



Micanopy Water System Improvements

Town Commission Status Report

September 9, 2025

Recommended Action

- 1) Receive report, and
- 2) Authorize City Manager to execute task order in the amount of \$262,300 to design water treatment facility improvements employing greensand and granular activated carbon filtration, and
- 3) Authorize City Manager to execute task order in the amount of \$480,300 to design water distribution system improvements to incorporated larger diameter PVC pipes



Water System Information

- Permitted capacity: 103,000 gpd, annual average daily flow
518,000 gpd, max daily flow
- Average daily flow: 65,000 gpd (~63% of permitted capacity)
- 3 – potable water wells (1965, 1985, 2022)
- 1 – 100,000-gallon elevated storage tank
- 1 – 150 kW (diesel) auxiliary generator
- 37 fire hydrants
- 11.6 miles water main (2", 4", 6", and 8")
- ~350 water meters / water connections



Water System Improvements

➤ State funding establishes three (3) primary milestones for lenders / projects

➤ Planning –

- Facility Plan – 20-year planning document
- Identifies utility deficiencies / needs
- Provides funding plan
 - Florida State Revolving Fund (SRF) is funding source
 - Planning / Design activities: 10-year term
 - Construction activities: 20 (or 30) year term
- Estimated project cost

➤ Design –

➤ Construction –



Water System Improvements

Facility Plan: Two Focus Areas

1) Water Treatment System

- Iron
 - Secondary pollutant, generally aesthetic concerns
 - Staining / iron / rust deposits
- Disinfection By-Products (DBPs)
 - Total Tri-halomethanes (TTHMs)
 - Occur when organics in water source combine with disinfectants (ie chlorine)
 - Potential health issues, including cancer, associated with TTHMs
- **Solution**: Greensand filtration followed by granular activated carbon filtration; filtrate to percolation system at baseball field

