CITY OF HARRISONBURG, VIRGINIA
DEPARTMENT OF PUBLIC UTILTIES
LONG TERM FINANCIAL MODELS (LTFM)
FY2025

March 20, 2025

HARRISONBURG, VIRGINIA
LONG TERM FINANCIAL MODEL

Harrisonburg Public Utilities, as typical to our industry, faces a dichotomy that requires balancing **affordability** versus **sustainability.** As we address affordability, we consider which customers impact our costs and we consider how our rates affect customer budgets. As we address sustainability, we have drafted our Strategic Asset Management Plan FY2025 (SAMP2025) for retiring and replacing our infrastructure assets (valued at $877 in FY2025). The plan is available on-line.

Our Long-Term Financial Model (LTFM) is our tool that allows for the vision to be consolidated and communicated in the journey for success.

HARRISONBURG, VIRGINIA
LONG TERM FINANCIAL MODEL

What does our FY2026 model tell us?

Continuing forward with our current water rates as in effect in FY2025, we forecast a shortfall in funding of $4.3M in 2026 and growing to a cumulative $55.6M by 2035. Sewer rates created a similar forecasted shortfall of $1.6M in 2026 and a cumulative $25.0M by 2035.

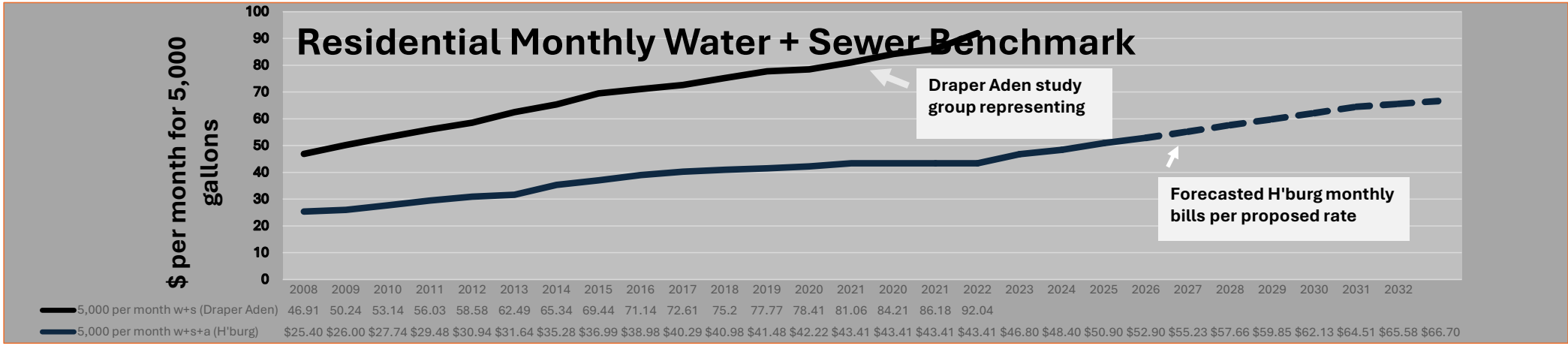
How have we used the model to provide a strategy?

Without a recovery strategy, “kicking the can down the road” for infrastructure funding is a common but very risky maneuver for any utility. Whereas our current rates will not sustain our infrastructure needs, interjecting affordability requires us to kick the can, but in our strategy, we will recover to full funding over a 25-year period. Our asset management strategy is key to mitigating the risk that we will incur during our recovery period.

