

# CITY OF MARGATE, FL

### WATER AND WASTEWATER BOND REFERENDUM

May 1, 2024



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### **O**VERVIEW

- What? Bond Referendum put before the voters of the City of Margate
- Why? To ensure clean, safe drinking water and an effective wastewater utility system
- How? Issuance of not-to-exceed \$120 million to finance infrastructure projects over the next several years
- When? Tuesday, November 5, 2024
- **Currently:** The City hired consultants and engineers to perform a water and wastewater utility system evaluation, Capital Improvement Plan (CIP) update and rate study. The City implemented the rate structure recommendation and is now embarking on the CIP to bring the utility system up to required standards.
- **Story:** In order to implement the first set of recommended projects, the city needs to borrow \$60 million that is estimated to be spent within the first two years. Once that money is spent, the City must go to the Commission for approval of any future issuance. The City will then reevaluate the projections and request permission from the Commission to obtain additional financing for the next set of projects, and so on. The City can only borrow as much money as it projects it will spend in a *two-year period*. The payment of these bond issues has already been incorporated into the utility rate structure implemented by the City. Via the Referendum, the City is requesting to borrow against those funds to build the necessary infrastructure projects.
- Alternative: If the City does not invest in the urgent and critical needs of its utility system, it will face many consequences such as the inability to provide safe, clean water or wastewater, inability to meet regulatory requirements, rising costs associated with water main breaks and the like, much more. Eventually the City may be forced to make the necessary repair and replacements.





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# SECTION 1

THE PURPOSE

### PURPOSE

The City's Water and Wastewater Utility systems are in critical and urgent need of significant improvements and upgrades. The City must address these needs to provide the City with clean, safe drinking water and comply with regulatory environmental regulations.

### These projects will address:

- Urgent infrastructure renewal and replacement needs
- Compliance with regulatory requirements
- The system's operational and financial sustainability

The following slide contains a preliminary bond financing plan to address the critical projects contained in the City's Capital Improvement Program.







As identified by the Capital Improvement Plan and recommended by the Rate Study the ongoing renewal/replacement needs and some of the smaller projects will be funded annually or on a **pay-as-you-go** basis. The larger projects must be funded in larger tranches, with **three bond issues currently projected**:

- **FY 2025: \$60 million** will fund Water and West Wastewater Treatment Plant upgrades
- **FY 2027: \$30 million** will fund the replacement of older cement water mains within the distribution system
- **FY 2031: \$30 million** will fund anticipated regulatory requirements and completion of previous projects

Bond could be issued in different amounts and/or spread out over a longer period, depending on the progress of the projects, but **total amount not to exceed <u>\$120 million</u>**.

Each of the tranches would **come to the City Commission for a formal review and vote in a publicly noticed meeting**.





## **CITY CHARTER REQUIREMENT**



Unlike other cities, the **City of Margate's Charter** currently requires that the City may not issue bonds (of any type) unless approved by a referendum of the electors of the City of Margate.

The following slide contains the draft bond referendum language that may be presented on the November ballot.





### REFERENDUM FOR CITY OF MARGATE REVENUE BONDS FOR WATER AND WASTEWATER SYSTEM CAPITAL IMPROVEMENT PLAN

"To ensure the public's safety and health and to comply with environmental regulatory requirements, shall the City of Margate issue debt, not exceeding \$120,000,000 water and wastewater improvement revenue bonds, in one or more series, bearing interest at rates not exceeding the maximum legal rate and maturing not later than thirty years after the issuance date(s), payable from water and wastewater revenues, to finance the cost of improvements to the City's water and wastewater system?"

FOR BONDS

AGAINST BONDS





# MUNICIPAL BOND OVERVIEW

To establish comfort and a foundation for the remainder of the presentation, let's review municipal bond basics and why a local government may utilize this type of financing for their capital improvement needs.







<u>Municipal bonds ("munis"</u>) are debt securities issued by states, cities, counties and other governmental entities to finance public projects such as schools, highways or water and wastewater systems.

