



DeKalb County
Department of Watershed Management
Water/Sewer Investment
Discussion

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Water and Sewer Infrastructure Outlook Based on Rate Increase Scenarios

January 2025



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BENEFITS OF A 10-YEAR
FUNDING PLAN

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Benefits of a 10-Year Funding Plan

General:

- Provides contractors with assurance that proper funding is available to complete planned projects hence potentially expanding the overall Contractor pool which in turn promotes competitive pricing
- Reflects positively with bond rating agencies for bond issuances as well as showing financial stability as the County pursue additional federal/state loans
- Provides funds for infrastructure upgrades beyond the initial proposed 3-year rate increase period, including critical water system projects and Consent Decree projects which require 4 - 8 years of investment to complete construction
- Supports the proposed 10-year Capital Improvement Program (CIP) to fix deteriorating assets while ensuring infrastructure meet the projected 50% growth in population and employment over the next 50 years.

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Benefits of a 10-Year Funding Plan

Sewer:

- Ensures that there are ample funds for completion of the Consent Decree and would provide confidence to regulators of DWM's financial ability to complete the CD
- Allows for completion of all required Consent Decree (CD) trunk sewers at the current estimated cost of over \$450M.
 - These upgrades will allow for expanded development in the Snapfinger basin.
 - This also allows for completion of a higher capacity influent pump station at the Snapfinger plant to handle additional flows received from the upgraded trunk sewers and replace an undersized and outdated pump station.

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Benefits of a 10-Year Funding Plan

Water:

- Allows for completion of major renewal projects at Scott Candler WTP, the County's only water treatment plant, including new clearwells and high service pump station, eliminating single points of failure within the system
- Allows for replacement of all high-risk, aged and failing prestressed concrete cylinder transmission mains (PCCP) which typically fail catastrophically and places large portions of DeKalb's water customer base at risk
- Allows for replacement of failing asbestos cement (AC), cast iron (CI) and polyvinyl chloride (PVC) small diameter mains which are breaking at an increasing rate as the mains reach the end of their useful life across the County. Currently, DWM has an average of 950 water main breaks per year
- Allows for construction of the first phase of infrastructure needed to maintain adequate service to customers in middle and south DeKalb County through the installation of a new 60-inch water transmission main. This water transmission main will both reduce pressures in north DeKalb and improve pressures in middle and south DeKalb.

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Rate Increase Scenarios – CIP Summary

7% annually for 10 yrs (~\$300M/yr average spend)

Adj. Escalated Spend Totals by Bucket	2025-2029	2025-2034	% of Total
Wastewater	\$ 902,007,931	\$ 2,074,447,778	69
Water	\$ 583,419,860	\$ 912,707,794	31
TOTAL	\$ 1,485,427,791	\$ 2,987,155,572	

8% annually for 10 yrs (~\$325M/yr average spend)

Adj. Escalated Spend Totals by Bucket	2025-2029	2025-2034	% of Total
Wastewater	\$ 905,668,879	\$ 2,074,604,544	64
Water	\$ 702,590,848	\$ 1,156,660,165	36
TOTAL	\$ 1,608,259,726	\$ 3,231,264,709	

10% annually for 10 yrs (~\$427M/yr average spend)

Adj. Escalated Spend Totals by Bucket	2025-2029	2025-2034	% of Total
Wastewater	\$ 1,108,919,979	\$ 2,405,844,749	56
Water	\$ 664,455,326	\$ 1,869,827,953	44
TOTAL	\$ 1,773,375,305	\$ 4,275,672,702	

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Key Projects Included In All Scenarios

The key projects below are crucial multi-year projects that will be completed during the next 10-year period (2025-2034) if any rate increase structure of 7%, 8% or 10% annually is approved by the BOC:

- Peachtree Industrial Boulevard 36" Water Transmission Main Replacement – currently scheduled for construction 2025-2026 on an emergency basis
- Scott Candler Water Treatment Plant Clearwells and High Service Pump Station – currently scheduled for construction 2026-2029
- Snapfinger Influent Pump Station – currently scheduled for construction 2026-2029
- Consent Decree Trunk Sewer Projects including 1st Trunk into P&C - Shoal Creek Trunk Sewer Section 1 – currently scheduled for construction 2026-2029
- 60-Inch Water Transmission Main Loop Phase A – currently scheduled for construction of first phase 2030-2034 (varies in time and length completed by rate scenario)

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Key CIP Differences at 7% Annual Increase - \$300M Annual Spend

Water:

- Average \$24M/year on water main replacements (only 0.2% of system per year)
- Does **not** include replacement of all at-risk large diameter PCCP Water Transmission Mains
- Does **not** include 60-Inch Water Transmission Main Phase A

Sewer:

- Average \$17M/year on small diameter (OSARP) sewer rehab (only 0.7% of system per year)
- Does **not** include replacement of Lower Crooked Creek Pump Stations

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Key CIP Differences at 8% Annual Increase - \$325M Annual Spend

Water:

- Average \$42M/year on water main replacements (only 0.4% of system per year)
- Includes replacement of all at-risk large diameter PCCP Water Transmission Mains
- Includes only 2 miles of 11 miles 60-Inch Water Transmission Main Phase A

Sewer:

- Average \$18M/year on small diameter (OSARP) sewer rehab (only 0.8% of system per year)
- Does not include replacement of Lower Crooked Creek Pump Stations

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Key CIP Differences at 10% Annual Increase - \$427M Annual Spend

Water:

