

MIAMI BEACH

Water, Sewer, and Stormwater Rate Study

Finance and Economic Resiliency Committee
February 21, 2025

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Why We Are Here

City's Last Formal Water and Sewer Rate Study Was Completed at End of 2020

- Focus was on Being Able to Fund Approximately \$122.2 Million in Critical Capital Needs Through Fiscal Year 2024
 - 56 Neighborhood Improvement Projects Not Included in Financial Plan
- Rates Have Not Kept Up With Actual Inflation
 - Miami-Fort Lauderdale-West Palm Beach CPI Has Increased 10.1% More Than User Rates Since 2020

Water and Sewer Bill for Single Family Residential Customer Using 5,000 Gallons

Effective Date		Actual Implementation		If Rates Had Been Adjusted By CPI Increases Since 2020	
10/1/2019		\$82.69		\$82.69	\$82.69
10/1/2024		97.73		106.09	106.09
% Difference		18.2%		28.3%	

- Bid Amounts Received Are Significantly Higher Than Anticipated
- Emergency Repairs of Pipelines and Pump Stations
 - Dade Boulevard Force Main, Venetian Causeway Sewer Main, Jefferson Avenue Water Main, Sunset Islands Siphon Repair & Lining, Sanitary Pump Station 19 Force Main, Terminal Island Temporary Shoring

Why We Are Here

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■ Last Stormwater Rate Analysis Was Completed in 2017

- Need to Have a Dedicated Funding Source for Future Bond Issuance
- 2019 Rate Increase Needed to Prepare for the 2022 \$100 Million Bond Issuance was Not Implemented
 - Rate increase of \$5.57 or 23.2% (3.5% Rate Increase + 19.7% Additional Adjustment for Series 2022 Bonds / Capital Needs)
- Stormwater 10-Year Master Plan Approved March 2024
 - The Master Plan Recommends Implementing Neighborhood Improvement Projects at the Same Time as Critical Needs Projects
 - Neighborhood Improvements ~\$800 Million
 - Critical Needs ~\$95 Million
 - Water Quality ~\$6 Million

Public Health and Safety Issue: Reinvestment in Utility System

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WATER AND SEWER CAPITAL NEEDS THROUGH THE FISCAL YEAR 2034 IN ORDER OF PRIORITY

Description	Project Type	Amount (\$ 000's)		
		Recommended Master Plan	Option 2 Phased NIP	Option 3 No New NIP
WATER & WASTEWATER MAINS AND REHAB [*]	Critical Needs	\$ 273,971	\$ 273,971	\$ 273,971
WASTEWATER STATIONS REHABILITATION [*]	Critical Needs	48,068	48,068	48,068
WATER PUMP STATIONS IMPROVEMENTS [*]	Critical Needs	24,334	24,334	24,334
NORTH BAY RD AND LAKEVIEW SEWER COLLECTION UPGRADES [*]	Critical Needs	16,105	16,105	16,105
WASTEWATER MANHOLE REHABILITATION [*]	Critical Needs	5,925	5,925	5,925
DERM & EPA CONSENT DECREE [*]	Other	6,734	6,734	6,734
STORMWATER CRITICAL NEEDS - ANCILLARY WATER AND SEWER LINE ADJUSTMENTS	Critical Needs	16,130	16,130	16,130
WEST AVENUE PH III	Neighborhoods	15,908	15,908	15,908
1ST STREET-ALTON RD TO WASHINGTON PH 1+2	Neighborhoods	12,989	12,989	12,989
1ST STREET-ALTON RD TO WASHINGTON PH 3+4	Neighborhoods	29,030	29,030	-
FOOT ALTON ROAD UTILITIES RELOCATION	Other	43,010	43,010	43,010
17TH STREET IMPROVEMENTS PHASE I - DESIGN ONLY WITH OPTION 3	Other	19,200	19,200	800
NORTH SHORE D - TOWN CENTER PHASE 1	Neighborhoods	11,543	11,543	-
NORTH SHORE D - TOWN CENTER PHASE 2	Neighborhoods	20,000	-	-
NORMANDY ISLES A PHASE 1	Neighborhoods	56,466	-	-
NORMANDY ISLES A PHASE 2 - DESIGN ONLY	Neighborhoods	5,647	-	-
FLAMINGO-LUMMIUS C PHASE 1 - DESIGN ONLY	Neighborhoods	4,843	-	-
CONVENTION CNTR LINCEN RD CONNECTOR	Other	5,423	5,423	5,423
DEPARTMENTAL CAPITAL AND MINOR CAPITAL OUTLAY	Minor Capital Outlay	21,925	21,925	21,925
OTHER	Various	6,173	6,173	6,173
TOTAL WATER AND SEWER CAPITAL NEEDS		\$ 643,426	\$ 556,470	\$ 497,497

[*] These projects are crucial for ensuring compliance with the consent decree and preventing future consent orders related to sewer system overflows (SSOs).



