



City Council Workshop Agenda

October 22, 2024 at 6:30 PM

City Hall Council Chambers - 210 W 6th Ave and Virtual

The City of Kennewick broadcasts Council meetings on the City's website at
<https://www.go2kennewick.com/CouncilMeetingBroadcasts>.

Written public comment is accepted pursuant to KMC 2.04.047.

1. Call to Order
2. PFAS in WWTP Biosolids/ Industry Trends and Update
3. Waste Water Treatment Plant (WWTP) Phase 2 Update
4. Water & Sewer Rate Study Update
5. Adjourn

Council Agenda Coversheet	Item Number: 2. Date: 10/22/2024	Category: Info Only
	Item Type: Presentation	
	Subject: PFAS in WWTP Biosolids/ Industry Trends and Update Department: Public Works	
Summary Ted Merrell with Merrell Bros, Inc. will be providing City Council with an update on PFAS industry trends associated with Waste Water Biosolids.		
Attachments: 1. Presentation		



PFAS

Per- and
Polyfluoroalkyl
Substances

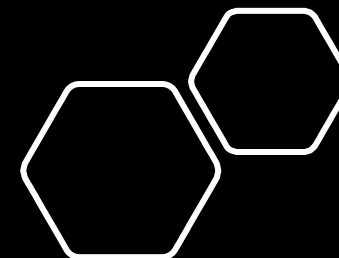
What are PFAS?

PFAS are a group of more than 3,000 manmade chemicals that are fire, oil, grease, water and stain resistant, and are found in a wide array of consumer and industrial products including:

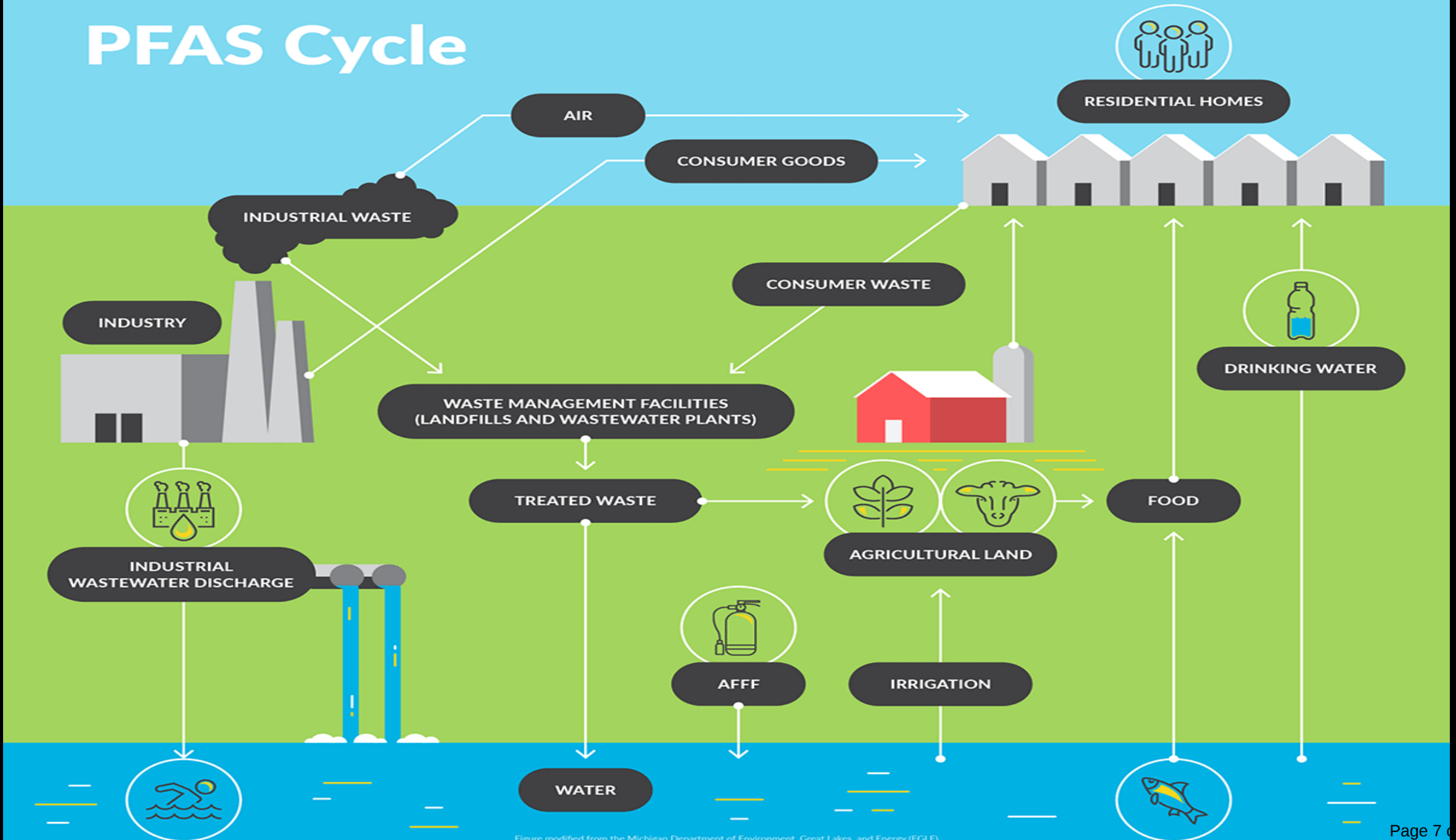
- Non-stick Cookware
- Food Packaging
- Dental Floss
- Cleaning Products
- Cosmetics

Exposure to humans can occur through ingestion and inhalation.

