

# Hallandale Beach City Commission

10-Year Water Supply Facilities Work Plan

June 22, 2026



# Agenda

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1

What is a Water Supply Facilities Work Plan?

2

South Florida Water Management District (SFWMD) 2023-2024 Lower East Coast Water Supply Plan Update

3

Hallandale Beach Water Supply Facilities Work Plan 2026 Update

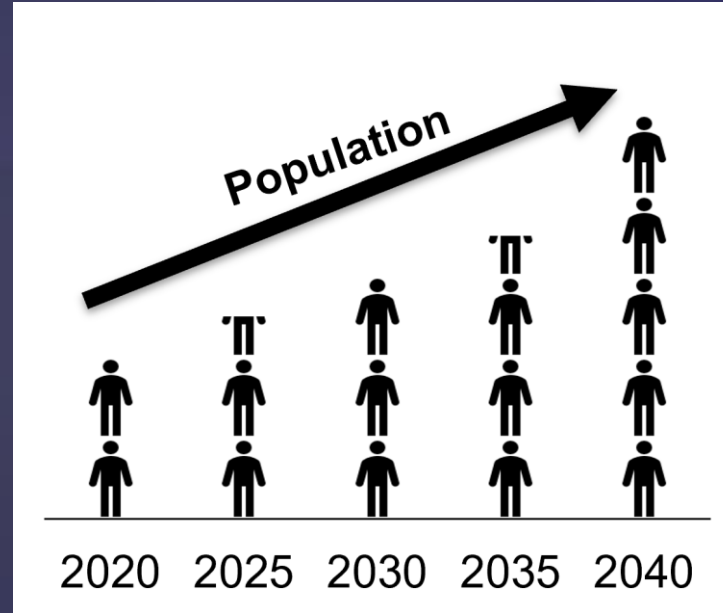
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What is a Water Supply  
Facilities Work Plan?

# Water Supply Facilities Work Plan

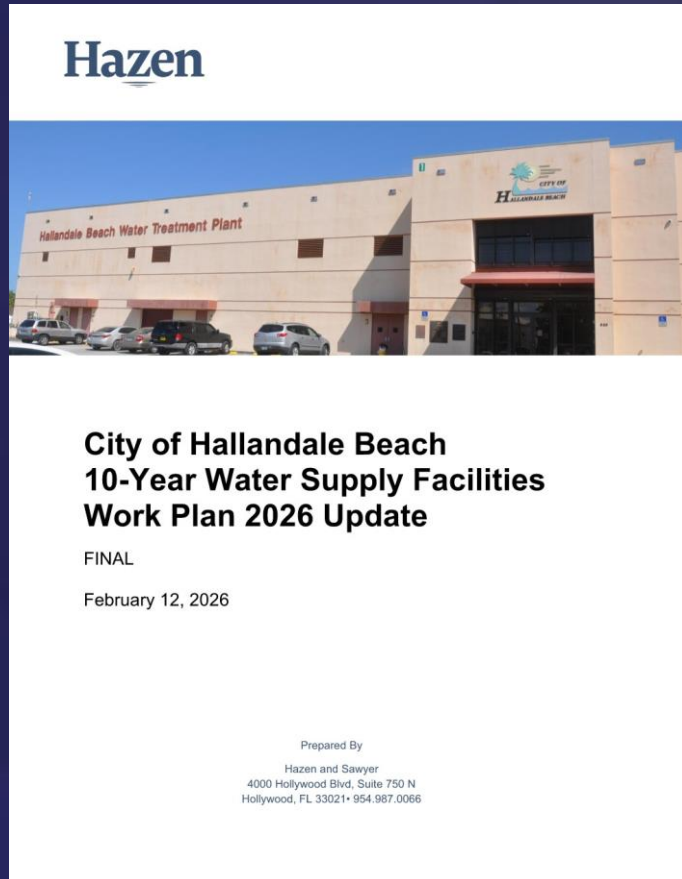


**Required By:**  
**Florida Statutes**  
**Chapter 163, Part II**



It is the City's plan that documents how it will ensure adequate water supply to meet forecasted population growth.