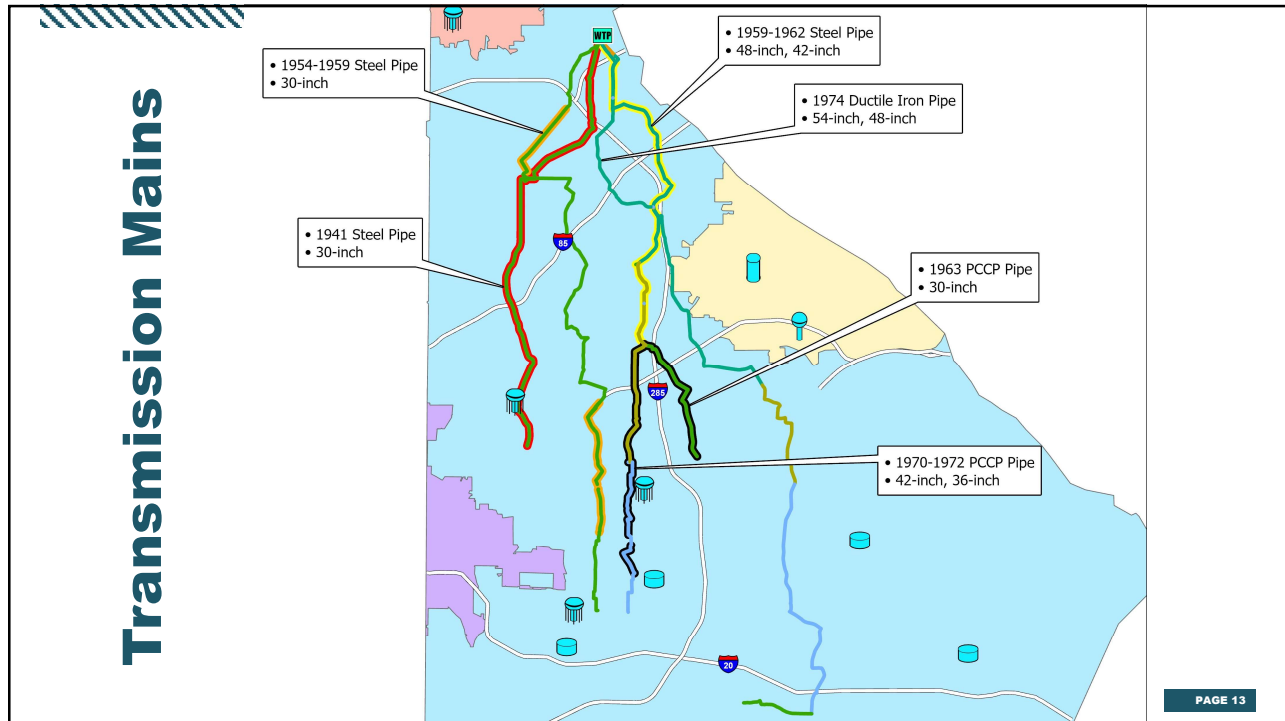
- Average \$84M/year on water main replacements (1.04% of system per year)
- Includes replacement of all at-risk large diameter PCCP Water Transmission Mains as well as other aging Transmission mains
- Includes all of 60-Inch Water Transmission Main Phase A
- Transmission Mains Condition Assessment & Water Valve Assessment/Repair

Sewer:

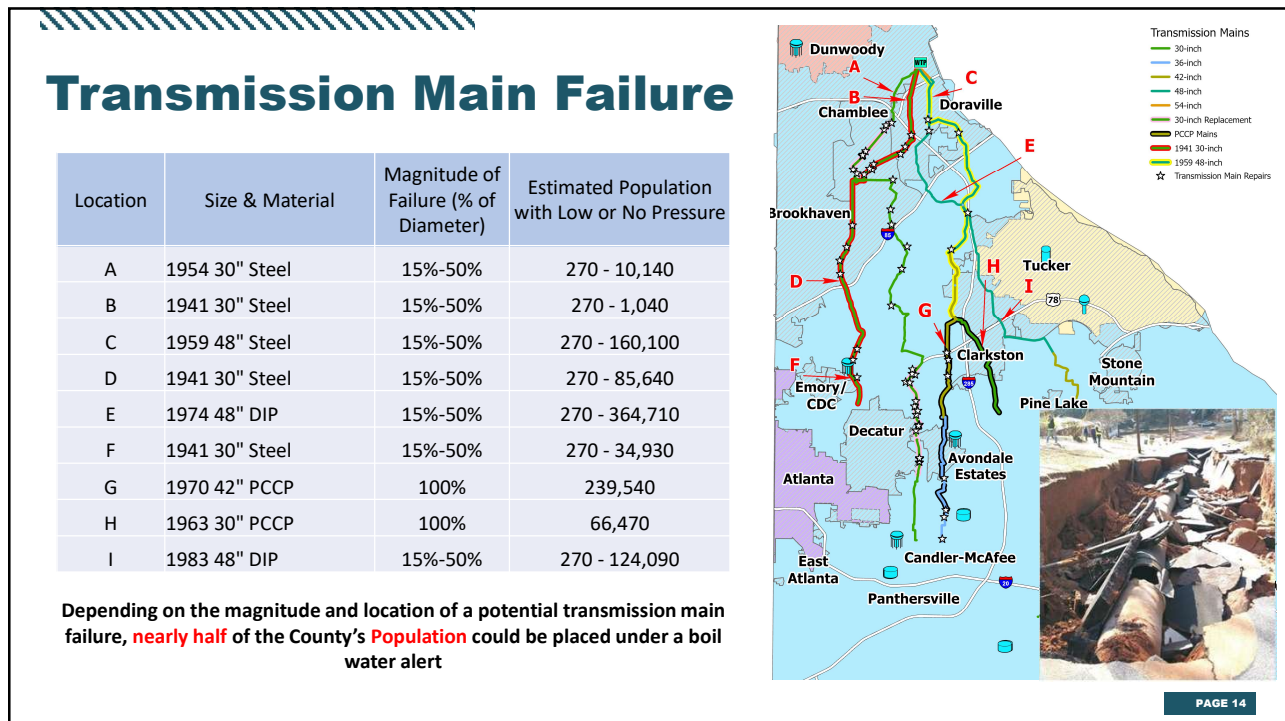
- Average \$31M/year on small diameter (OSARP) sewer rehab (1.36% of system per year)
- Includes replacement of Lower Crooked Creek Pump Stations (#2 & #3)
- \$2.15M per year in Capacity Assurance Program (CAP) matching funds for development

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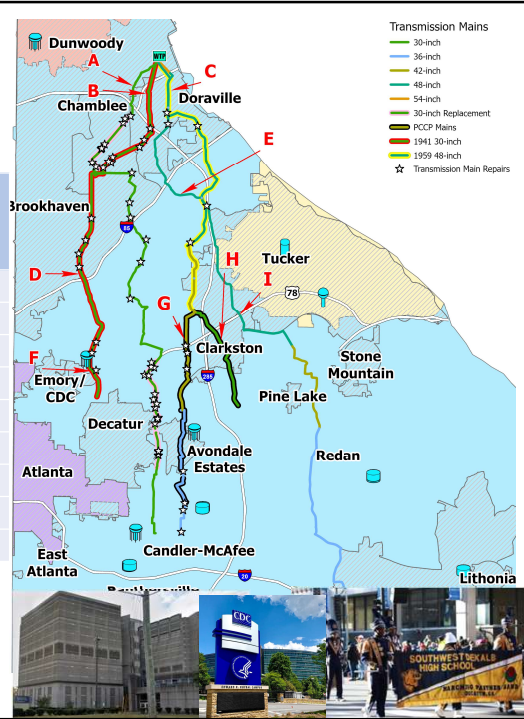


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Transmission Main Failure & Critical Customers