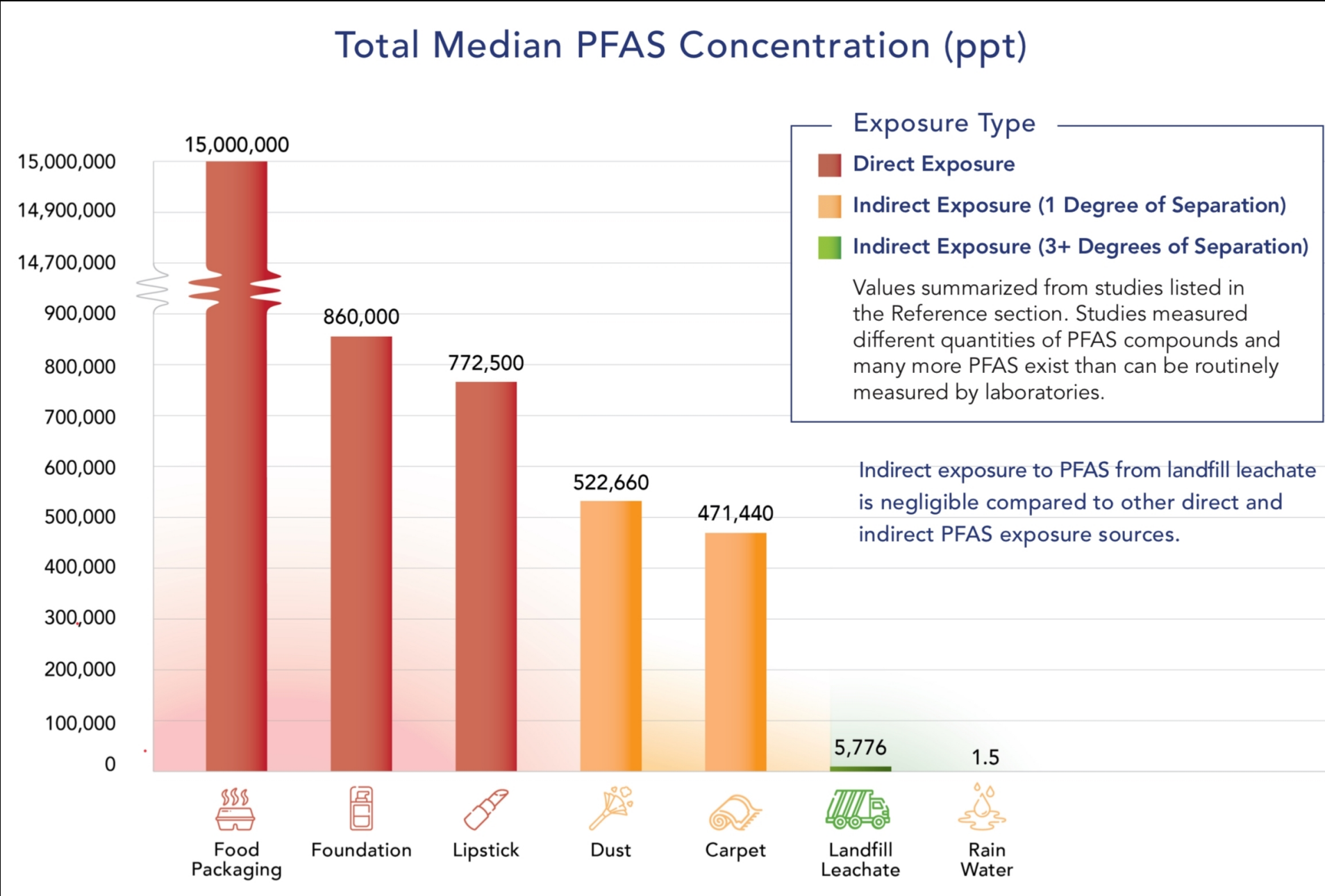
PFAS Comparisons for Different Sources		
Food Packaging - National Average ⁵	876,000	PFAS levels (ppb)
CA Food Package Limit	100,000	
Ketchup ⁵	58,000	
Organic Pasta Sauce ⁵	21,000	
Cosmetic Foundation ⁴	10,500	
Daycare Dust ³	523	
Pork Liver ²	283	
Bloom	130	
US Blood Serum ¹	7	

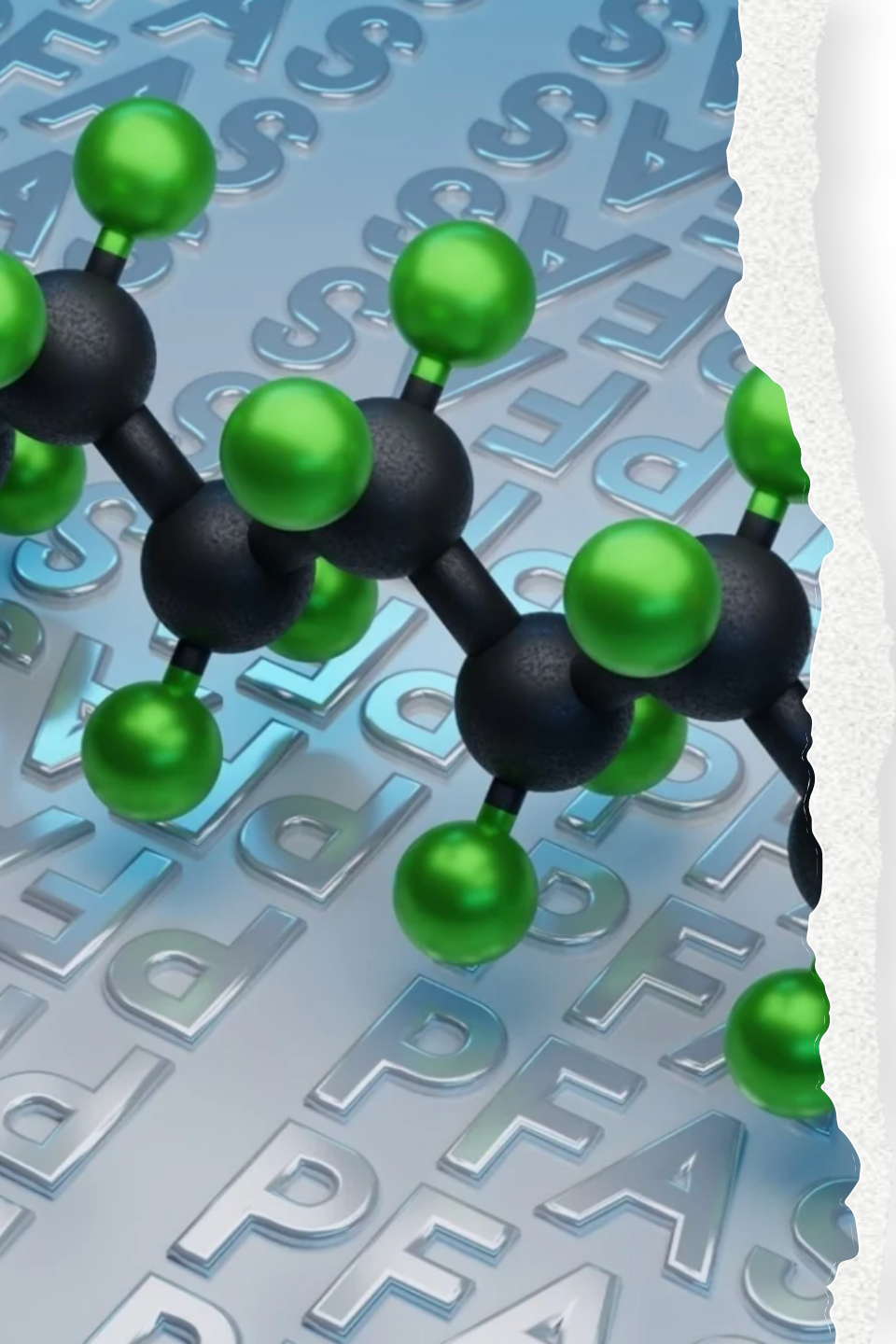


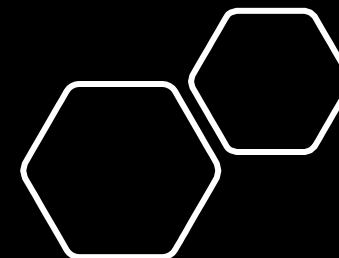
PFAS Cycle



Concentration Levels





FC(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C(=O)O

Large Florida Facility	9/24/2019	6/30/2023	% reduction
PFOS	31	7.5	76%
PFOA	19	5	74%
Medium size Indiana plant	9/25/2019	6/15/2023	% reduction
PFOS	25	1	96%
PFOA	2.8	1	64%

BLOOM PFOS 4.6 – 16.1 parts per billion (ppb) and
PFOA 1.7 – 3.7 ppb



Questions?

Ted Merrell

Merrell Bros., Inc.