- Local governments issue municipal bonds for projects like water system improvements, promising repayment plus interest to bond buyers.
- Like mortgages, investors lend money to governments, repaid with interest over time.
- Bonds offer cost-effective funding due to lower interest rates and tax benefits, making them attractive to investors and reducing borrowing costs for governments.





The two most common types of municipal bonds are:

- <u>General Obligation ("GO") Bonds</u>: backed by the "full faith and credit" of the issuer, which has the power to tax residents to pay bondholders.
- **<u>Revenue Bonds</u>**: secured by revenues from a specific project or source, such as highway tolls or water and wastewater fees.
  - Unlike a general obligation bond, which is repaid through assessments to property taxes, a municipal revenue bond is repaid with interest, through funds collected by an identified funding source in this case, the water and wastewater system's rate payers.







# SECTION 3

Description of the Water and Wastewater System

- The City of Margate owns and operates a **water and wastewater utility system** that provides an essential service on a continual basis and that operates in a highly regulated environment.
- Through this utility system, the City must ensure the public's health and access to clean, safe drinking water, and protect land and waterbodies from toxins and pollution, and be in compliance with the Florida Legislature and regulatory agencies, including the Florida Department of Environmental Protection (FDEP), the South Florida Water Management District (SFWMD), and the Florida Department of Health (FDOH).
- Today, the utility system provides service to approximately 17,000 water accounts and 16,700 wastewater customers.
- 213 miles of water mains and 31 miles of force mains are **over 60 years old and need to be replaced.**











### HISTORY OF THE WATER SYSTEM

- The City of Margate owns and operates a **20-million gallon per day (mgd) water treatment plant (WTP)** located at 980 NW 66th Avenue in the City of Margate.
- Raw water is extracted from the City's twelve (12) raw water wells and is pumped to the water plant for treatment.
- The treatment process consists of aeration to remove iron and carbon dioxide, lime softening to reduce hardness, followed by granular media and activated carbon filtration. Chlorine is generated at the plant to facilitate efficient chlorination for disinfection. Fluoride is also added for dental health.
- The treated water is pumped to three aboveground storage tanks with a total capacity of 6 million gallons. The potable water is subsequently distributed to your homes and businesses through a network of pipes. A backup generator at the WTP assures uninterrupted supply of water even during FPL power outages.
- All the City's water sources are permitted by the South Florida Water Management District (SFWMD). The treatment facility is permitted by the Florida Department of Environmental Protection (FDEP) and the Broward County Department of Health.





### HISTORY OF THE WASTEWATER SYSTEM

- Since the **1960s**, the City has operated the **East Wastewater Treatment Plant (WWTP)** at 980 NW 66 Ave, Margate, FL 33063, which shares its location with the City Water Treatment Plant.
- This facility can process up to 2 million gallons of wastewater per day, but only when it is functioning properly.
- In 1980, the City added the West Wastewater Treatment Plant across the street at 6630 NW 9 Street, Margate, FL, 33063, significantly increasing capacity for an additional 7.9 million, bringing the City's total treatment capability to 10 million gallons daily.
- The City's wastewater total volumes fluctuate with weather conditions, averaging 7 to 8 million gallons on sunny days and approaching the **full 10-million-gallon capacity** during tropical storms or rainy periods.





### **CURRENT SITUATION - WASTEWATER SYSTEM**

- In addition to the plant's capacity and aged infrastructure, FDEP has set stricter wastewater treatment regulations, and the City's current aging technology cannot meet these new standards due to its antiquated design and deterioration.
- The Utility currently requires chemical treatment to compensate for mechanical treatment weaknesses, which is very costly and unfavorable to the environment.
- The City's FDEP permit <u>mandates</u> the complete replacement of the current treatment system, a Rotating Biological Contactor (RBC), to a more advanced treatment technology, ensuring compliance and improved processing efficiency.







### LOOKING TO THE FUTURE

- With this necessary transition to a newer technology, the City plans to undertake equipment upgrades together with rehabilitation of the headworks equipment and structure and expansions at the West Plant, increasing its treatment capacity by an additional 2 million gallons per day.
- This expansion will elevate the plant's total processing volume to **12 million gallons daily**, accommodating future growth, enhancing storage, and ensuring reliable treatment during severe weather conditions.
- Once complete, **the City will operate one treatment plant**, creating efficiencies and requiring less equipment and operational costs.
- It will also allow the City to **retire the older facility (1960)**, leaving that site only for the treatment of drinking water.