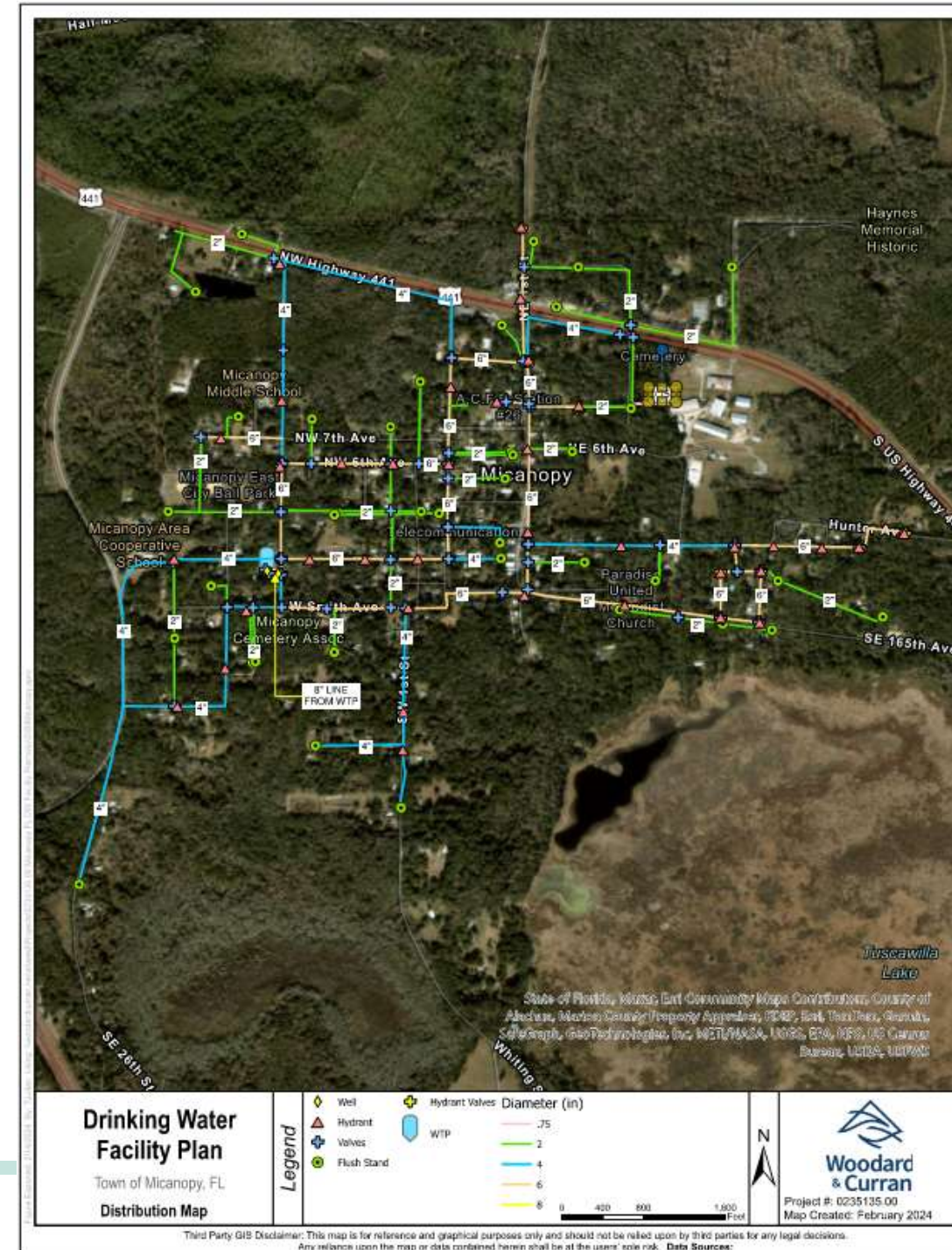


Water System Improvements

Facility Plan - Two Focus Areas (continued)

2) Water Distribution System

- Low pressure areas / inadequate fire flow capabilities
- Due to small diameter pipes and lack of interconnections within pipe system (looping)
- **Solution:** Construct large diameter (6" and 8") PVC pipelines in strategic locations to enhance pressure and available fire flow with minimal impact to roadways and tree canopy



Water System Improvements

Alternatives Selected

	Report Section	Construction ¹	Engineering ²	Construction Engineering and Inspection ³	Legal, Fiscal, and Administrative ⁴	Total Project Cost
Supply <u>Treatment</u> Greensand/GAC		\$1,344,800	\$122,300	\$61,200	\$36,700	\$1,565,000
<u>Distribution System</u> Improvements		\$6,822,500	\$620,300	\$310,200	\$186,100	\$7,939,100
Recommended Plan Total		\$8,167,300	\$742,600	\$371,400	\$222,800	\$9,504,100

Water System Improvements

Alternatives Selected



Milestone	Anticipated Schedule
Prepare Preliminary Engineering Report and Adotion of Facility Plan	November 2023 to June 2024
SRF Meeting and Appropriation of Project Funds	August 2024 to October 2024
Project Design and Permitting Contract Awarded	December 2024
Project Design and Permitting	January 2025 to April 2026
Project Funding Awarded	August 2026
Project Bidding and Contract Award	November 2026 to February 2027
Project Construction	April 2027 to Ocober 2028
Project Certification	January 2029

