

**HARRISONBURG  
WATER & SEWER  
LONG TERM  
FINANCIAL MODEL**

**TAKE AWAYS**

- #1 BENCHMARK CURRENT RATES**
- #2 FUTURE RATE MANAGEMENT STRATEGY**
- #3 ASSET MANAGEMENT PRIORITIES**

# #1 RATE BENCHMARK: 5,000 GALLONS PER MONTH

## Water and Wastewater Rates

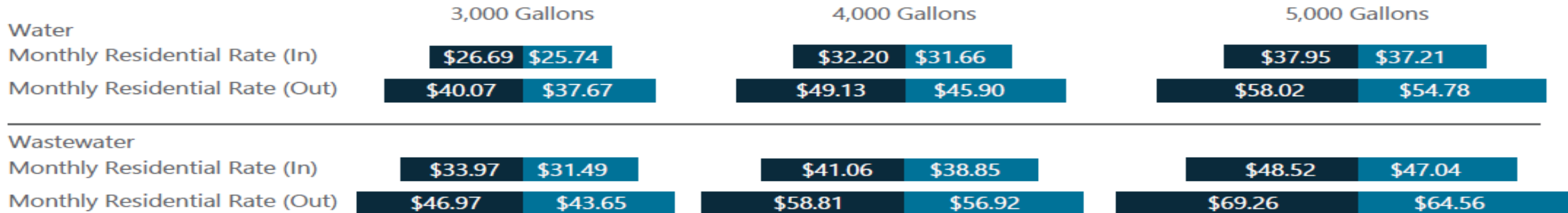
Utilities were asked to calculate the charges for residential customers using 3,000, 4,000 and 5,000 gallons of water per month. Utilities that bill on a bi-monthly or quarterly basis provided rates based on equivalent usage and the rates were normalized to monthly rates. Respondents were asked to use the rates in effect on July 1, 2021.



Residential Connections	# of Replies	Smallest System # of Connections	Largest System # of Connections	Average # of Connections	Median # of Connections
Water	126	7	363,809	11,190	2,199
Wastewater	122	38	119,240	8,020	1,765

Virginia Statewide Benchmark  
5,000 Gallons Water & Sewer =  
\$86.47 per month average  
\$84.25 per month median

## Monthly Residential Rates



■ Average Rate ■ Median Rate

# #1 RATE BENCHMARK: 5,000 GALLONS PER MONTH

Cost Center	Harrisonburg FY2022	WVWA FY2022	Statewide Group FY2022
Operations	\$29.09	\$35.25	
Debt	\$11.47	\$14.62	
Capital	\$ 8.24	\$16.63	
Total	\$48.80	\$66.50	\$84.25 \$86.47

... WVWA proposes a 3.4% and 4.3% rate increases for water and sewer, respectively FY2023 through FY2033; basis is a **\$53M** shortfall in capital over the next ten years period.

