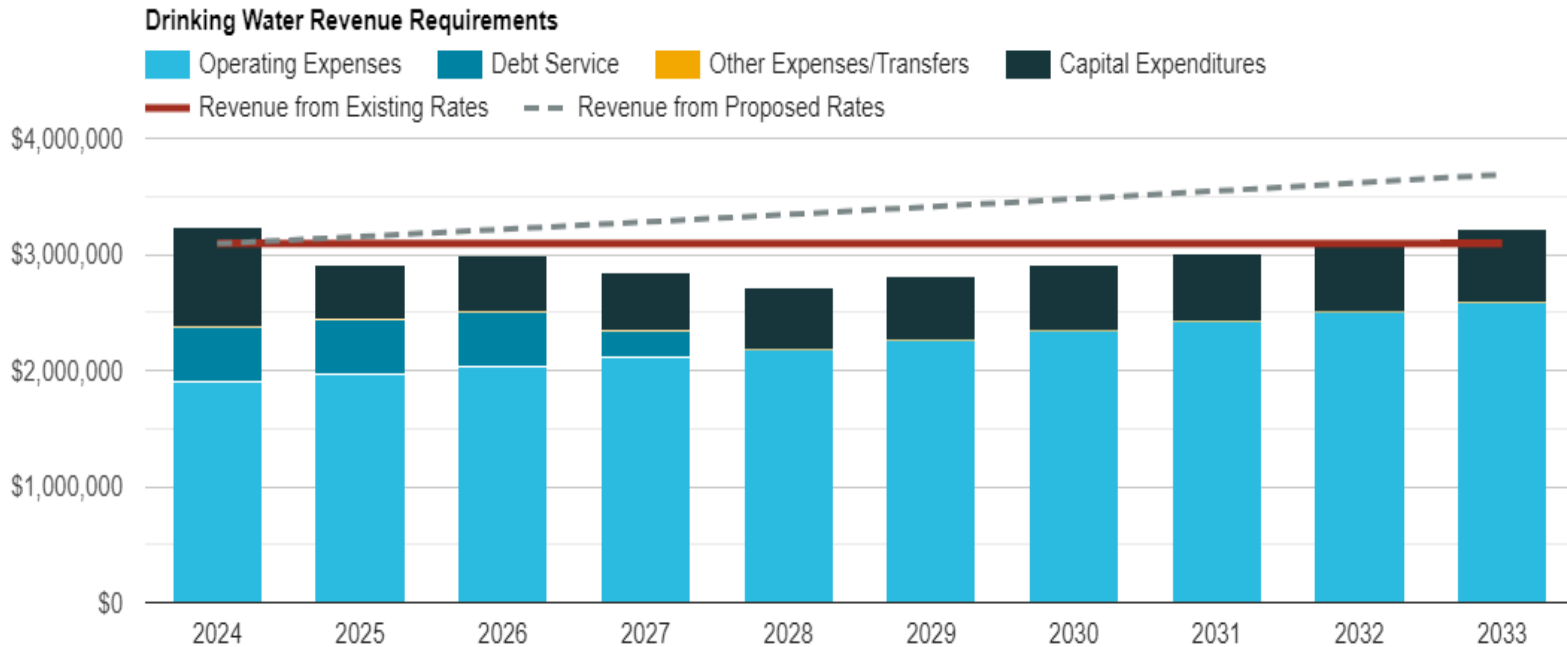
Reserves as of the end of fiscal year 2017

Unrestricted Utility Reserves ?	\$	350,000.00
Water Impact Fee Reserves ?	\$	35,000.00
Wastewater Impact Fee Reserves ?	\$	55,000.00

RevPlan: Output

- Output is displayed in RevPlan in 2 different ways:
 - › Dashboard
 - › Tabular Schedules
- Let's look at these screens together.