LONG TERM FINANCIAL MODELS STRATEGY FY2026+

	WATER LTFM		SEWER LTFM
2026-2027	5.00% rates-$14.5M deferred	2026-2035	2.25% rates---$0.0M deferred
2034-2045	2.5% rates---$0.00M deferred	2026-2043	1.50% rates---$0.0M deferred
2046-2050	2.0% rates---$0.00M deferred	2044-2050	2.50% rates---$0.0M deferred

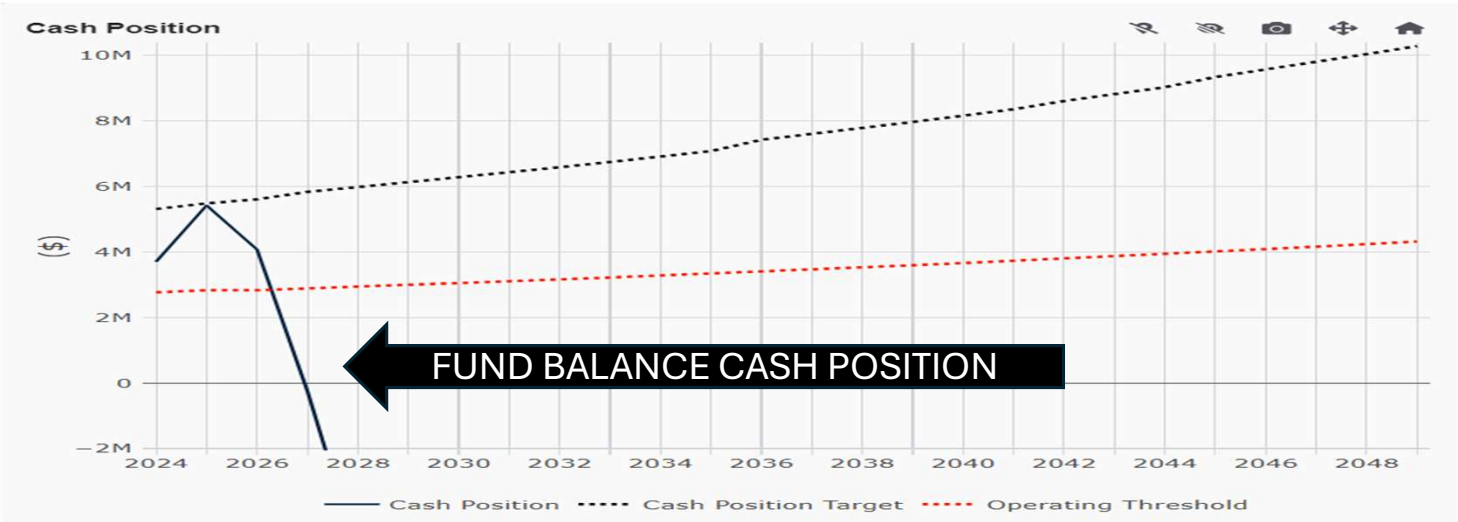
With a progressive approach to apply the LTFM percentage increases uniformly across all existing customers (pre-affordability analysis) , HPU monthly billing for 5,000 gallons water & sewer would increase from $50.90 in FY2025 to $66.70 in FY2032. An increase but does not yet reach the 2022 statewide average at $92.04.



WATER LONG TERM FINANCIAL MODEL (WLTFM)

WATER LONG TERM FINANCIAL MODEL (WLTFM) STRATEGY

WATER FUND BALANCE EOFY 2025 $	WATER CASH SALES EOFY 2025 $	FUND BALANCE / CASH SALES (25% Target)
$5,299,496	$12,131,000	44.7%



WATER OUTLOOK	2026	2026-2028	2026-2030	2026-2035
Revenue $	$20,925,000	$45,407,134	$70,758,302	$155,454,203
Expenses $	$25,257,083	$59,811,809	$95,471,015	$211,049,904
DEFICIT $	$4,332,084	$14,404,674	$24,712,712	$55,595,700

FY2025 water rates cannot support the capital that is needed to replace assets.

The funding shortfalls for 1 yr, 3 yrs, 5 yrs and 10 yrs are as shown in the table

WATER LONG TERM FINANCIAL MODEL (WLTFM) STRATEGY

EOFY2024 FUND BALANCE = $5,419,496
EOFY2025 FUND BALANCE = $5,299,496
LOWER THRESHOLD 25% = $3,130,175

SALES GROWTH = 2.0% / YR.