# Water Supply Facilities Work Plan



Hazen and Sawyer, a consultant to the City, completed an update to the Water Supply Facilities Work Plan in February 2026.

A summary of the key findings of this Plan are presented in Section 3 of the Plan.

2

SFWMD 2023-2024  
Lower East Coast Water  
Supply Plan Update

# The South Florida Water Management District



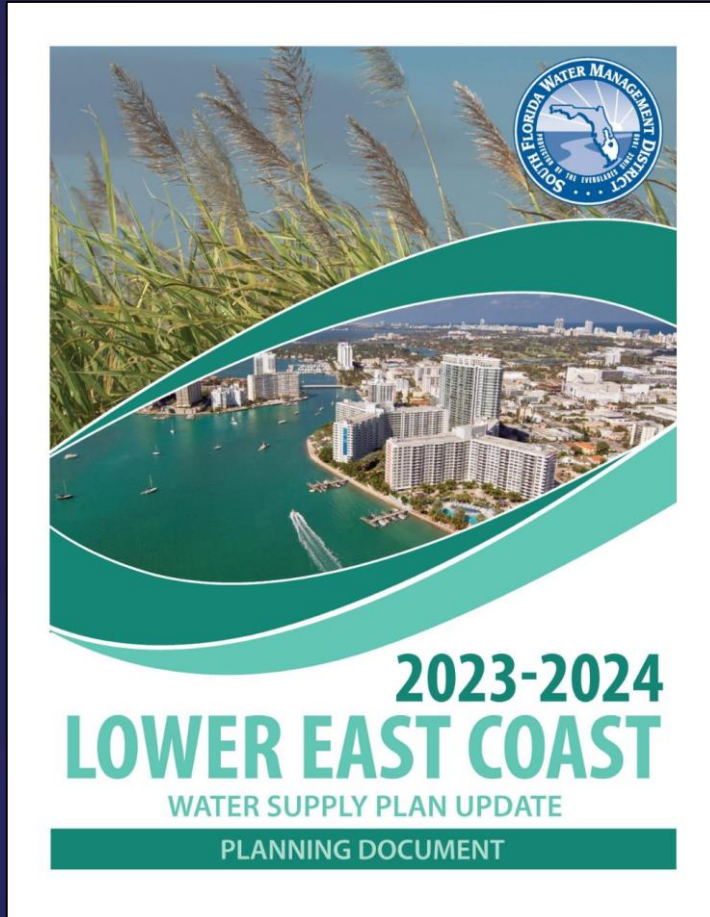
SFWMD issues updates to its Lower East Coast Water Supply Plans (LECWSP) every five years



← LECWSP  
DOCS

Scan me for more info!

# The SFWMD - Lower East Coast Water Supply Plan Updated September 23, 2024



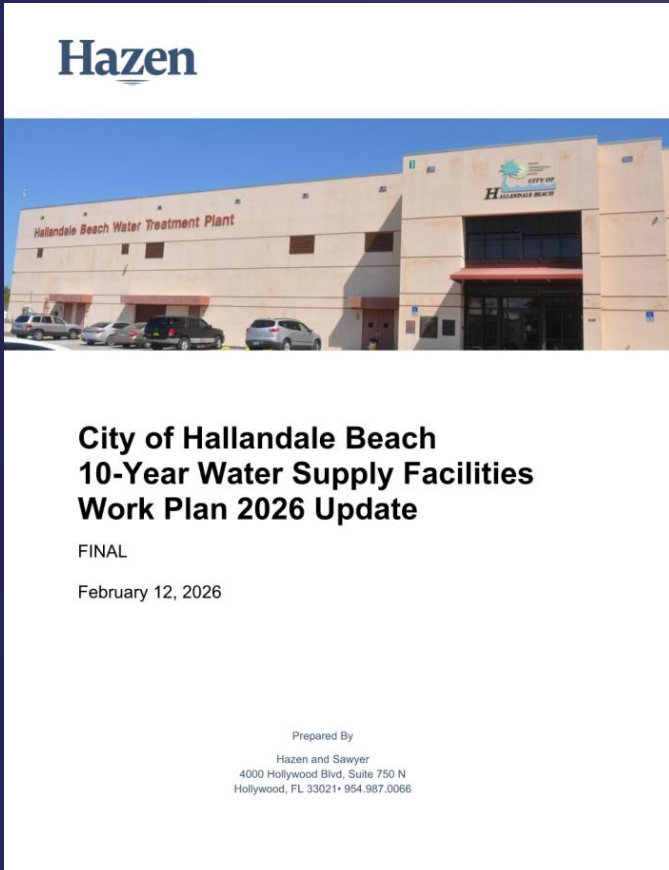
...once the LECWSP is issued, the City is required to update its Water Supply Facilities Work Plan and incorporate it into its Comprehensive Plan.