RevPlan: Dashboard



RevPlan: Dashboard

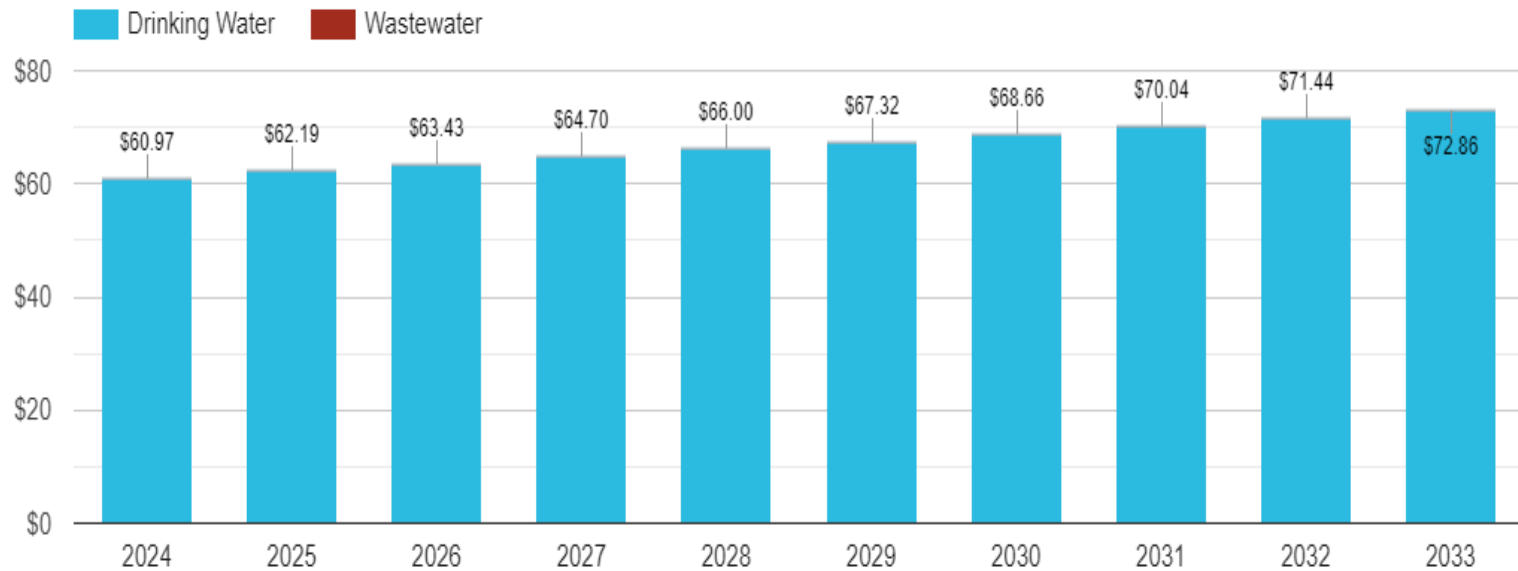
Adjustments ?

Apply Residential adjustments to all customer classes

	Fiscal Year									
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Residential										
Base Charge Adjustments										
Drinking Water	0 %	2 %	2 %	2 %	2 %	2 %	2 %	2 %	2 %	2 %
Wastewater	0 %	3 %	3 %	3 %	3 %	3 %	3 %	3 %	3 %	3 %
Usage Charge Adjustments										
Drinking Water	0 %	2 %	2 %	2 %	2 %	2 %	2 %	2 %	2 %	2 %
Wastewater	0 %	3 %	3 %	3 %	3 %	3 %	3 %	3 %	3 %	3 %

RevPlan: Dashboard

Typical Monthly Bill, 3,000 Gallons Residential Single Family Inside City



RevPlan: Dashboard

Output Settings Help

Dashboard

Tabular Schedules

Drinking Water Revenue Requirements

Wastewater Revenue Requirements

Debt Service Coverage

Unrestricted Fund Balance

CIP Schedule

Debt Service Schedule

Operating Expense Projection

Typical Monthly Bill

Rate Schedule

Rate Revenue

RevPlan: Tabular Schedules

[Export Excel File](#)

Tabular Schedules

Drinking Water Revenue Requirements

	Fiscal Year				
	2018	2019	2020	2021	2022
Revenue Requirements:					
Operating Expenses	\$440,000	\$453,200	\$466,800	\$480,800	\$495,200
Debt Service	\$21,300	\$21,300	\$21,300	\$21,300	\$102,700
Other Expenses/Transfers	\$0	\$0	\$0	\$0	\$0
Capital Expenditures	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000
Gross Revenue Requirements	\$546,300	\$559,500	\$573,100	\$587,100	\$682,900
Less: Miscellaneous Revenue	\$11,500	\$11,500	\$11,500	\$11,500	\$11,500
Net Revenue Requirements	\$534,800	\$548,000	\$561,600	\$575,600	\$671,400
Existing Rate Sufficiency:					
Revenue from Existing Rates	\$652,300	\$652,300	\$652,300	\$652,300	\$652,300
Revenue Surplus/(Deficiency)	\$117,500	\$104,300	\$90,700	\$76,700	(\$19,200)
Proposed Rate Sufficiency:					
Revenue from Proposed Rates	\$656,000	\$659,800	\$663,600	\$675,800	\$688,300
Increase in Revenue	\$3,700	\$7,500	\$11,300	\$23,500	\$36,000
Cumulative %	0.57%	1.15%	1.73%	3.61%	5.53%

Your RD Circuit Riders are here to help!