# SECTION 3

# URGENT NEEDS OF THE SYSTEM

### **Renewal / Replacement**

- Utility's assets have reached the end of their useful service lives.
- Replacement of 213 miles of water mains and 31 miles of force mains over 60 years old
- 35% of these water mains and 20% of these force mains are made from much older cement.

### Consequences

- Increased service calls water dirty and smelly
- Increased water interruptions
- Consent order from FDEP
- Emergency discharge wastewater - esp. hurricane season
- Costly chemical treatment







#### **Annual Water Main Breaks**

- In 2022, the City had 6,717 work orders average of 550 per month to primarily address issues related to the aging utility system.
- Addressing customer complaints of water color, odor, and taste.
- Increase in aging water main and service line breaks has caused more service interruptions.
- The City received a consent order from the Florida Department of Environmental Protection (FDEP) when hurricanes overwhelmed aging collection system and wastewater treatment plant and caused emergency discharge of treated wastewater.
- The City's wastewater treatment plant requires chemical treatment to compensate for mechanical weaknesses.





### **Required Regulatory Compliance**

- Regulatory requirement to have alternative water supply source (C-51 Reservoir = \$9.2 million).
- New regulations on perfluoroalkyl and polyfluoroalkyl substances (PFAS), which health studies have suggested cause cancer and other adverse health effects at lower doses than previously thought – may require additional treatment methods for City's water treatment plant and wastewater biosolids.
- Florida Senate Bill 712 passed in 2020 requires additional due diligence in wastewater collection system management with respect to addressing inflow / infiltration and eliminating sewer overflows.





### **NEEDS OF THE WATER AND WASTEWATER SYSTEM**

#### **Required Regulatory Compliance, Cont.**

- Fines established for noncompliance.
- Revision of Federal Lead and Copper Rule in 2021 may require the Utility to replace about 16,000 service lines.
- New FDEP rule on phosphorus management passed in 2021 has a significant impact on biosolids use and water quality.



- Utility may need "sewage sludge incineration" which requires both capital and air quality management.
- The City could face fines or consent orders if the Utility does not comply with regulations or if infrastructure failures cause pollution.







# **SECTION 4**

FINANCING THE WATER AND WASTEWATER SYSTEM NEEDS

### HOW WILL THE CITY ADDRESS THE WATER AND WASTEWATER SYSTEM NEEDS?

- The City hired consultants and engineers to perform a utility system evaluation, Capital Improvement Plan (CIP) update and a Rate Study
- The City implemented the rate structure recommendation and is now embarking on the CIP to bring the utility system up to required standards.







As discussed in Section 1, the City is undertaking these initiatives now to address:

- Urgent infrastructure renewal and replacement needs
- Regulatory requirements
- The system's operational and financial sustainability
- The **approved rate structure will cover the costs of these capital improvements**, maintain appropriate debt service coverage ratios, provide annual funding for ongoing renewal/replacement needs, and ensure sufficient revenues for operational expenses and transfers to the General Fund.
- As identified by the Capital Improvement Plan and recommended by the Rate Study the ongoing renewal/replacement needs and some of the smaller projects will be funded annually or on a **pay-as-you-go** basis. The larger projects have to be funded in larger tranches, with **three bond issues currently projected**





The preliminary bond financing plan is as follows:

- FY 2025: \$60 million will fund Water and West Wastewater Treatment Plant upgrades
- **FY 2027: \$30 million** will fund the replacement of older cement water mains within the distribution system
- **FY 2031: \$30 million** will fund anticipated regulatory requirements and completion of previous projects

Bond could be issued in different amounts and/or spread out over a longer period, depending on the progress of the projects, but **total amount not to exceed** <u>\$120 million</u>.





The table below summarizes the statistical results of three bond issues based on current market conditions.

