TRILOGY
CONSULTING, LLC
MUNICIPAL & UTILITY ADVISORS

Trilogy Consulting is a registered Municipal Advisor with the Municipal Securities Rulemaking Board and the U.S. Securities and Exchange Commission.

We offer local governments and utilities an objective, independent perspective on planning, economic and fiscal issues.

Our partners, Christine DeMaster and Erik Granum, founded Trilogy in 2011.

What Services Does the Sewer Utility Provide?

- Conveyance
  - Collection System
  - Interceptor System
  - Collector Lift Stations
  - Interceptor Lift Stations
- Wastewater Treatment
- Metering and Billing

Who Does the Sewer Utility Serve?

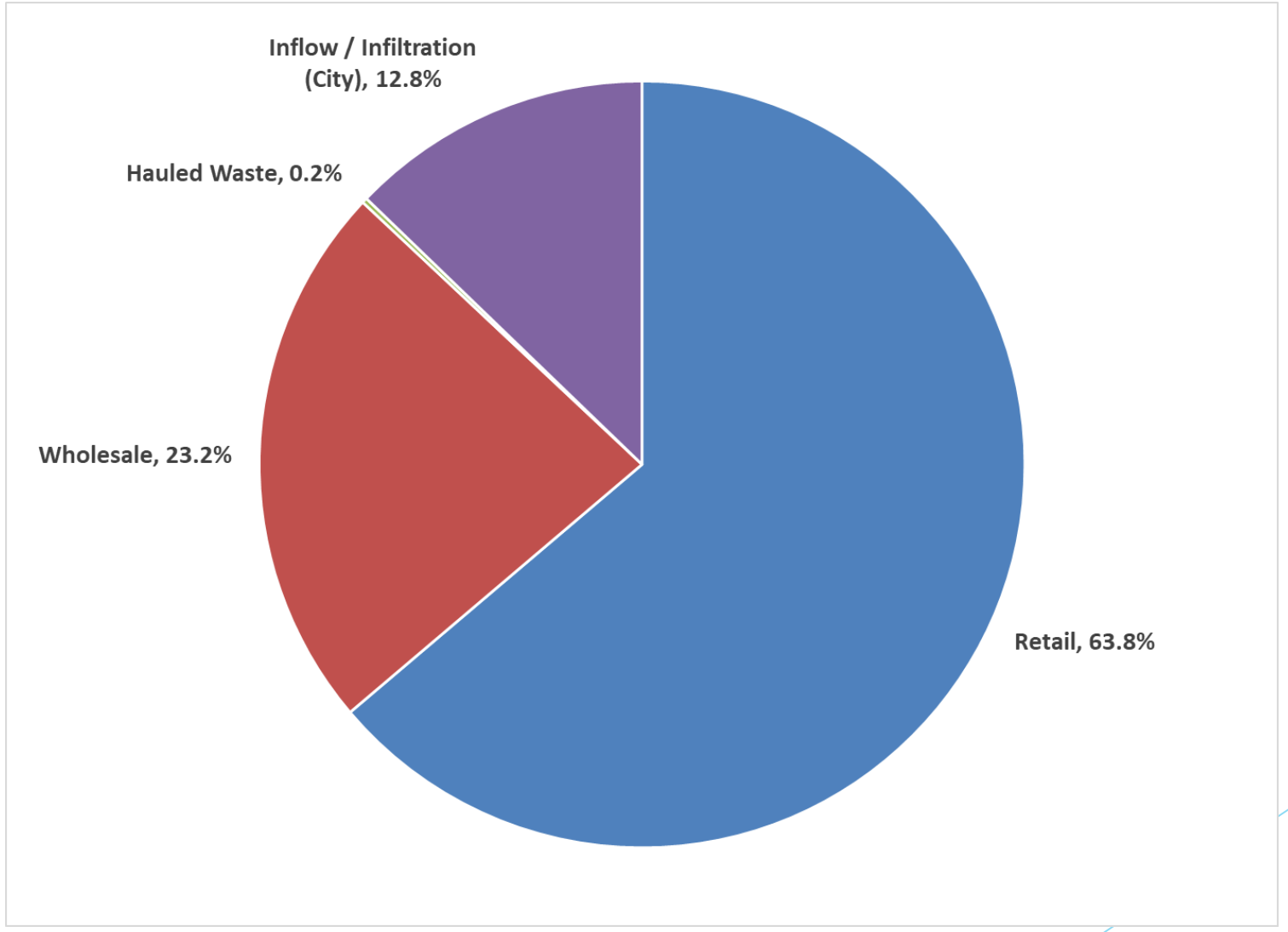
- La Crosse retail customers – residential, multi-family, commercial, industrial, public authority
- Wholesale customers – Onalaska, La Crescent, Campbell, Shelby
- Hauled waste – Holding Tank, Septic Tank, Grease Trap
- Industries with high-strength waste

Each Customer Class Pays for Services Used

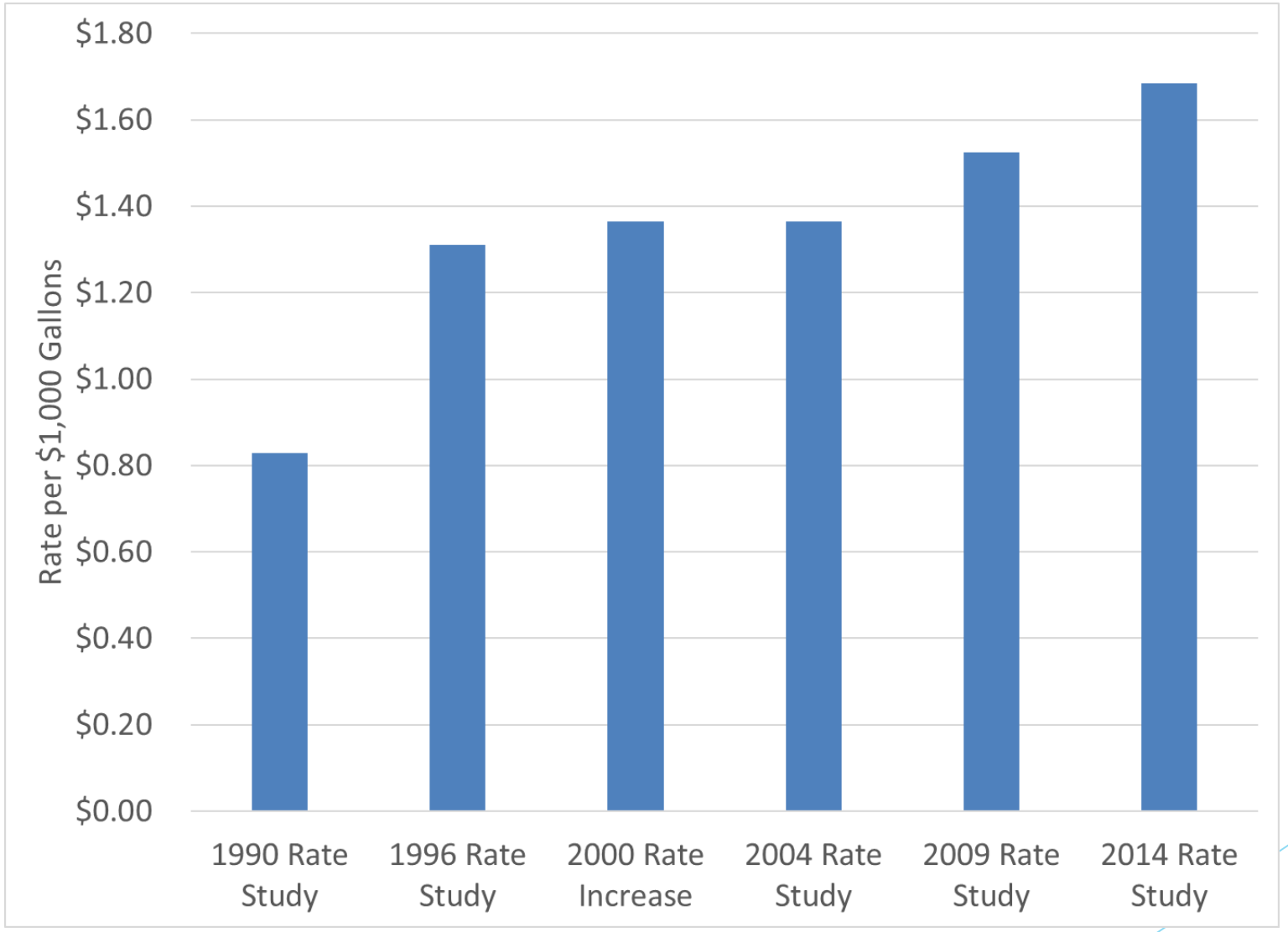
	Retail	Wholesale	Hauled Waste	Industrial Surcharges	Infiltration / Inflow *
Collector System	X				X
Interceptor System	X	X			X
Treatment - Flow	X	X	X		X
Treatment - Loadings	X	X	X	X	
Customer Costs	X				
Septage Receiving			X		

* Infiltration and inflow costs are included in fixed charges for retail customers.