Northwest Florida

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North Florida

Andrew Greene

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Central Florida

Wayne Moore

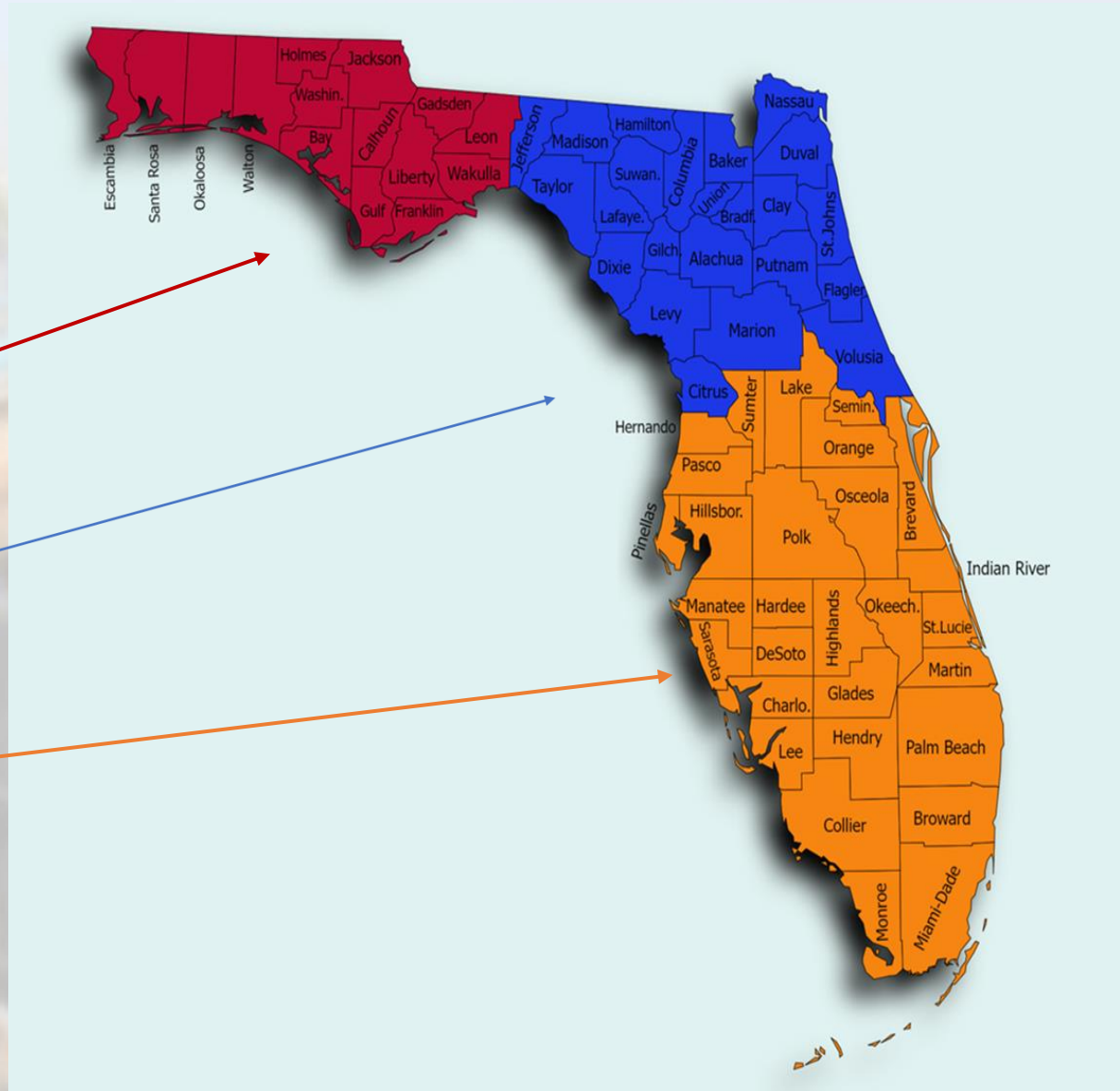
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Questions?

Thank you so much for your time and attention.