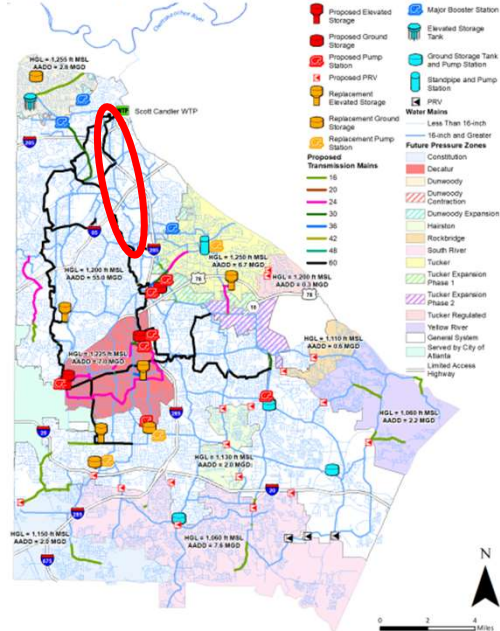
Location	Size & Material	Magnitude of Failure (% of Diameter)	Estimated Critical Customers with Low or No Pressure and Possible Boil Water Alert
A	1954 30" Steel	15%-50%	0 - 6
B	1941 30" Steel	15%-50%	0 - 1
C	1959 48" Steel	15%-50%	0 - 54
D	1941 30" Steel	15%-50%	0 - 31
E	1974 48" DIP	15%-50%	0 - 137
F	1941 30" Steel	15%-50%	0 - 25
G	1970 42" PCCP	100%	92
H	1963 30" PCCP	100%	30
I	1983 48" DIP	15%-50%	0 - 43

Depending on the magnitude and location of a potential transmission main failure, **approximately half** of the County's **Critical Customers** (Medical Facilities, Schools, and Public Safety Buildings) could be placed under a boil water alert



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Figure 18: Overview of Preferred Water Service Strategy



60" Water Main Addition

Factoid: The County has not added a major water transmission line in 50 years.

Factoid: Northern part is pretty much the same as built in 1940s – 1970s

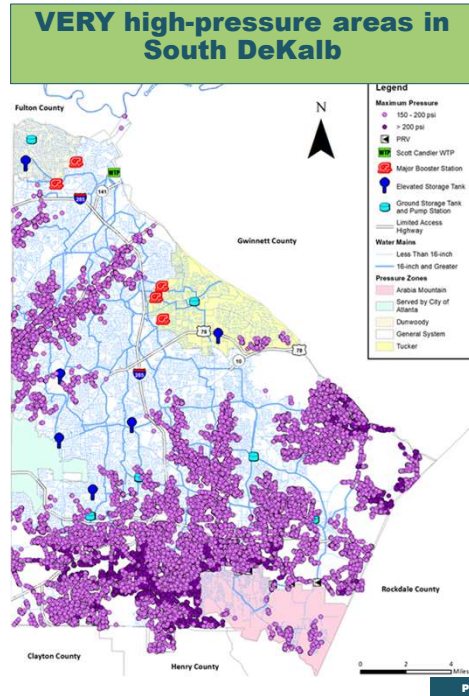
System is under-sized & requires:

- ▶ Major increase in transmission capacity
- ▶ ~\$650M over next 25 years
- ▶ Phase A (\$135M) – WTP to Northlake Mall

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Serving South DeKalb and Fire Flows

- ✓ AWWA recommends the average water pressure in a typical home be between 40 and 60 PSI (Pounds per Square Inch)
- ✓ Substantial portions of the public system (not homes) are over 150 PSI (purple) and portions over 200 PSI (dark dot)
- ✓ Investment is needed to maintain and improve flows to South DeKalb
- ✓ Without investment the choice will be limit development throughout DeKalb or reduce water flows to South DeKalb
- ✓ The “Loop” allows for various transmission mains to be taken out of service for repairs



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Rate Increase Scenarios – CIP Summary	Rate Increase Scenario	7% annually 2025-2034	8% annually 2025-2034	10% annually 2025-2034	
	Average annual spend level	\$300M	\$325M	\$427M	
	Overall 10 Year CIP (escalated)	\$2,987,155,572	\$3,231,264,709	\$4,275,672,702	
	WATER				
	SCWTP Clearwells & HSPS (\$205M)	Completed in 2029	Completed in 2029	Completed in 2029	
	Average annual spend on small diameter water main replacements	\$16M	\$28M	\$71M	
	Average annual % of small diameter water system replaced	0.2%	0.4%	1.0%	
	At-risk PCCP Water Transmission Mains Replaced (Phase A, B, C, D) included?	Phase A and D	Phase A, B, C, D	Phase A, B, C, D, +	
	Peachtree Industrial Blvd 30" Water Transmission Main Replacement included?	yes	yes	yes	
	Average annual % of water system replaced in total (small and large diameter)	0.25%	0.43%	1.04%	
	60" Water Transmission Main Loop Phase A included?	no	Initial Phase A-1 (\$24M, first ~2.3 miles)	yes, all Phase A (\$163M escalated total project)	
	SEWER				
	Septic to Sewer & CAP Projects	\$20M	\$30M	\$30M	
	OSARP Tiered Assess & Large Diameter Capacity Restoration	\$73M	\$73M	\$113M	
	CD Find & Fix and GSRR for OSARP Areas	\$172M	\$178M	\$314M	
	Average annual spend on small diameter sewer rehabilitation	\$17M	\$18M	\$31M	
	% of sewer system rehabbed annually	0.74%	0.78%	1.36%	
	Lower Crooked Creek Wastewater PS's Replacement included? (\$42M escalated)	no	no	yes	
	Gwinnett Redirect (per IGA due end 2026)	Completed 2031-33	Completed 2031-33	Completed 2031-33	
	Trunk Sewers (\$450M)	Completed thru 2037	Completed thru 2037	Completed thru 2037	
	Snapfinger AWTP Influent Pump Station (\$211M)	Completed in 2029	Completed in 2029	Completed in 2029	

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Service Levels by Scenario			
Item	427 \$M/yr	325 \$M/yr	300 \$M/yr
Water Plant and Controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Completing the Consent Decree	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Non-MCD Sewer Coll. System (OSARP) rehab annually	1.3%	0.8%	0.7%
Water Distribution System replacement annually	1.04%	0.4%	0.2%

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Service Levels Grades by Scenario

Item	\$427M/yr	\$325M/yr	\$300M/yr
Water Plant and Controls	A	A	A
Completing the MCD	A	A	A
Non-MCD Sewer Coll. System (OSARP) rehab annually*	C+	D	D-
Water Distribution System replacement annually	C	D	F

*Overall Sewer System is rated B (1/3 PASARP Grade A, 2/3 OSARP Grade C+) at \$412M/Yr

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Recommendation Summary

1. Meet Bond Resolution Requirements: rate increases are needed to meet minimum requirements required by the Master Bond Resolution.
2. Maintain Financial Stability: financially stable utilities establish and meet financial metrics.
3. Maintain Bond Ratings: the lack of rate increases in 2023 and 2024 could result in negative actions from rating agencies.
4. Fund a Portion of the Capital Program: funding the capital program will require additional debt, which will require rate increases to support. The Master Bond Resolution stipulates requirements for additional Parity bonds, rate increases are needed to meet these requirements.

