

HARRISONBURG PUBLIC UTILITIES OUR BUSINESS MODEL





Harrisonburg Public Utilities

The City of Harrisonburg is an independent city located in the central Shenandoah Valley region of Virginia. It is the county seat of Rockingham County and encompasses 17.3 square miles, serving a population of approximately 54,000. Harrisonburg is located right along Interstate 81 and is only two hours away from both Richmond, Virginia and Washington, D.C. Harrisonburg is home to two university campuses – James Madison University and Eastern Mennonite University – as well as numerous other businesses, non-profit organizations, and a vibrant downtown. The Department of Public Utilities is responsible for providing water and sewer services to residences and businesses in the City of Harrisonburg and some in neighboring Rockingham County. Currently, our department manages 3 raw surface water sources, a class 1 multi-media filtration plant, 294 miles of waterlines, 186 miles of sewer pipes while serving approximately 18,000 accounts. We are member of the Harrisonburg Rockingham Regional Sewer Authority nutrient removal plant.

Harrisonburg Public Utilities Mission Statement

HPU is endowed with the mission to continuously operate and improve under a business model that is effective and efficient to deliver water and sewer service to all of our customers. The service that we provide will meet the expectations of our stakeholders, will achieve sustainability through balance, and will embellish the core value from the City Of Harrisonburg. The business model that we create will safeguard our future for strategic, tactical, and operational performance through principles of high performance, asset management, and project management.