Share of Total Wastewater at the WWTP



Historical Rates – La Crosse Retail Customers



Before 1990, sewer costs were funded through City of La Crosse taxes

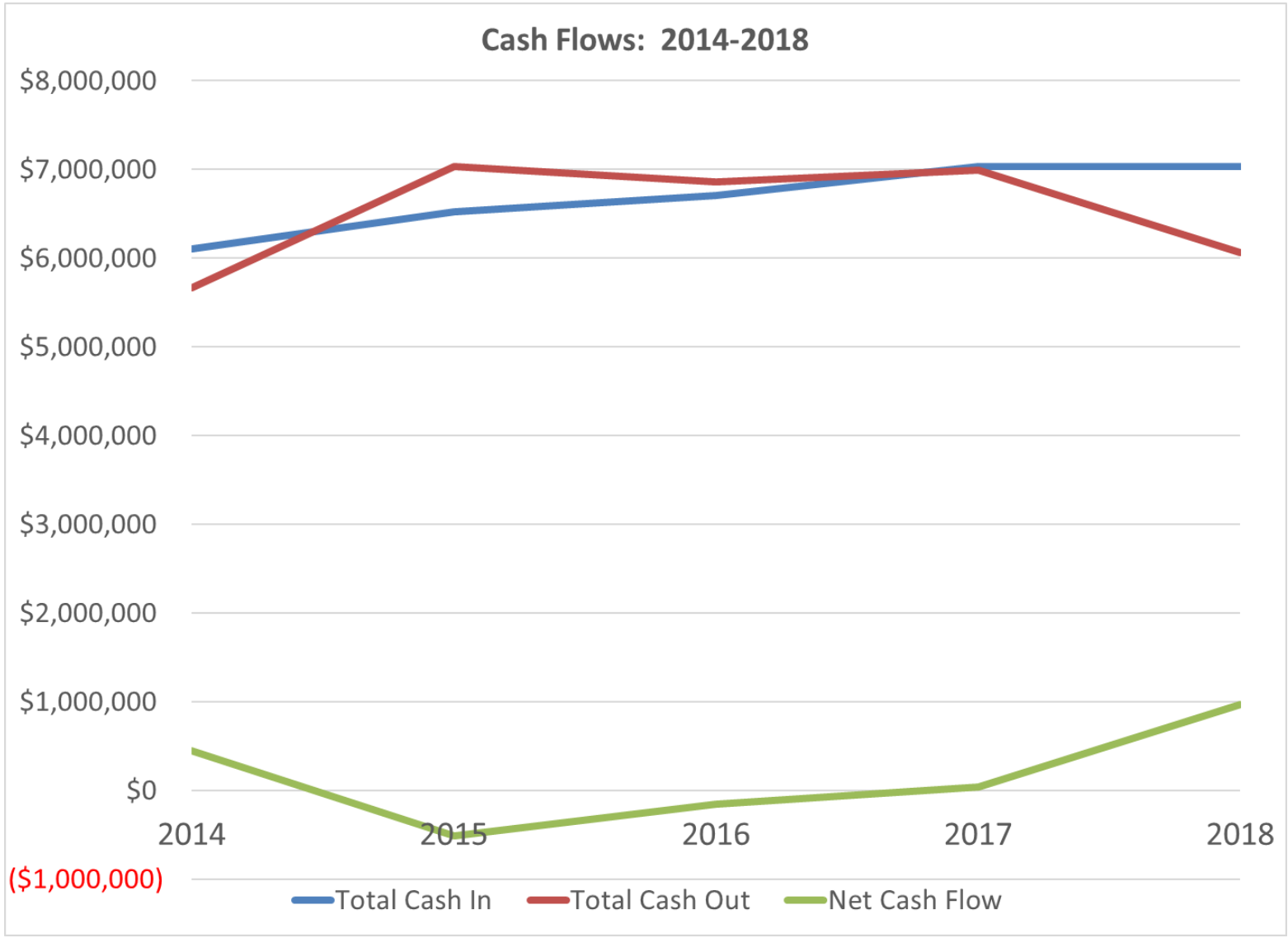
Reasons for the Rate Study

- Wastewater Treatment Plant Project
- Catch up with current operation & maintenance expenses and capital costs
- Adjust rates based on shifts in costs and customer demands

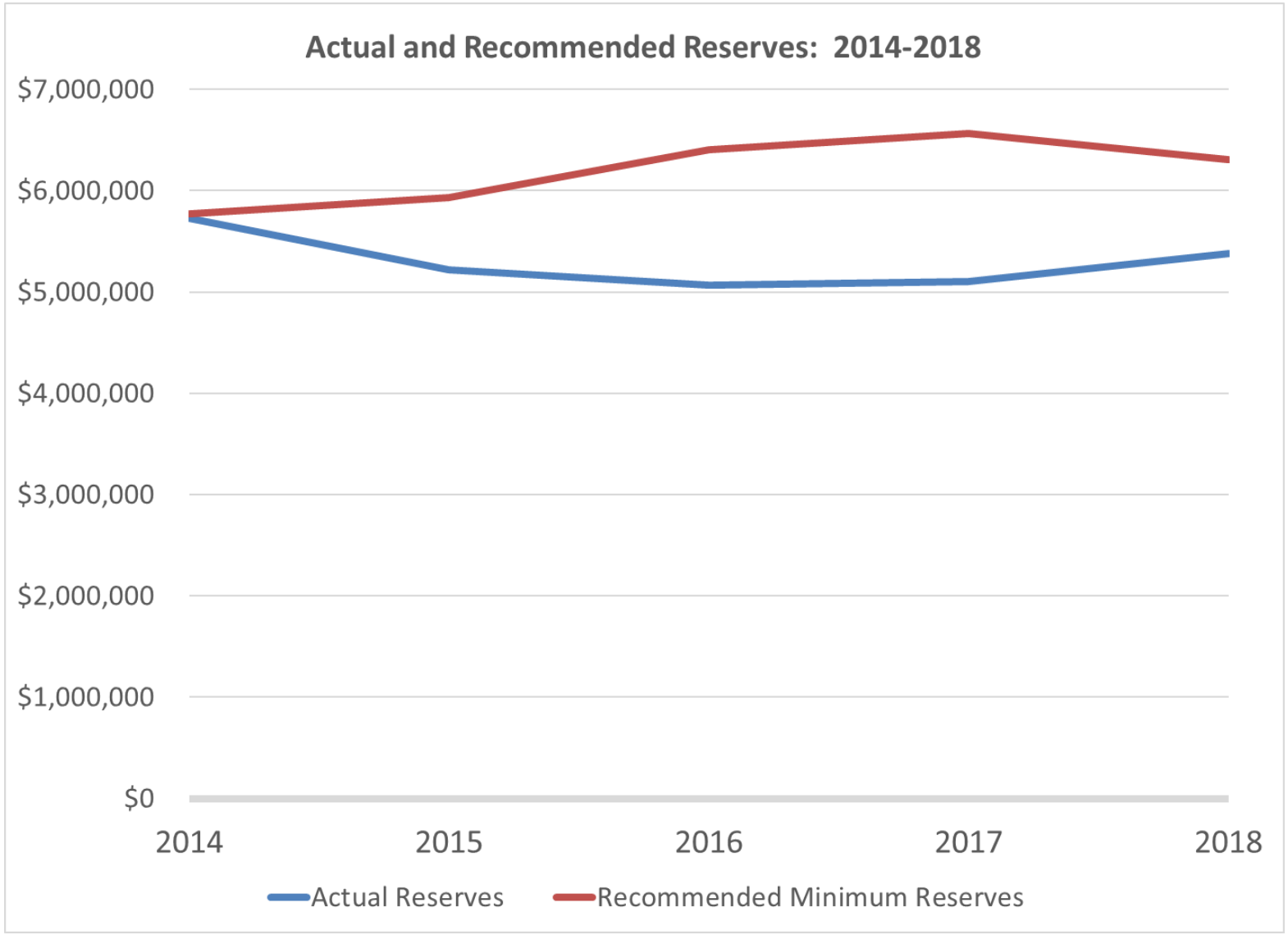
Steps in the Rate Setting Process

1. Evaluate Current Financial Status
2. Rate Increase and Cash Flow Scenarios
3. Revenue Requirements
4. Cost of Service Allocation
5. Rate Design

Current Financial Status



Cash Flows: 2014-2018



Reserve Levels: 2014-2018

Financial Status of the Utility – Key Findings

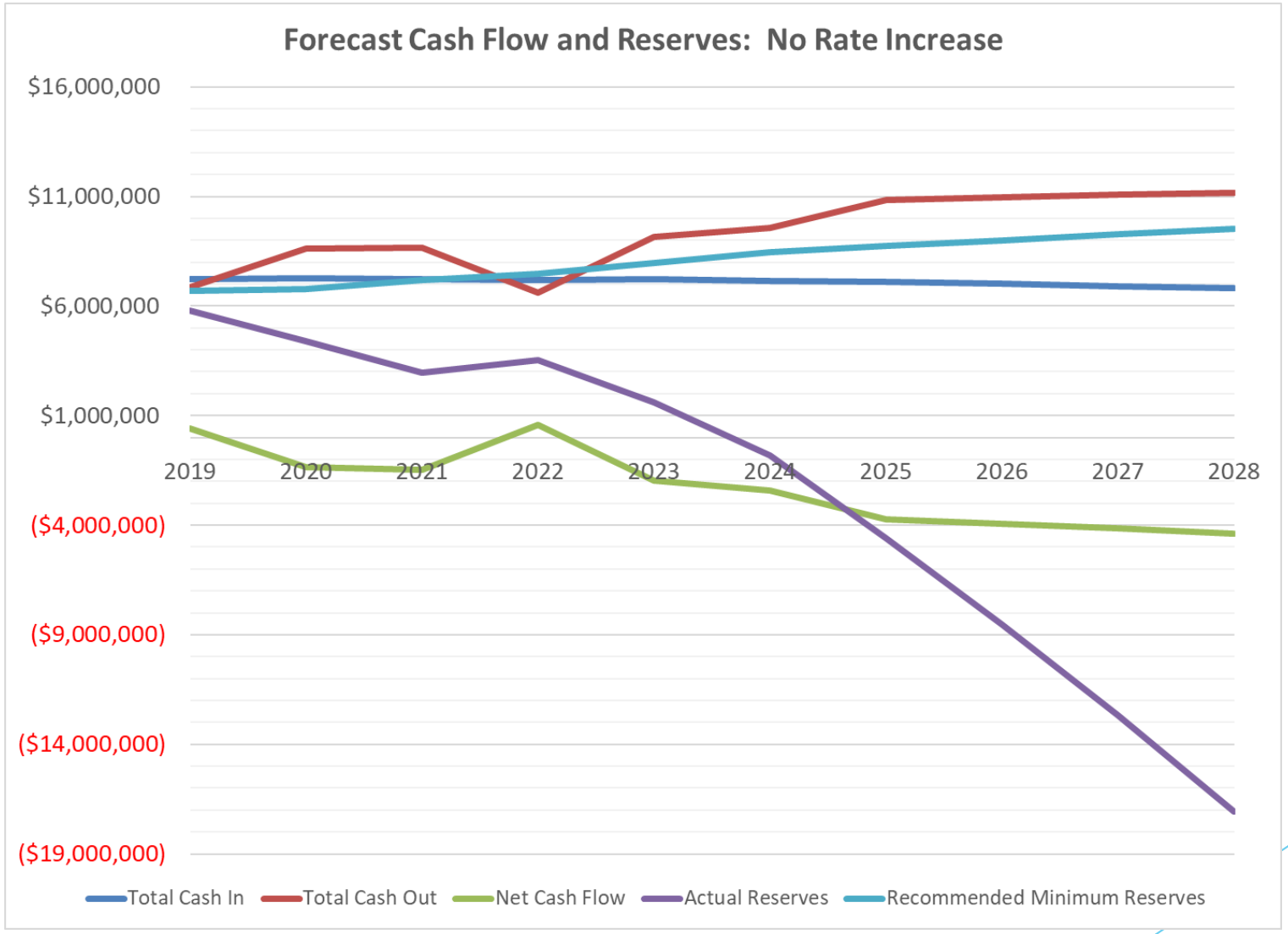
- Revenues have generally increased over the last five years.
- Fluctuations in expenses and capital outlay have resulted in fluctuating cash flows. Total cash flow over the last five years has been slightly positive.
- The Utility has not had any outstanding debt since 2014.
- As of December 31, 2018, the Utility had cash on hand totaling $5.3 million. The unrestricted portion of these funds was equal to 185 days cash on hand, or about $1.1 million short of the recommended minimum of 250 days cash on hand.