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765-438-7374



Waste Water Treatment Plant (WWTP) Phase 2 Biosolids Project

Council Workshop Update

October 22, 2024

Jeremy J. Lustig, PE, Deputy Public Works Director



Waste Water Treatment Biosolids Management

- Aerated lagoons are the City's current and historic management of biosolids
 - *Lagoons are an older treatment technique, however they have a tendency to be a strong source of odor*
- 2014 Facility Plan
 - *Recommended several phases over many years at a projected higher capital cost*
- 2021 Facility Plan Amended
 - *"Florida Green" patented treatment approach*

Kennewick's Aerated Lagoons

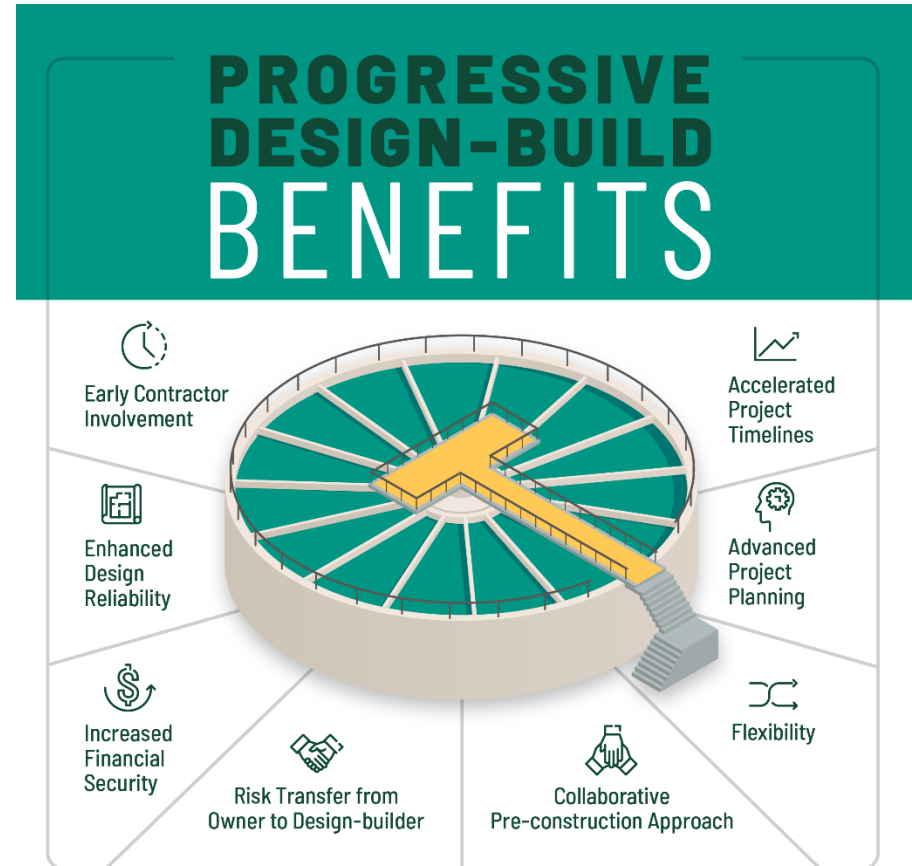


Merrell Brother Biosolids Plant,
Pasco County, FL



Waste Water Treatment Biosolids Management

- 2021 Progressive Design Build (PDB)
 - Selected PDB - alternative project delivery method (vs traditional DBB)
- Capital Projects Advisory Review Board (CPARB)
 - July 2021, approval received
- PDB Team Selection
 - October 2021, Merrell Bros (Contractor)/ Kimley Horn (Engineers)



Waste Water Treatment Biosolids Management

- August 23, 2022, City Council Workshop
 - “Florida Green” – patented treatment approach selected
 - Alternative Project Delivery Method (PDB)
 - Department of Ecology Funding (SRF) - \$29.1 Million
 - \$6.1 M Forgivable (“Green” project)
- March 7, 2023, City Council Meeting
 - PDB Step 1 (Design) Agreement with Merrell Bros, Inc
 - DBIA contract, Article 7.1.2 – anticipated “long lead items” procurement
 - Approved \$13.3 million for “early release”
 - Merrell Bros, Inc. Patent and Technology License Agreement
- March 19, 2024, City Council Meeting
 - Amended the PDB Step 1 agreement with Merrell Bros, Inc
 - Increased budget for Lagoon #2 Dredging
 - Modified “early release” authorization from \$13.3 to \$14.4 million



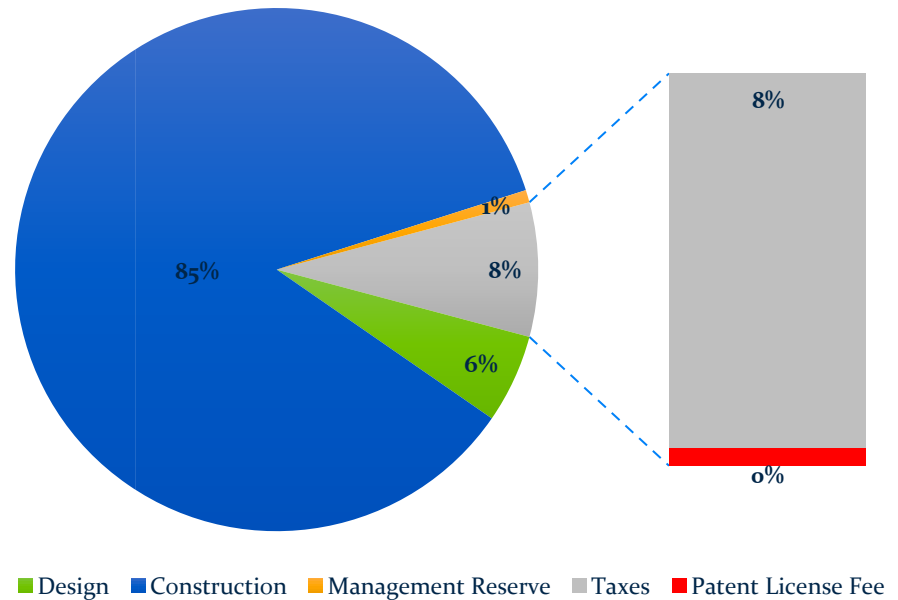
Waste Water Treatment Biosolids Management

- Progressive Design Build (PDB)
 - Guaranteed Maximum Price (GMP) – sets a maximum price for a construction project

- COK WWTP Ph2 – Biosolids

- Final GMP @ \$43,580,974
 - \$2,392,184, Design
 - \$37,241,817, Construction
 - \$14.4 M – Early Release
 - \$336,000, Management Reserve
 - \$3,449,272, Taxes
 - \$161,701, Patent License Fee

GMP - Breakdown



Waste Water Treatment Biosolids Management

- *Project Funding - \$43.6 M*
 - *State Revolving Fund (SRF)*
 - *\$29.1 million*
 - *Additional SRF – anticipated (10% rule)*
 - *\$3.7 million*
 - *Spring 2024 Budget Adjustments*
 - *\$2.3 million (Sewer Area Charges)*
 - *\$2.0 million (O&M Budget for dredging)*
 - *Fall 2024 Budget Adjustment*
 - *\$1.6 million (2023/2024 CIP canceled)*
 - *Sewer Ending Fund Balance*
 - *\$4.9 million*



Wastewater Treatment Biosolids Management

□ Schedule

- | | |
|--|-------------------------|
| □ CPARB & PDB Approval | Complete |
| □ PDB RFP/ Selection | Complete |
| □ CC Award PDB – Step 1 (Pre-Construction) | Complete |
| □ October 22, 2024 - CC Workshop | TONIGHT |
| □ Accept Guaranteed Maximum Price (GMP) & CC Award PDB – Step 2 (Construction) | November 5, 2024 |
| □ Construction to begin immediately | November/ December 2024 |
| □ Project Completion | Summer 2026 |



Questions?



