

# Budget Workshop #2

Water & Sewer, CIP, Fees

July 19, 2022

# Workshop #2 Agenda

- **Intent to Exceed Revenue Neutral Rate**
- **Water & Sewer**
  - Budget Overview
  - Water Block Rate Restructuring
  - Budget Additions
- **Capital Improvement Plan**
  - Annual Projects
  - One-Time Projects

# Intent to Exceed Revenue Neutral

- ▶ Sets maximum property tax levy for the City
- ▶ City can levy less than the maximum, but not more
  - ▶ Revenue neutral rate: **22.486 mills**
  - ▶ Maximum levy: **24.208 mills** (includes **0.25 reduction** in general fund)



# Investing in Infrastructure



- ▶ Achieved APWA Re-Accreditation for the 4th consecutive time. Additionally, three model practices were identified by evaluators.
- ▶ Replaced 4,350 feet of sanitary sewer pipe and 14,770 feet of watermain in 2021.
- ▶ Earned two national awards from the National Association of Clean Water Agencies (NACWA) in 2021.
- ▶ Treated an average 12.7 million gallons of drinking water a day, totaling 4.7 billion gallons of water.
- ▶ Treated an average 6.4 million gallons of sewage per day, totaling 2.4 billion gallons of sewage.

# Water & Sewer System Information



- ▶ Olathe's Water and Sewer infrastructure is valued at \$1.3 billion
- ▶ 627 miles of water pipe
- ▶ 461 miles of sewer pipe
- ▶ Over 6,000 hydrants
- ▶ Citizen satisfaction with Water & Sewer Utilities: 91%

# Fund Overview

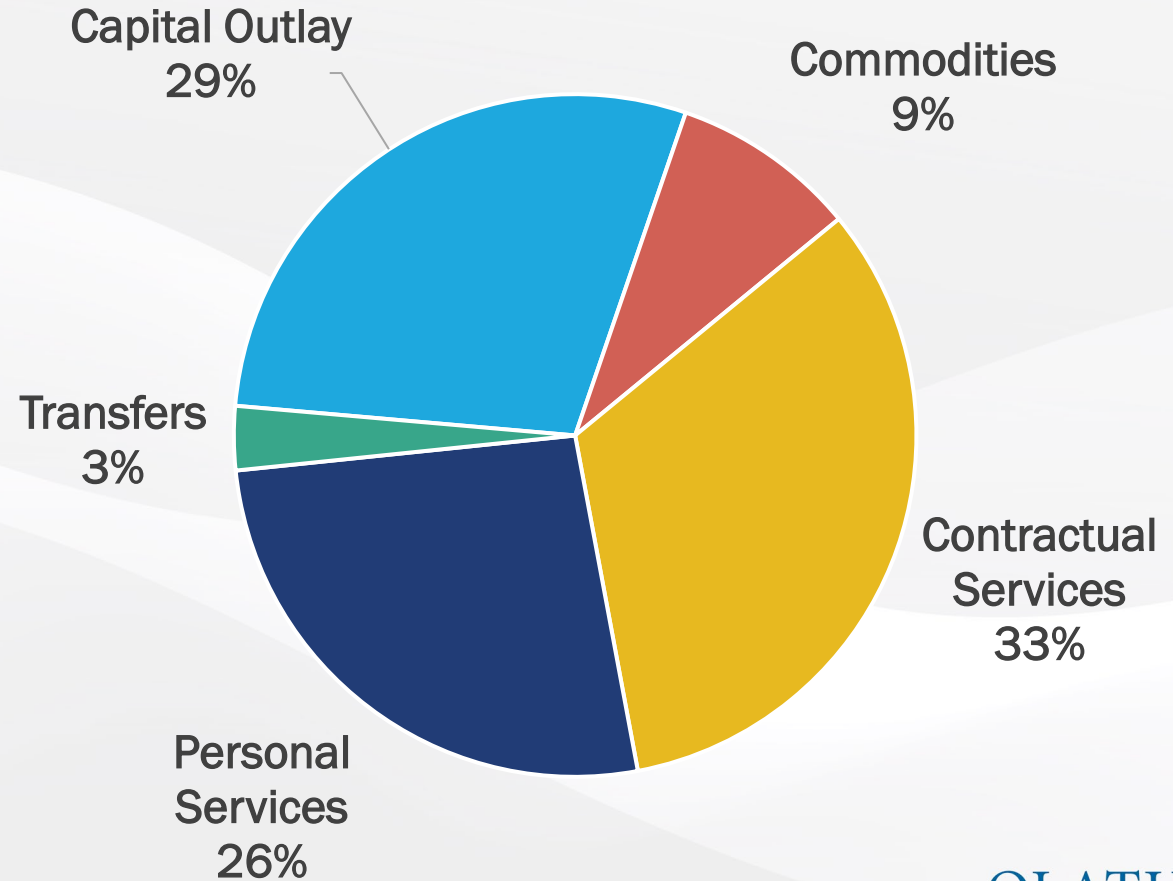
# Water and Sewer Fund

	2021 Adopted	2022 Adopted	2023 Proposed	1-Year % Change
Water & Sewer Fund	\$57,789,592	\$59,827,972	\$63,739,237	+6.5%
Operating	\$50,678,818	\$51,167,695	\$54,629,641	+6.8%
Reserve	\$7,110,774	\$8,660,277	\$9,109,596	+5.2%

The 2023 Budget includes a 6% increase to the water and sewer fund revenues.

# Water and Sewer Fund

2023 Proposed Budget: \$54,629,641





# Budget Pressures

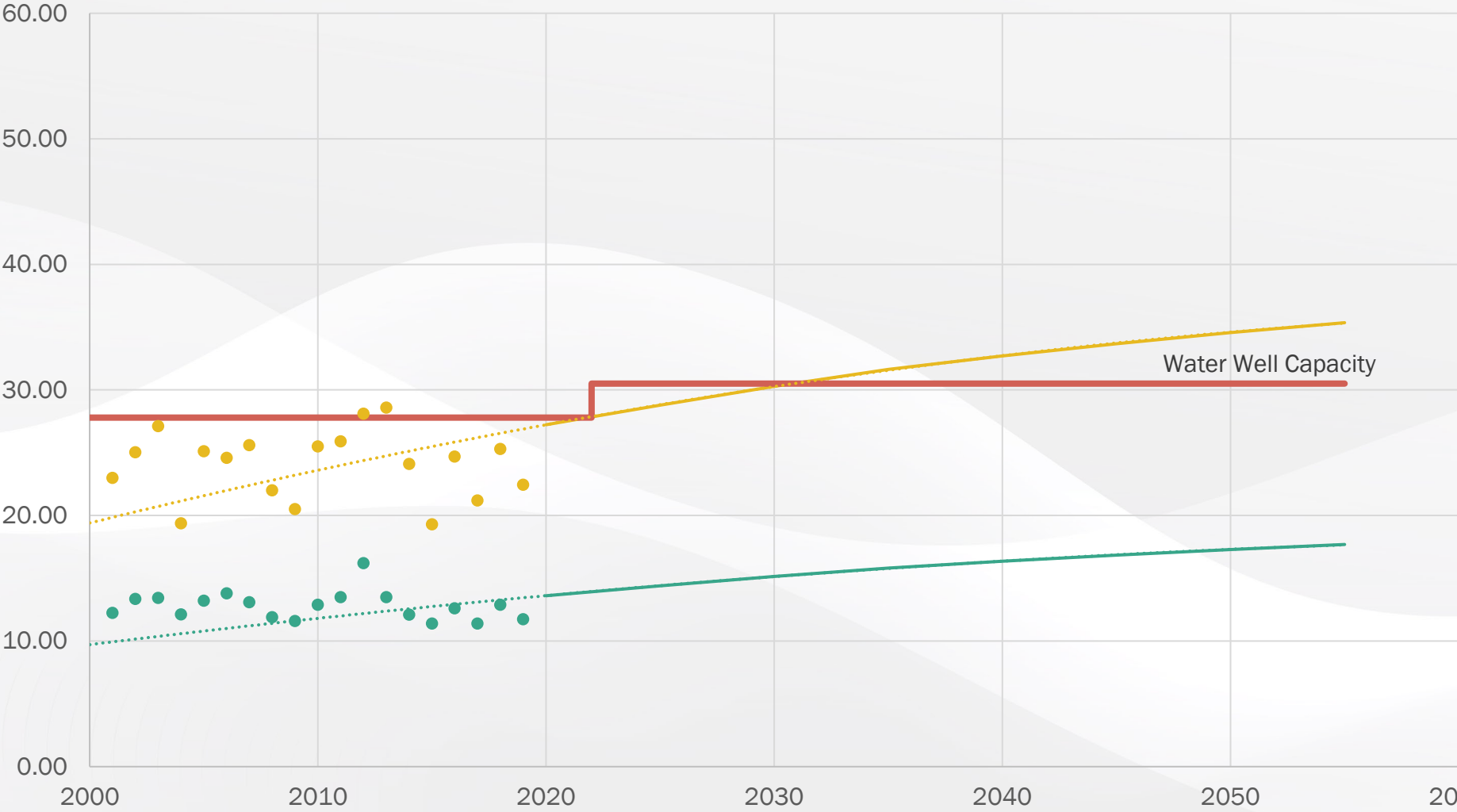
- ▶ Inflation
  - ▶ Fuel (Gas and Diesel)
  - ▶ Energy (Electricity, Gas)
  - ▶ Chemicals
  - ▶ Construction Materials and Commodities
- ▶ Labor market