Rate Increase and Cash Flow Scenarios

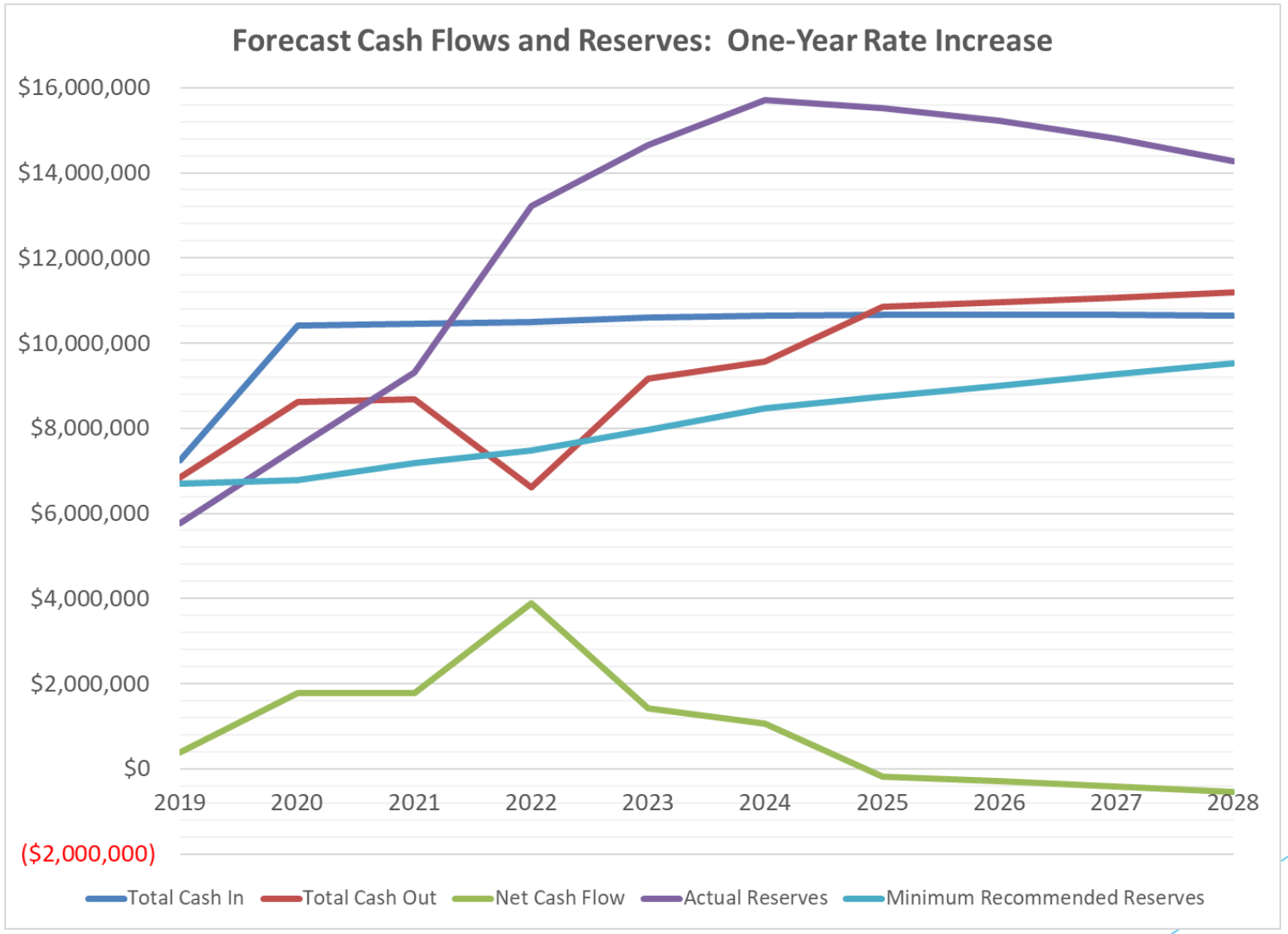
Objectives for Rate Increase(s)

- Allow the Utility to be able to obtain a Clean Water Fund loan in 2021 to fund the WWTP project
  - Will need to have rates in place by 2023 to cover full debt service plus 10% coverage
- Continue to cash fund routine capital projects and equipment replacement
- Increase reserves to at least the minimum recommended levels
- Mitigate rate spikes to the extent possible