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Recommendation Summary

Annual rate revenue adjustments for the next 10-years (10% per year) necessary to:

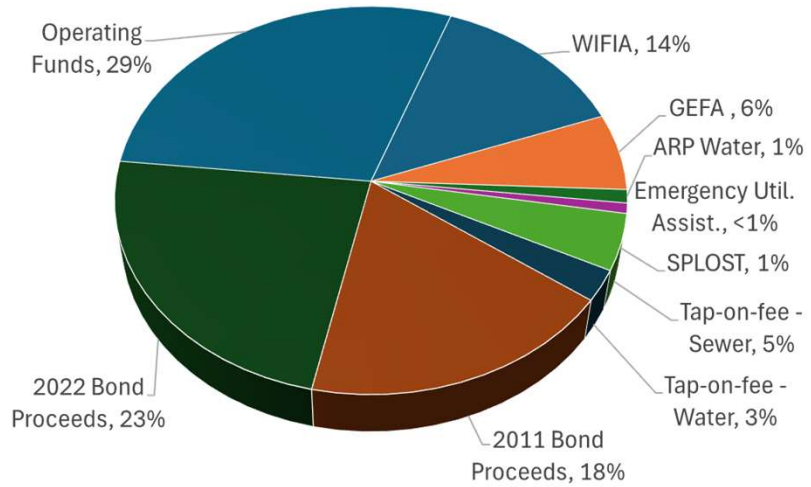
1. Maintain DWM's Aa2 bond rating (Moody's)
2. Meet Parity bond requirements for the issuance of debt to
3. Fund the Capital Program over the next 10-years

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2017-2024 CIP Spend by Funding Source

CIP is made possible through a diverse mix of funding tools.

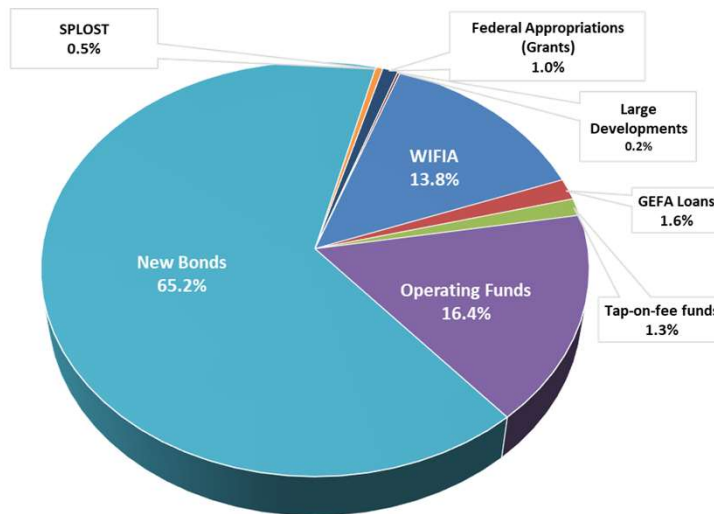


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2025 – 2034 CIP by Funding Source

DeKalb's Water and Sewer CIP is made possible through a diverse mix of funding tools.