NON-SALES REVENUE = $781,000 / YR.

EXPENSE INFLATION = 5.0% / YR.

CAPITAL ACSO = $5,487,882+ / YR.-- CIP

CAPITAL EXPANSION BY DEBT $42M

Fund balance will reduce by $2.4M in FY2025 but will remain above the threshold

-$120,000 PER FY2026 BUDGET

and

$1,000,000 TRANSFER TO CIP FOR DESIGN OF DRI & NRI SCREENS

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CAPITAL EXPANSION BY DEBT $42M

A sales growth of 2.0% is forecasted.

WATER SALES (GALLONS)-2024		
TREND	MGD	% / YR
1 YEAR TREND	6.94	*5.2%*
3 YEAR TREND	5.89	5.9%
5 YEAR TREND	5.63	4.6%
10 YEAR TREND	5.38	2.9%

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CAPITAL EXPANSION BY DEBT $42M

This non-sales revenue is volatile in historic trending, and we therefore forecast $781,000 per year with zero inflation.

NON-SALES REVENUE	1 YEAR	3 YEAR	5 YEAR	10 YEAR	MODEL
1300 License, Permits, Fees, Etc	$270,213	$195,638	$180,228	$225,932	$200,000
1500 Use of Money and Property	$844,355	$453,434	$357,602	$223,587	$200,000
1600 Charges for Services - (Flat Rate)	$217,570	$192,355	$213,802	$186,094	$150,000
1800 Miscellaneous Revenue	$7,466	$7,719	$7,749	$8,401	$5,000
1900 Recovered Costs	$57,252	$92,648	$82,900	$69,237	$50,000
4100 Non-Revenue Receipts	$0	$0	$0	$2,756	$0
Total	$1,396,856	$941,793	$842,282	$716,007	$605,000

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CAPITAL EXPANSION BY DEBT $42M

II.	Water Operating Expenses	1 YEAR	3 YEAR	5 YEAR	10 YEAR
	312061 : Administrative	11.6%	19.0%	10.0%	8.8%
202	322061: Pumping & Monitoring	-0.6%	11.2%	5.2%	3.1%
203	332061: Transmission & Distribution	13.6%	2.1%	3.8%	3.3%
204	342061: Utility Billing	16.8%	9.0%	5.6%	7.4%
205	352061: Miscellaneous less Depreciation	5.7%	2.4%	2.7%	2.6%
206	362061 : WTP Operations	15.5%	16.9%	10.7%	6.5%
207	**Total Operating Expenses**	10.8%	10.1%	6.6%	5.1%

We forecast a 5.0% per year operating expense inflation.

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CAPITAL GROWTH BY DEBT $42M

910161	ACSO FUND CODE	CARV	ACS0
48621	Western Source	$59,020,517	$44,103
48654	Eastern Source	$60,000,000	$0
48670	Rural Potable	$47,415,464	$360,229
48732	City Potable	$346,303,189	$4,582,156
48688	Pumping	$34,671,783	$335,131
48733	Treatment	$22,057,178	$92,951
48734	Metering	$3,179,679	$62,512
	SUBTOTAL UTILITIES	$572,647,809	$5,477,082
48740	IT		
48757	Facilities (WOC)	$10,000,000	$10,000
	Total	$582,647,809	$5,487,882

ADD:

$50k / YR MAIN EXTENSIONS

$300K –WRWL THRU 2034

$100K – WOC THRU 2034

We forecast $5,937,082 per year needs in capital less $500K per year in contributions made from construction.