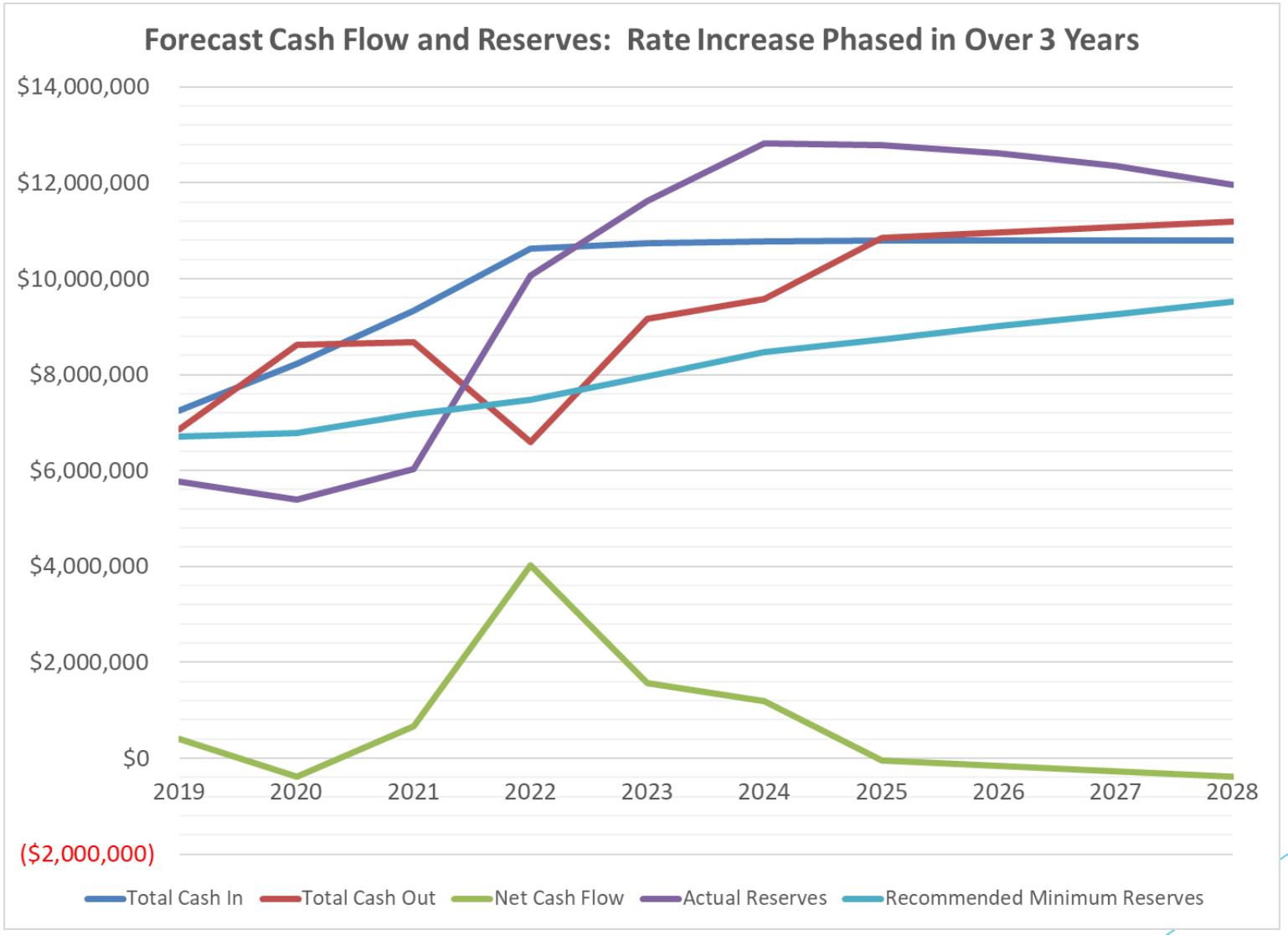
No Rate Increase



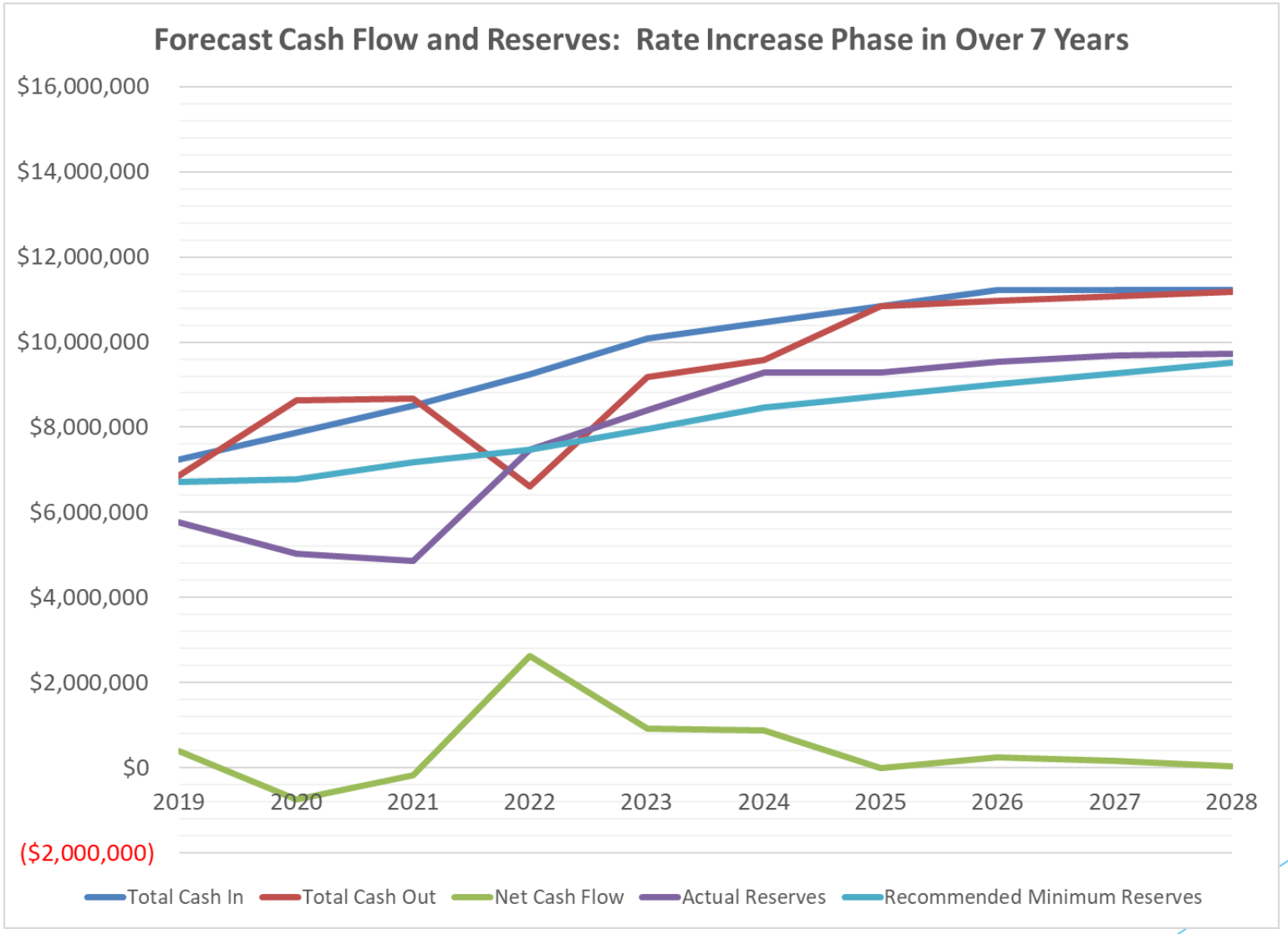
Entire Increase in 2020



3-Year Phase In



7-Year Phase In



Findings and Recommendations for Overall Rate Increase

- The Utility cannot obtain CWF financing for the WWTP project without a minimum cumulative rate increase of 40 percent by 2023
- Shorter phase-in periods result in lower cumulative rate increases and higher reserve levels at the end of the 10-year forecast
- **A 3-year phase in of the rate increases is recommended**
  - 2020 – Overall financial health of the Utility
  - 2021 – Adjust based on preliminary design costs
  - 2022 – Final adjustment based on bid costs and estimated debt service

Revenue Requirements

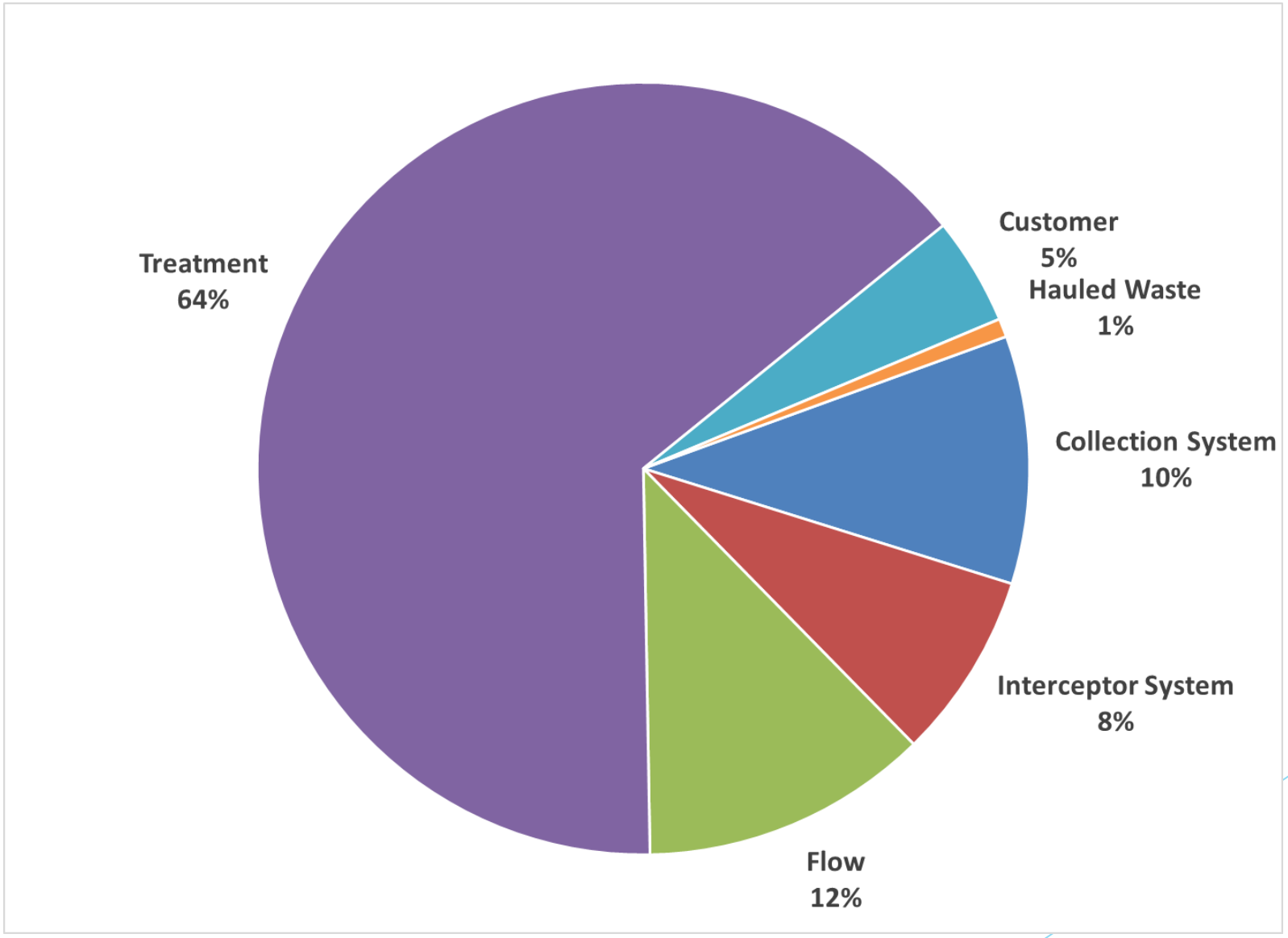
Revenue Requirements: 2015 and 2022

Comparison of 2015 and 2022 Revenue Requirements

	2015	Est. 2022	Difference	% Difference
Operation and Maintenance	$5,418,350	$5,583,136	$164,786	3.0%
Equipment Replacement Fund	$399,380	$394,808	-$4,572	-1.1%
Debt Service - WWTP	$0	$3,340,389	$3,340,389	--
Debt Service - Collector	$0	$0	$0	--
Capital Outlay / Reserves	$844,542	$1,675,615	$831,073	98.4%
Total	$6,662,272	$10,993,948	$4,331,676	65.0%
User Charge Revenues at Current Rates	$5,938,929	$6,839,157	$900,228	15.2%
Other Income / Withdrawals from ERF	$126,323	$797,626	$671,303	531.4%
Total Revenues at Current Rates	$6,065,252	$7,636,783	$1,571,531	25.9%
Required Increase in Revenues			$3,357,165	