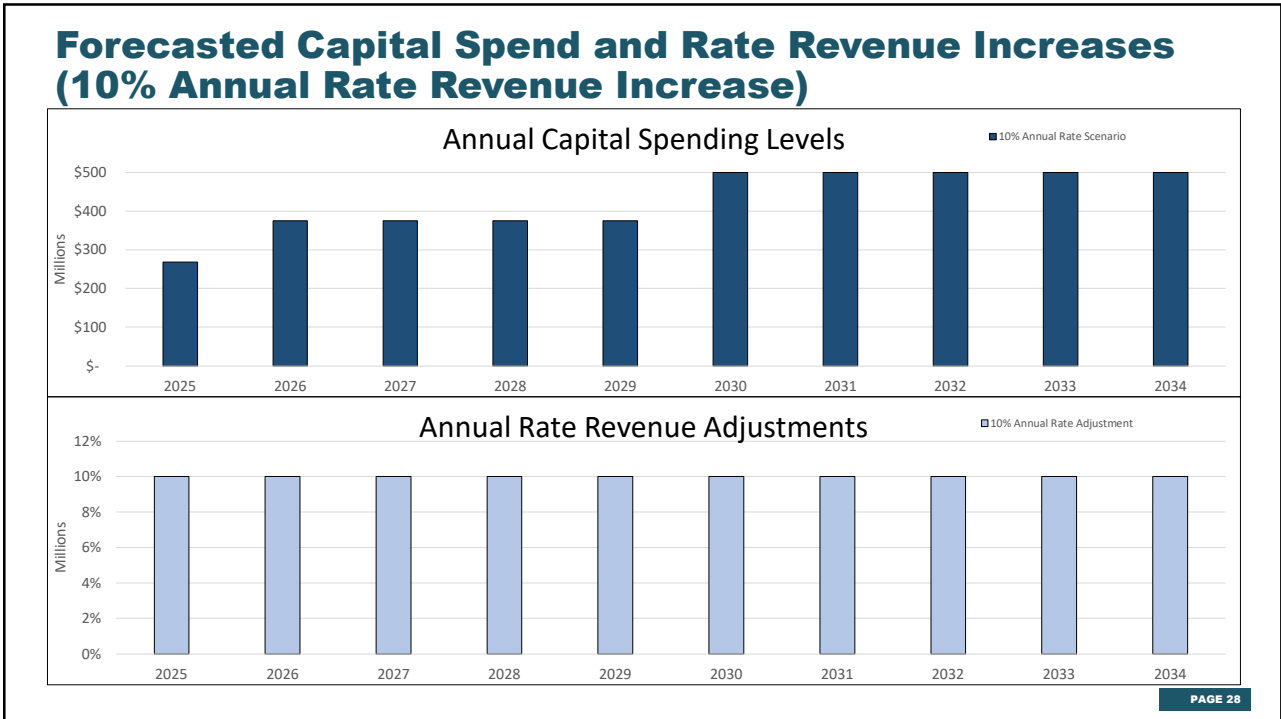


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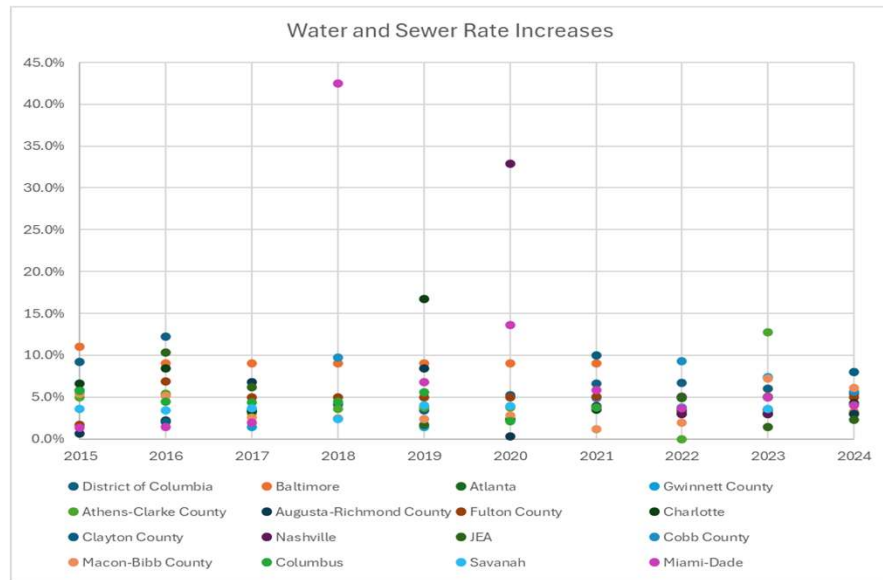
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Other Utilities: Historic Rate Increases

The Average Annual Increase of all the Comparables over the Forecast Period is 4.2%.

This is a 50% increase over the 10-year period.

If DeKalb County had implemented 4.2% rate adjustments over the last 10-years, future rates increases would be 3% per year.



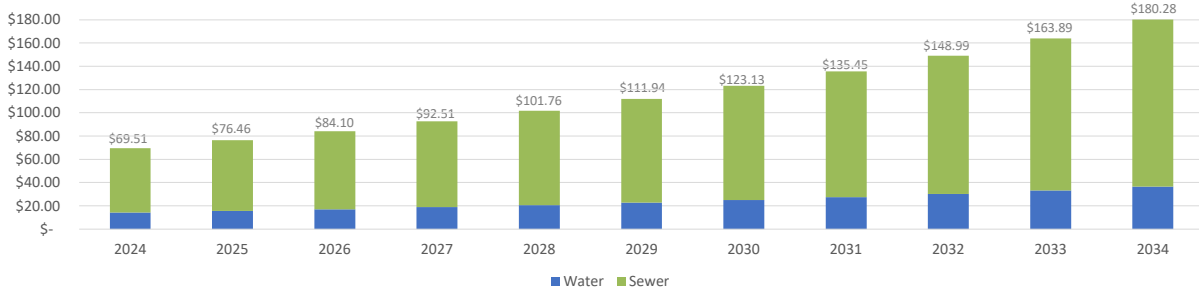
AVERAGE BILL AMOUNT 10% Annual Rate Revenue Increases

DeKalb County

Notes:

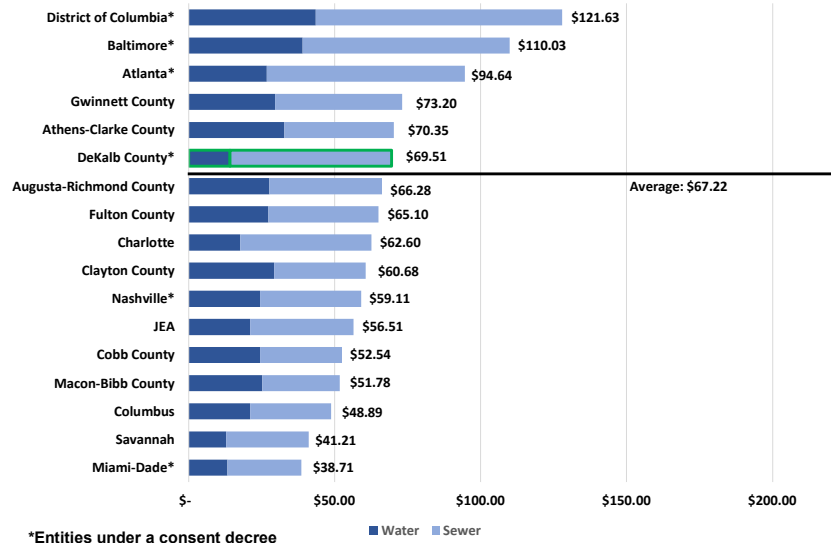
- Average monthly bill cost
- 3/4" meter represents a typical residential customer
- Average residential usage is 4,000 gallons per month
- Bills shown are calculated monthly
- Customers can reduce usage to lower their bills
- Bill increase from current (2024) to 2034 is \$110.77 per month

Monthly Bill @ 3/4" Meter; 4,000 Gallons



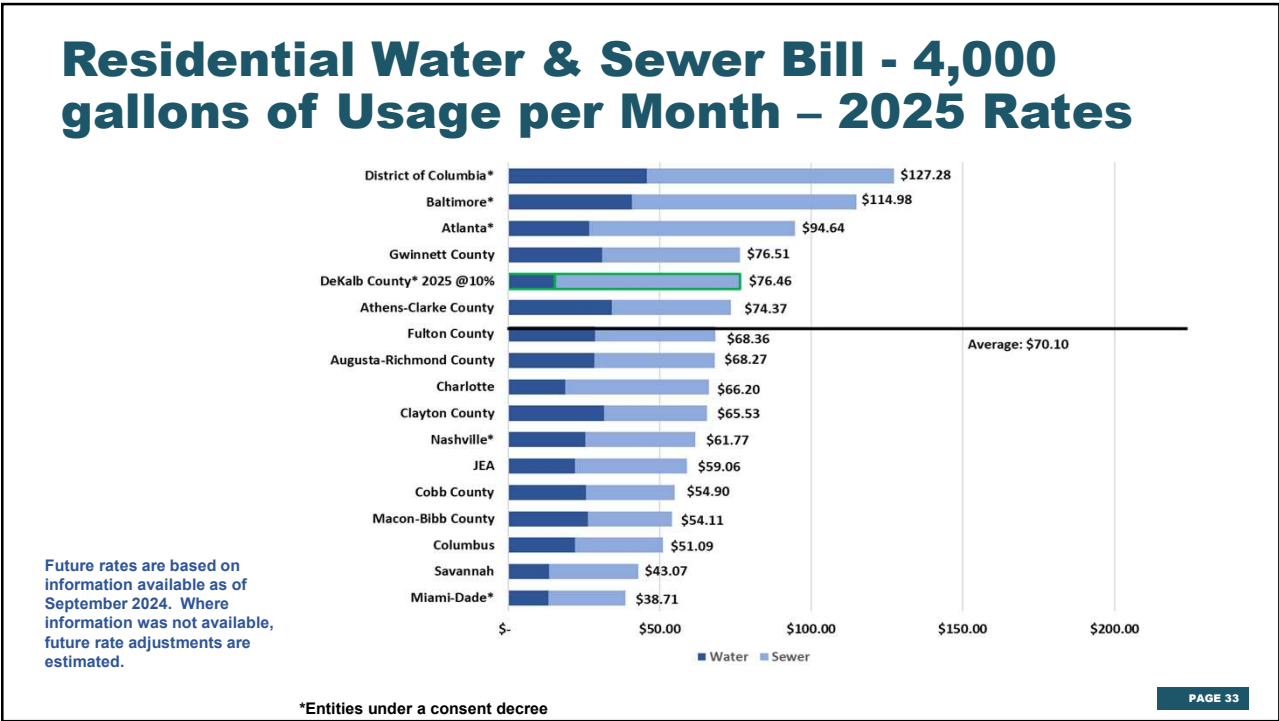
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Residential Water & Sewer Bill - 4,000 gallons of Usage per Month – Current Rates