# Water Block Rate Restructuring

# Objectives of New Water Block Structure

- ▶ Promote affordability & equitable cost recovery across customer usage levels
- ▶ Align with industry standards
- ▶ Maintain recovery of fixed costs
- ▶ Contribute to revenue and fiscal stability of utility
- ▶ Make it easier for customers to understand

# Projected Average and Maximum Day Usage



7/19/2022

- Average Demand - Actual
- Maximum Demand - Actual
- Average Demand - Projected
- Maximum Demand - Projected
- ..... Average Demand - Trend
- ..... Maximum Demand - Trend

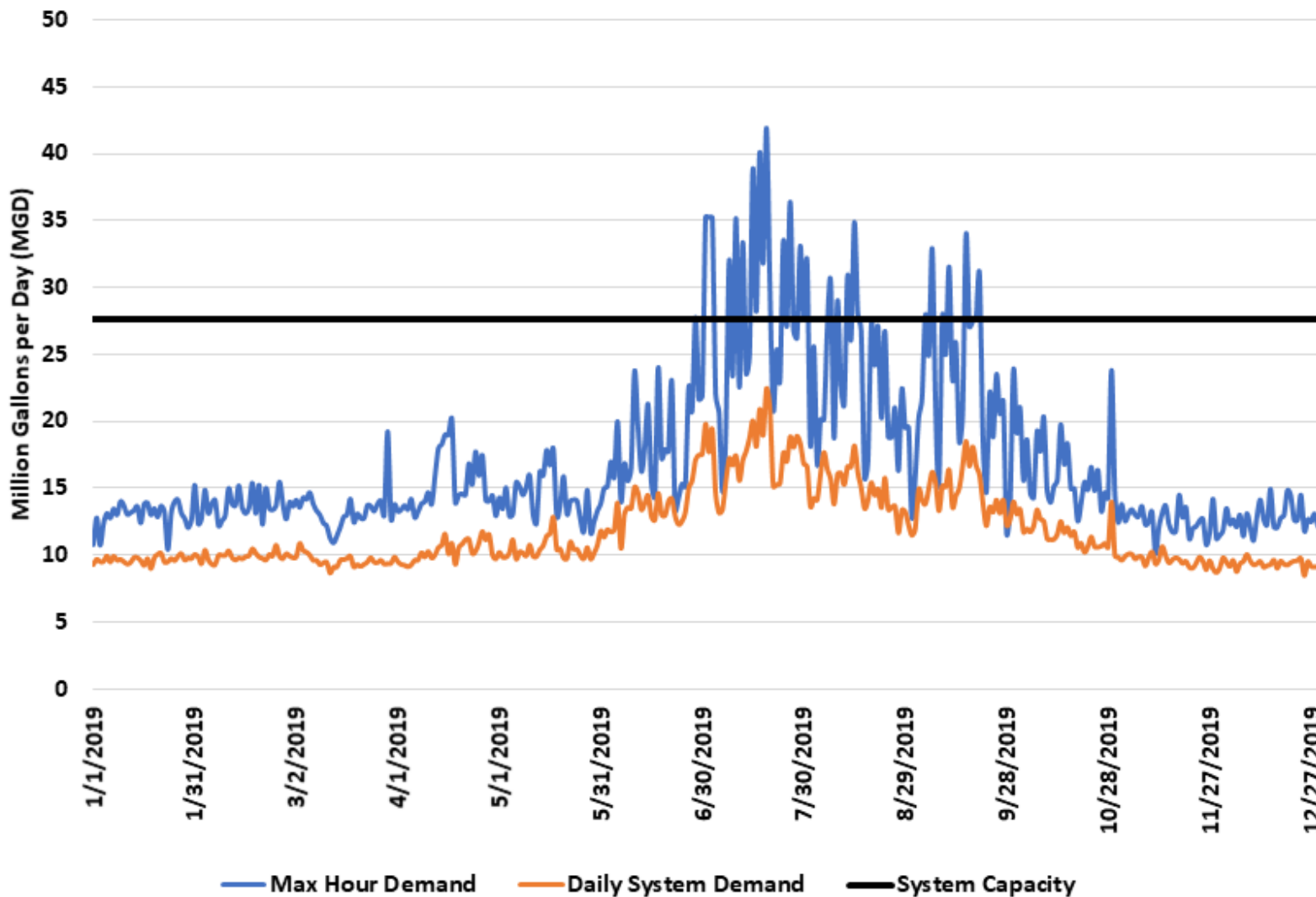
- Water Well Capacity

- Average Demand - Projected
- ..... Average Demand - Trend



# Water Demand

(Daily System Demand vs Peak Hour Demand - 2019)



# Block Methodology

Proposed	Definition
<p><b>Service Charge</b> Monthly fixed fee</p>	<p>Reflects alignment with industry best practice. Charges are proportional to a meter size’s maximum flow. Olathe recovers 30% of revenues in fixed charges, which aligns with ratings agencies’ definition of strong utilities.</p>
<p><b>Block 1</b> 0 – 600 CF Average Family Basic Needs</p>	<p>Reflects the essential indoor requirements of single-family homes with average occupancy of 2.86 people in Olathe (US Census 2021), using water at the current winter average (588 CF).</p>
<p><b>Block 2</b> 600 – 1200 CF Larger Household Basic Needs</p>	<p>Reflects the essential indoor requirements of single-family homes with double the average occupancy (accounting for larger family dynamics) using water at the current winter average with possible minimal irrigation.</p>
<p><b>Block 3</b> 1200 – 2600 CF Efficient Irrigation</p>	<p>Reflects the outdoor requirements of single-family homes based on a representative sample of parcel sizes and calculation of efficient irrigation of turf grass.</p>
<p><b>Block 4</b> &gt;2600 CF Enhanced Irrigation</p>	<p>All remaining usage above Block 3. This block may have a larger than typical lot size or customers who choose to water their lots more frequently.</p>