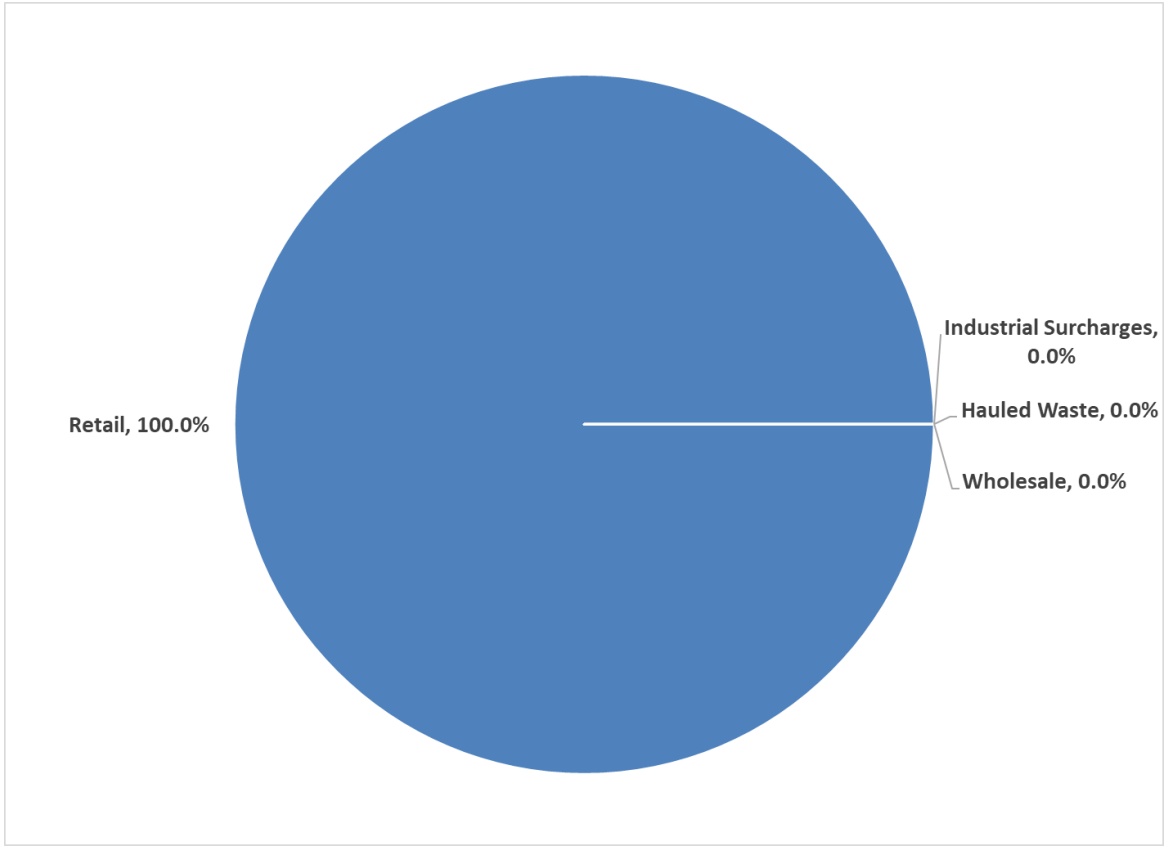
Cost of Service Allocation

Majority of System Costs are For Treatment

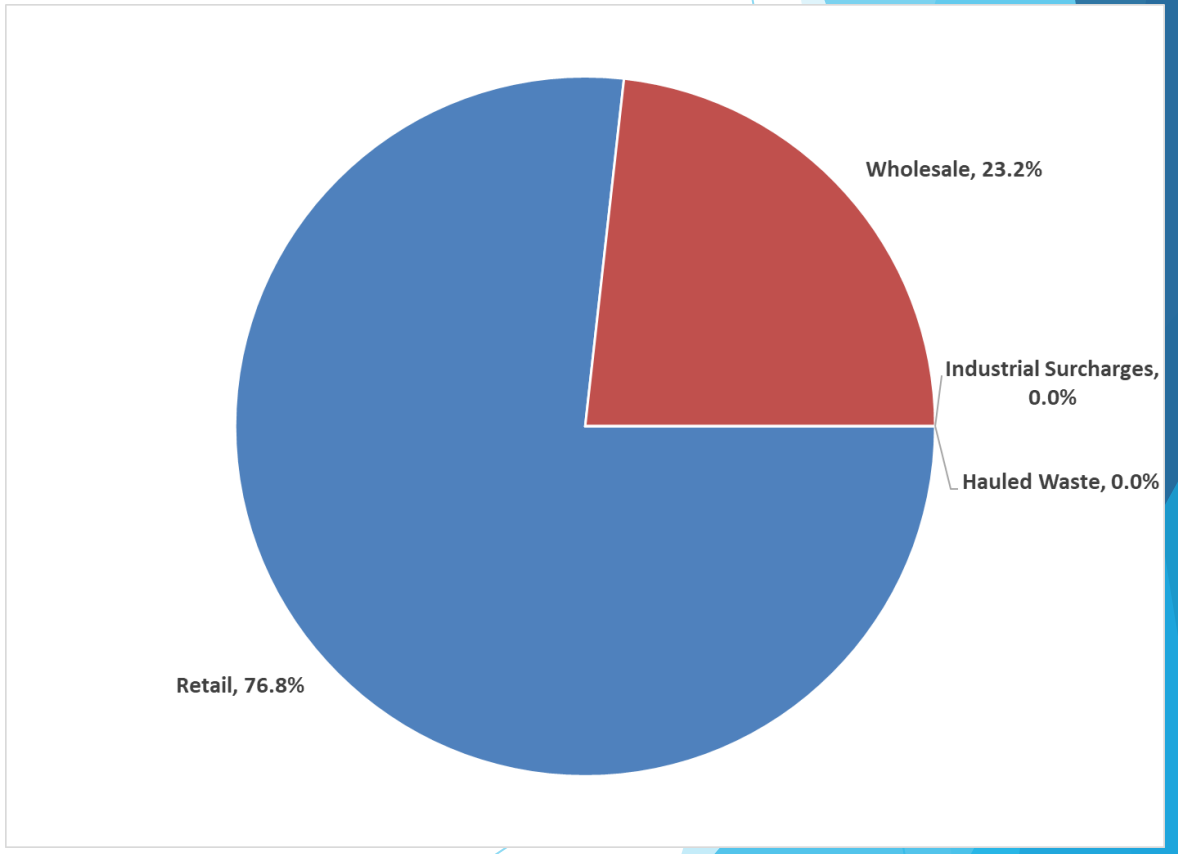


Who Pays for Each Cost Component?