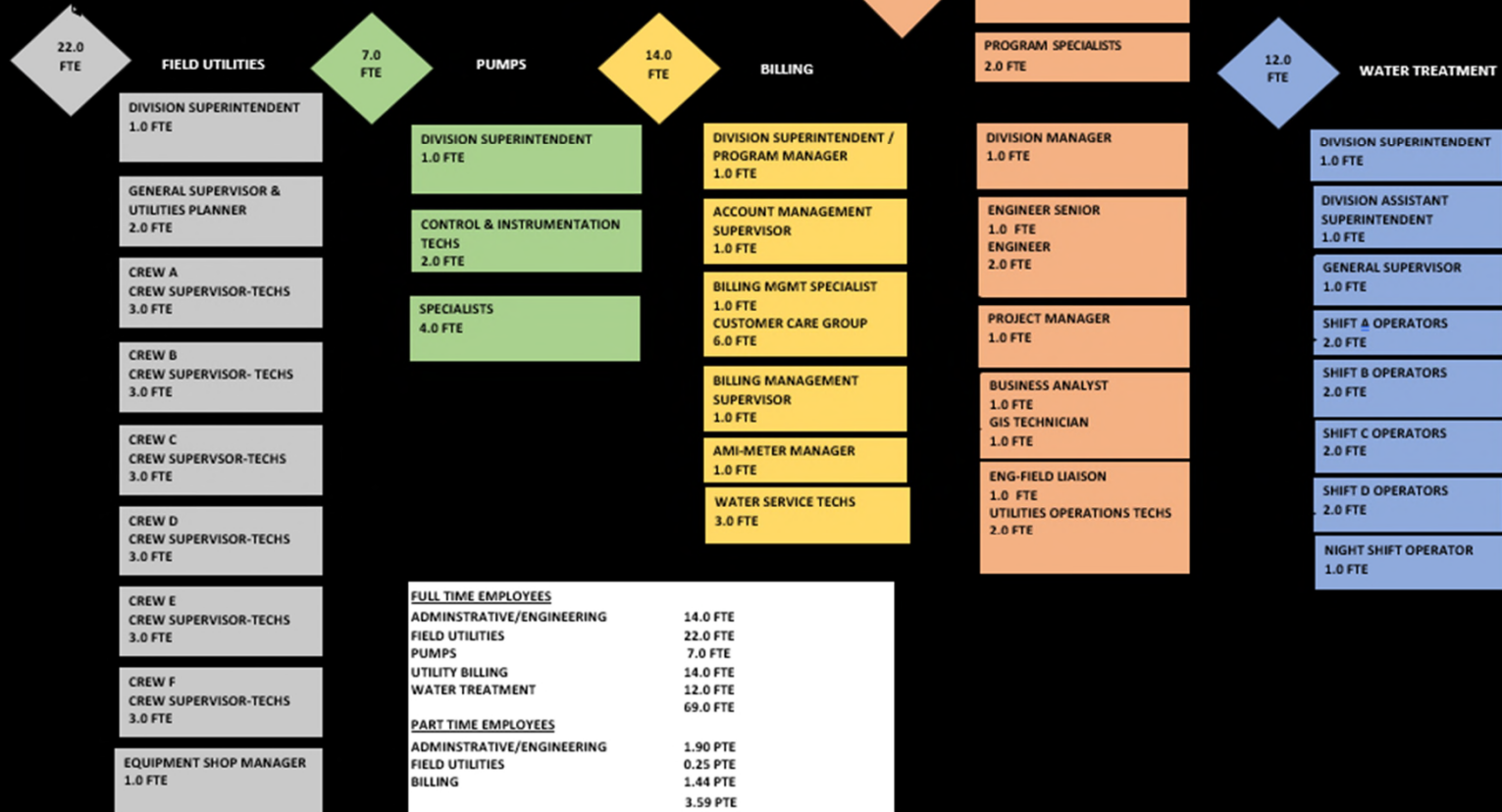


Mike Collins
Director

CITY OF HARRISONBURG, VIRGINIA
PUBLIC UTILITIES DEPARTMENT ORGANIZATION
STRUCTURE FY2025 BUDGET

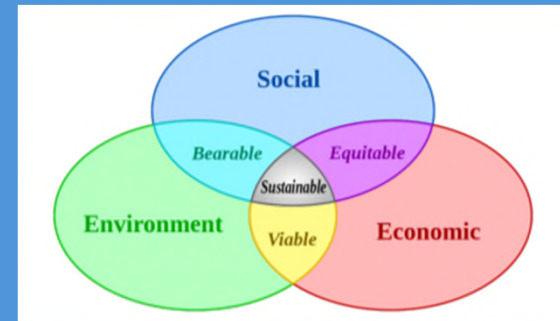
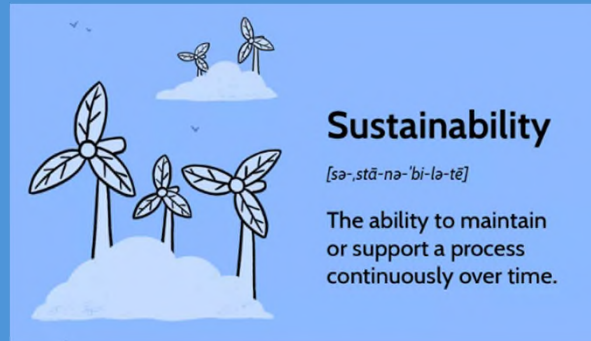
69.0 FTE; 3.59 PTE