# Efficient Irrigation Assumptions

## 1400 CF/mo.



### 1 inch of Water per Week Total

- On average when watering 1 hour = 1 inch



### Rainfall

- Approx. 2.45 inches per month



### Turf Grass

- Turf grass needs a little less water



### Irrigation Inefficiency

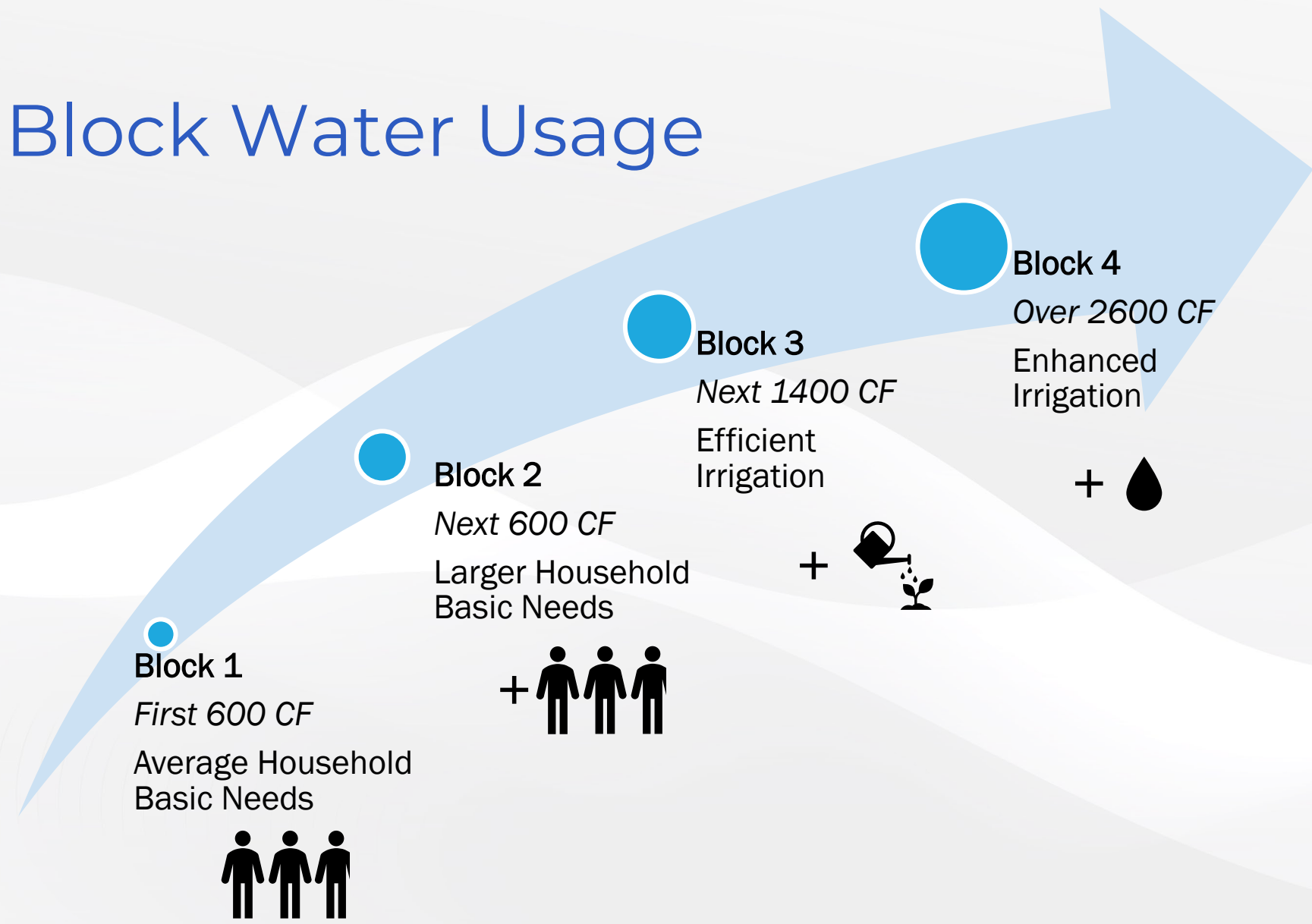
- Only 95% of water used absorbed by lawn