Applies to:

- All of: Palm Beach, Broward, Miami-Dade counties; and
- Parts of: Monroe, Collier and Hendry Counties



# Hazen and Sawyer - Water Supply Facilities Work Plan Corradino - Comprehensive Plan Amendments



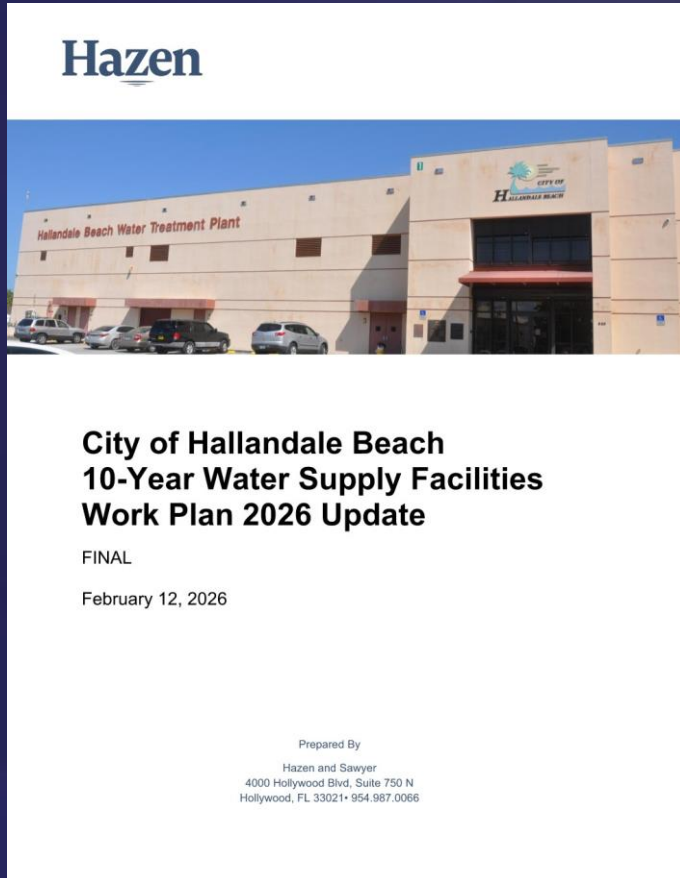
The Water Supply  
Facilities Work Plan  
provides key input for  
the Comprehensive  
Plan Amendments



3

# Hallandale Beach Water Supply Facilities Work Plan 2026 Update

# The City's Water Supply Facilities Work Plan Update - Completed February 2026



This document defines a plan for future water supply and water treatment plant expansions to meet two goals:

- Goal 1: Comply with the PFAS Rule (Transition to 100% membrane treatment)
- Goal 2: Define capital improvements required to meet expected population growth.