Water System Improvements

Funding

Florida SRF Loan

✓ Planning

\$75,000

Design

\$430,000

Legislative Appropriation

\$505,000, 50% principal
forgiveness

\$371,300

\$876,300 **\$801,300 available**

Design Proposals

➤ Task 1: Water Treatment Facility Improvements: \$262,300

➤ Task 2: Water Distribution System Improvements: \$480,300

\$742,600

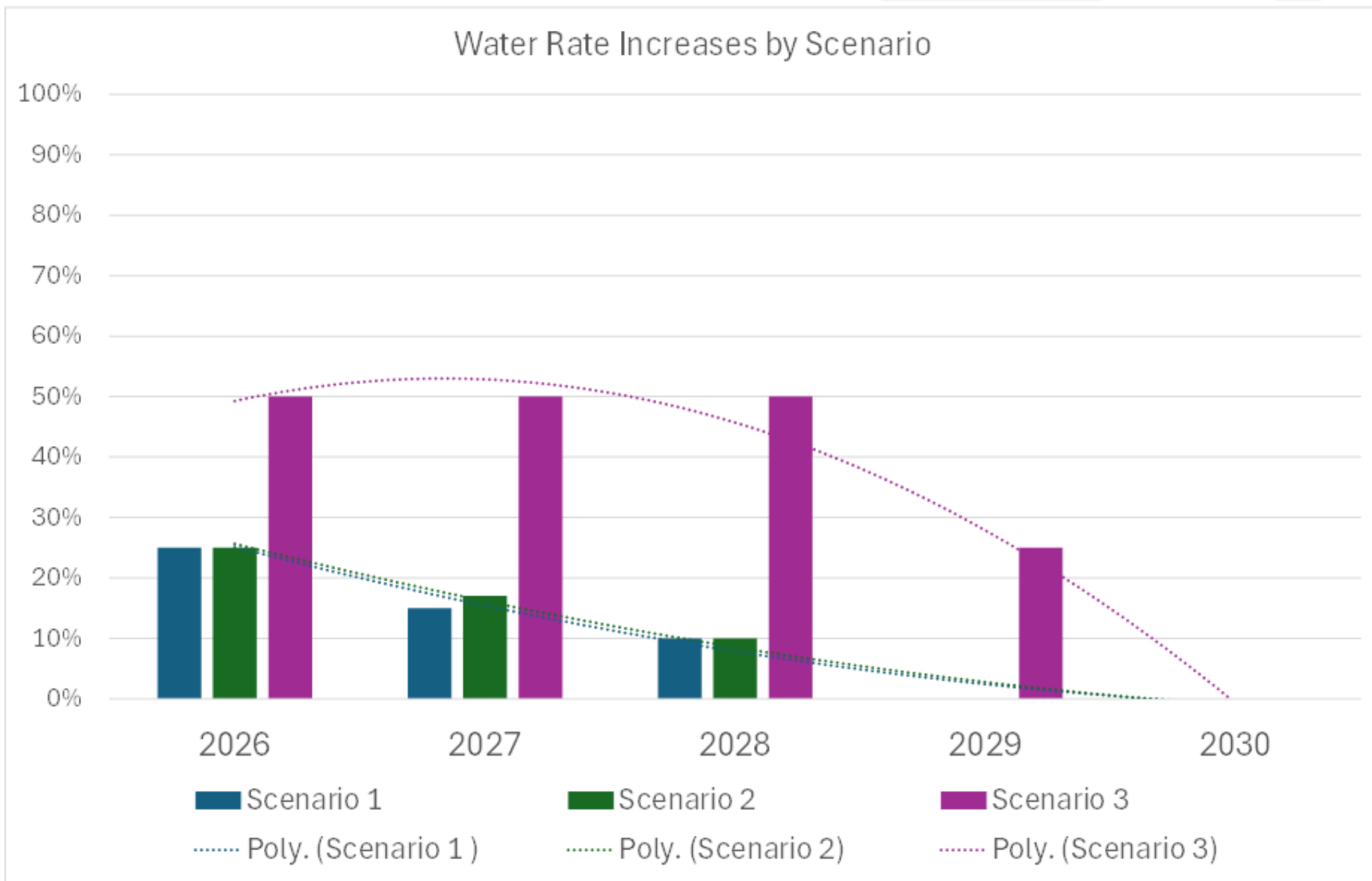
Water System Improvements

Scenarios	Elements	Estimated Cost
Scenario 1	▪ Design treatment improvements	\$262,300
	▪ <u>Construct treatment improvements</u>	<u>\$1,442,700</u>
	Total	\$1,705,000
Scenario 2	▪ Design treatment improvements	\$262,300
	▪ Construct treatment improvements	\$1,442,700
	▪ <u>Design distribution system improvements</u>	<u>\$480,300</u>
	Total	\$2,185,300
Scenario 3	▪ Design treatment improvements	\$262,300
	▪ Construct treatment improvements	\$1,442,700
	▪ Design distribution system improvements	\$480,300
	▪ <u>Construct distribution system improvements</u>	<u>\$7,318,800</u>
	Total	\$9,504,100

Water Sys

Rate Impacts

Scenario	Description
1	Design and Construction
2	Scenario 1 plus Operations and Maintenance
3	Scenario 2 plus Debt Service