### Average Parcel

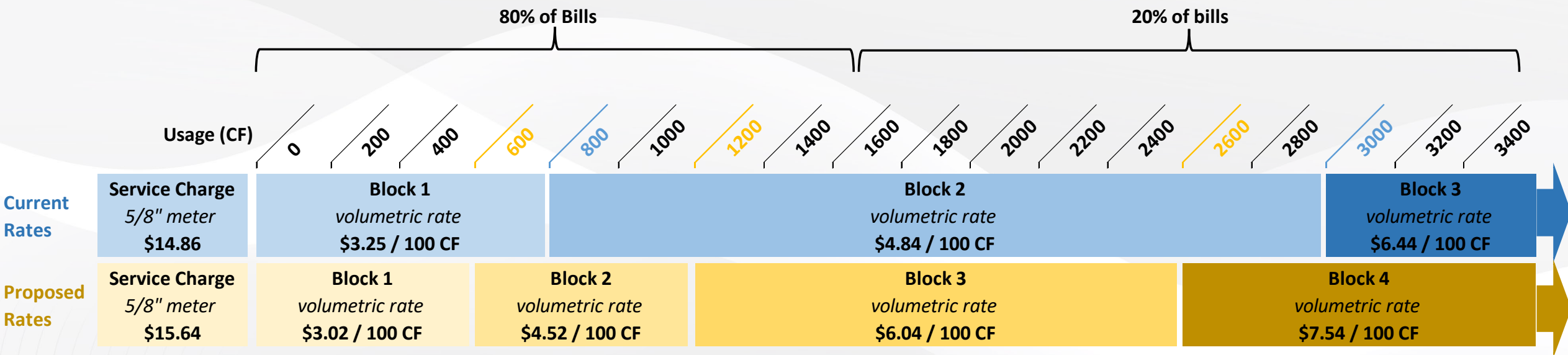
- 6,983 SQFT Irrigable Land

# Block Water Usage



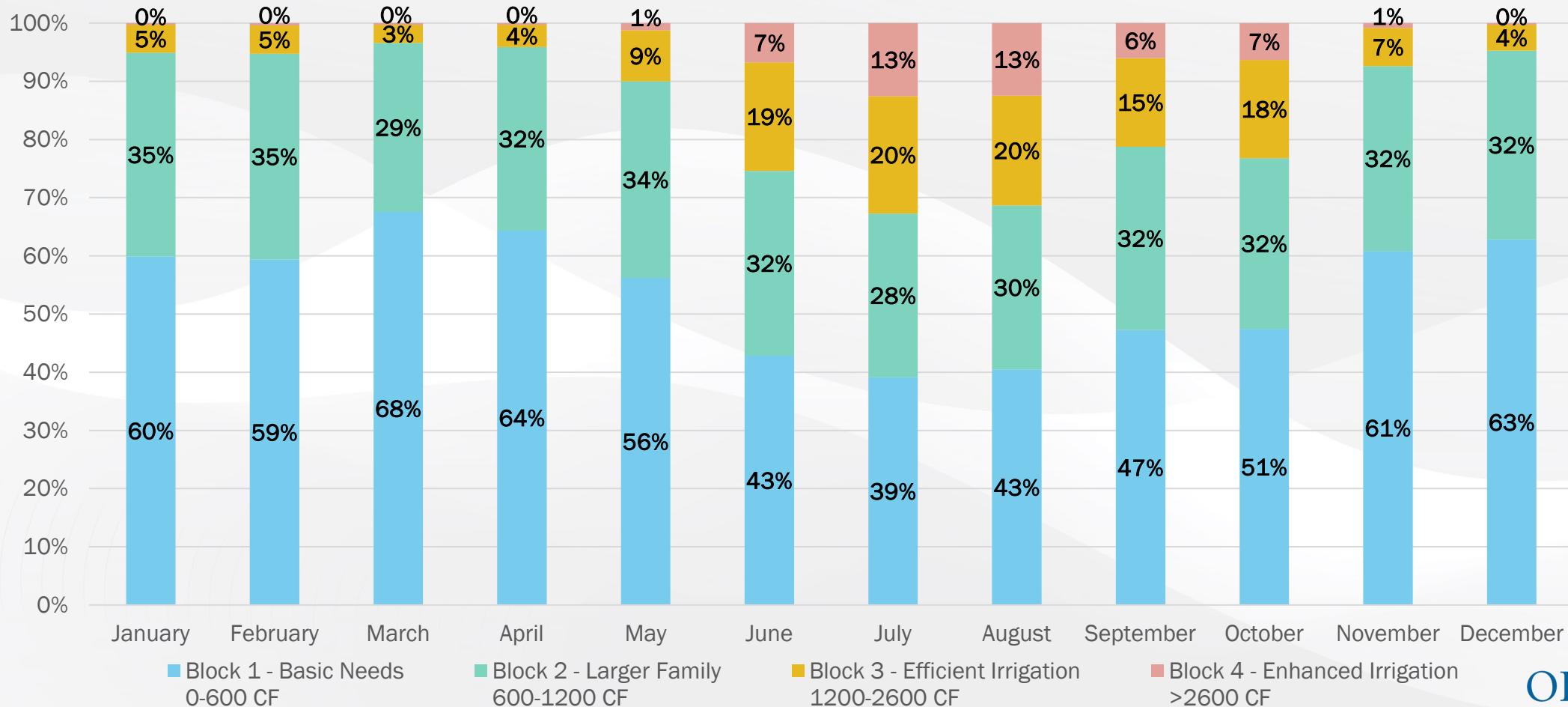


# Proposed Block Structure



# Seasonality of Bills

What Blocks Do Bills Fall into throughout a "Normal" Year?



# Proposed Water Block Structure

## Example Impacts

Proposed Water Blocks	Approx. % of Bills in New Blocks	Water Usage Examples (CF)	Current Monthly Bill	Current Structure +6%	Impact (\$)	Impact (%)	Proposed Monthly Bill	Impact (\$)	Impact (%)
Basic Needs 0-600	55%	588	\$33.97	\$36.04	\$2.07	6%	\$33.40	-\$0.57	-1.7%
Larger Family 600-1,200	25%	1200	\$60.22	\$63.87	\$3.65	6%	\$60.88	\$0.66	1.1%
Efficient Irrigation 1,200-2,600	15%	1600	\$79.58	\$84.39	\$4.81	6%	\$85.04	\$5.46	6.9%
Enhanced Irrigation >2,600	5%	3208	\$160.74	\$170.42	\$9.68	6%	\$191.28	\$30.55	19.0%

“

Questions about the proposed volumetric block structure?

”

# Fixed Charge Impacts

Meter Size	Current Monthly Service Charge	Proposed Service Charge	Monthly Impact \$	Impact %
5/8"	\$14.86	\$15.64	\$0.78	5%
1"	\$37.17	\$46.89	\$9.72	26%
1.5"	\$74.32	\$78.16	\$3.84	5%
2"	\$118.92	\$125.06	\$6.14	5%
3"	\$222.97	\$250.11	\$27.14	12%
4"	\$371.62	\$390.80	\$19.18	5%
6"	\$743.24	\$781.60	\$38.36	5%
8"	\$1,189.18	\$1,250.56	\$61.38	5%

# Commercial Bill Impacts

- ▶ Changes to the fixed monthly charge scaling will impact all customers.
- ▶ The table below displays a representative sample of monthly impacts to commercial customers.

Example Customer	Meter Size	Current Monthly Bill	Proposed Monthly Bill	Change %	Monthly Change \$
Retail	1"	\$7,851.81	\$8,333.31	6.13%	\$481.50
Financial	1.5"	\$996.01	\$1,055.56	5.98%	\$59.55
Grocery	2"	\$5,297.87	\$5,617.50	6.03%	\$319.63
Manufacturer	3"	\$9,751.02	\$10,349.84	6.14%	\$598.82
Car Wash	3"	\$2,513.92	\$2,678.52	6.55%	\$164.60
Educational	4"	\$4,215.69	\$4,465.51	5.93%	\$249.82
Medical	6"	\$5,078.71	\$5,377.20	5.88%	\$298.49

“

Questions about the proposed  
fixed charge?

”

# Water and Sewer Fund Budget Additions

	Utility Maintenance Meter/Parks Project Materials
Cost	\$115,500
Impact	<ul style="list-style-type: none"><li>• Support school district compliance with lead and copper rule</li><li>• Complete 100% of meter test pool</li><li>• Add valves and meters to parks and community gardens</li></ul>

	Meter Testing and Replacement Crew
Cost	\$287,328
Impact	<ul style="list-style-type: none"><li>• Complete backlog of 770 meters</li><li>• Test 50% more meters than in 2021</li><li>• Replace non-registering meters within 2 days</li></ul>



# Water and Sewer Fund Budget Additions

	Environmental Lab Quality Assurance Officer
Cost	\$115,968
Impact	<ul style="list-style-type: none"> <li>• Reduction in findings from KDHE auditors.</li> <li>• Improved analysis at the Environmental Lab and associated field labs.</li> <li>• Efficiency gains with proper implementation of a Quality System aligned with analytical tasks.</li> <li>• Better record keeping in the Lab Information Management System (LIMS).</li> </ul>

	Lab Technician I
Cost	\$75,247
Impact	<ul style="list-style-type: none"> <li>• Continue strong regulatory compliance culture.</li> <li>• Meet needs of development and project piping project testing.</li> <li>• Comply with upcoming PFAS regulations.</li> </ul>

# Water and Sewer Fund Budget Additions

	Full-time Finance Administrator
Cost	\$17,141*
Impact	<ul style="list-style-type: none"> <li>• Increase of internal customer satisfaction</li> <li>• Reduce response time for project finance tasks for more efficient project management</li> <li>• Increase consistency in project management tasks across all Infrastructure projects</li> </ul>