# City Commission Presentation – January 7, 2026: Recommendations for Water Supply and Treatment Capital Improvements

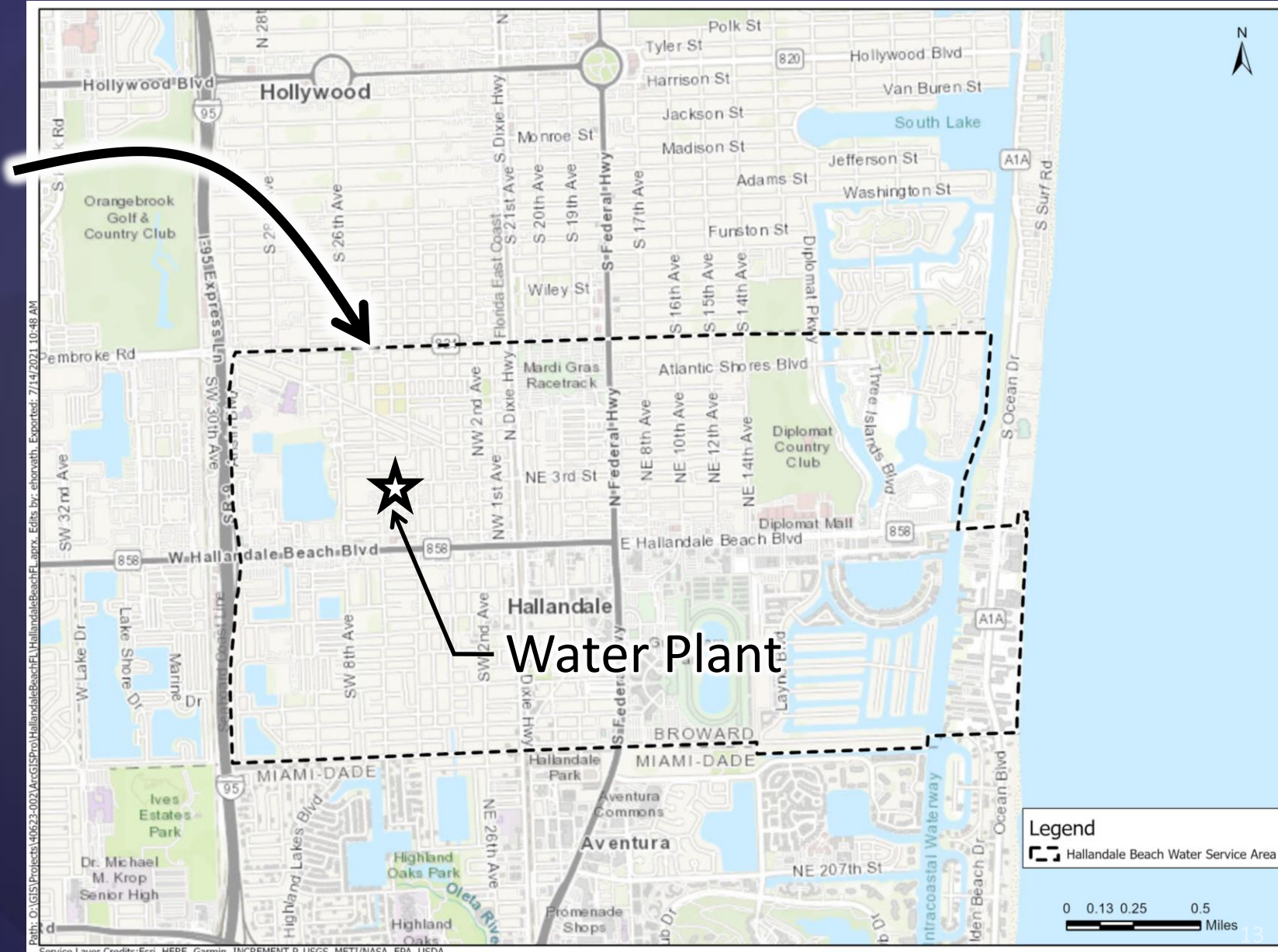


Scan me to access the  
January 7, 2026 presentation  
to City Commission

# The City's Water Service Area

City's water service area includes all of Hallandale Beach

...the City's population is anticipated to grow from current of 43,100 to 60,600 (year 2050)



Service Layer Credits: Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

# The City's Water Treatment Plant Uses Two Treatment Technologies

Technology 2:  
Nanofiltration  
Membranes

Technology 1:  
Lime Softening



# The City's Two Treatment Processes

## 1 Lime Softening



Early 1900s Technology

Built in 1950

Design Capacity: 10 millions  
of gallons / day (mgd)