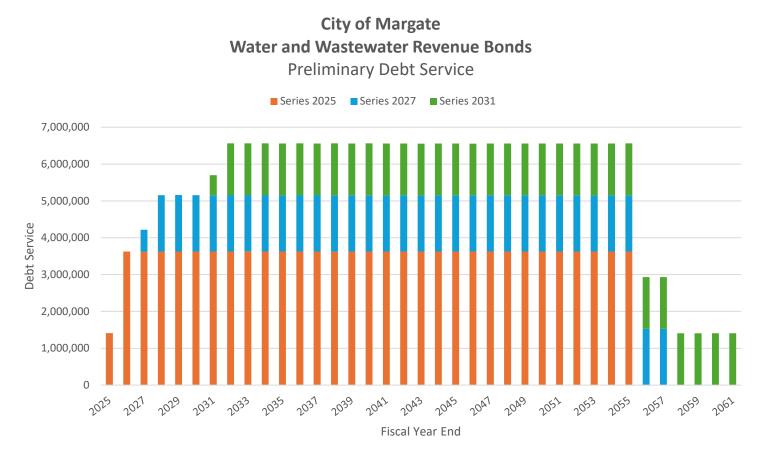
The figures included in the table are preliminary and are being used for estimation and illustration purposes.

	City of Margate								
	Proposed Water and Wastewater Revenue Bonds								
		Series 2025	Series 2027			Series 2031			
Dated/Delivered		2/1/2025		2/1/2027		2/1/2031			
Bond Par Amount	\$	56,345,000	\$	23,770,000	\$	21,815,000			
Premium	\$	4,639,015	\$	1,974,491	\$	1,796,204			
Bond Proceeds	\$	60,984,015	\$	25,744,491	\$	23,611,204			
Additional Project Cost	\$	350,000	\$	-	\$	-			
Project Fund Deposit	\$	60,350,000	\$	25,275,000	\$	23,150,000			
True Interest Cost		4.3656%		4.3597%		4.3656%			
Maximum Annual Debt Service	\$	3,628,750	\$	1,532,375	\$	1,406,250			





The following graph displays the preliminary debt service payments (principal and interest combined) for each of the three bond issues.

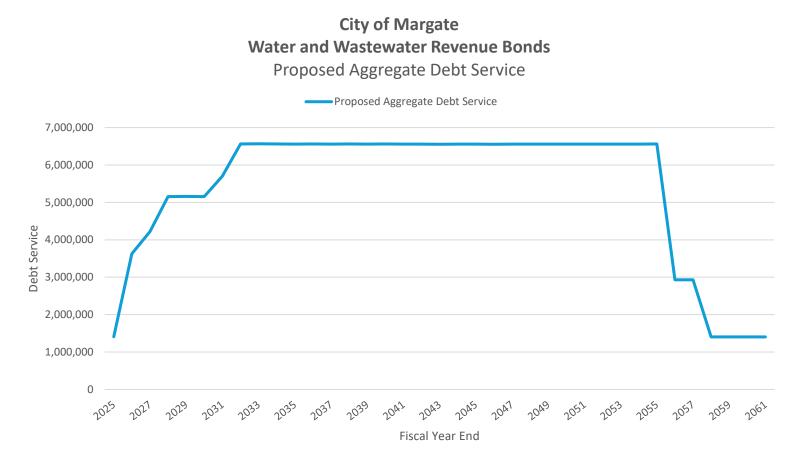






### PRELIMINARY BOND FINANCING SCENARIO

The following graph displays the total proposed debt service of all three bond issues.