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CAPITAL GROWTH BY DEBT $42M

Id	Item Descriptor	Category	Issue Year	Amort. Period	Principal Amount	Interest Rate
2	2009 VRA Series	Current	2011	30	1,136,000	0.000%
3	2021 A	Current				0.000%
4	2026 VWWP Screens	Proposed (Defer pmt yr1)	2026	30	7,500,000	3.500%
5	Phase 1 WRWL	Proposed				0.000%
6	Phase 4 WRWL + (508 P2)	Proposed	2035	30	17,300,000	3.500%
10	Smithland Rd Tank	Proposed	2041	30	5,000,000	3.500%
11	Bank Charge	Current				0.000%
12	ERWL STL	Proposed (Defer pmt yr1)	2026	30	1,500,000	3.500%
13	WTP Expansion	Proposed (Defer pmt yr1)	2044	30	9,200,000	3.500%
14		Current				0.000%
X	Total Debt Service					

DEBT FORECASTING

2026	$ 9.0M BOND DRI & NRI SCREENS
2035	$17.3M BOND WESTERN RAW WATERLINE
2041	$ 5.0M BOND SMITHLAND ROAD TANK
2044	$ 9.0M BOND WTP EXPANSION

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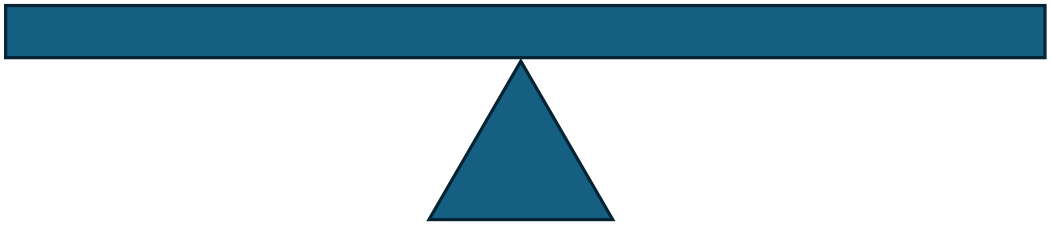
CAPITAL GROWTH BY DEBT $42M

RATE INCREASE SCHEDULE LTFM

YEAR	W-%	S-%
2026	5.00%	2.25%
2027	5.00%	2.00%
2028	3.50%	2.00%
2029	3.50%	2.00%
2030	3.50%	2.00%
2031	3.50%	2.00%
2032	3.50%	2.00%
2033	2.50%	2.00%

WATER DEFER CAPITAL $	
2026-2027	
2028-2029	**-$2,250,000 / YR.**
2030-2033	**-$2,000,000 / YR.**
2034-2035	**-$1,000,000 / YR.**
2036	
2037-2038	+$2,250,000 / YR.
2039-2042	+$2,000,000 / YR
2043-2044	+$1,000,000 / YR.



WATER LONG TERM FINANCIAL MODEL (WLTFM) STRATEGY

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$5,299,496	$12,131,000	44.7%