## 2 Membrane Treatment



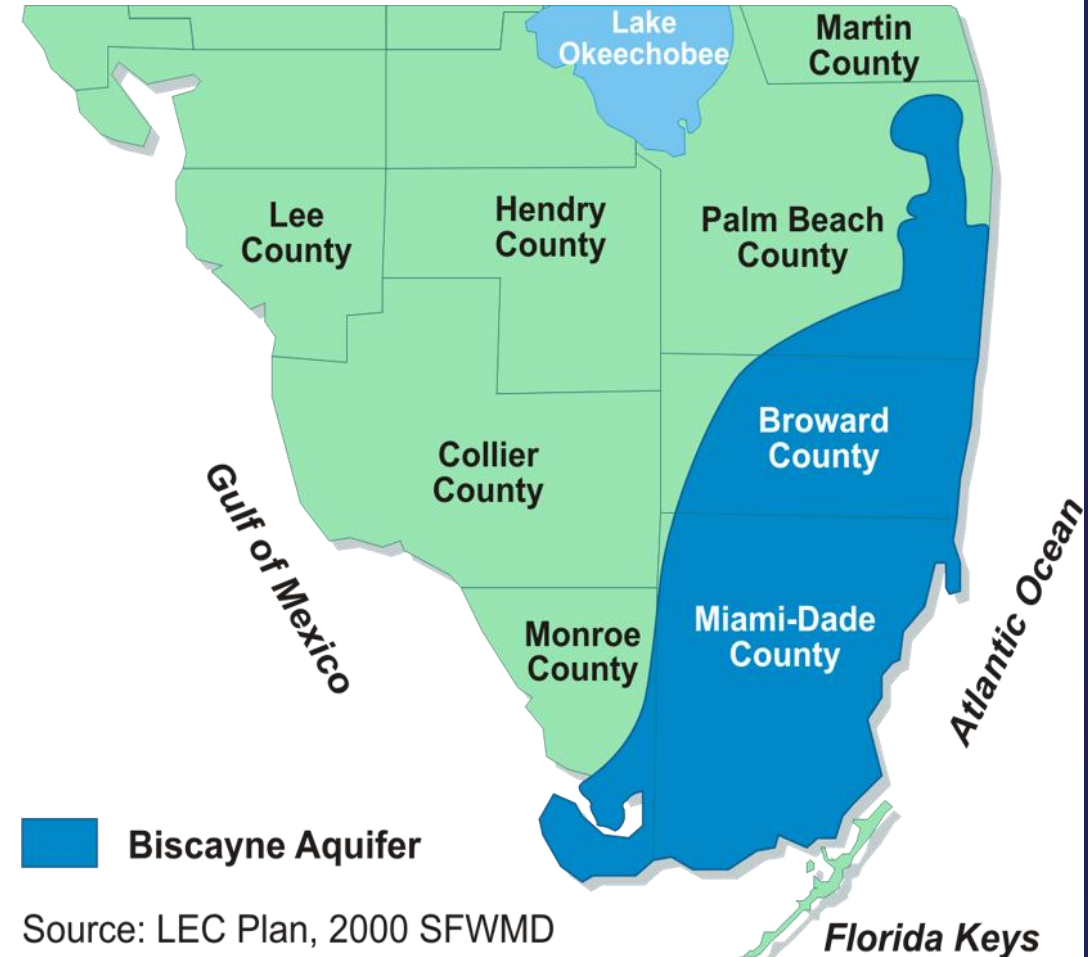
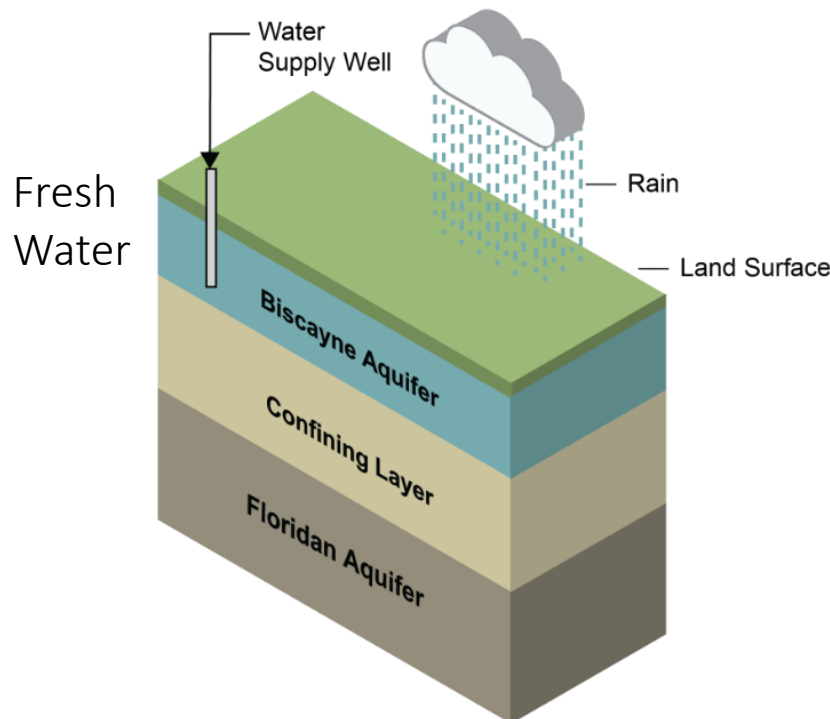
State-of-the-Art Technology