\*35,756 Total Add – FTE split 75% W/S Fund; 15% Stormwater; 10% Solid Waste

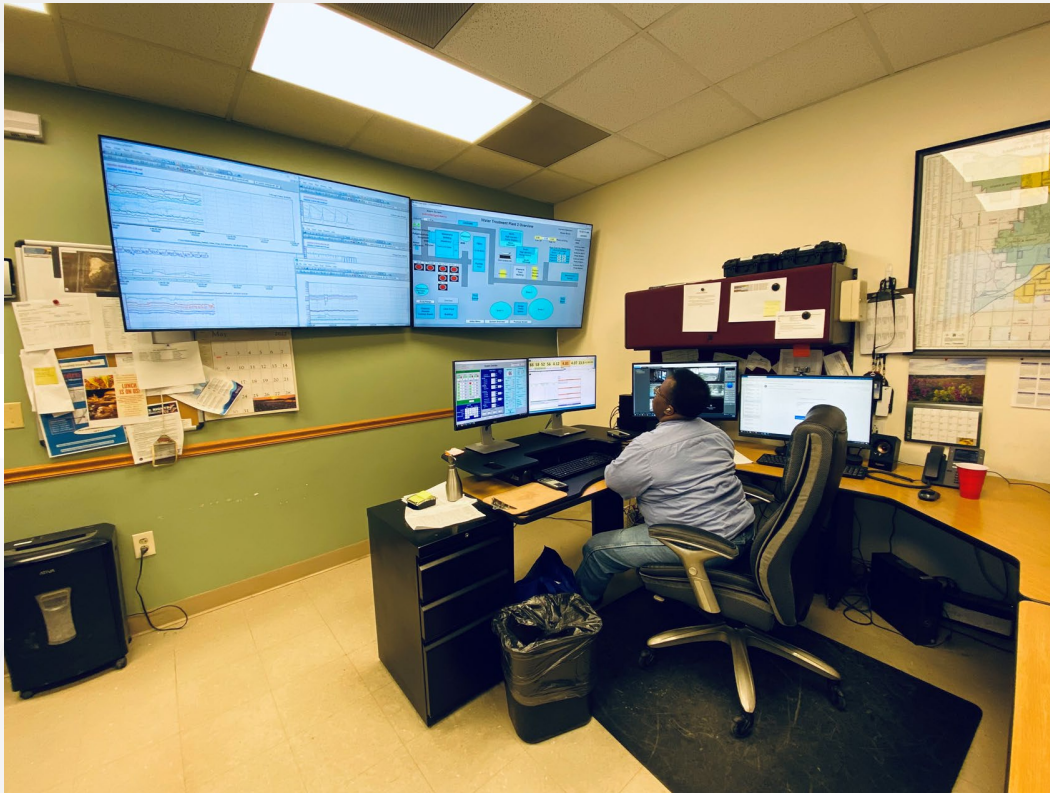
	Distribution Compliance Technician
Cost	\$86,807
Impact	<ul style="list-style-type: none"> <li>• Meet federal Lead and Copper Rule Revision requirements</li> <li>• Inventory 37,000 water service lines</li> <li>• Replace 7,400 water service lines</li> <li>• Communicate with the public and managing nearly ten-fold increase in sampling/testing</li> </ul>

# Biosolids Compost Improvements



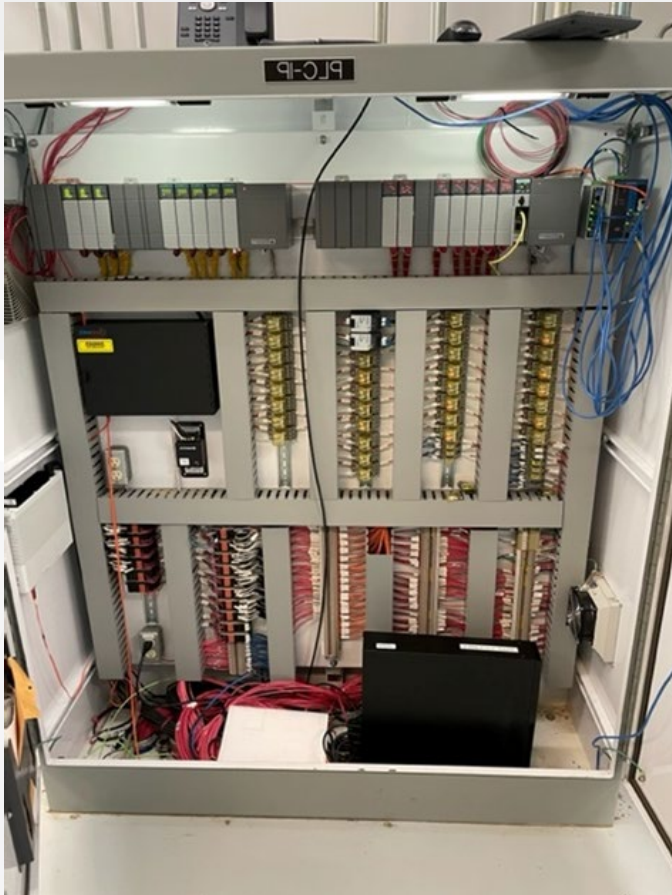
- ▶ Why do we need this project?
  - ▶ Risk of Waste Management no longer accepting biosolids
  - ▶ WM has quit accepting biosolids from other municipalities.
  - ▶ This project will eliminate dependency on WM, saving in fuel and tipping fees
  - ▶ Fuel and labor cost over \$153k in 2021
  - ▶ Annual tipping fee increased in 2022 from \$36/ton to \$62/ton
  - ▶ 10-year ROI on new facility
  - ▶ Total Cost - \$12.9M

# Water and Wastewater SCADA Security



- ▶ Why do we need this project?
  - ▶ Increase security – highest risk in vulnerability study by DHS and 3rd party consultant
  - ▶ Provide redundancy at all plants
  - ▶ Mitigate financial risk – cyber-attack risk is estimated at \$11M to \$49M
  - ▶ Prevent system disruption – potential consequence of a cyber-attack is inability to provide drinking water
  - ▶ ARPA Funds - \$2M
  - ▶ Total Cost - \$2M

# Programmable Logic Controllers (PLC) Replacements



- ▶ PLC – wired controllers that send signals to our water and wastewater field equipment
- ▶ Cedar Creek - Replace 12 PLCs
- ▶ Harold Street - Replace 8 PLCs
- ▶ Current PLCs
  - ▶ Early 2000s
  - ▶ Obsolete in next 2 years
  - ▶ Designed to operate at 10 Mbps but need to receive information at 1Gbps (100x that speed)
- ▶ To utilize upgraded security to the fullest, must be replaced with SCADA upgrade
- ▶ ARPA Funds - \$2.7M
- ▶ Total Cost – Harold St - \$3.4M; Cedar Creek - \$4.6M

# Water and Sewer Capital Improvement Plan

# Water & Sewer CIP – New and Highlighted Projects

	2023	2024	2025	2026	2027	Total
Biosolids Compost Improvements	\$1,820,000	\$11,092,000				\$12,912,000
Cedar Creek PLC Replacement		\$2,698,000	\$1,908,000			\$4,606,000
Environmental Services Plant Maintenance Building					\$677,000	\$677,000
Harold Street PLC Replacement			\$3,418,000			\$3,418,000
Water and Wastewater SCADA Security	\$2,002,000					\$2,002,000

# Water & Sewer CIP

Project	2023-2027 Amount	Years
Ridgeview Road Watermain Improvements	\$1,696,000	2023
<b>Water and Wastewater SCADA Security</b>	\$2,002,000	2023
Water Treatment Plant 1 - Demolition	\$781,800	2023
<b>Biosolids Compost Improvements</b>	\$12,912,000	2023-2024
Black Bob #2 Recoating	\$1,820,000	2023-2024
WTP2: Chemical Feed Modifications	\$4,289,000	2023-2024
WTP2: Electrical Modification Improvements	\$12,571,000	2023-2024
Sanitary Sewer Manhole Lining & Rehab Project	\$1,350,000	2023-2025
Vertical Well Field Improvements	\$6,966,060	2023-2026
Lift Station Replacements	\$4,545,000	2023-2027+
Remote Facilities Improvements	\$2,577,000	2023-2027+
Cedar Creek Sanitary Sewer Hydraulic Study	\$530,000	2024
<b>Cedar Creek PLC Replacement</b>	\$4,606,000	2024-2025
Watermain Connectivity Project	\$2,139,600	2024-2027
WTP2: Residuals Handling Expansion	\$1,236,000	2024-2027+