Collector System

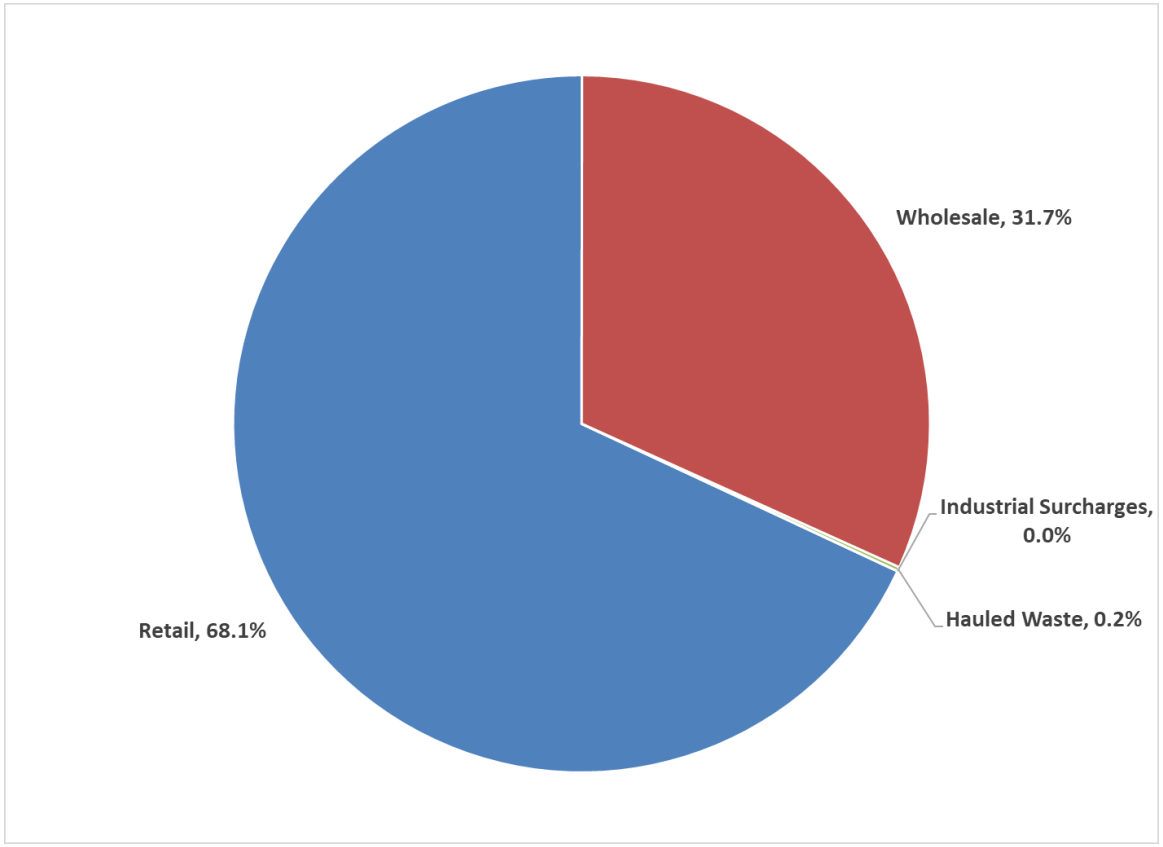


Interceptor System

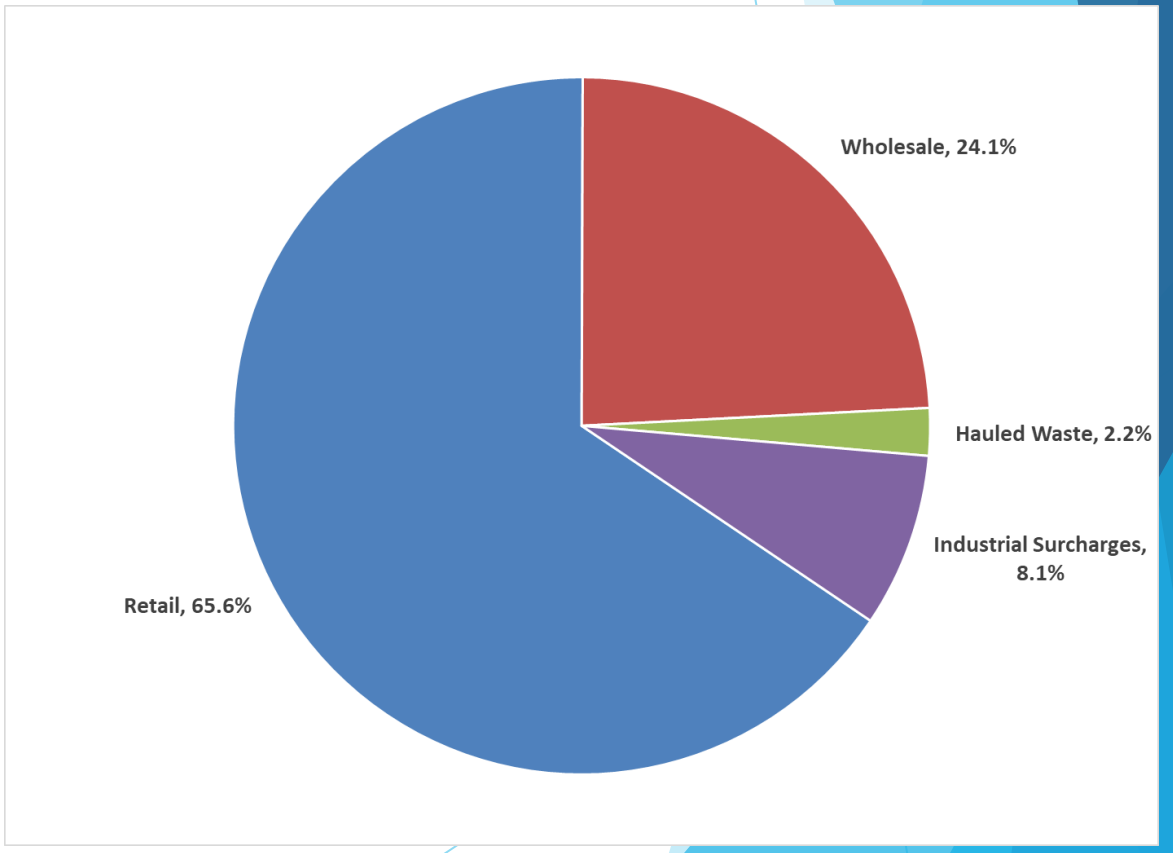


Who Pays for Each Cost Component?

WWTP - Flow

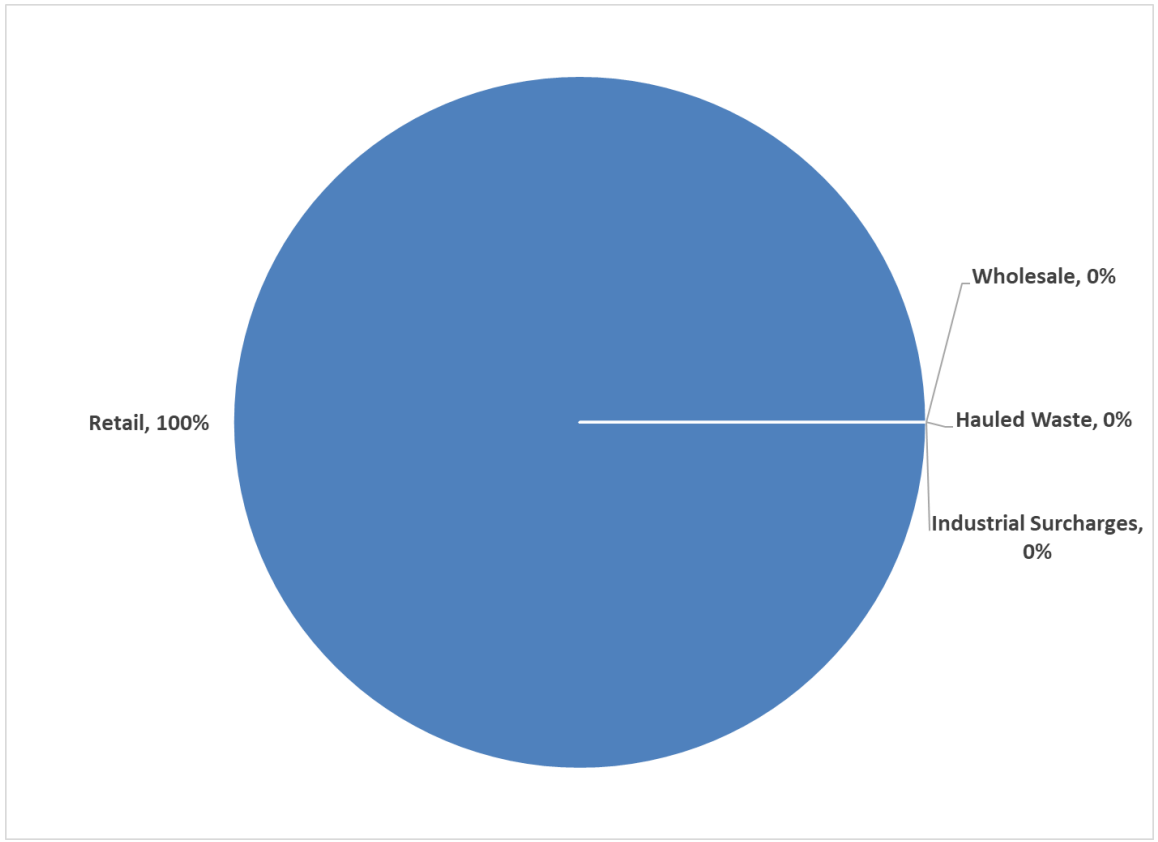


WWTP - Treatment

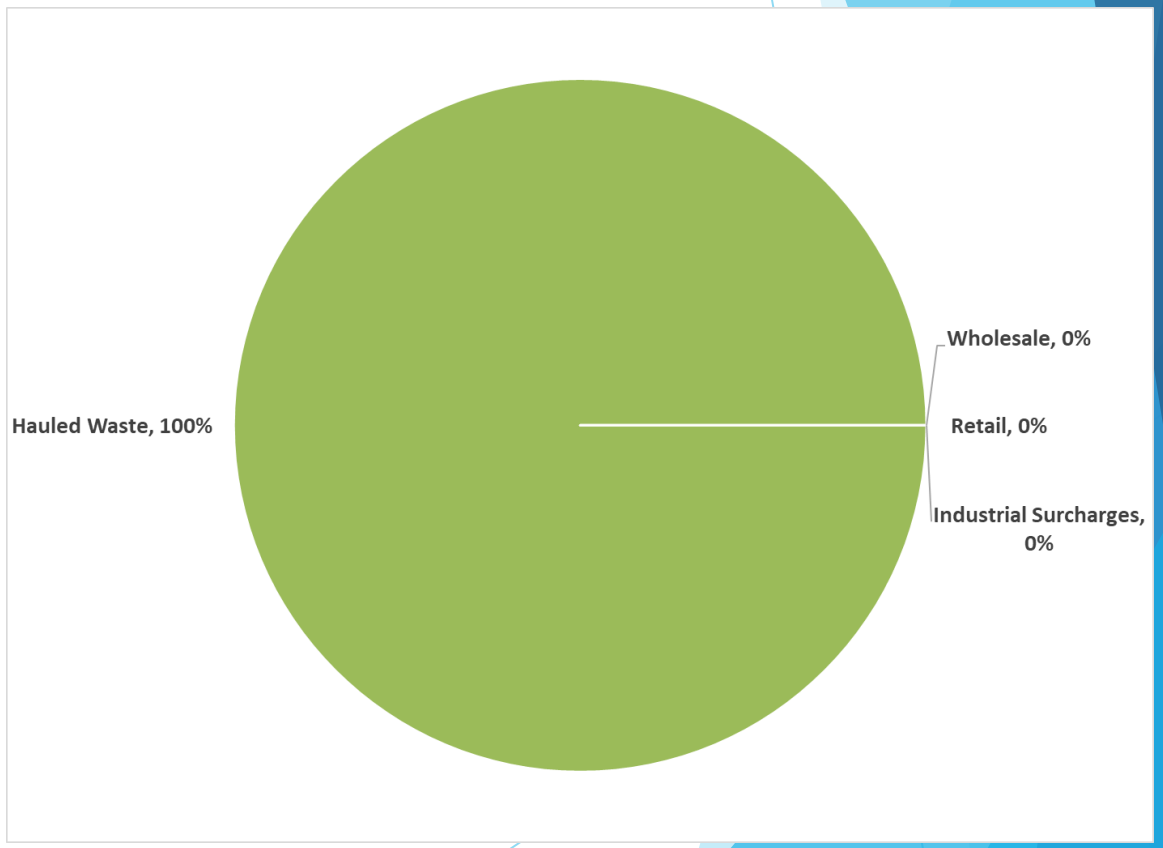


Who Pays for Each Cost Component?