Built in 2007

Design Capacity: 6 mgd  
(expandable to 13 mgd)

# Where Does The City's Water Supply Come From?

Biscayne Aquifer  
occurs ~ 100 – 150 feet  
below land surface  
(City's existing source supply)



# The City's Two Sources of Biscayne Aquifer Water

## 1 City Wells



City owns five wells

## 2 Broward County Wells



Water received via a pipeline

# The City's Water Use Permit Limits Biscayne Aquifer Use



1 City Wells

4.03  
mgd

To Lime Softening  
Treatment

2 Broward County

4.26  
mgd

To Nanofiltration  
Membrane Treatment

City's Biscayne Aquifer withdrawal allocation  
 $= 4.03 + 4.26 = 8.29$  mgd

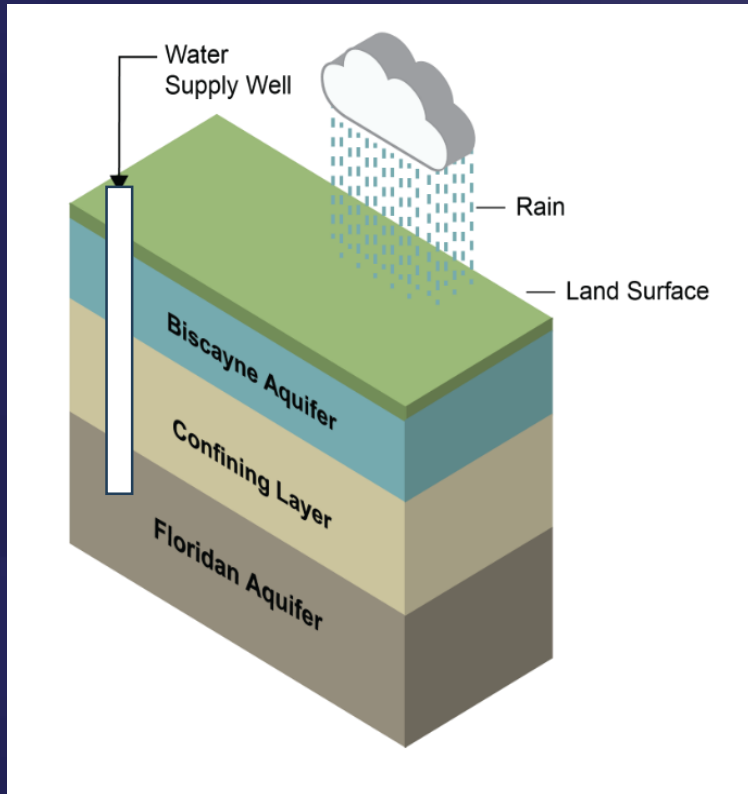
Can the City's Biscayne Aquifer withdrawal allocation be increased above 8.29 mgd to meet future demands?

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The Biscayne Aquifer is fully allocated.

No increase in Biscayne Aquifer withdrawal allocation is feasible.