# Water & Sewer CIP (Continued)

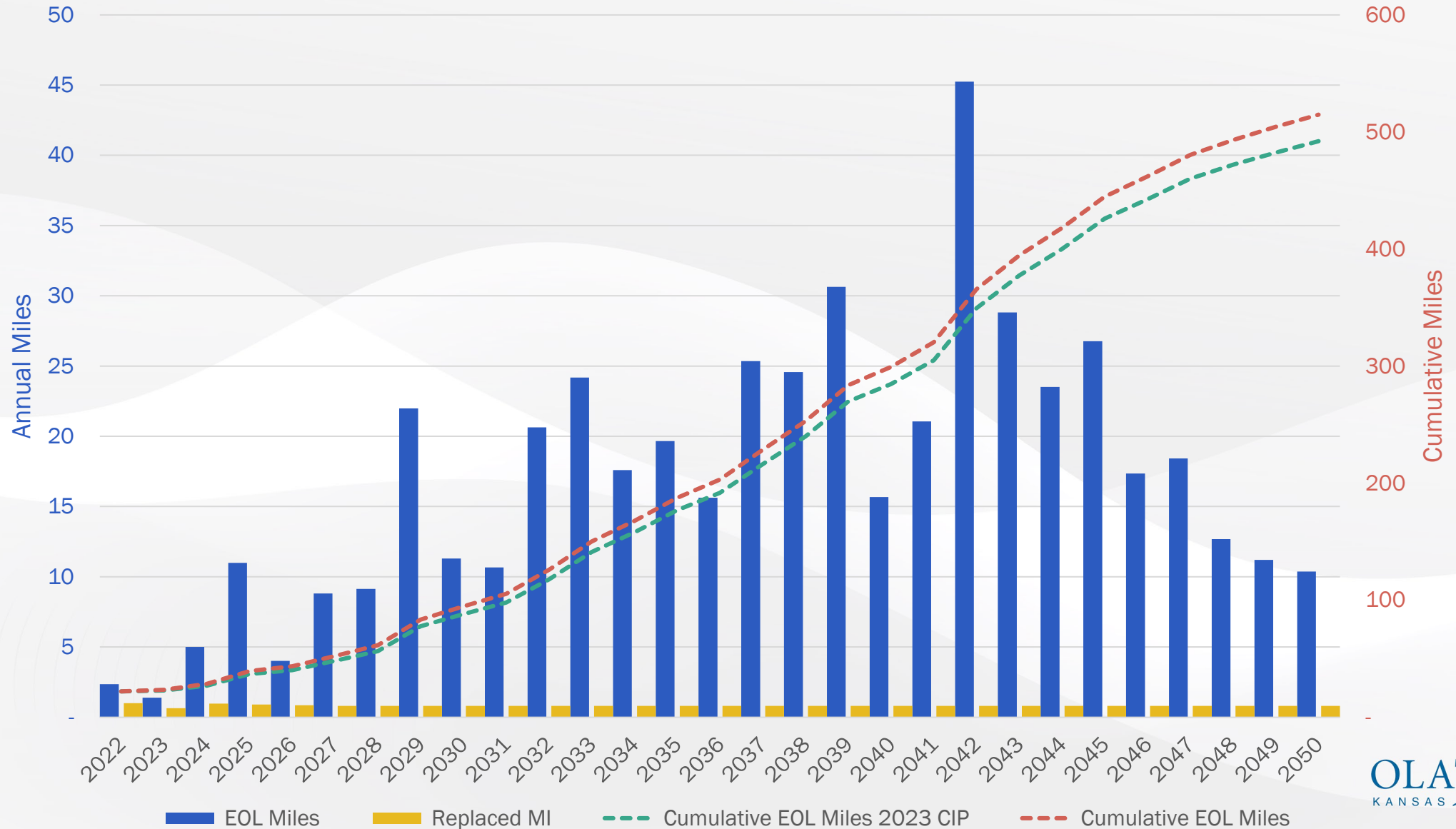
Project	2023-2027 Amount	Years
CCTV and Clean of Trunk Sewer Mains	\$534,000	2025
<b>Harold Street PLC Replacement</b>	\$3,418,000	2025
Contractor Fill Stations	\$700,000	2025-2026
Indian Creek Trunk Main Improvements	\$12,503,800	2025-2026
WTP2: Membrane Module Replacement	\$4,136,750	2025-2026
Cedar Creek WWTP Solids Handling Expansion	\$5,323,000	2026-2027+
Hedge Lane Transmission Main, Phase I	\$6,844,000	2026-2027+
Mill Creek Sanitary Sewer Hydraulic Study	\$490,000	2027
Water Master Plan Update	\$670,000	2027
Elevated Storage Tank	\$1,307,000	2027+
<b>Environmental Services Plant Maintenance Building</b>	\$677,000	2027+
WTP2: Recarbonation Basin	\$285,000	2027+

# Water and Sewer CIP Projects - Annual

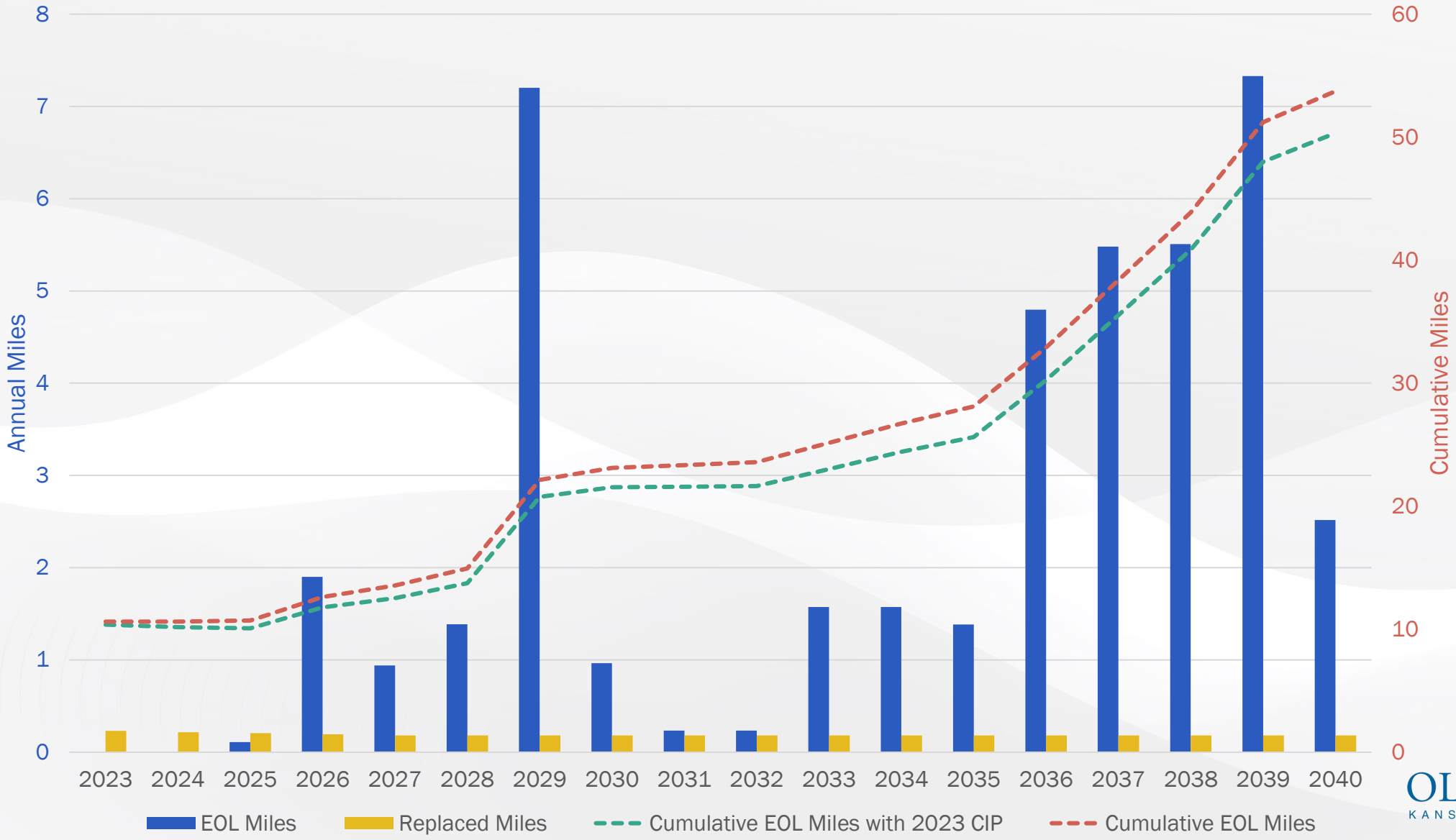
	2023	2024	2025	2026	2027	Total
Fire Hydrant Replacement	\$265,500	\$274,000	\$283,000	\$292,500	\$313,000	\$1,428,000
Neighborhood Sanitary Sewer Improvements	\$571,000	\$571,000	\$571,000	\$571,000	\$571,000	\$2,855,000
Sanitary Sewer Rehabilitation (I&I)	\$1,250,000	\$1,250,000	\$1,250,000	\$1,250,000	\$1,250,000	\$6,250,000
Water Meter Replacement	\$355,750	\$355,750	\$355,750	\$355,750	\$355,750	\$1,778,750
Waterline Rehabilitation	\$1,245,000	\$1,995,000*	\$1,995,000*	\$1,995,000*	\$1,995,000*	\$9,225,000