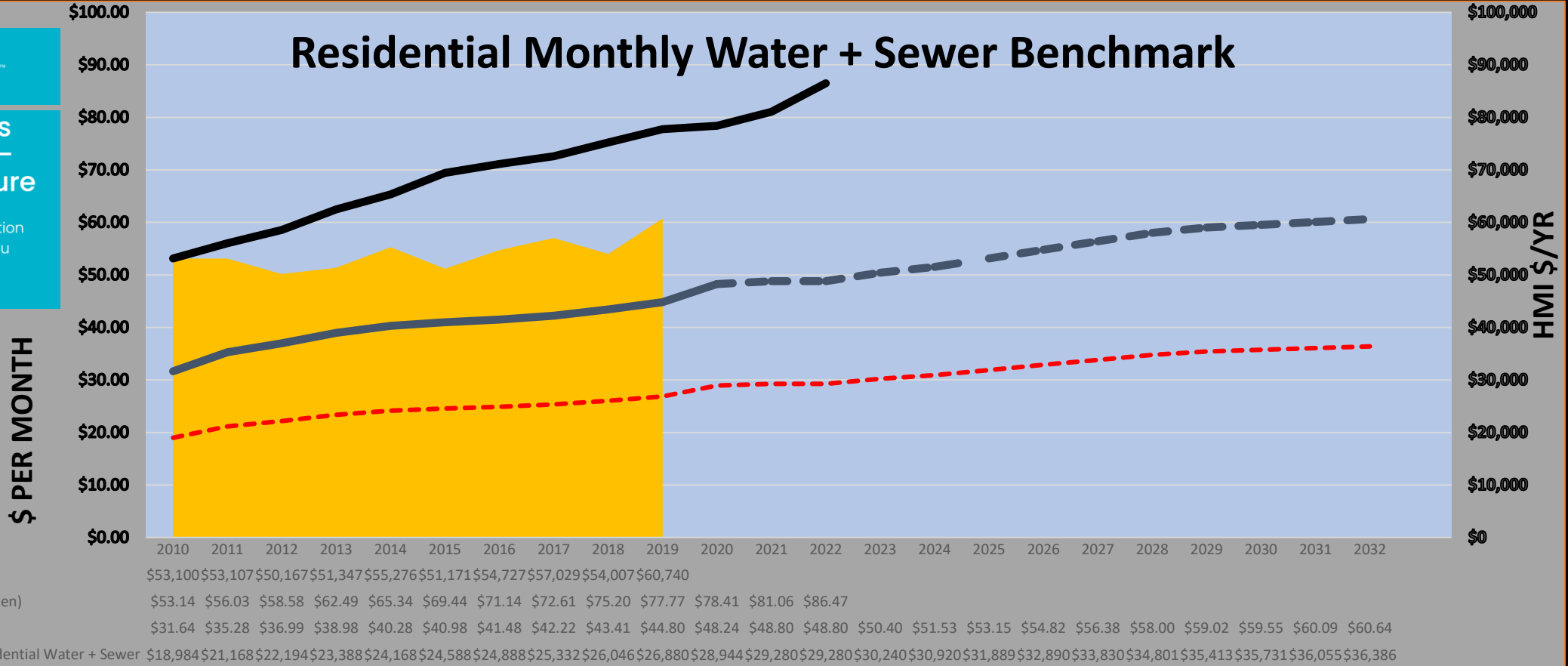
HPLI's ITEM forecast is a **\$30M** (\$12.8M vs \$12.5M) shortfall in capital over the next ten years

# #2 RATE MANAGEMENT



**Make better decisions for your community – today and for the future**

Waterworth is a powerful analytics solution that integrates different data to help you gain financial control of your water and wastewater systems.