Questions



Recommended Action

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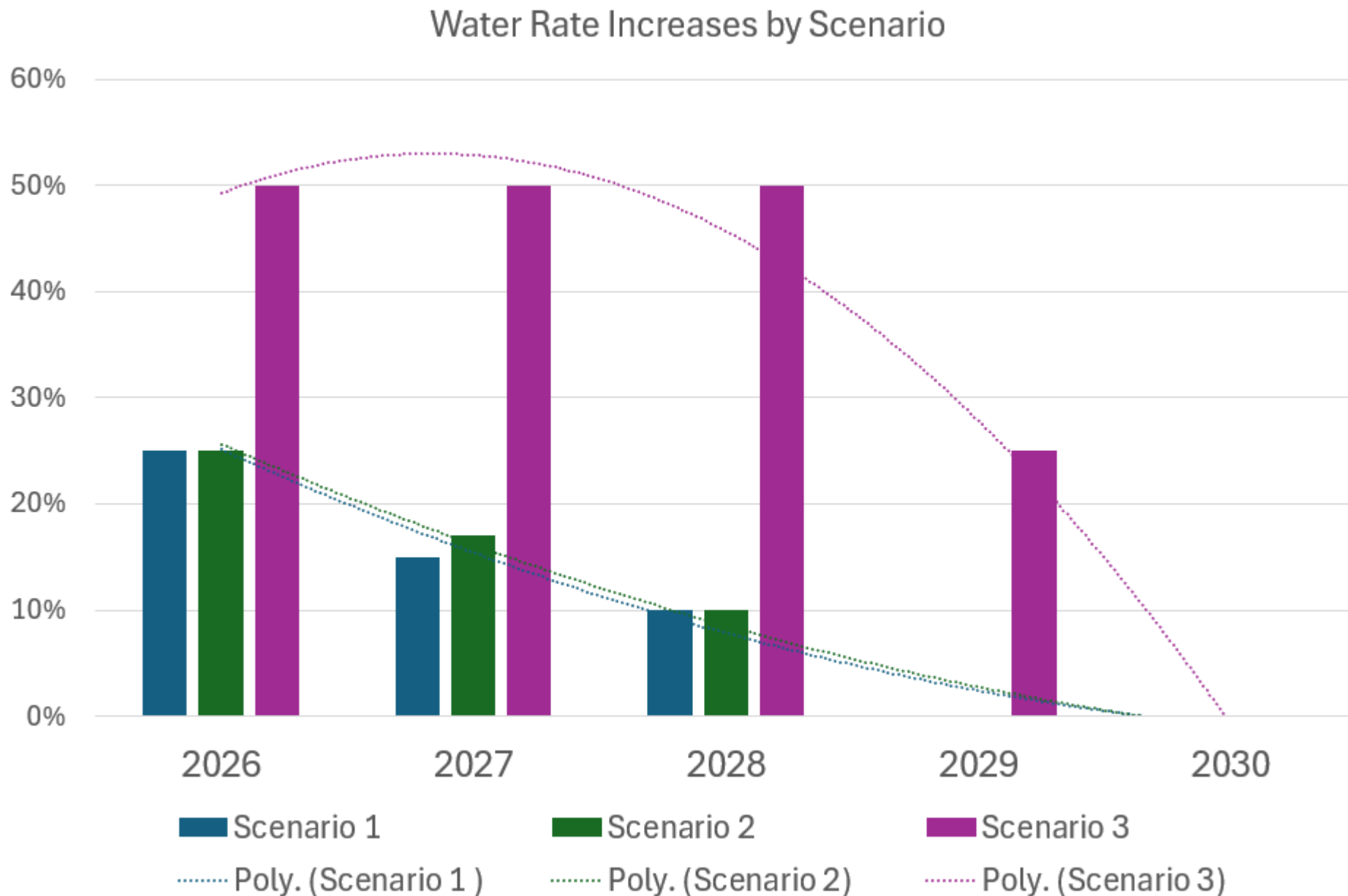
Woodard & Curran