\*Includes expenses for lead service line replacement

# Water Main Rehabilitation



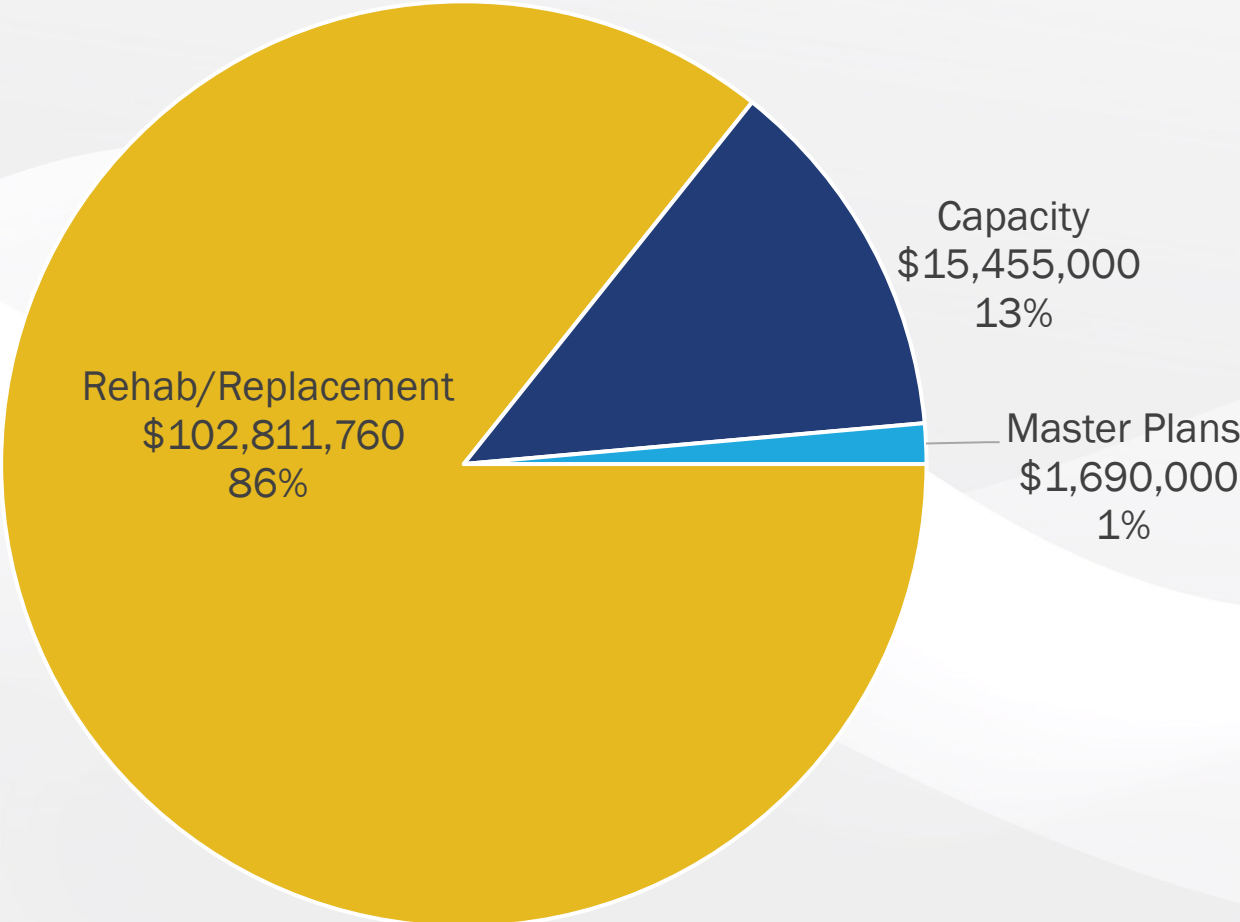
# Gravity Sewer Rehabilitation Projection



# Water and Sewer CIP Funding Summary

	2023	2024	2025	2026	2027	Total
ARPA	\$2,002,000	\$2,698,000	-	-	-	\$4,700,000
Revenue Bonds	\$18,541,750	\$20,130,450	\$17,221,150	\$15,394,200	\$12,509,550	\$83,797,100
System Development Fees (SDF)	\$1,547,000	\$8,819,000	-	\$1,530,000	\$7,638,000	\$19,534,000
Water & Sewer Cash	\$932,360	\$1,969,200	\$1,988,000	\$2,782,000	\$2,744,100	\$10,415,660
<b>TOTAL</b>	<b>\$23,023,110</b>	<b>\$33,616,650</b>	<b>\$19,209,150</b>	<b>\$19,706,200</b>	<b>\$22,891,650</b>	<b>\$118,446,760</b>