\$48.80



0-5 YEARS

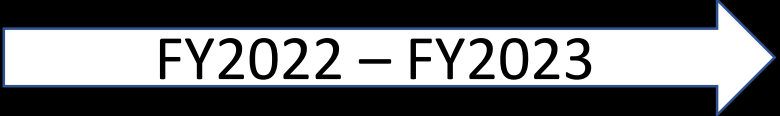
\$56.38



6-10 YEARS

\$60.64

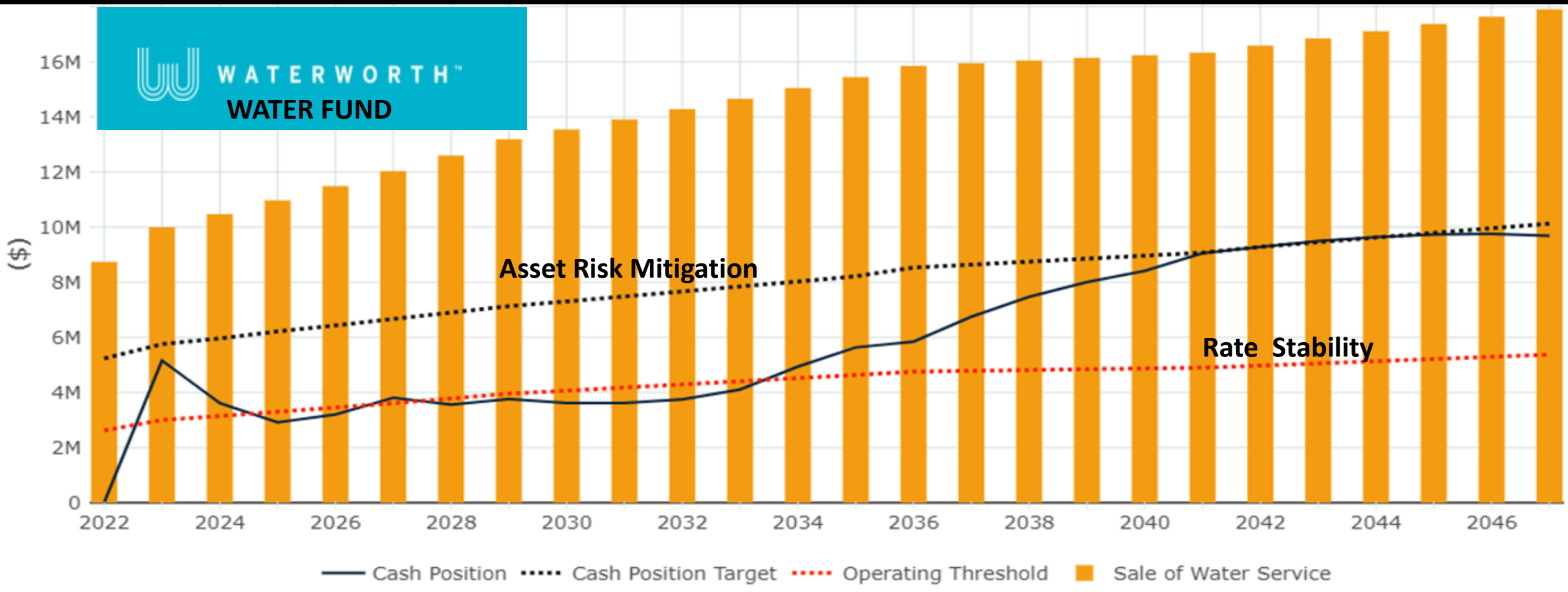
\$48.80



FY2022 – FY2023

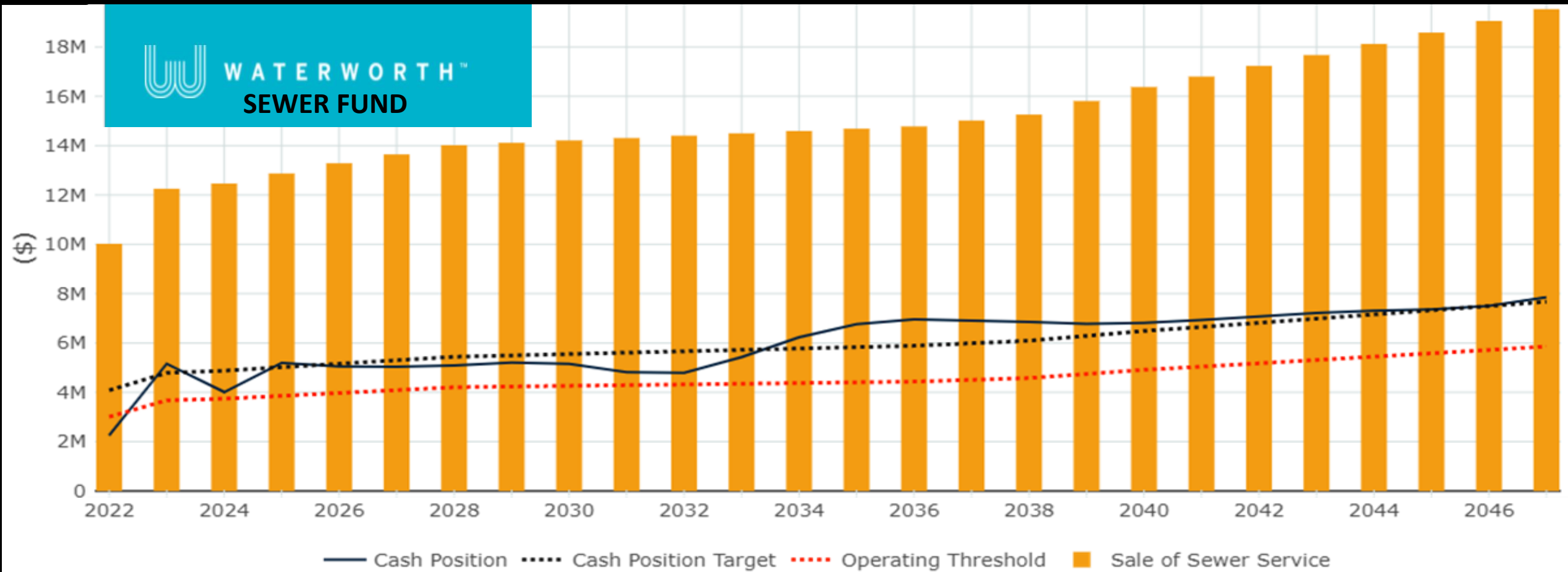
\$50.40

# #2 RATE MANAGEMENT



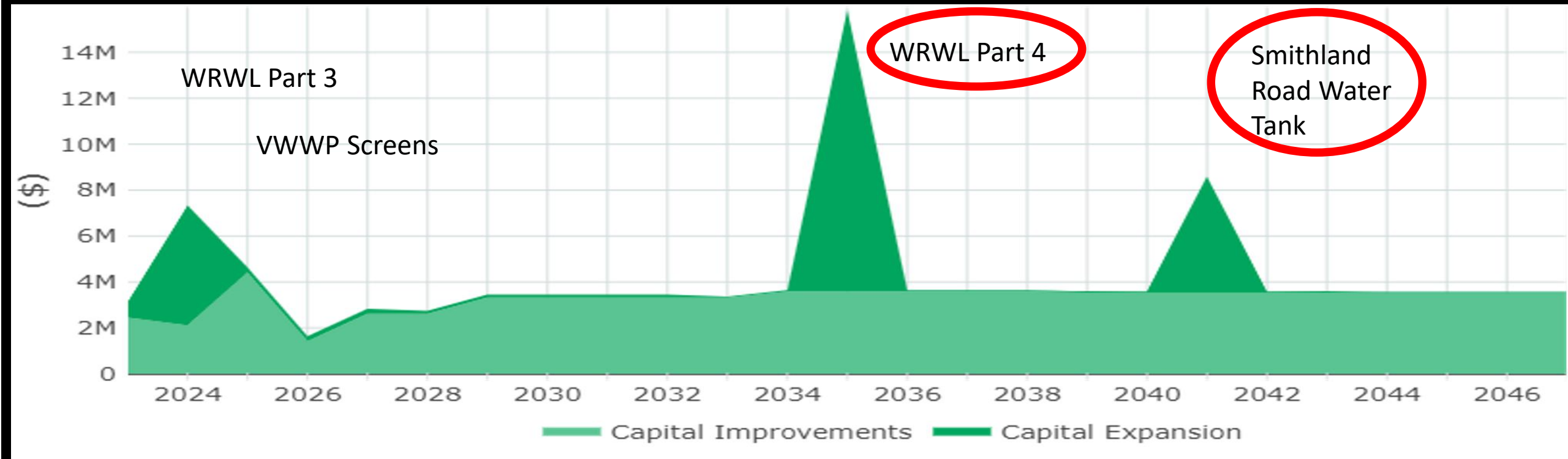
Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
<b>Population Growth</b>	0.00%	0.76%	0.75%	0.74%	0.73%	0.72%	0.71%	0.70%	0.69%	0.68%	0.67%	0.66%	0.65%	0.64%	0.63%
<b>Rate Increase</b>	0.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
<b>Total Escalation</b>	0.00%	4.76%	4.75%	4.74%	4.73%	4.72%	4.71%	4.70%	2.69%	2.68%	2.67%	2.66%	2.65%	2.64%	2.63%

# #2 RATE MANAGEMENT



Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
<b>Population Growth</b>	1.00%	0.76%	0.75%	0.74%	0.73%	0.72%	0.71%	0.70%	0.69%	0.68%	0.67%	0.66%	0.65%	0.64%	0.63%
<b>Rate Increase</b>	0.00%	1.00%	1.00%	2.50%	2.50%	2.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Total Escalation</b>	1.00%	1.76%	1.75%	3.24%	3.23%	2.72%	2.71%	0.70%	0.69%	0.68%	0.67%	0.66%	0.65%	0.64%	0.63%

# #3 ASSET MANAGEMENT



## 10 Year Water Capital Plan

**\$32.5M**

Expansion:

24"-30" New Raw Waterline

\$ 6.1M---Loan & Grant

VWWP Intake Screens

\$ 3.0M---Loan

Others

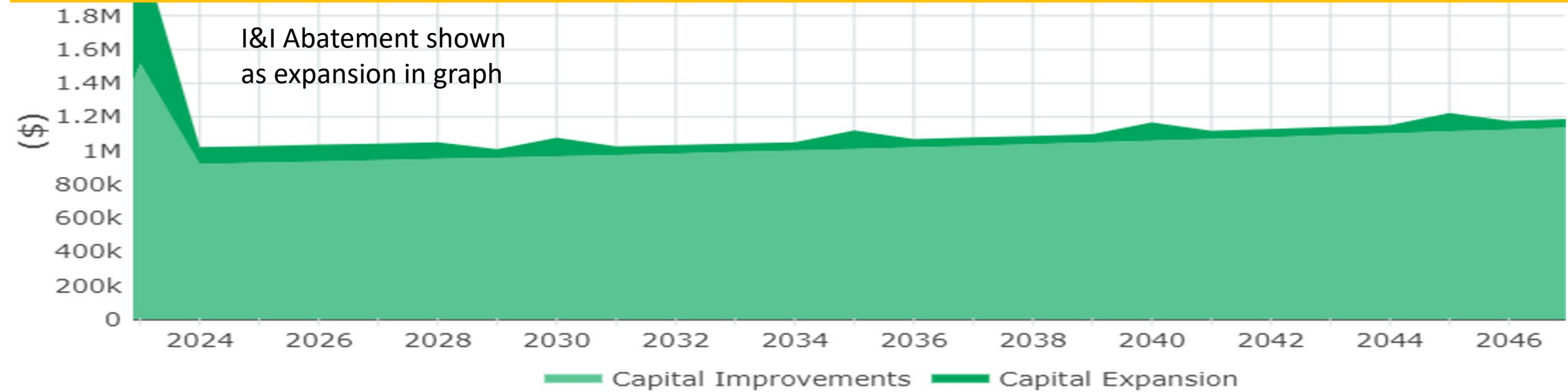
\$ 2.0M---Cash

Improvements:

Replacements

\$21.4M---Cash

# #3 ASSET MANAGEMENT



## 10 Year Sewer Capital Plan

**\$10.3 M**

Expansion:

HRRSA ILOS

\$ TBD

City ILOS

\$ TBD

HRRSA (2048)

\$ TBD

Improvements:

Replacements

\$ 8.3M---Cash

I&I Abatement

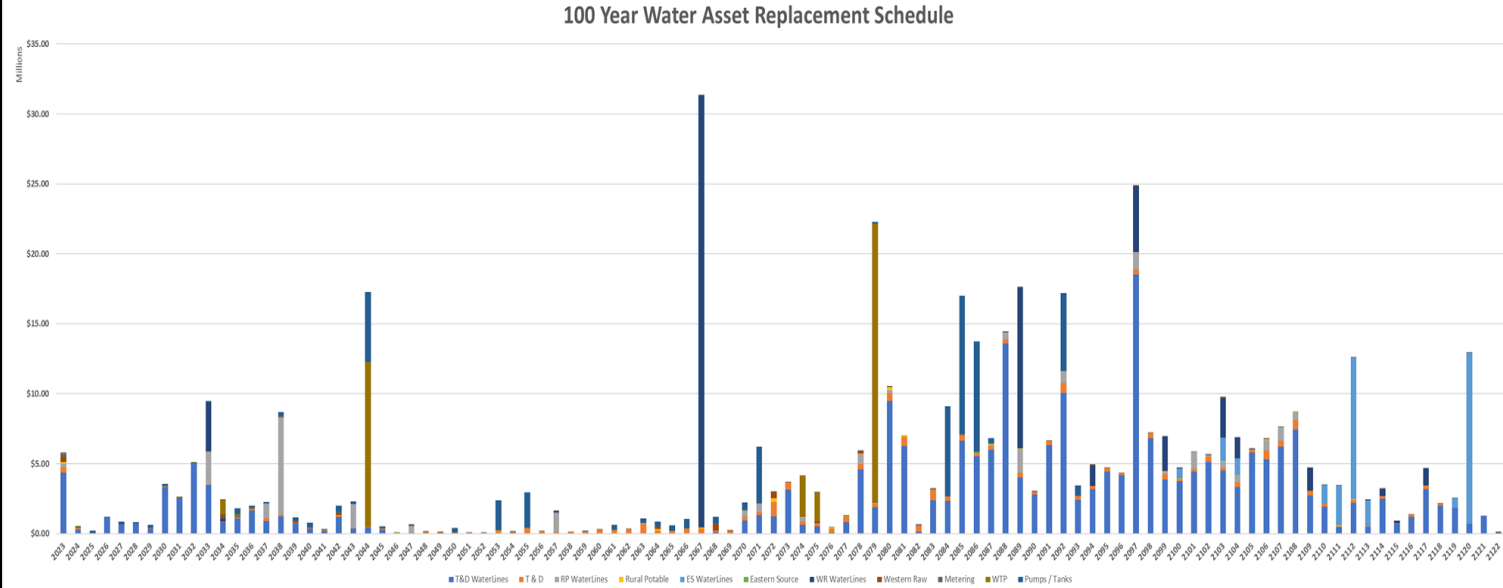
\$ 2.0M---Cash



# #3 ASSET MANAGEMENT

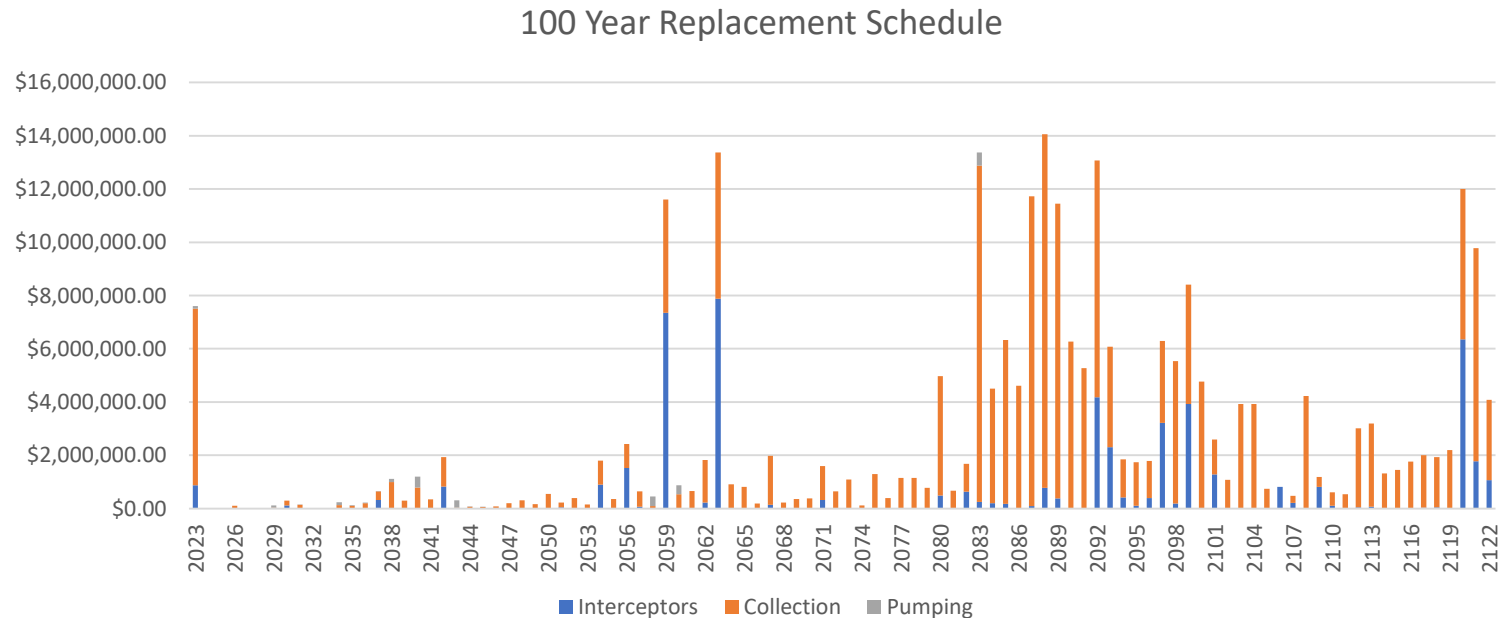
## WATER REPLACEMENT

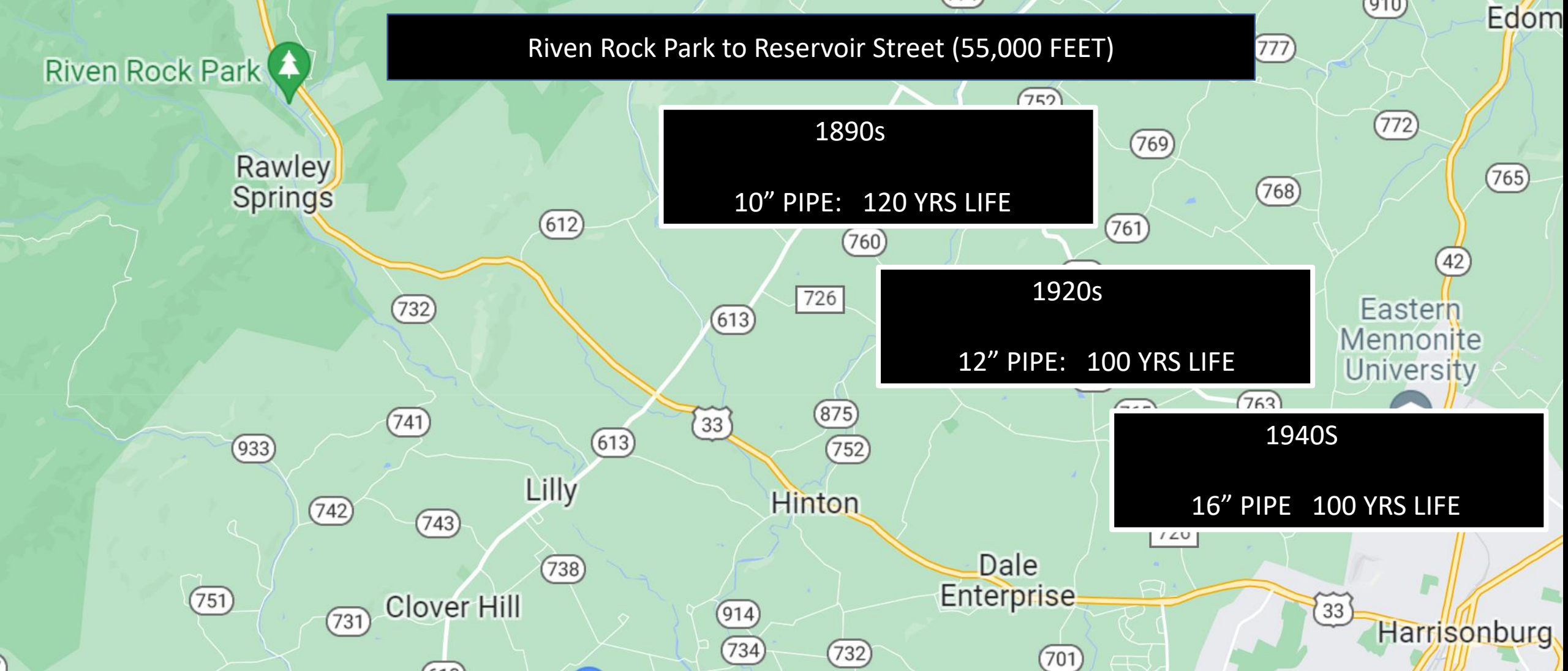
<b>2022 CARV</b>	\$228,507,440	
<b>Years</b>	<b>Replacement Cost</b>	<b>ACSO</b>
<b>0 to 5</b>	\$8,671,656	\$1,734,331
<b>5 to 10</b>	\$12,758,169	\$2,551,634
<b>10 to 25</b>	\$51,711,511	\$3,447,434
<b>0 to 25</b>	\$73,141,335	\$2,925,653
<b>0 to 100</b>	\$474,062,425	\$4,740,624



## SEWER REPLACEMENT

<b>2022 CARV</b>	\$138,710,912	
<b>Years</b>	<b>Replacement Cost</b>	<b>ACSO</b>
<b>0 to 5</b>	\$7,729,994	\$1,545,999
<b>5 to 10</b>	\$574,182	\$114,836
<b>10 to 25</b>	\$6,931,304	\$462,087
<b>0 to 25</b>	\$15,235,481	\$609,419
<b>0 to 100</b>	\$261,589,469	\$2,615,895





Riven Rock Park to Reservoir Street (55,000 FEET)

1890s  
10" PIPE: 120 YRS LIFE

1920s  
12" PIPE: 100 YRS LIFE

1940S  
16" PIPE 100 YRS LIFE

NEW 24"-30" RAW WATER PIPE  
TRANSITION 16" RAW TO POTABLE  
ABANDON 10" & 12" PIPE



1990s  
WCL to High Street

1990s-2000s  
RR Park to Cooper's Mountain

2010s  
Bellevue to WCL

2020s  
West Market St. to Mason St.

2023-2028  
Bellevue Road to VGA

2029-2033  
Court Square Area

2034  
VGA to Cooper's Mountain