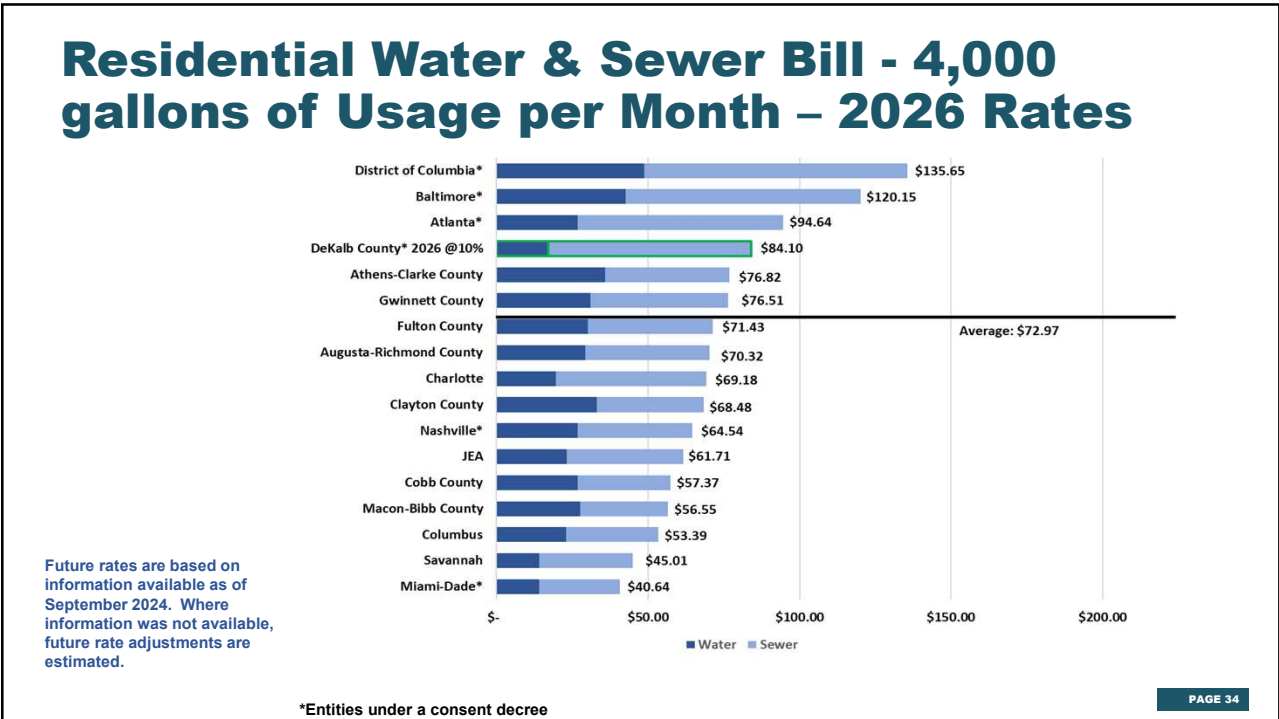


*Entities under a consent decree

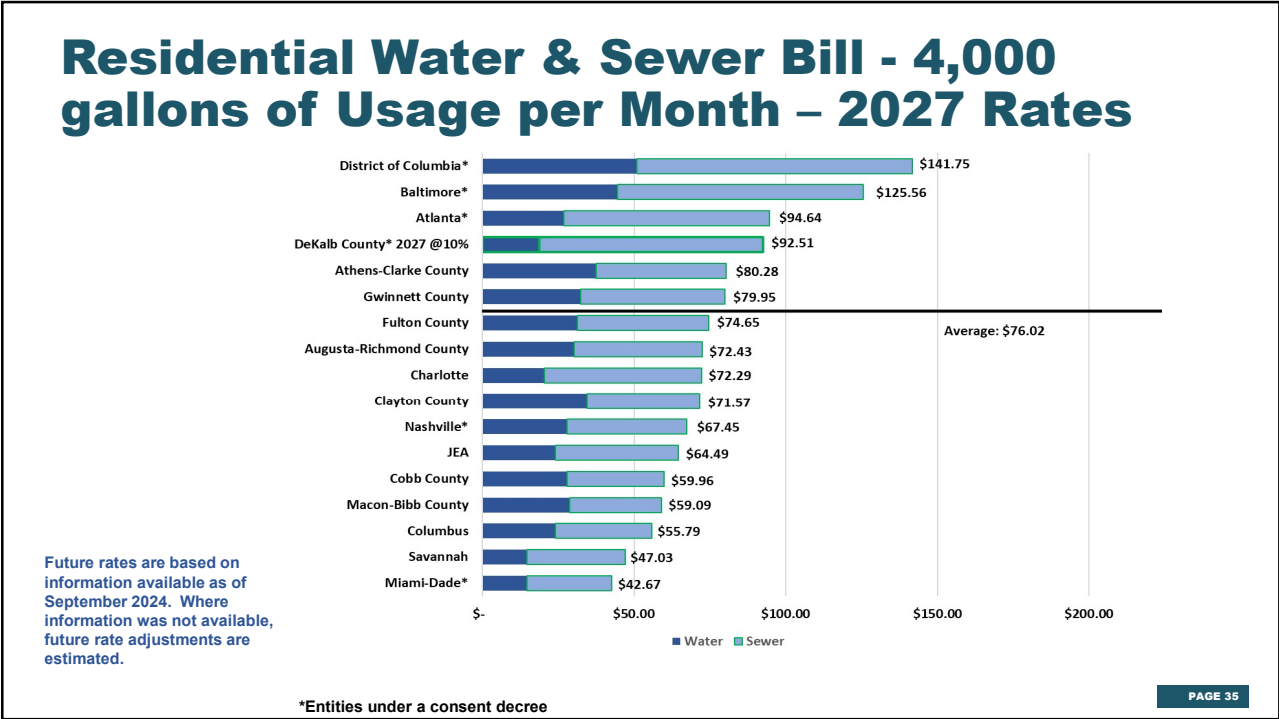
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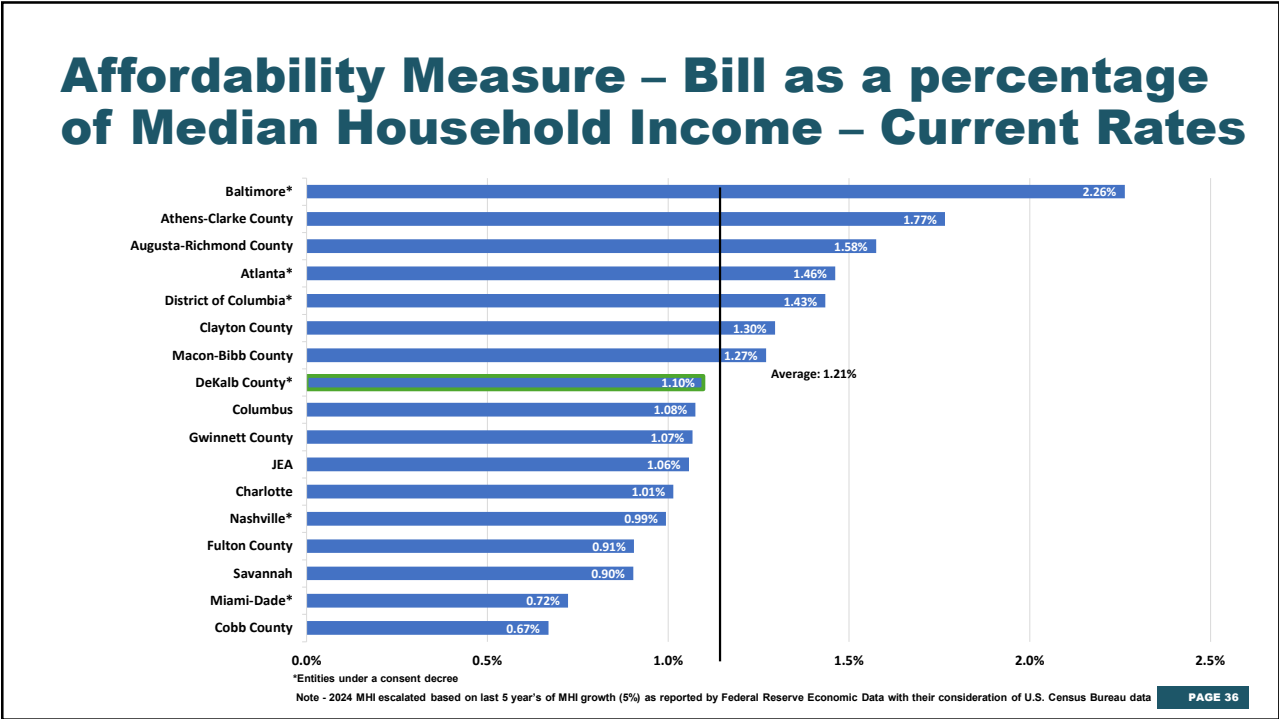
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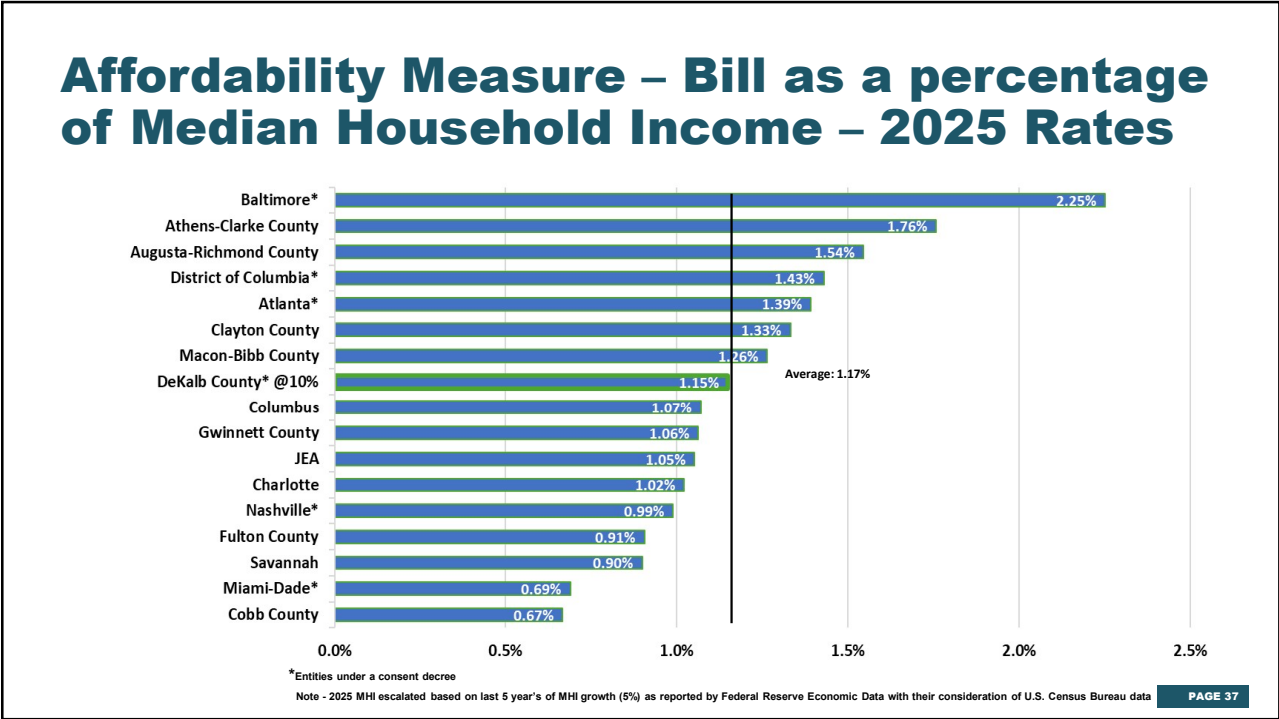
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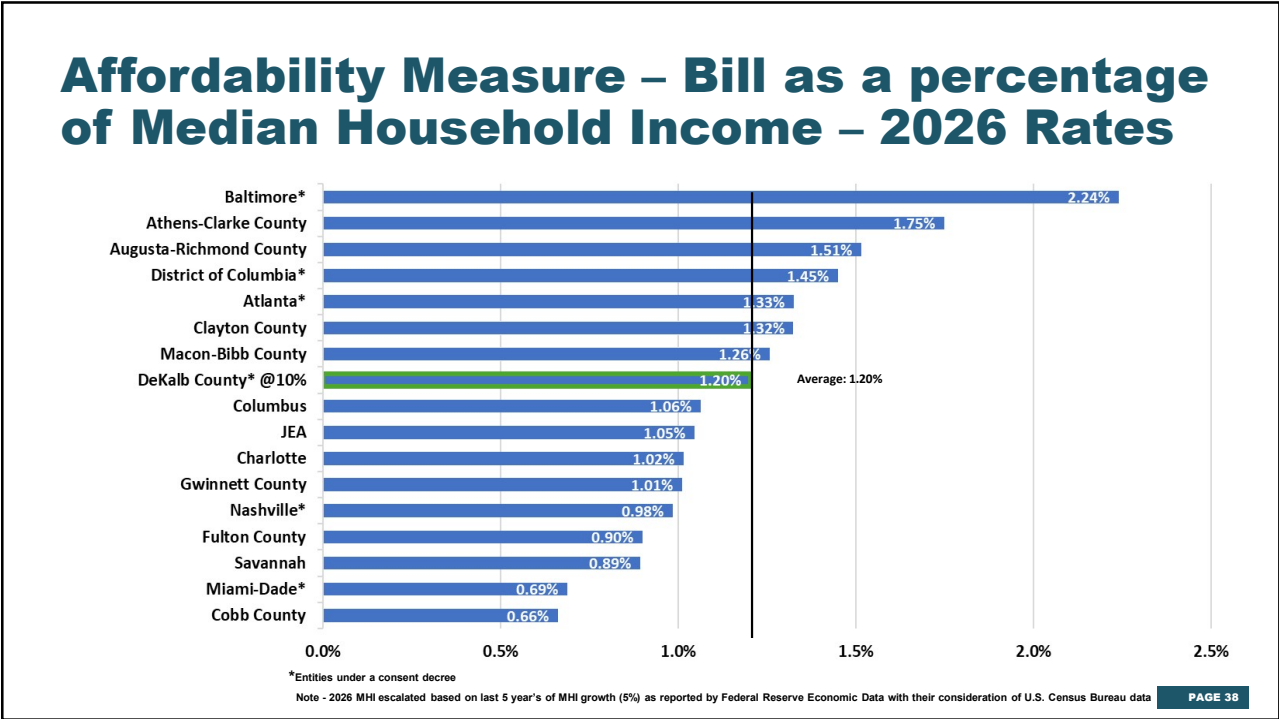
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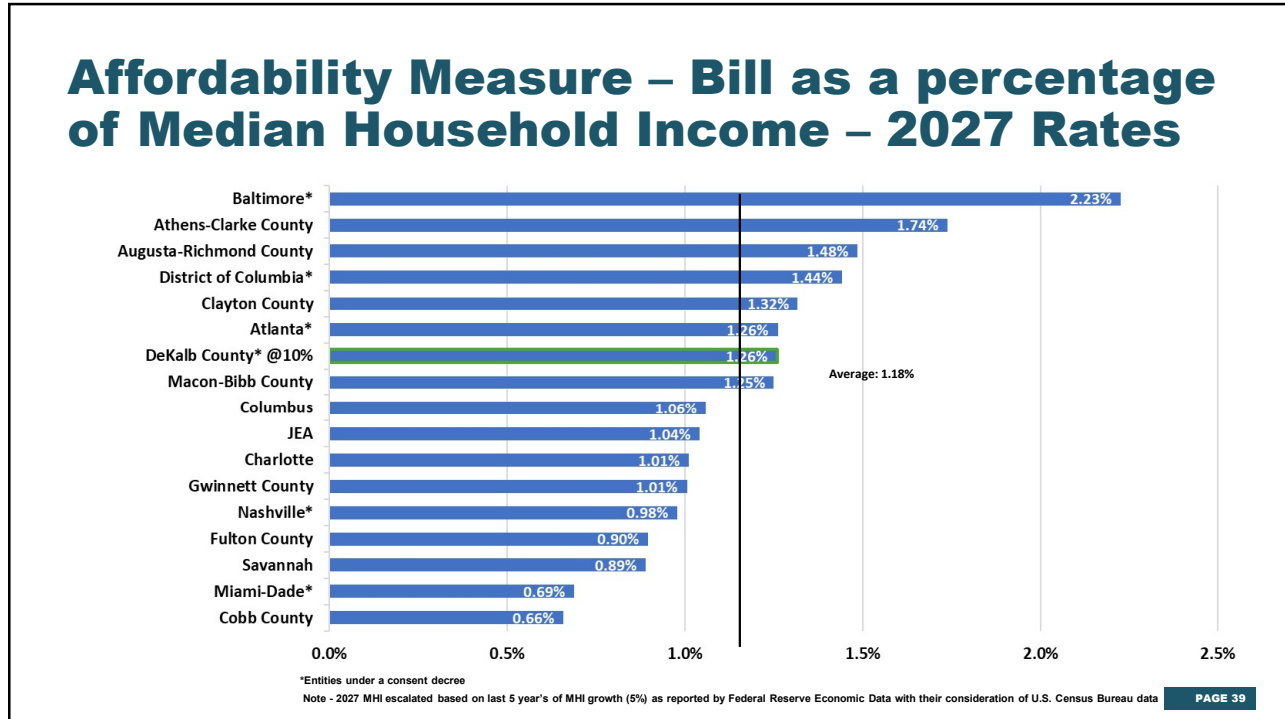
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DeKalb C.A.R.E.S Customer Assistance Programs

DeKalb C.A.R.E.S.

Customer Discount Program

for income eligible residential customers funded from W&S operations

DeKalb C.A.R.E.S.

Customer Assistance Fund

for those facing disconnection funded from customer donations

DeKalb C.A.R.E.S.

Extended Payment Plans

- Up to 7 years for customers in the 2025 dispute process
- Up to 2 years otherwise

DeKalb C.A.R.E.S.

Customer Amnesty Program

for income eligible residential customer funded from W&S operations

DeKalb C.A.R.E.S.

Repair of Private Residential Infrastructure

- Repair of leaks causing high usage
- Convert from septic tanks to sewer
- Repair of sewer laterals

Office of Customer Advocate

Independent Advocate

funded from W&S revenues to resolve billing disputes between UCO and customer

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Presentations Available At:

<https://www.dekalbcountyga.gov/watershed-management/2024-capital-improvement-program-cip>

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A collage image featuring a yellow Kubota excavator, workers in safety vests, and a large white text overlay that reads "QUESTIONS?". Below the text is a hatched pattern and the text "1941 30\"/>

QUESTIONS?

1941 30" Steel Water Pipe Break on Clairmont Rd in January 2025



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