Public Health and Safety Issue: Reinvestment in Utility System (cont.)

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STORMWATER CAPITAL NEEDS THROUGH THE FISCAL YEAR 2034 IN ORDER OF PRIORITY

Description	Project Type	Amount (\$ 000's)		
		Recommended Master Plan	Option 2 Phased NIP	Option 3 No New NIP
STORMWATER CRITICAL NEEDS	Critical Needs	\$ 65,650	\$ 65,650	\$ 65,650
WEST AVENUE PH III	Neighborhoods	19,885	19,885	19,885
1ST STREET-ALTON RD TO WASHINGTON PHASES 3 and 4	Neighborhoods	34,670	34,670	-
FDOT ALTON ROAD UTILITIES RELOCATION	Other	25,500	25,500	25,500
CITYWIDE SEAWALL REHAB	Other	85,603	85,603	85,603
17TH STREET IMPROVEMENTS PHASE I - DESIGN ONLY WITH OPTION 3	Other	24,000	24,000	1,200
NORTH SHORE D - TOWN CENTER - PHASE 1	Neighborhoods	92,345	92,345	-
NORTH SHORE D - TOWN CENTER - PHASE 2	Neighborhoods	2,500	-	-
NORMANDY ISLES A - PHASE 1	Neighborhoods	70,583	-	-
NORMANDY ISLES A - PHASE 2 - DESIGN ONLY	Neighborhoods	7,058	-	-
FLAMINGO / LUMMUS C PHASE 1 - DESIGN ONLY	Neighborhoods	6,054	-	-
DEPARTMENTAL CAPITAL AND MINOR CAPITAL OUTLAY	Minor Capital Outlay	13,727	13,727	13,727
OTHER	Various	9,948	9,948	9,948
TOTAL STORMWATER CAPITAL NEEDS		\$ 457,523	\$ 371,328	\$ 221,513

About \$67 Million in Grants Has Been Awarded to Fund Additional Project Costs

- City Could Possibly Lose Grant Funding If Unable to Proceed With Projects Due to Lack of Adequate Financial Resources



Existing User Rates

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Funding Deficiencies Under Current Rates and Increase Provisions (\$ 000's)

Description	RECOMMENDED MASTER PLAN	Option 2: Phased NIP	Option 3: No New NIP
WATER/SEWER SYSTEM			
Amount Funded - Debt and PayGo	<u>\$254,655</u>	<u>\$254,655</u>	<u>\$254,655</u>
Capital Needs:			
Critical Capital Needs	\$386,171	\$386,171	\$386,171
Neighborhood Improvement Projects	156,426	69,470	28,897
Other	78,904	78,904	60,504
Departmental Capital	21,925	21,925	21,925
Total Capital Needs	<u>\$643,426</u>	<u>\$556,470</u>	<u>\$497,497</u>
FUNDING DEFICIENCY - Water/Sewer	(\$388,771)	(\$301,815)	(\$242,842)
STORMWATER SYSTEM			
Amount Funded - Debt and PayGo	<u>\$169,429</u>	<u>\$169,429</u>	<u>\$169,429</u>
Capital Needs:			
Critical Capital Needs	\$63,884	\$63,884	\$63,884
Neighborhood Improvement Projects	234,625	148,430	21,415
Other	145,287	145,287	122,487
Departmental Capital	13,727	13,727	13,727
Total Capital Needs	<u>\$457,523</u>	<u>\$371,328</u>	<u>\$221,513</u>
FUNDING DEFICIENCY - Stormwater	(\$288,094)	(\$201,899)	(\$52,084)



Without Water and Sewer Rate Adjustments Above What Has Already Been Adopted...