ADMINISTRATION & ENGINEERING



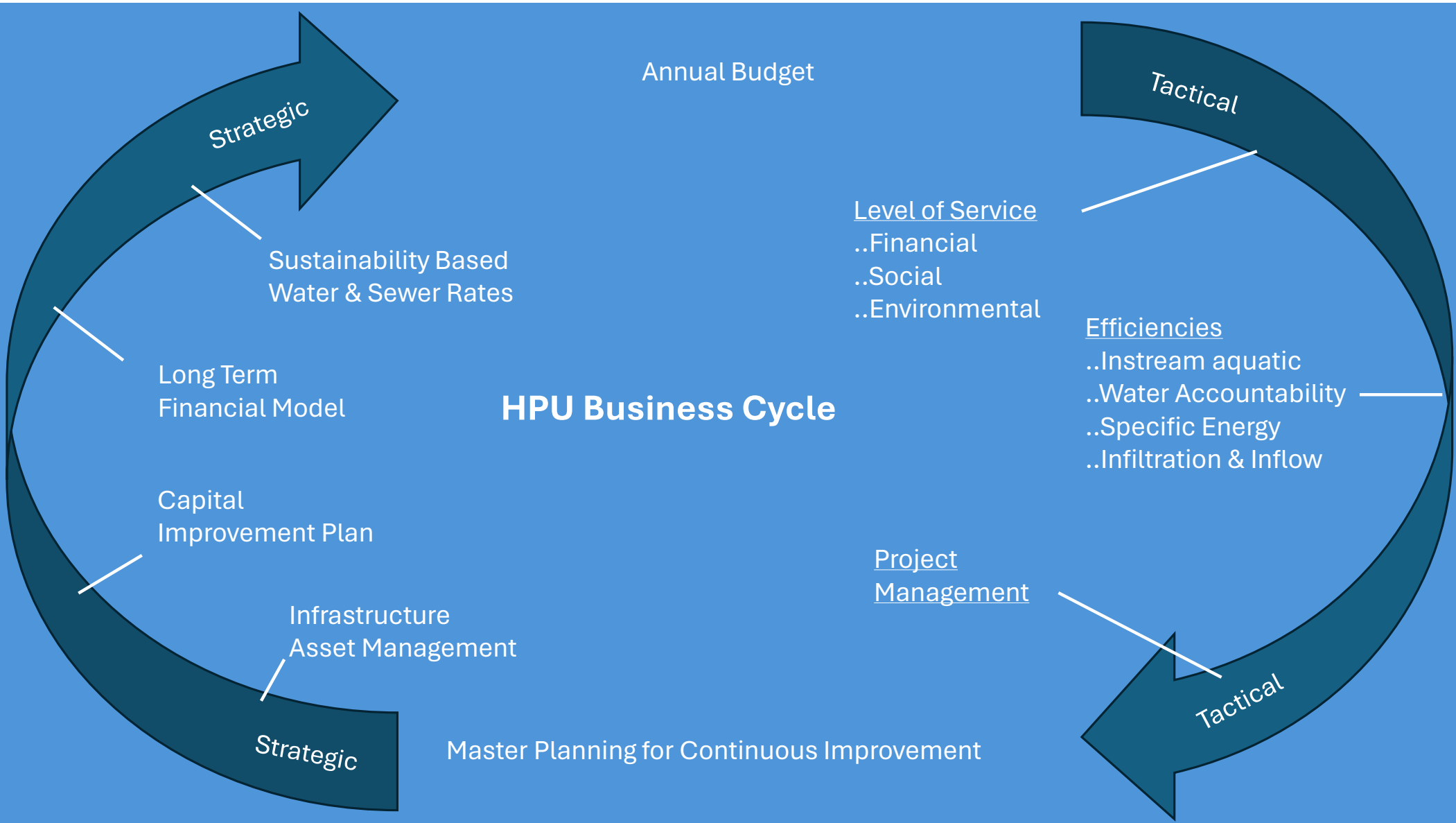
Harrisonburg Public Utilities

An Organization in Sustainability



Water is the most essential element of life, but we learn from nature that balance is key as too little or too much water can turn unfortunate.

In recognition of the value of balance, at HPU we operate to weigh our business decisions among social, economic and environmental priorities.



Harrisonburg Public Utilities Water Long Term Financial Model FY2024 & Sustainability Based Rates

Model Inputs 2024-2049

Operating & Transfer Expenses

FY2024 budget allocations inflated
3% annually; \$272.5M

Capital R&R Expenses

ACSO₂₅ = \$2.87M / yr.

\$57.6M

\$5.0M deferred 2025-2029

Capital Expansion Expenses

\$43.8M

Debt Expenses

\$50.2M existing debt payments 2047

\$29.3M new debt payments 2049

Model Outputs

Rate Increases

5K Gals / mo.

FY2025 - 5.0%

\$21.05

FY2026 -5.0%

\$22.10

FY2027 -5.0%

\$23.21

FY2028 -5.0%

\$23.37

FY20.29 -5.0%

\$24.54

Virginia Benchmark Median

Water 2023

\$50.90

Water + Sewer 2023

\$93.73 (\$50.90)

Harrisonburg Public Utilities Sewer Long Term Financial Model FY2024 & Sustainability Based Rates

Model Inputs-2024-2-49

Operating & Transfer Expenses

FY2024 budget allocations inflated 3% annually; \$374M

Capital R&R Expenses

ACSO₂₅ = \$735K / yr.;
\$19.1M

Capital Expansion Expenses

\$10.6M

Debt Expenses

\$33.2M existing debt payments

\$36.8M new debt payments

Model Outputs

FY 2023 Median Benchmark for 5K gallons

	<u>Virginia</u>	<u>HPU</u>
Sewer	\$52.74	\$30.95
Water + Sewer	\$93.73	\$41.30

Rate Increases

FY2025 – 2.75%
FY2026 – 2.75%
FY2027 – 2.75%
FY2028 – 2.75%
FY20.29 –2;75%

5K Gals / mo.