# Floridan Aquifer Water Supply



- Floridan Aquifer is ~ 1,000 ft below land surface
- Total dissolved solids/salinity is greater than the fresh Biscayne Aquifer
- Reverse Osmosis (RO) treatment is required
- Pressure to treat through RO is higher than for Nanofiltration (NF) of the Biscayne Aquifer

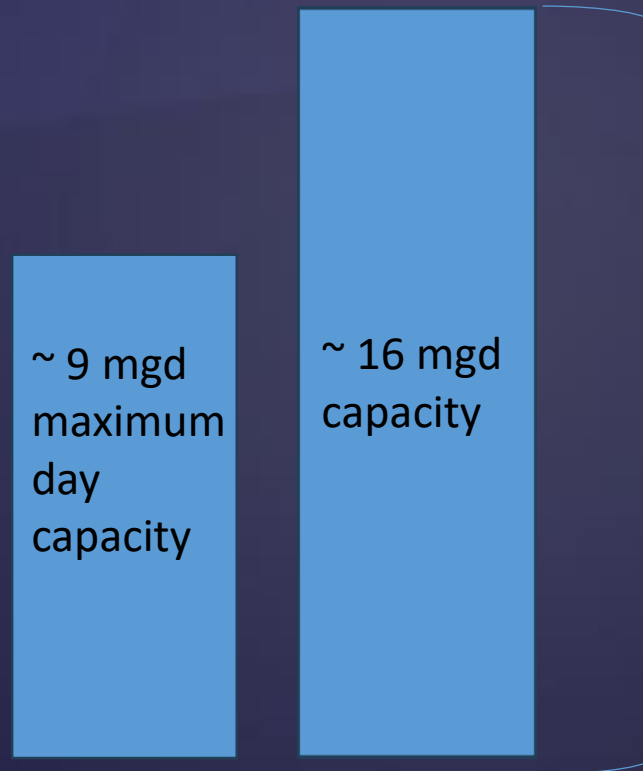
# Current and Future Demands



- The City has sufficient treatment capacity to meet current demand.
- The City should invest in 100% membrane (NF and RO) treatment to remove PFAS.
- The City must design and construct Floridan Aquifer water supply and RO treatment in the near-term to meet the future demand.
- The City should pursue additional emergency interconnects to backup the City's Water Treatment Plant during emergencies. Currently the City operates only one with North Miami Beach.

# Water Treatment Plant – Current Production Amount (In MGD) vs. Current Capacity To Treat Source Water

The City presently produces approximately 9 mgd of finished water to meet the maximum day demands of the City



## Current Capacity:

- Lime softening WTP = 10 mgd
- Membrane Plant = 6 mgd

“Membrane Plant” = combination of **Nanofiltration (NF)** of the Biscayne Aquifer and **Reverse Osmosis (RO)** of the Floridan Aquifer  
(Both NF and RO remove PFAS)

**Lime softening does not remove PFAS and will be removed as a treatment process around FY2030/FY2031**

# Future Total Water Treatment Plant Production Capacity

The WTP will be rerated for the additional RO treatment capacity once the Floridan Aquifer wells and RO skids are complete

Item	Description	Added Capacity
1	Existing Membrane Plant (Nanofiltration Skids)	6 mgd
2	Addition of RO Skid 1 (completed 2026)	2 mgd
3	Addition of RO Skid 2	2 mgd
4	Addition of RO Skid 3	2 – 3 mgd
	Future Total WTP Production Capacity	12 – 13 mgd

Key capital improvements are required (RO Skids, Floridan Aquifer Wells, etc.) to ensure sufficient drinking water

# Planned Water Supply and Treatment Plant Infrastructure Investments

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RO Skid 1  
Completed 2026



RO Skid 2  
Target: 2029



RO Skid 3  
Target: 2030



Floridan Wells  
Target: 2028



Disposal Well 2  
Target: 2030



These improvements, along with other supporting improvements will ensure the City can meet its customers' water needs through 2050.

# Conclusion

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The City meets current demand for water but must take proactive, phased actions now to ensure reliable, compliant, and sustainable water supply for future growth.

# Questions?