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- **Water and sewer Critical Needs Projects would be funded through 2025 only**
 - Sunset Islands 2 To 3 Sewer Force Main and Water Main, Pump Station 19 Force Main, Venetian Causeway Water Main and Sewer Force Main, SCADA and PLC Systems, Pump Station 31 Odor Control
- **In FY26, only approximately \$32M of projects will be able to be completed such as:**
 - Water Booster Stations Rehabilitation - 41st Street, Terminal Island, Belle Isle, Normandy Isle
 - Sanitary Sewer Pump Station No. 29 – Indian Creek & 63rd St.
- **In FY27, approximately \$14M of projects will be able to be completed such as:**
 - Replacement of Transmission Water Main along Normandy Isle
 - Sanitary Sewer Pump Station No. 2 discharge force main replacement

Without Water and Sewer Rate Adjustments Above What Has Already Been Adopted...

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- **In FY28, approximately \$14M of projects will be able to be completed such as:**
 - Replacement of Transmission Water Main Along 41st Street. This project is tied to the street beautification of 41st Street, which is a GOB funded project.
 - Sanitary Sewer Pump Station No. 14 discharge force main replacement
- **In FY29, approximately \$15M of projects will be able to be completed such as:**
 - Sanitary Sewer PS 29 Discharge force main replacement and rehabilitation of two 30-inch diameter mains that cross under Indian Creek Canal
 - Sanitary Sewer Pump Stations No. 18 and No. 27 Discharge Force Mains replacement

Without Stormwater Adjustments Above What Has Already Been Adopted...

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- Stormwater Critical Needs Projects may proceed at the proposed rate of initiating two per year, over a ten-year period.
- All NIPs and a portion of the Citywide Seawalls Rehab program would be deferred indefinitely and remain **unfunded**, including:
 - West Ave. Phase 3 \$49.8M, (\$15M grants).
 - First Street PH1+2 \$104M, PH3+4 \$74M, (\$35M grants).
 - FDOT Alton Road.
 - 17th Street between Alton Rd and Washington Ave.
 - North Shore D – Town Center PH1 \$125.4M, PH2 \$25M (\$10M grant).
 - Normandy Isles A.
 - Flamingo.

Without Water and Sewer Rate Adjustments Above What Has Already Been Adopted...

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- All NIPs would be **deferred** indefinitely and remain **unfunded**
- In FY26, approximately \$37M of Water and Wastewater Main projects have to be **deferred** [only \$14M available in 2027 and another \$14M in 2028. \$15M in 2029]
 - Replacement of Transmission Water Main Along 41st Street. This project is tied to the street beautification of 41st Street, which is a GOB funded project.
 - Replacement of Transmission Water Main along Normandy Isle
 - Sanitary Sewer Pump Station No. 2 discharge force main replacement
 - Sanitary Sewer Pump Station No. 14 discharge force main replacement

Without Water and Sewer Rate Adjustments Above What Has Already Been Adopted...

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■ Projects that would have to be **deferred** (cont.)

- Sanitary Sewer PS 29 Discharge force main replacement and rehabilitation of two 30-inch diameter mains that cross under Indian Creek Canal
- Sanitary Sewer Pump Stations No. 18 and No. 27 Discharge Force Mains replacement

■ In FY27 approximately \$32M of Water and Wastewater Main projects have to be **deferred** including:

- Water Main Replacement on MacArthur Causeway
- Hawthorne Force Main Replacement
- Sewer Pump Stations No. 5 force main replacement
- Normandy Isle Sanitary Pump Station No. 22 discharge force main
- North Bay Rd and Lakeview Gravity Sewer Collection Upgrades

Stormwater Rate Plan Identified in 2017 (Seven Years Ago) Was Not Implemented

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Monthly Stormwater Rate Per ERU				
Fiscal Year	Actual		Financial Plan	
	Implementation	Amount	Notes	
Effective October 1, 2017	\$23.30	\$23.30	Historical Rate	
2019	24.12	28.54	Increase Recognized per Feasibility Report for Series 2017 Bonds	
2020	24.82	29.37	Adjustment Based on Historical CPI	
2021	25.32	29.94	Adjustment Based on Historical CPI	
2022	25.60	30.26	Adjustment Based on Historical CPI	
2023	27.42	32.41	Adjustment Based on Historical CPI	
2024	30.14	35.61	Adjustment Based on Historical CPI	
2025	31.86	37.63	Adjustment Based on Historical CPI	
2026		38.76	Assumed 3% CPI Adjustment	