\$32.75
\$33.65
\$34.58
\$35.31
\$36.28

Harrisonburg Public Utilities Asset Management & Capital Improvement

Water Assets 8.23.23

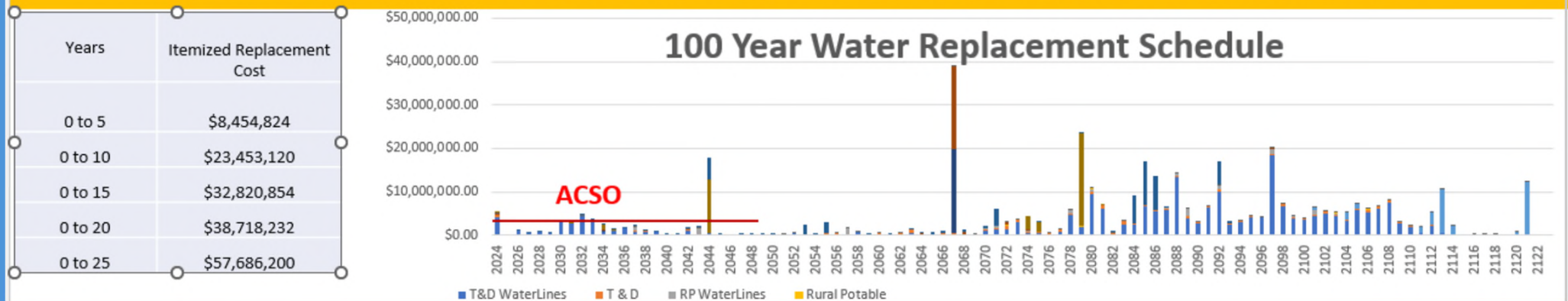
<u>CIP Fund</u>	<u>CARV</u>	<u>ACSO</u>	<u>Expansion</u>
Western Raw Water	\$ 28.9M	\$300k/yr.	\$26.3M
Eastern Raw Water	\$ 40.0M	\$ 0K/yr.	\$25.0M
Rural Water Distribution	\$ 15.5M	\$ 80K/yr.	-----
Pumping, Storage, SCADA	\$ 33.7M	\$260K/yr.	
City Water Distribution	\$109.4M	\$1.3m/yr.	
Water Treatment	\$ 21.4 M	\$675k/yr.	-----
Metering	\$ 2.4M	\$ 25k/yr.	\$ 3.0M
Water System	\$251.3M	\$2.87M	\$54.3M

Sewer Assets 8.23.23

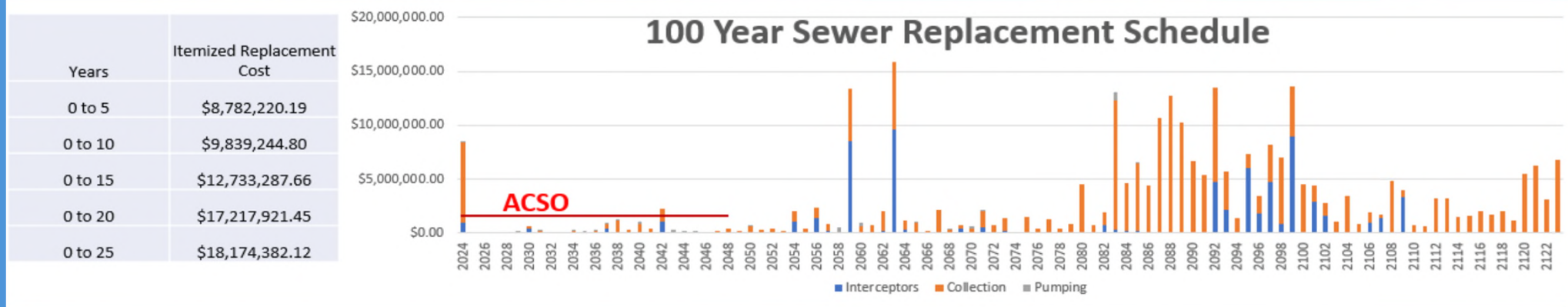
<u>CIP Fund R&R</u>	<u>CARV</u>	<u>ACSO</u>	<u>Expansion</u>
Interceptors	\$ 29.6M	\$100k/yr.	\$10.6M(1)
Collectors	\$129.5M	\$550k/yr.	-----
Pumping	\$ 1.8M	\$ 50K/yr.	-----
Metering	\$ 2.4M	\$ 25k/yr.	-----
Other		\$ 10K/yr.	-----
Sewer System	\$153.3M	\$735K/yr.	\$10.6M
(1) City ILOs	not yet included		

Asset management & Long-Term Financial Planning

WATER CAPITAL: RETIREMENT & REPLACEMENT CHALLENGE



SEWER CAPITAL: RETIREMENT & REPLACEMENT CHALLENGE



Harrisonburg Public Utilities

Instream Aquatic Protection for Raw Water Sources

Dry River Intake (DRI)

HPU operates Switzer Dam above our DRI; we also control the bypass at our DRI to a minimum 500,000 gpd. This intake will be retrofitted with 2 mm screens



North River Intake (NRI)

HPU manages raw water intake from the NRI to less than 12% of the instream daily flow rate. This intake will be retrofitted with 2 mm screens.