RATE INCREASES
2025-2026 5.00%
2027-2033 3.50%

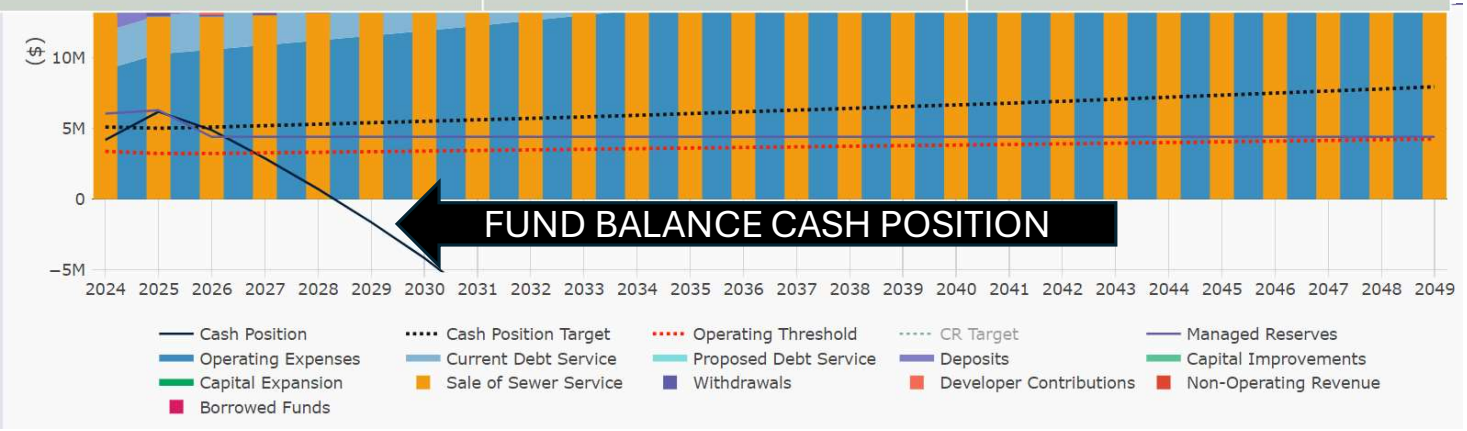
Rate Schedule

Id	Escalation Rates	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	Sale of Water Service										
S1	Population Growth	0.00%	0.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
S2	Decline	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
S3	Rate Increase	0.00%	0.00%	3.50%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

SEWER LONG TERM FINANCIAL MODEL (SLTFM)

SEWER LONG TERM FINANCIAL MODEL (SLTFM) STRATEGY

SEWER FUND BALANCE EOFY 2024 $	SEWER CASH SALES EOFY 2024 $	FUND BALANCE / CASH SALES(25% Target)
$6,188,330	$13,529,014	45.7%



FY2026 sewer rates cannot support the capital that is needed to replace assets .

The funding shortfalls for 1 yr, 3 yrs, 5 yrs and 10 yrs are as shown in the table

SEWER OUTLOOK	2026	2026-2028	2026-2030	2026-2035
AVAILABLE $	$13,715,000	$41,622,101	$70,178,122	$144,510,956
REQUIRED $	$15,342,942	$47,014,455	$80,166,665	$169,524,407
DEFICIT $	$1,627,943	$5,392,354	$9,988,543	$25,013,451

SEWER LONG TERM FINANCIAL MODEL (SLTFM) STRATEGY

EOFY2024 FUND BALANCE = $6,188,630
EOFY2025 FUND BALANCE = $7,306,040
LOWER THRESHOLD 25% = $3,757,688

SALES GROWTH = 2.0% / YR.

NON-SALES REVENUE = $341,000 / YR.

EXPENSE INFLATION = 5.0% / YR.

CAPITAL ACSO = $2,056,932+ / YR.-- CIP

CAPITAL EXPANSION BY DEBT $0M

Fund balance will reduce by $6.4M in FY2025.

+$ 1,117,410 PER FY2026 BUDGET

+1,500,000 RETURN CITY FARM TO CASH REVENUE STATUS

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CAPITAL EXPANSION BY DEBT $0M

A sales growth of 2.0% is forecasted.

SEWER SALES (GALLONS)-2024		
TREND	MGD	% / YR
1 YEAR TREND	5.58	*5.7%*
3 YEAR TREND	4.86	5.0%
5 YEAR TREND	4.76	3.5%
10 YEAR TREND	4.40	2.7%

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CAPITAL EXPANSION BY DEBT $0M

This non-sales revenue is volatile in historic trending, and we therefore forecast $411,000 per year with zero inflation.