**Clean water, safe environment, healthy
communities, happy people**

Water System

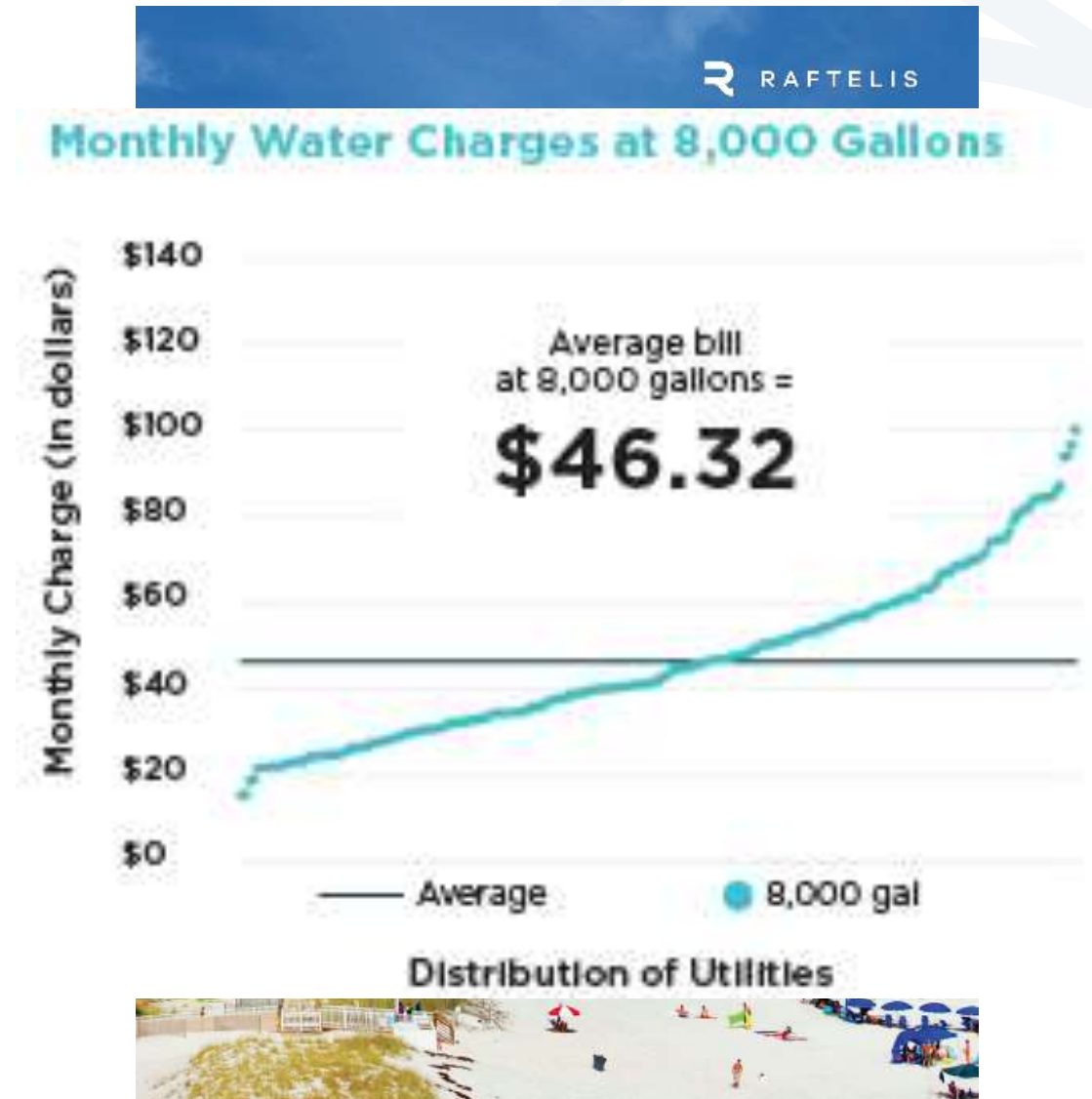
Rate Impacts

Scenario	Description
1	Design and Construction
2	Scenario 1 plus
3	Scenario 2 plus