South Fork Shenandoah River Intake (SFI)

HPU manages raw water intake from the SFI to less than 10% of the instream daily flow rate. This intake will be constructed with 2 mm screens



A large, dark blue circular arrow graphic that starts at the top right, curves around the right side, and points back towards the top left, framing the central content.

Harrisonburg Public Utilities Specific Energy (Electrical Use per Millions Gallons Water)

Water System Specific Energy (SE)

kilowatt hours / MG

<u>Calendar Year</u>	<u>SE</u>
2020	1,399
2021	1,384
2022	1,572
2023	1,510

Building Energy Utilization Intensity (EUI)

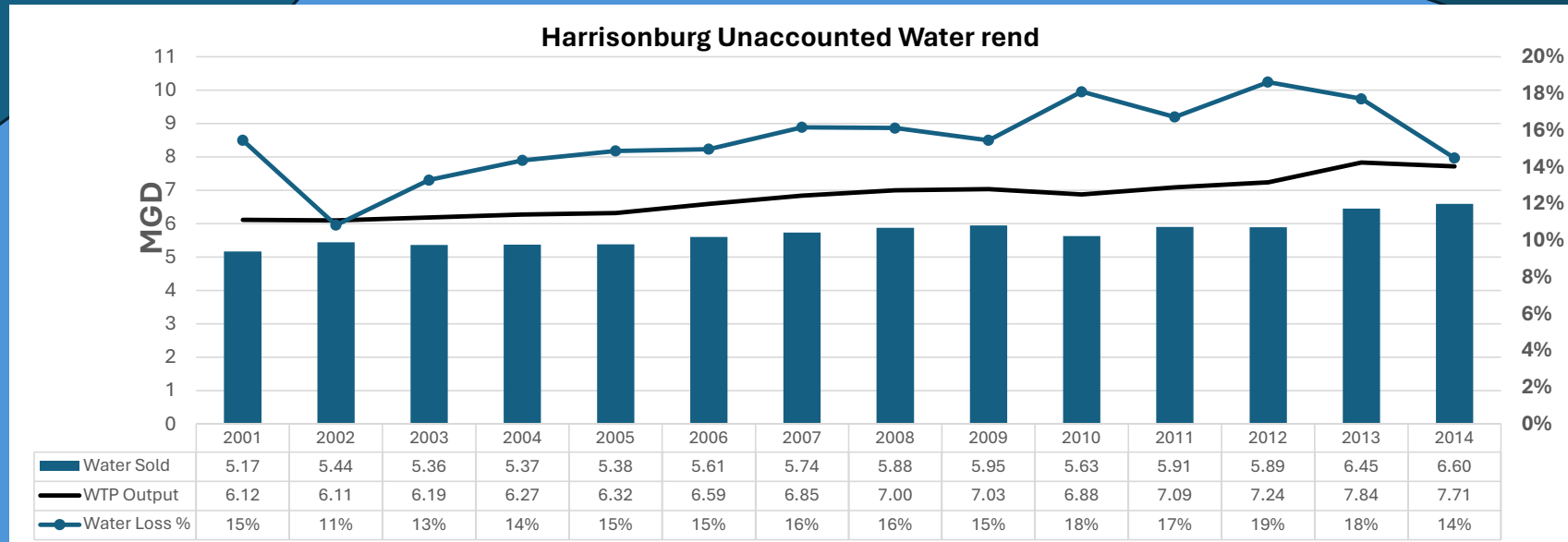
KBTU per Square Foot

<u>Calendar Year</u>	<u>Operations Center</u>	<u>Treatment Plant</u>
2020	73.8	43.7
2021	76.2	48.5
2022	75.5	47.6
2023	68.6	46.5

HPU is using AI internet continuous monitoring in its largest pump demand center; we performs six month SE pump inspections at each of our smaller demand centers

Building energy efficiency is managed under the City's EPSAC umbrella.

Harrisonburg Public Utilities Unaccounted Water Management



A reasonable goal is 15% with an upper performance level at 10%

We use meter testing & manual leak detection;
we are evaluation AI such as satellite detection
and AMI metering with acoustical monitoring.

Harrisonburg Public Utilities Sewer I&I Management

Under construction.