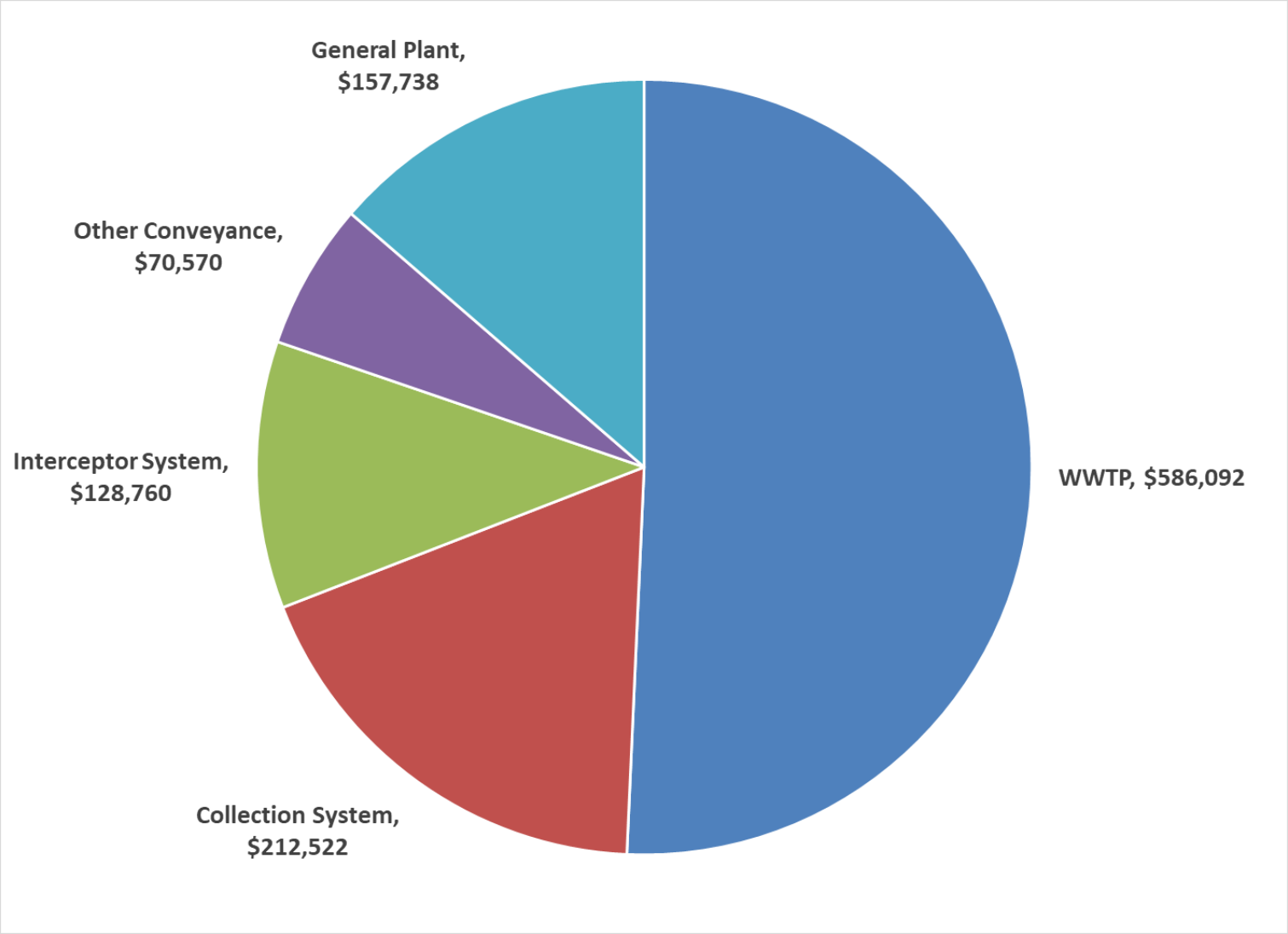
Customer Costs



Septage Receiving

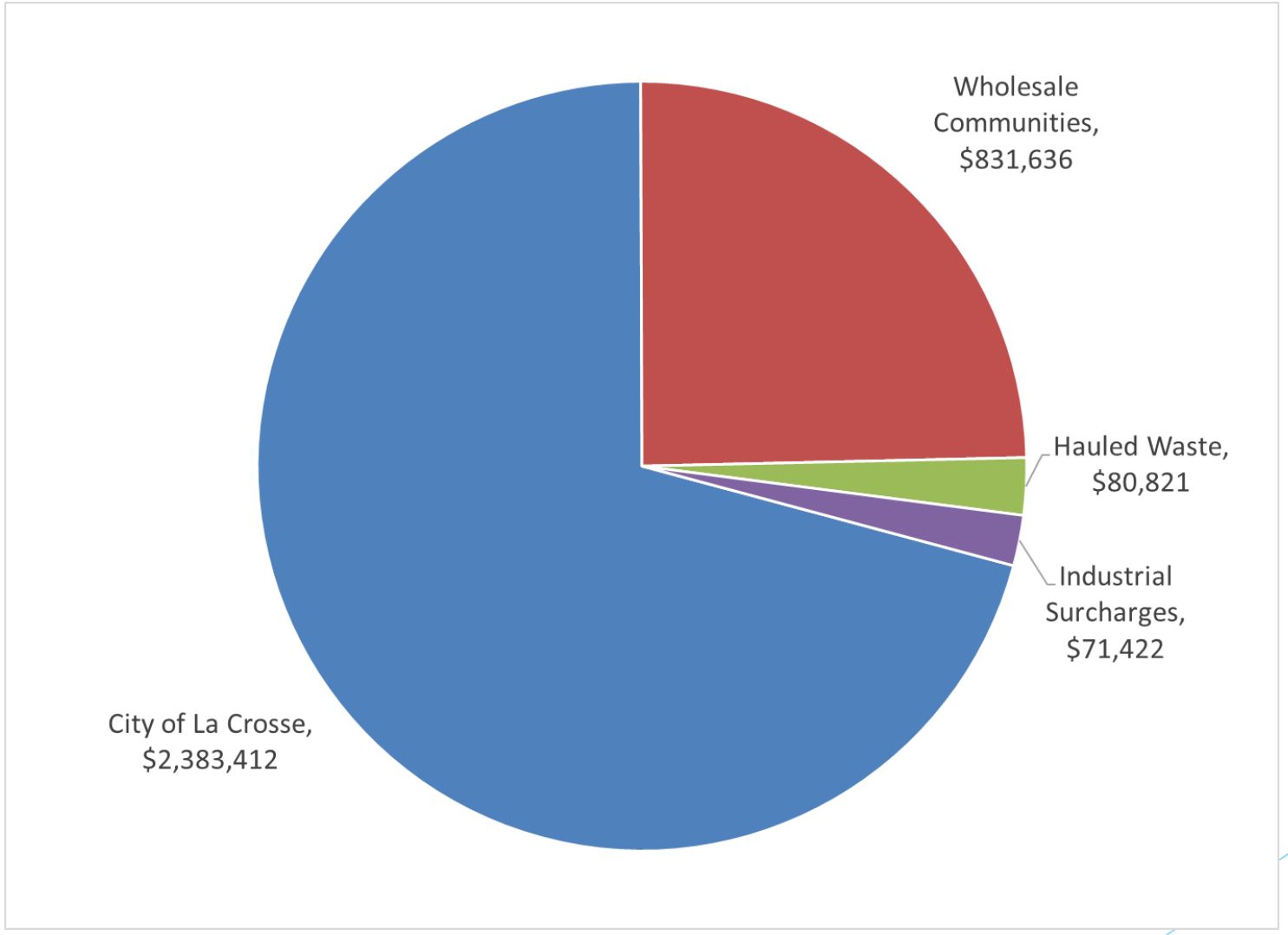


Routine Capital Costs



- $1,155,683 per year, net of withdrawals from ERF and interest income
- Based on average of actual expenditures per year for 2014-2018 and 2019 budget

Overall Share of Est. 2022 Rate Increase



Proposed Rates

Current and Proposed Flat Charges (City Retail Customers Only)