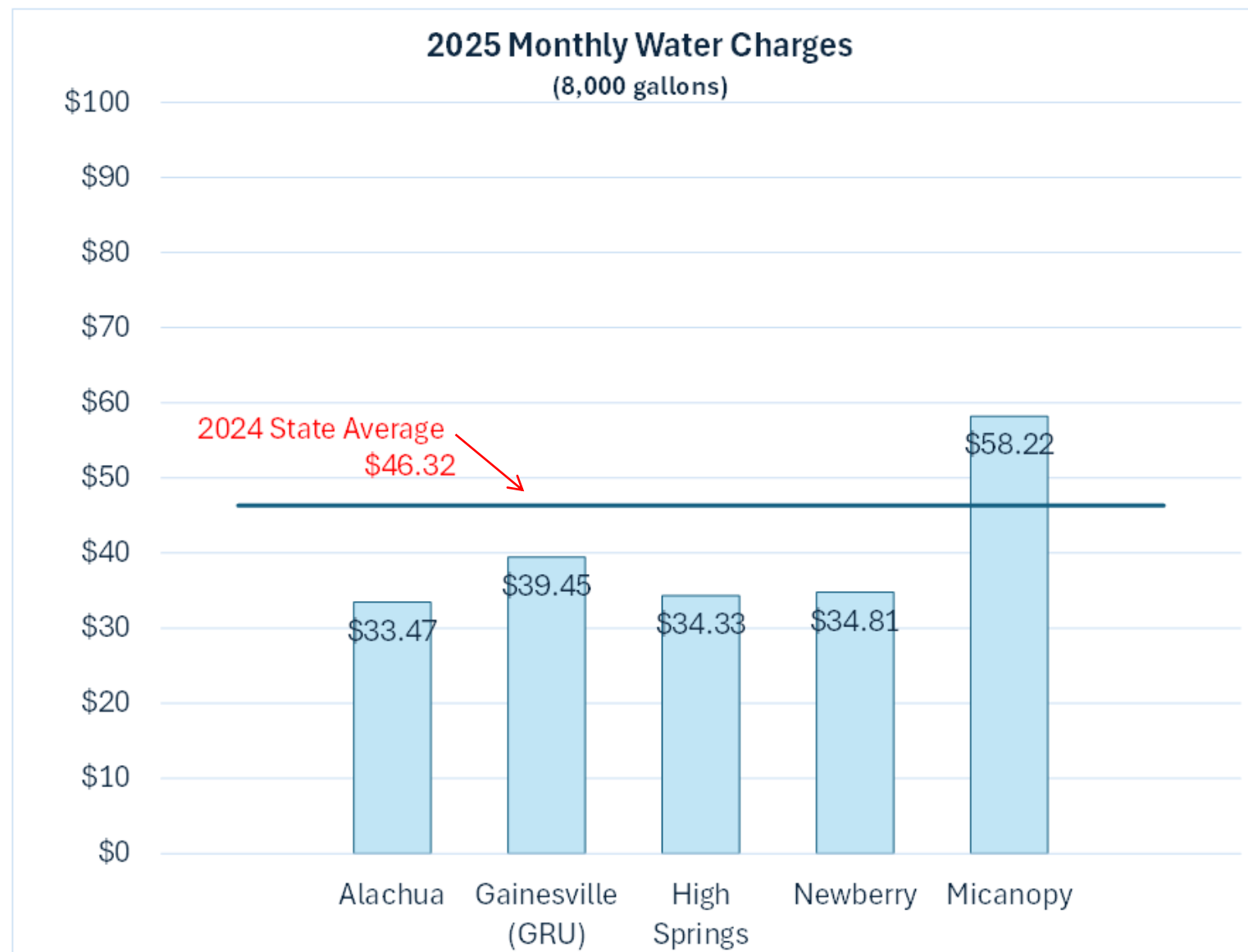
Water Rates

- Raftellis publishes Florida Water and Wastewater Rate Survey biannually
- Current edition published in 2024
- Depicts the total monthly water, wastewater, and combined utilities for respondents across the state using 4,000 gallon and 8,000 gallon monthly consumption



Water Rates

2024 Florida Water and Wastewater Rate Survey by Rafteli



Water System Improvements