Existing Fiscal Year 2025 Rate **\$31.86**

Each dwelling unit is assigned one ERU (equivalent residential usage unit)
 Single Family Residence = 1 ERU / Multi-Family Residence = # units x 1 ERU
 Nonresidential developed properties = the ERU is calculated by dividing the impervious area on the property by 791 square feet



Projected Need for User Rate Revenue Adjustments

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Summary of Proposed Water, Sewer, and Stormwater User Rate Revenue Adjustments [1]

RECOMMENDED				
Fiscal Year	Effective Date	MASTER PLAN	Option 2: Phased NIP	Option 3: No New NIP
WATER/SEWER SYSTEM ADJUSTMENTS NOT INCLUDING PASS-THROUGH ADJUSTMENTS [2]				
ASAP	ASAP	9.0%	9.0%	8.5%
2027	10/1/2026	9.0%	9.0%	8.5%
2028	10/1/2027	9.0%	9.0%	7.5%
2029	10/1/2028	4.5%	3.0%	2.5%
2030	10/1/2029	4.5%	3.0%	2.5%
2031	10/1/2030	4.5%	1.5%	2.5%
STORMWATER SYSTEM RATE PER EQUIVALENT RESIDENTIAL UNIT (ERU)				
ASAP	ASAP	22.4%	22.4%	22.4%
2027	10/1/2026	12.8%	12.8%	3.0%
2028	10/1/2027	11.4%	6.8%	3.0%
2029	10/1/2028	10.2%	6.4%	3.0%
2030	10/1/2029	3.7%	3.0%	3.0%
2031	10/1/2030	3.0%	3.0%	3.0%
Only CPI and Pass-Through Adjustments After Fiscal Year 2031				

[1] Adjustments include allowances for inflation.

[2] The water and sewer adjustments shown are to fund i) the City's operating expenses other than wholesale water and sewer charges from Miami-Dade County; and ii) the multi-year capital program that addresses the City's infrastructure needs. Additional pass-through adjustments are based on increases or decreases in the County's wholesale rates charged to the City.



Combined Bill

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- **Combined Bill for Water/Sewer and Stormwater Service Is Well Below EPA's 4.5% of Median Household Income Affordability Threshold for Water and Sewer Service Only**

- Financial and Rate Plan Considered Affordable By Utility Industry Standards

Combined Utility Bill for Single Family Residential Customer

Fiscal Year	Effective Date	RECOMMENDED			Option 2: Phased NIP			Option 3: No New NIP		
		Increase in SFR		% of Median Household Income [2]	Increase in SFR		% of Median Household Income [2]	Increase in SFR		% of Median Household Income [2]
		Combined Bill for SFR Customer [1]	Customer Monthly Bill		Combined Bill for SFR Customer [1]	Customer Monthly Bill		Combined Bill for SFR Customer [1]	Customer Monthly Bill	
Existing		\$129.59		2.4%	\$129.59		2.4%	\$129.59		2.4%
ASAP	ASAP	145.44	\$15.85	2.6%	145.44	\$15.85	2.6%	144.99	\$15.40	2.6%
2027	10/1/2026	159.15	13.71	2.8%	159.15	13.71	2.8%	154.40	9.41	2.7%
2028	10/1/2027	173.63	14.48	2.9%	171.63	12.48	2.9%	163.43	9.03	2.8%
2029	10/1/2028	183.85	10.22	3.0%	178.12	6.49	2.9%	167.50	4.07	2.7%
2030	10/1/2029	191.34	7.49	3.0%	183.00	4.88	2.9%	171.67	4.17	2.7%
2031	10/1/2030	198.64	7.30	3.1%	186.14	3.14	2.9%	176.28	4.61	2.7%

SFR = Single Family Residential

[1] Assumes 5,000 gallons of water and sewer monthly usage.

[2] Assumes annual 3% cost of living salary increases throughout the Forecast Period.



Proposed Water and Sewer Impact Fees Per Equivalent Residential Connection (ERC)

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- Last Adjusted in 1995 – 30 Years Ago
- Case Law: Impact Fees Must Be Proportionate to Benefit Received

Existing and Proposed

Water and Sewer Impact Fees Per ERC

System	Existing Fee	Calculated / Proposed Fee	Difference
Water	\$155	\$1,630	\$1,475
Wastewater	235	2,030	1,795
Total	\$390	\$3,660	\$3,270

ERC = Equivalent Residential Connection

- Impact Fees Support "Growth Paying for Growth" and Help to Reduce Need for Monthly User Rate Increases



QUESTIONS AND DISCUSSION