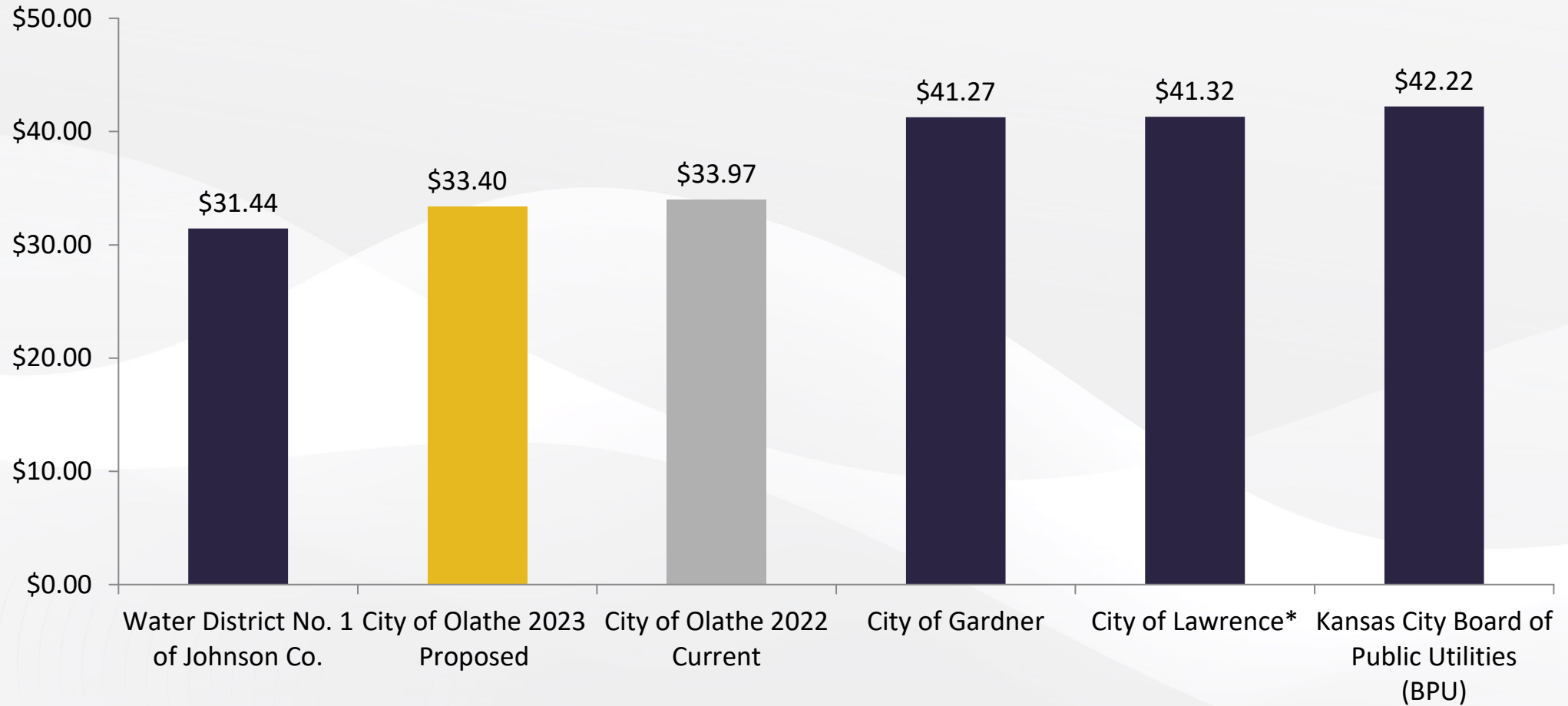
# Water & Sewer 2023-2027 CIP by Category



# Water & Sewer Rate Summary

# Water Rate Comparison

Water based on average residential usage of 588 CF/4,399 Gal



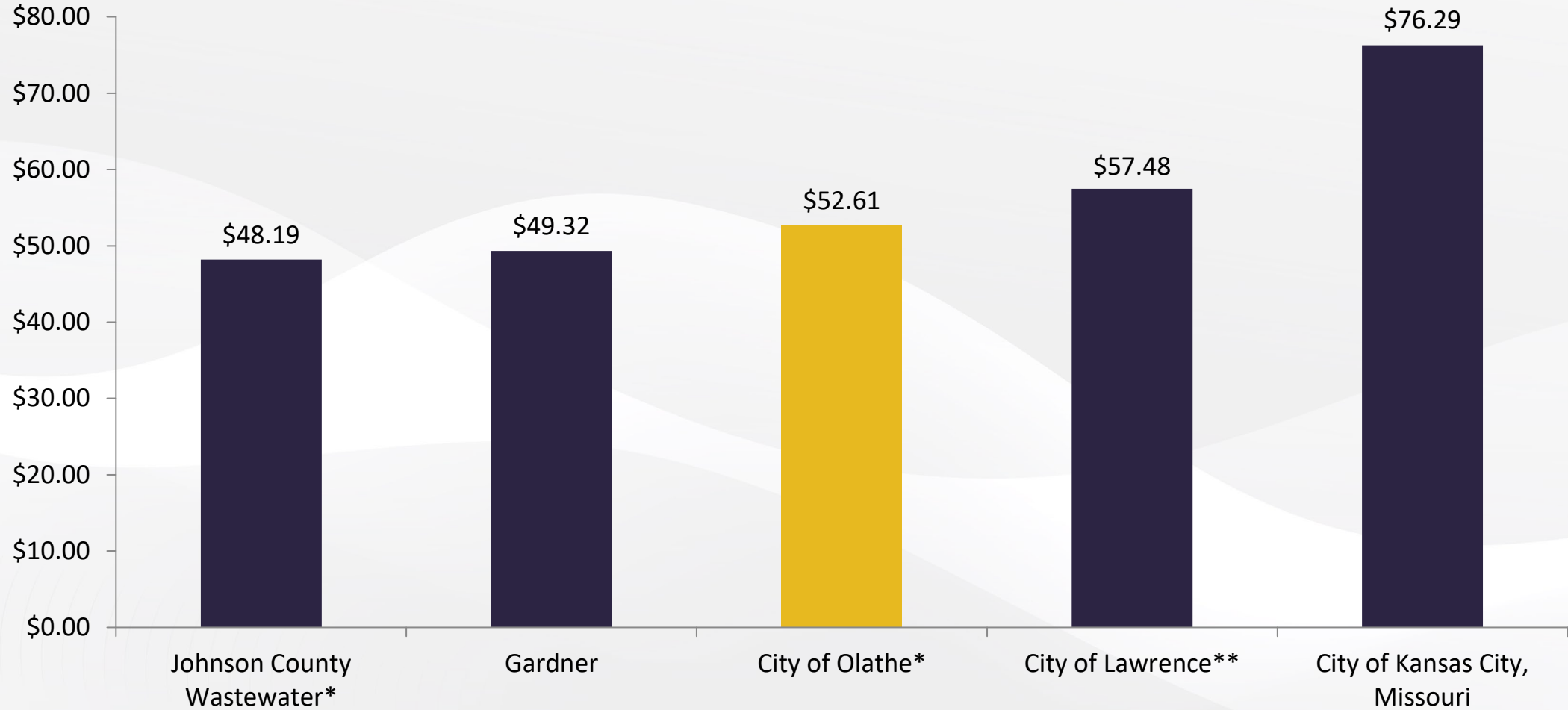
\*2023 Proposed average increase of 8% across utility funds





# Sewer Rate Comparison

Sewer based on average residential usage of 542 CF/4,054 Gal



\*2023 Proposed Fee

\*\*2023 Proposed average increase of 8% across utility funds



# Average Olathe Resident Utility Bill

	2022	2023	Change	% Change
Water	\$33.97	\$33.40	-\$0.57	-1.7%
Sewer	\$49.64	\$52.61	\$2.97	6.0%
Stormwater	\$5.89	\$6.07	\$0.18	3.1%
Solid Waste	\$20.03	\$20.03	\$0.00	0.0%
<b>Total</b>	<b>\$109.53</b>	<b>\$112.11</b>	<b>\$2.58</b>	<b>2.4%</b>

# Budget Calendar

July 12

Budget Workshop 1 at the Community Center –  
General Fund, Debt Service, Library Fund, CIP

July 19

Budget Workshop 2 - Water & Sewer, CIP, Intent to  
Exceed Revenue Neutral

August 2

Budget Workshop 3 - Stormwater & Solid Waste,  
Street Maintenance Sales Tax, CIP

August 16

Budget Workshop 4 - Park Sales Tax, Recreation  
Fund, Chamber of Commerce, CIP

August 23

Citizen Budget Workshop, Revenue Neutral and  
Budget Public Hearing

Sept 6

Budget Adoption

# Engage in the Budget Process



**Olathe Connect**

[OlatheKS.org/OlatheConnect](https://OlatheKS.org/OlatheConnect)



**Twitter**

[@CityofOlatheKS](https://twitter.com/CityofOlatheKS)



**Facebook**

[@CityofOlatheKS](https://facebook.com/CityofOlatheKS)



**Online**

[OlatheKS.org/Budget](https://OlatheKS.org/Budget)