Council Agenda Coversheet	Item Number: 4.	Date: 10/22/2024	Category: Policy Review
	Item Type:	Presentation	
	Subject:	Water & Sewer Rate Study Update	
	Department:	Public Works	
<u>Summary</u> City Council adopted a rate increase for both the water and wastewater utilities for the 2023/2024 budget in 2022. The rate study presented at the time required ongoing rate increases to support ongoing operations and capital projects as well as projected debt service. Public Works along with the City's consultant FCS Group will be presenting an update to the rate study including proposed rate increases, comparisons to local cities, revenue requirements and projected needs.			
Attachments: 1. Presentation			



City Council Workshop

John Cowling, P.E. Public Works Director, City of Kennewick

Angie Sanchez Virnoche, Principal, FCS

Chase Bozett, Project Consultant, FCS

October 22nd, 2024





Discussion Outline

- Background
- Rate setting overview
- Summary of findings
- Staff recommendations



Background

- Water and Wastewater initial Rate Study completed in 2016
 - » Covered 20-year time period
- City practice to revisit rate plan during biennium budget process
 - » Forecast rates for the next two-year period
- Historical rate increases

Utility	2019	2020	2021	2022	2023	2024	2025	2026
Water	5.15%	5.15%	5.15%	5.15%	5.15%	5.15%	5.15%	5.15%
Wastewater	7.40%	7.40%	7.40%	6.65%	5.00%	5.00%	5.00%	5.00%

Adopted *Forecasted in 2022*



Background (continued)

- Each update incorporates current financial, operating and engineering needs informed by:
 - » Utility budgets
 - » General Sewer Plan update in 2024 (to be adopted)
 - » Wastewater Treatment Facilities Plan adopted in 2015
 - » Facilities Plan amended in 2020
 - » Water Comprehensive Plan in 2017
 - » Water Capacity Analysis 2018
 - » Water Treatment Plant Condition Assessment 2019
 - » Reservoir Condition Assessments



Deferred Capital

- Water Treatment Plant Improvements & Capacity
- Transmission Mains and Pump Station Upgrades
- Wastewater Treatment Plant Upgrades





Water Quality/ Regulatory Changes

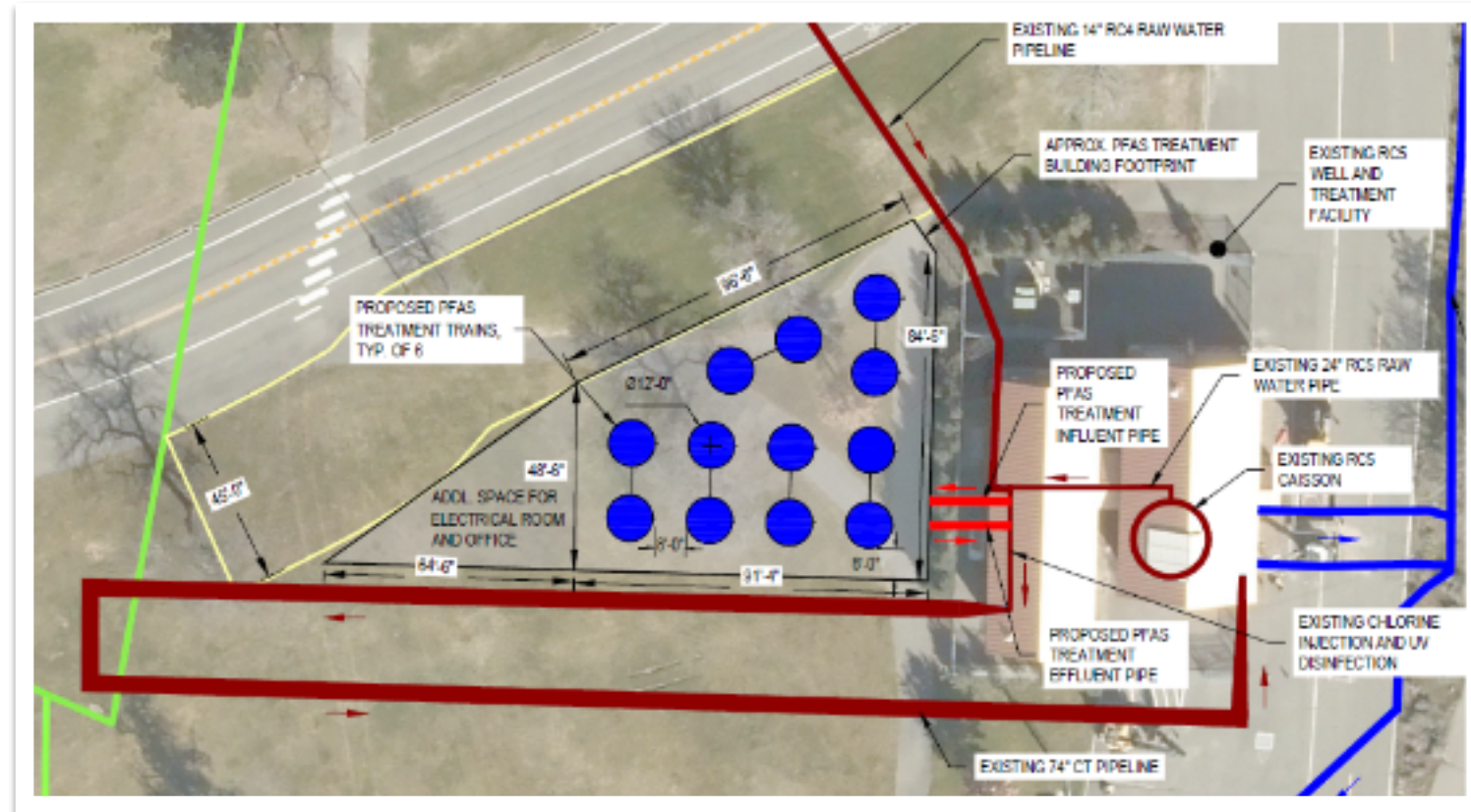
- Per- and Poly-Fluoroalkyl Substances (aka PFAS)

- Water

- » Planned treatment at Ranney Collector 5
- » EPA Final Rule requires compliance before April '29