NON-SALES REVENUE	1 YEAR	3 YEAR	5 YEAR	10 YEAR	MODEL
1300 License, Permits, Fees, Etc	$220,500	$229,667	$222,625	$331,880	$200,000
1500 Use of Money and Property	$523,559	$285,444	$222,194	$144,339	$150,000
1800 Miscellaneous Revenue	$16,101	$14,147	$12,105	$6,441	$10,000
1900 Recovered Costs	$54,923	$48,414	$63,068	$54,123	$50,000
4100 Non-Revenue Receipts	$0	$1,839	$1,380	$1,124	$1,000
Total	$815,083	$579,511	$521,371	$537,907	$411,000

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CAPITAL EXPANSION BY DEBT $0M

Sewer Operating Expenses		1 YEAR	3 YEAR	5 YEAR	10 YEAR
201	412061 Administrative	13.6%	9.2%	8.1%	4.2%
202	432061 Collection & Transmission	13.2%	5.9%	3.8%	4.4%
203	442061 Miscellaneous less Depreciation	5.2%	4.4%	-3.8%	4.5%
204	452061 Utility Billing	16.2%	21.8%	16.8%	12.6%
205	462061 Pumping & Monitoring	2.4%	6.2%	4.0%	16.1%
206	**Total City Operating Expenses**	11.3%	8.7%	4.8%	6.3%
206	**422061 HRRSA O&M Expenses**	8.9%	16.2%	12.0%	4.2%

We forecast a 5.0% per year operating expense inflation.

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CAPITAL EXPANSION BY DEBT $0M

911161	ACSO FUND CODE	CARV	ACSO
48641	Blacks Run Interceptors	$50,881,206	$102,859
48735	Collection	$268,394,362	$1,490,034
	I&I		$200,000
48736	Pumping	$1,864,624	$41,527
48734	Metering	$3,179,679	$62,512
	SUBTOTAL UTILITIES	$324,319,871	$1,896,932
48740	IT		
48757	Facilities	$10,000,000	$10,000
	Total	$334,319,871	$1,906,932

ADD:

$50k / YR MAIN EXTENSIONS

$100K – WOC THRU 2034

We forecast $2,056,932 per year needs in capital less $250K per year in contributions made from construction.

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CAPITAL EXPANSION BY DEBT $0M

Id	Item Descriptor	Category	Issue Year	Amort. Period	Principal Amount	Interest Rate
1	HRRSA Existing Debt	Current				0.000%
2	HRRSA Plant Expansion (2050)	Proposed	2050	30	61,300,000	3.500%
3	HRRSA ILOS	Proposed				0.000%

Note:

Per HRRSA ILOS strategy, new debt is added equal to the amount of existing debt that is scheduled to retire.

SEWER LONG TERM FINANCIAL MODEL (SLTFM) STRATEGY

SEWER FUND BALANCE EOFY 2024 $	SEWER CASH SALES EOFY 2024 4	FUND BALANCE / CASH SALES(25% Target)
$6,188,330	$13,529,014	45.7%

RATE INCREASES

2026	**2.25%**
2027-2033	**2.00%**

WATERWORTH™ Budget 2026 Mid-Year Review (Scenario) Notes Harrisonburg, VA (Organization)

LFM Sale of Service Forecasting **Rates & Demand Adjust** Description

Rate Sch

Id	Escalation Rates	2025	2026	2027	2028	2029	2030	2031	2032	2033
Sale of Sewer Service										
S1	Population Growth	0.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
S2	Decline	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
S3	Rate Increase	2.75%	2.25%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

Water & Sewer Rate Structuring for Affordability

Water & Sewer Rate Structuring for Affordability

#1 What revenue goals and pricing to apply to non-Owner customers (rural & wholesale customers)

#2 What methodology to apply for distributing cost among the customers

a) Allocation in proportion to origin of cost (AWWA Cost of Services)

b) Progressive versus Regressive Rates

<u>Progressive rates</u>-favor affordability toward lower income customers by shifting the burden away from conservative users and toward higher volume users.

- **Lower fixed costs such as minimums or base rates (places higher revenue uncertainty on the utility)**
- **Uniform or inclining block rate structures.**
- **Increases to existing rates by uniform percentage versus uniform unit price.**
- **May make provisions based on Household Medium Income (HMI), 20% of Household Medium Income (AR_{20}), or Household Minimum Wage Income (HM).**

<u>Regressive rates</u>- opposite of progressive rates and pursue security of revenue for the utility.