	Projected Operating Results with Proposed Rates for the Water and Wastewater System											
		202	4	2025		2026	20	27	2028	2029	2030	2031
Total Sales Revenue	\$	29,286,345	\$	33,602,227	\$	36,626,428 \$	38,091,485	\$	39,615,144 \$	41,199,750 \$	42,847,740 \$	44,133,172
Total Unrestricted Interest Income	\$	166,967	\$	89,834	\$	139,100 \$	187,875	\$	261,086 \$	267,569 \$	359,373 \$	322,644
Other Miscellaneous Revenues	\$	600,000	\$	600,000	\$	600,000 \$	600,000	\$	600,000 \$	600,000 \$	600,000 \$	600,000
Gross Revenues Less:	\$	30,053,312	\$	34,292,061	\$	37,365,528 \$	38,879,360	\$	40,476,230 \$	42,067,319 \$	43,807,113 \$	45,055,816
Operating Expenses	\$	21,071,937	\$	21,941,631	\$	22,842,894 \$	23,668,570	\$	24,519,738 \$	25,405,725 \$	26,323,698 \$	27,279,311
Total System Net Revenues	\$	8,981,375	\$	12,350,430	\$	14,522,634 \$	15,210,790	\$	15,956,492 \$	16,661,594 \$	17,483,415 \$	17,776,505
Other Pledged Revenues												
Interest on Connection Fee Fund Balance	\$	6,621	\$	9,981	\$	10,056 \$	13,509	\$	13,644 \$	13,780 \$	13,918 \$	14,057
Total System Net Revenues Including Other Pledged Revenues	\$	8,987,996	\$	12,360,411	\$	14,532,690 \$	15,224,299	\$	15,970,136 \$	16,675,374 \$	17,497,333 \$	17,790,562
Aggregate Maximum Annual Debt Service (1.15x required)	N/A		\$	3,628,750	\$	3,628,750 \$	5,160,375	\$	5,160,375 \$	5,160,375 \$	5,160,375 \$	6,565,250
Coverage	N/A			3.41x		4.00x	2.9	5x	3.09x	3.23x	3.39x	2.71x
Proposed Debt Service												
Proposed Series 2025 Debt Service	N/A		\$	1,408,625	\$	3,626,500 \$	3,624,000	\$	3,624,375 \$	3,627,375 \$	3,627,875 \$	3,625,875
Proposed Series 2027 Debt Service	N/A					\$	594,250	\$	1,529,750 \$	1,531,750 \$	1,527,875 \$	1,528,125
Proposed Series 2031 Debt Service											\$	545,375
Total Aggregate Debt Service	N/A		\$	1,408,625	\$	3,626,500 \$	4,218,250	\$	5,154,125 \$	5,159,125 \$	5,155,750 \$	5,699,375
Test 1:												
Aggregate Debt Service Coverage (1.15x required)	N/A			8.77x		4.01x	3.6	1x	3.10x	3.23x	3.39x	<u>3.12x</u>
Revenues Available After Debt Service	N/A		\$	10,951,786	\$	10,906,190 \$	11,006,049	\$	10,816,011 \$	11,516,249 \$	12,341,583 \$	12,091,187
Required Deposits												
Renewal, Replacement and Improvement Account (20% internal rule)			\$	2,190,357	\$	2,181,238 \$	2,201,210	\$	2,163,202 \$	2,303,250 \$	2,468,317 \$	2,418,237
Transfer to General Fund (capped at \$2.2M)			\$	2,200,000	\$	2,200,000 \$	2,200,000	\$	2,200,000 \$	2,200,000 \$	2,200,000 \$	2,200,000
Total Required Deposits	\$		\$	4,390,357	\$	4,381,238 \$	4,401,210	\$	4,363,202 \$	4,503,250 \$	4,668,317 \$	4,618,237
Net Revenues after Deposits	N/A		\$	6,561,429	\$	6,524,952 \$	6,604,839	\$	6,452,809 \$	7,012,999 \$	7,673,266 \$	7,472,950
Net Revenues after Deposits	N/A		\$	6,561,429	\$	6,524,952 \$	6,604,839	\$	6,452,809 \$	7,012,999 \$	7,673,26	56 \$

Projected Operating Results with Proposed Rates for the Water and Wastewater System





# Section 5

ALTERNATIVE

If the City does not address these critical needs proactively it will face large and costly consequences such as:

- Inability to provide safe, clean water or wastewater
- Non-compliance with regulatory requirements which means costly fees and fines
- More water main breaks and increased costs
- Increased costly chemical treatment
- Decreased financial and operating performance of the system
- Potential downgrade of the City's S&P rating, making it more costly to borrow money in the future

Finally, if nothing is done the City may eventually be forced to make the repair and replacements and possibly in an emergency status which is not conducive to best practices.





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