- Waste Water

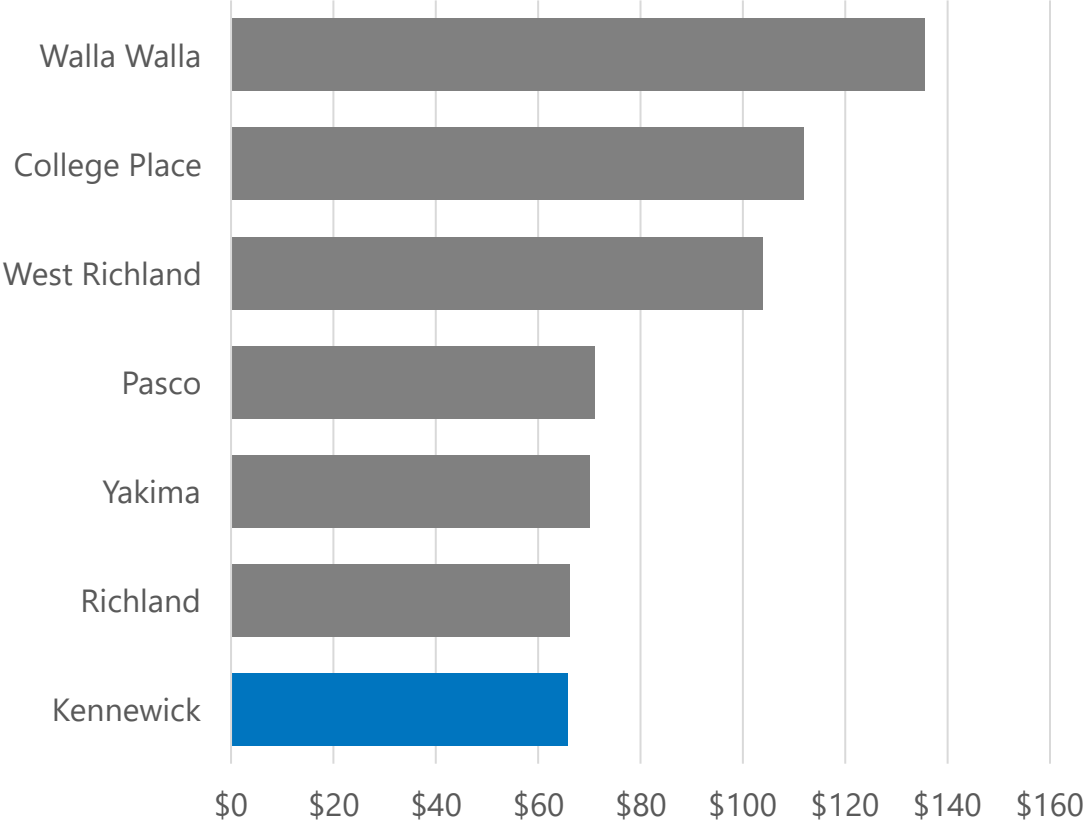
- » TBD





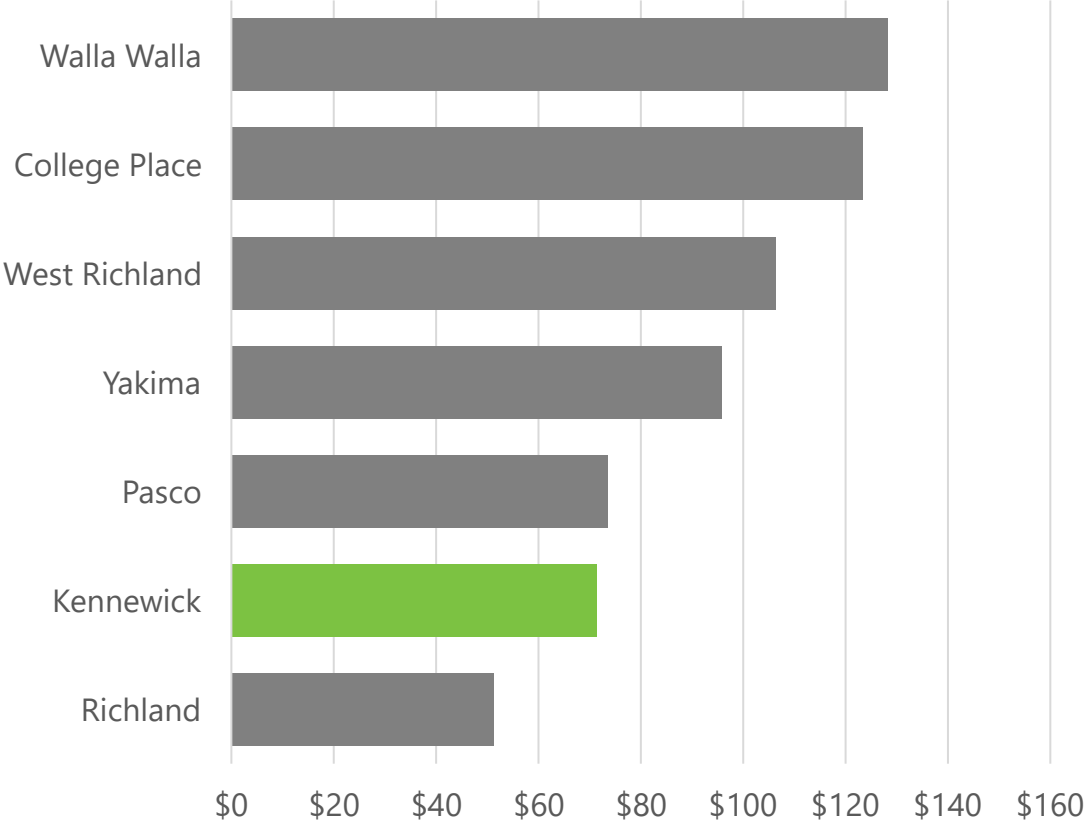
2024 Residential Bimonthly Bill Comparison

Water



Note: Assumes residential meter 1" and 20 ccf bi-monthly usage

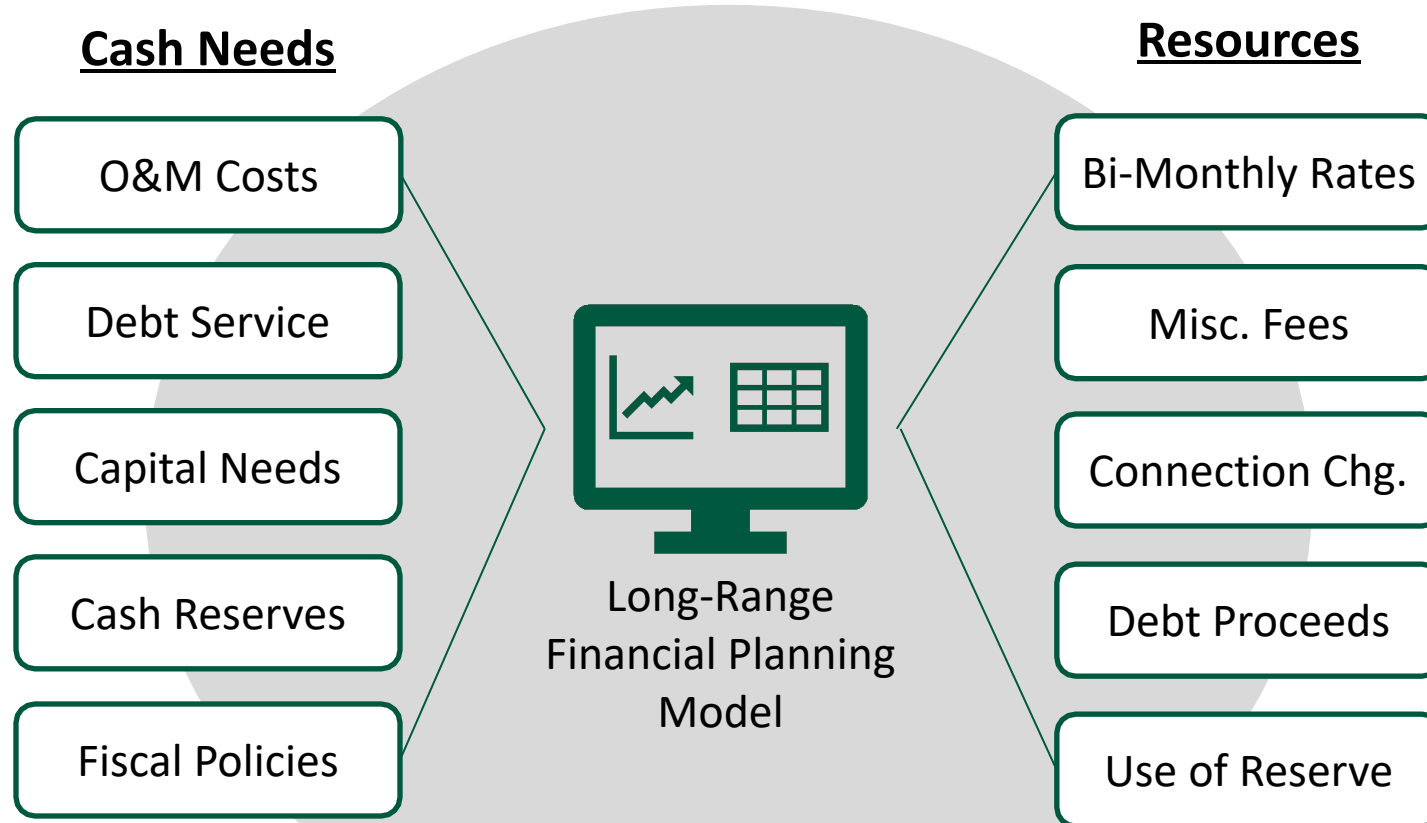
Wastewater



Note: Assumes 11 ccf bi-monthly winter usage where applicable



Overview of the Rate Setting Process



Craft a multi-year rate and financing plan to support the operations and capital needs of each utility



Financial Forecast Key Assumptions



Forecast Basis

Study Period: 2025-2030
Primary Focus: 2025-2026



Reserve Target

Water: 90 days \$2.6m
Wastewater: 60 days \$1.3m



System Reinvestment Target

Target annual depreciation cost
Evaluated annually



Customer Growth

1.5% annual customer growth
Consistent with City growth plans



Expense Inflation

3.0-7.5% annually based on cost type
3.0-3.5% overall annually



Existing Debt Service

Water: \$2.5M annually
Wastewater: \$400k annually



Debt Service Coverage

Legal requirement: 1.25x
Target: at least 1.5x



Capital Plan (2024-2030)

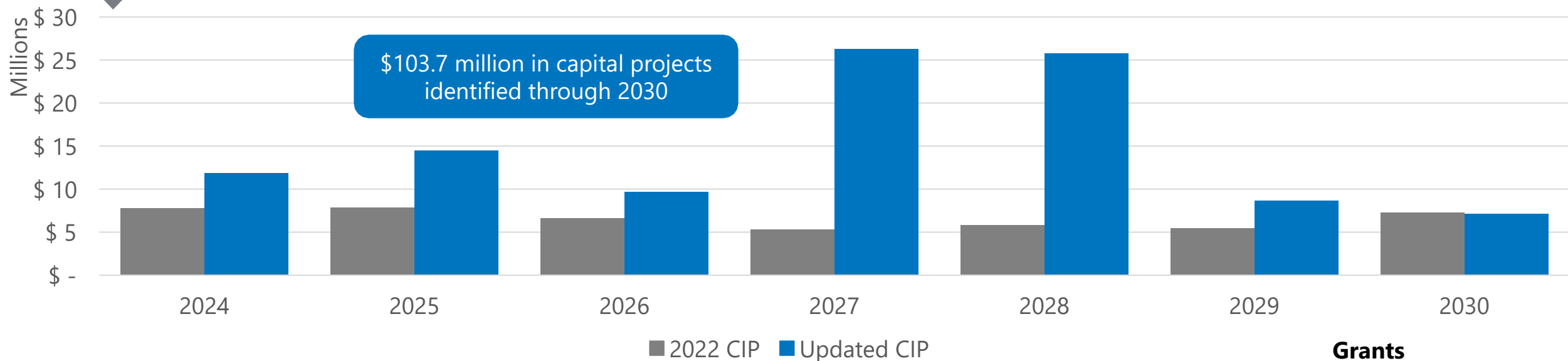
Water: \$103.7M
Wastewater: \$75.2M



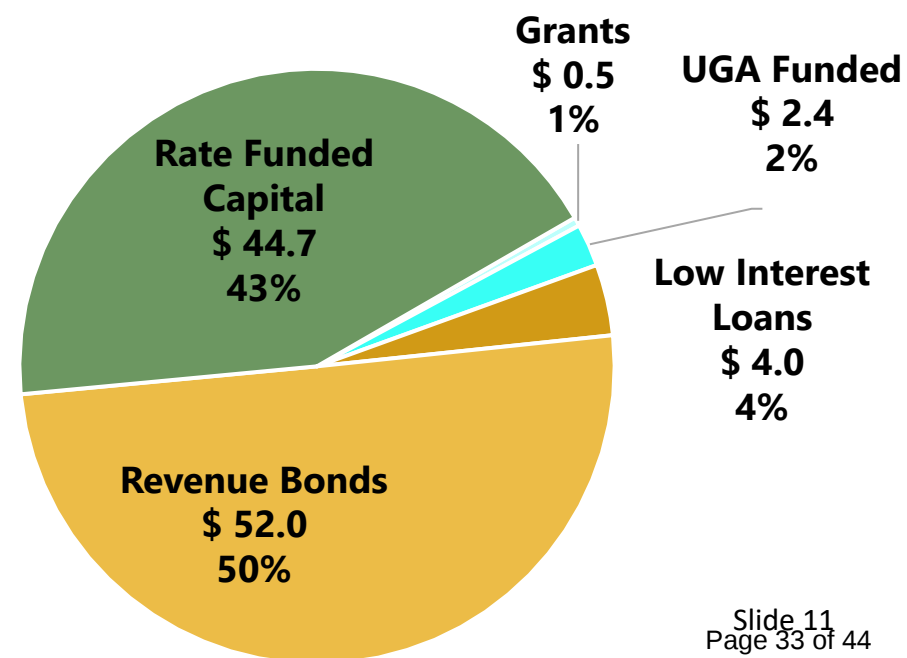
Water Revenue Requirement



Capital Improvement Plan - Water

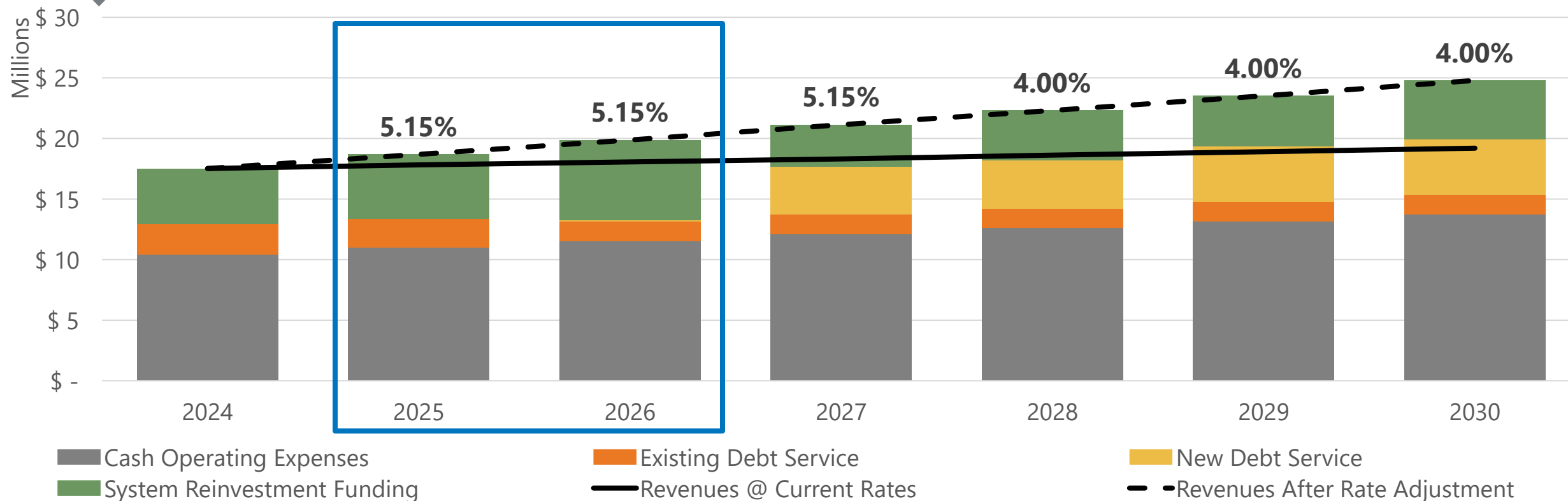


- Capital cost higher ~ \$57.6m
 - » Addition of PFAS project in '27-28
- \$56.0M (54%) debt financed
 - » \$4.0 million State loan secured
 - » \$45.0 million revenue bond in 2027
 - » \$6.5 million in revenue bond 2029





Revenue Requirement Summary - Water



- Maintains previous rate path
 - » Allows City to continue to meet operating and capital needs
 - » Provides time to better understand capital needs related to PFAS (2027)
 - » Delays progress on System Reinvestment target



Water Residential Bill Impacts

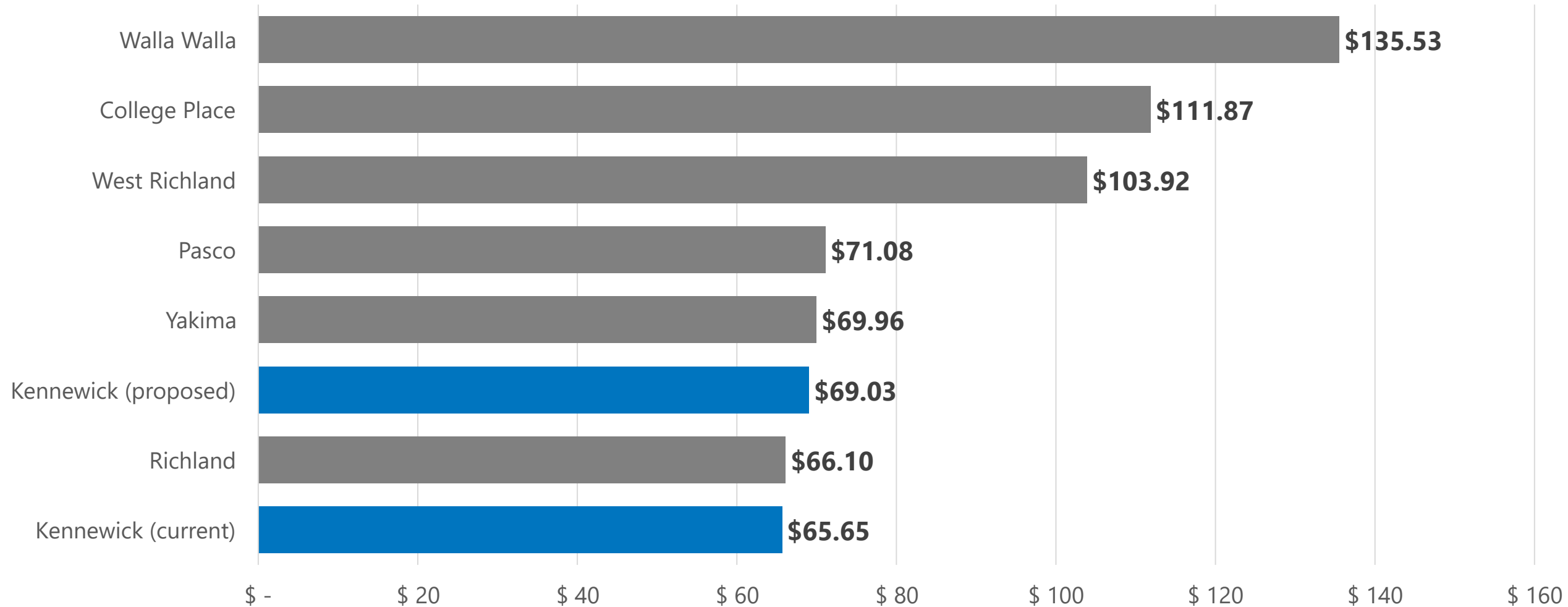
Water Sample Bill		Existing	2025	2026	2027	2028	2029	2030
Policy Based Inflationary Increase			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
<u>Additional Increase</u>			<u>2.15%</u>	<u>2.15%</u>	<u>2.15%</u>	<u>1.00%</u>	<u>1.00%</u>	<u>1.00%</u>
Proposed Increase			5.15%	5.15%	5.15%	4.00%	4.00%	4.00%
Sample Residential Bi-Monthly Bill	\$65.65		\$69.03	\$72.58	\$76.32	\$79.37	\$82.55	\$85.85
Sample Residential Monthly Bill	\$32.83		\$34.52	\$36.29	\$38.16	\$39.69	\$41.28	\$42.93
Monthly Increase			\$1.69	\$1.77	\$1.87	\$1.53	\$1.59	\$1.65

- Rate plan can be maintained for 2025/2026 biennium
 - » Approximately \$1.73 monthly increase
- City practice to annually index fees and charges to Consumer Price Index
 - » Approximately \$0.72 more than current City indexed rate policy



Water Jurisdiction Survey

Residential Bi-Monthly Bill (1" Meter, 20 ccf)

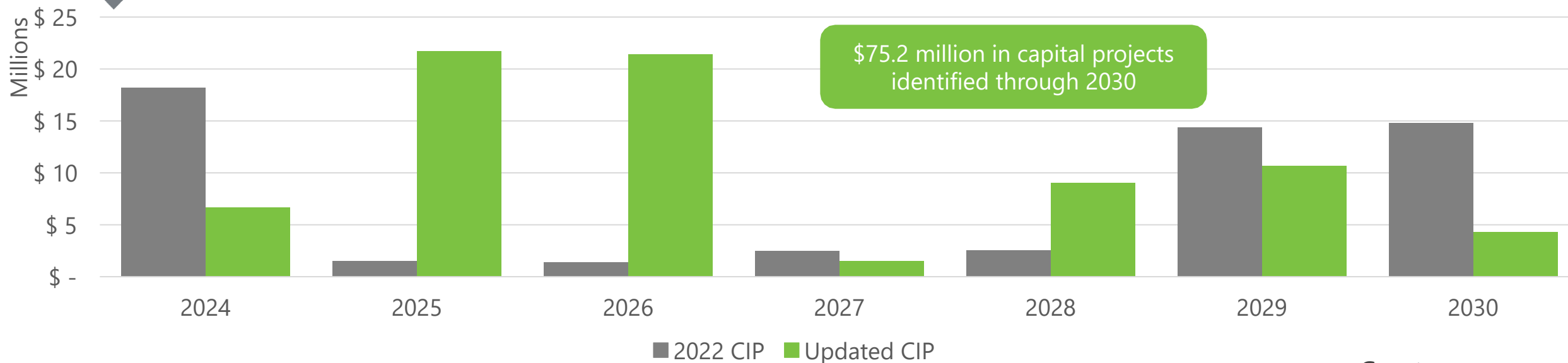




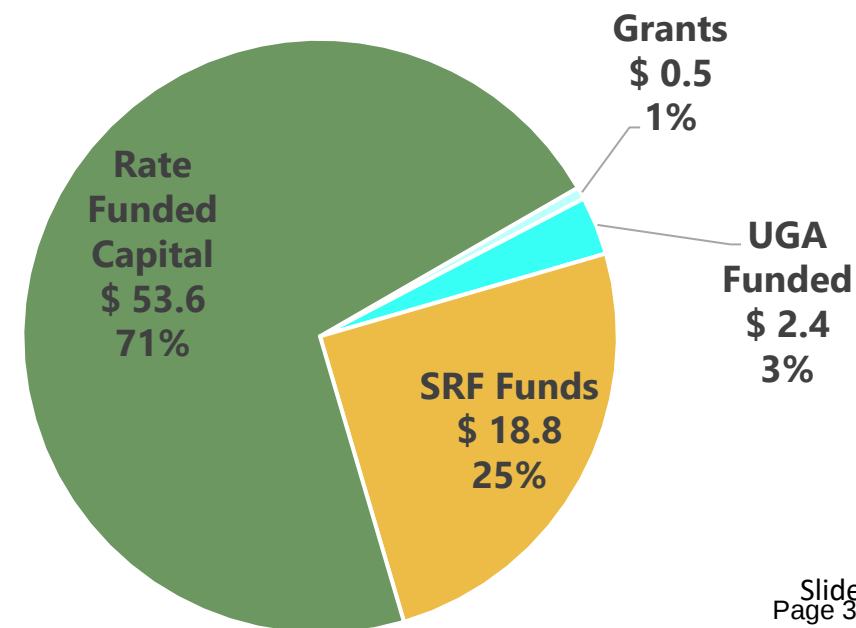
Wastewater Revenue Requirement



Capital Improvement Plan - Wastewater

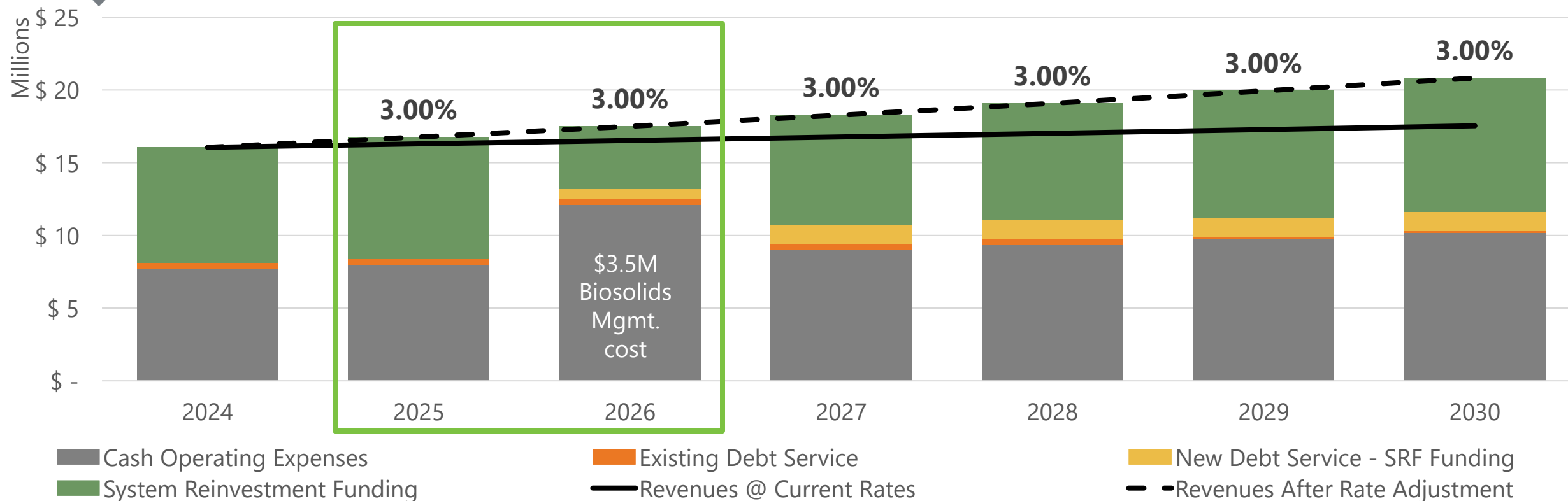


- Capital cost higher ~ \$20.1m
 - » Treatment plant upgrades extended
- \$18.8M (25%) debt financed
 - » All from secured SRF funding
 - » No new debt funding





Revenue Requirement Summary - Wastewater



- Rate plan reduced to inflationary level (down from 5.0%)
 - » Result of low interest loan funding for treatment upgrades
 - » Allows City to continue to meet operating and capital needs
 - » Exceeds System Reinvestment target and cash funds capital needs



Wastewater Residential Bill Impacts

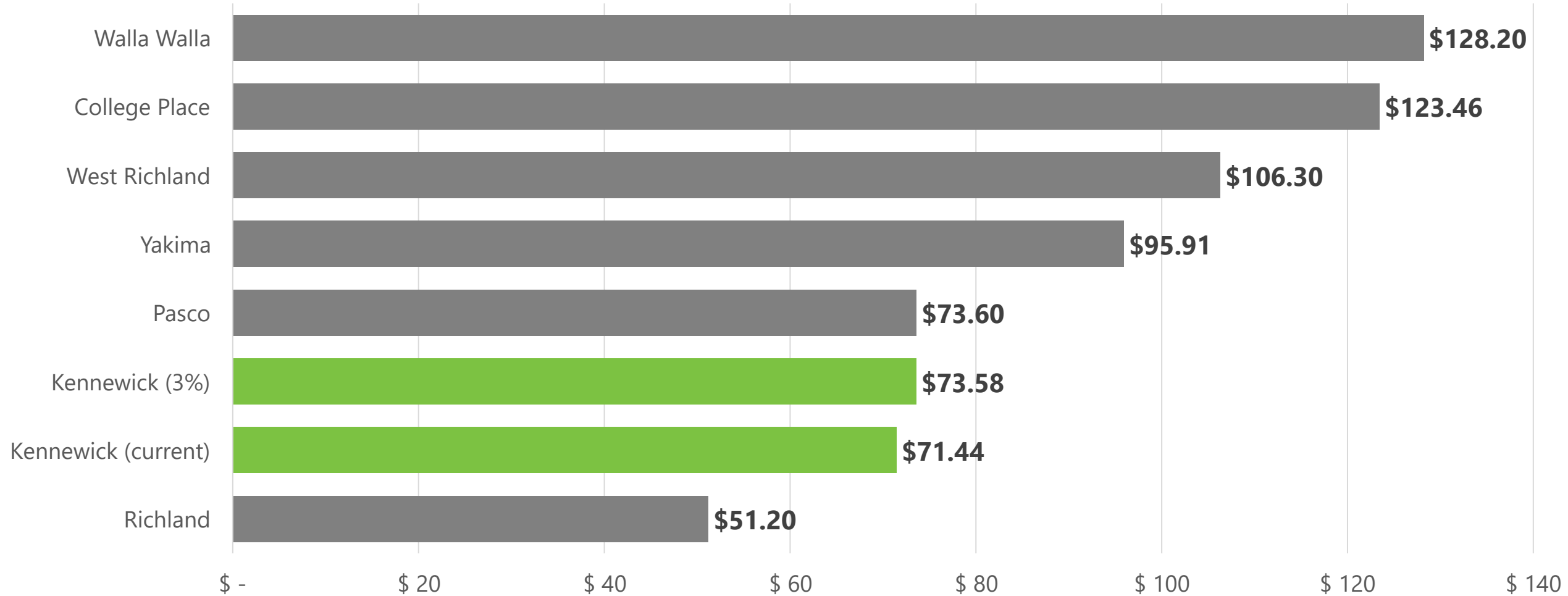
Wastewater Sample Bill		Existing	2025	2026	2027	2028	2029	2030
Policy Based Inflationary Increase			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
<u>Additional Increase</u>			<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>
Proposed Increase			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Sample Residential Bi-Monthly Bill		\$71.44	\$73.58	\$75.79	\$78.06	\$80.40	\$82.81	\$85.29
Sample Residential Monthly Bill		\$35.72	\$36.79	\$37.90	\$39.03	\$40.20	\$41.41	\$42.65
Monthly Increase			\$1.07	\$1.11	\$1.13	\$1.17	\$1.21	\$1.24

- City practice to annually index fees and charges to Consumer Price Index
 - » 3% sample rate increase provided
- Reduced rate plan for 2025/2026 rate setting period
 - » Approximately \$1.09 monthly increase



Wastewater Jurisdiction Survey

Residential Bi-Monthly Bill (11 ccf water usage if applicable)





Staff Recommendation



Staff Recommendation

- Maintain existing rate path for the water utility
 - » Monthly increase to average residential bill of \$1.69 in 2025 and \$1.77 in 2026
- Adjust wastewater rates to align with policy based inflationary adjustments
 - » Monthly increase to average residential bill of \$1.07 in 2025 and \$1.11 in 2026
- Implement rate changes effective January 1st, 2025

Thank you! Questions?

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