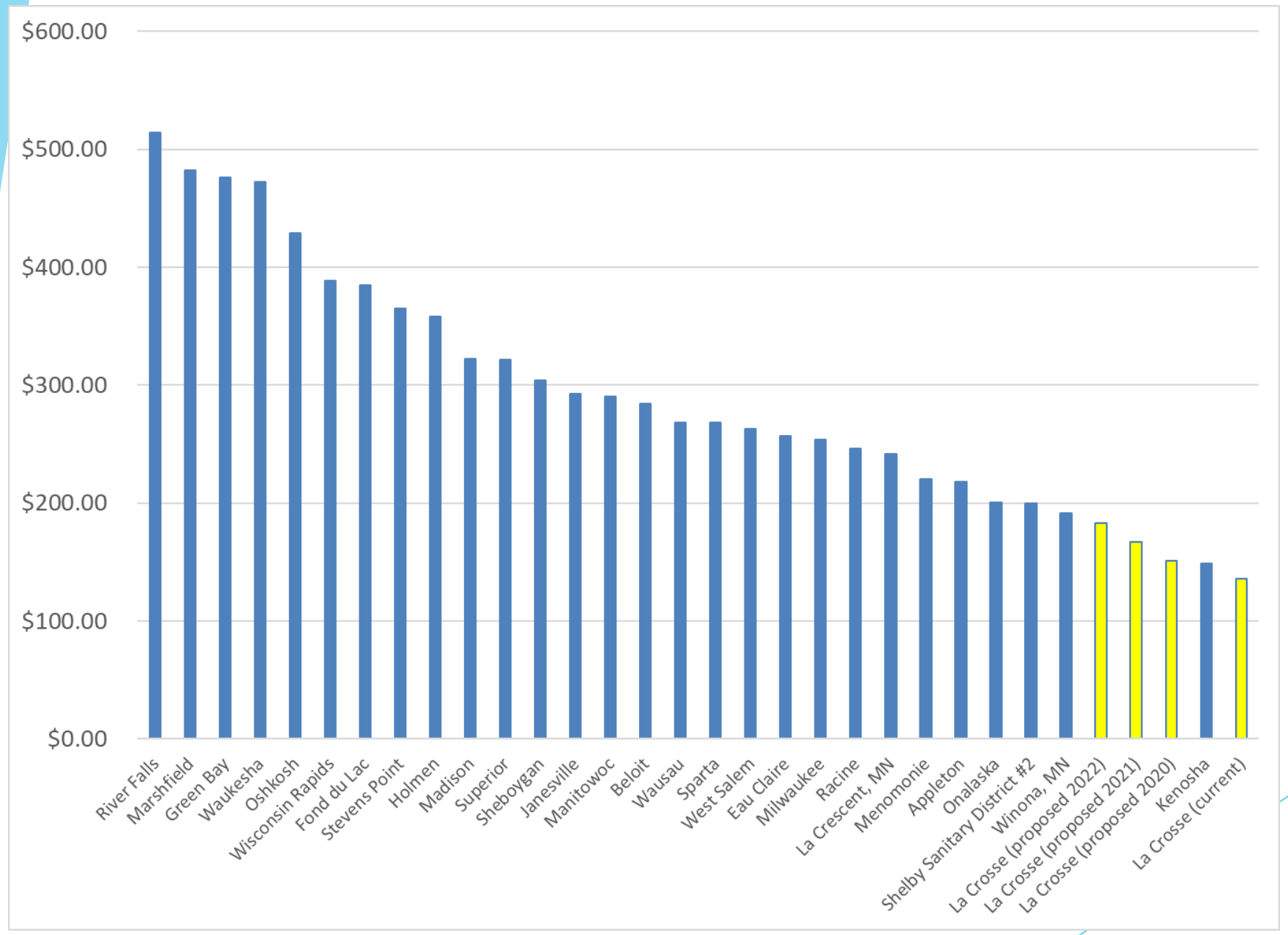
Connection Size	Current Charge	Proposed Charges - 2020-2022
5/8	$15.00	$15.00
3/4	$15.00	$15.00
1	$24.00	$24.00
1 1/2	$39.00	$39.00
2	$60.00	$60.00
3	$108.00	$108.00
4	$174.00	$174.00
6	$342.00	$342.00
8	$543.00	$543.00
10	$813.00	$813.00
12	$1,080.00	$1,080.00

Current and Proposed Volume and Surcharge Rates

	Units	Current Rate	Proposed Rate - 2020	Projected Rate - 2021	Projected Rate - 2022
Domestic Sewage	$/CCF	$1.26	$1.52	$1.78	$2.05
Unmetered	Per Quarter	$36.42	$40.84	$45.26	$49.85
Surcharge Rates					
BOD	$/pound	$0.224	$0.226	$0.228	$0.231
TSS	$/pound	$0.211	$0.239	$0.267	$0.295
Phosphorus	$/pound	$4.177	$4.867	$5.557	$6.246
NH-3	$/pound	$0.559	$0.451	$0.343	$0.234
Holding Tank Waste	$ / 1,000 gal.	$5.70	$7.22	$8.74	$10.27
Septic Tank Waste	$ / 1,000 gal.	$15.90	$18.50	$21.10	$23.70
Grease Trap Waste	$ / 1,000 gal.	$46.00	$51.41	$56.82	$62.23
Admin. Charge	$ / load	$11.00	$14.00	$17.00	$20.00
Wholesale	$ / CCF	$1.22	$1.47	$1.73	$1.98
Onalaska	$ / MG	$1,631.00	$1,970.00	$2,309.00	$2,647.00
La Crescent	$ / MG	$1,631.00	$1,970.00	$2,309.00	$2,647.00
Campbell	$ / MG	$1,631.00	$1,970.00	$2,309.00	$2,647.00
Shelby	$ / MG	$1,631.00	$1,970.00	$2,309.00	$2,647.00

Breakdown of Rates by Component

Customer Bill Comparisons - Avg Annual Residential Bill



Sewer Connection Fees

Basis for Proposed Connection Fees

- Purpose - to recover the value of the available capacity in the utility system that has been paid for by past and current customers.
- Basis - value of excess flow capacity in existing system-wide facilities
  - System-wide facilities include wastewater treatment facilities, interceptor sewers and interceptor lift stations.
- Who would pay – Properties that need new or additional sewer service
  - Amount of the fee determined based on amount of sewer capacity needed

Proposed Connection Fees

	Total
Value of System Assets	$113,009,534
System Capacity (Average Day Flow in gpd)	20,000,000
Asset Value per Unit of Capacity (gpd)	$5.65
Est. Capacity Requirements per Residential Equivalent Connection (gpd)	126
Asset Value per REC	$711

Next Steps

- Consideration of the proposed 2020 rates by the City Council
- Connection fees
  - La Crosse adopted an ordinance to implement connection fees effective January 1, 2020
  - Negotiating with partner communities to adopt fees as part of intermunicipal agreements
- Revenue from connection fees could reduce the amount of future rate increases

Functional Cost Allocation: 2015 and 2022

	2015	2022	Change	Percent Change
Collector System	$677,321	$1,058,280	$380,959	56.2%
Interceptor System	$630,672	$798,306	$167,634	26.6%
Treatment - Flow	$1,175,856	$1,230,955	$55,099	4.7%
Treatment - Loadings	$3,592,164	$6,569,762	$2,977,598	82.9%
Customer Costs	$459,935	$460,499	$564	0.1%
Septage Receiving	$0	$78,520	$78,520	NA
Total	$6,535,948	$10,196,322	$3,660,374	56.0%

Alternative Capital Cost Recovery Methods

Capital Cost Recovery Options

- User charge rates
  - Current approach
  - La Crosse finances improvements, includes debt service in rates
  - Everyone pays based on current use, not future need
- Connection charges / Impact fees
  - La Crosse finances improvements
  - Share of improvements related to providing additional capacity recovered through connection charges
  - Customers that require additional capacity pay based on capacity needs

Capital Cost Recovery Options

- Purchase of capacity
  - Each municipality that needs additional capacity for the future purchases a share of the additional capacity created by the improvements
  - Price is based on amount of capacity and cost per unit of capacity
  - Each municipality finances its share of the cost
  - Costs for expansion capacity are not recovered through user charges
  - Costs not related to expanding capacity would still be recovered through user charge rates

Examples of Alternative Capital Cost Recovery

- Sussex Wastewater Utility
  - Each party is allocated a certain amount of capacity based on requested capacity
  - Wholesale wastewater customers pay for WWTP expansion costs based on % of capacity
  - Parties may sell or transfer unused capacity to other parties
  - Each party pays for their capacity upfront or finances their capacity costs
  - Each party is responsible for a share of future upgrade costs based on allocated capacity
  - Retained Plant Charge for WWTP facilities not replaced in the 1996 WWTP expansion
  - Interceptor Capacity Charge for overall interceptor system capacity
- Fox River Water Pollution Control Center (Brookfield)
  - Wholesale wastewater customers pay for expanded treatment capacity
  - Each party is allocated a certain amount of capacity based on what they paid for
  - Parties may sell or transfer unused capacity to other parties
  - Each party pays for their capacity upfront or finances their capacity costs

Examples of Alternative Capital Cost Recovery

- Racine Water and Wastewater Utility
  - Water - retail water service communities pay water connection fees to Racine for new or expanded use under intermunicipal agreement
  - Wastewater –
    - A portion of costs paid for by the Utility as ‘deficiency’ costs for replacements
    - Wholesale wastewater customers pay for expanded treatment and interceptor capacity
    - Each party is allocated a certain amount of capacity based on what they paid for
    - Parties may sell or transfer unused capacity to other parties
    - Each party pays for their capacity upfront or finances their capacity costs
    - Each party is responsible for a share of future upgrade costs based on allocated capacity
  - Other provisions
    - Property tax revenue sharing
    - Funding for regional services

Racine Model – Funding for Regional Services

- Annual transfer from the Wastewater Capital Reserve Account to the City of Racine to cover subsidies by the City for regional services:
  - Racine Public Library
  - Racine Zoological Gardens
  - Racine Art Museum

Racine Model – Funding for Regional Services

- Racine Public Library
  - Payment covers shortfall in County funding for outside City circulation to Racine County residents
  - Includes amortization of capital costs for Library facilities in addition to O&M
- Racine Zoo
  - Total payment set at $285,000 for 2002 based on data from surveys of zoo users
  - Increased by 3% per year for 2003 through 2007, with no increases after 2007
- Racine Art Museum
  - Total payment set at $285,000 for 2002 based on estimates of non-City use
  - Increased by 3% per year for 2003 through 2007, with no increases after 2007
- 50-year term for payments

Allocation of Costs for Self Reported Needs Above Current Contract Amounts

Cost of Rehabilitation Projects	$50,972,000
Cost of Expansion Projects	$4,250,000
Total	$55,222,000
Additional BOD Capacity (lbs./day)	4,817
Expansion Cost per Additional Unit of BOD ($/lb./day)	$882.29

Partner Community	Self Reported Needs Above Current Contract Amounts (lbs./day)	Allocated Costs	Est. Annual Debt Service [1]	Addt'l Rate	Total Rate	
Campbell	0	$0	$0	0	$2,574	
La Crescent	0	$0	$0	0	$2,574	
La Crosse [2]	1,587	$1,400,197	$95,864	$0.03	$2.00	/ CCF
Onalaska	3,117	$2,750,104	$188,285	$344	$2,918	/ MG
Shelby	113	$99,699	$6,826	$138	$2,712	/ MG
Total	4,817	$4,250,000				

(1) Assumes Clean Water Fund loan at 3.2%.
(2) The cost allocated to La Crosse would be partially allocated to high-strength surcharges, so the domestic volume rate may be lower than shown on this table.

Comparison of 2015 and 2023 Revenue Requirements

	2015	Proposed	Difference	% Difference
Operation and Maintenance	$5,418,350	$5,583,136	$164,786	3.0%
Equipment Replacement Fund	$399,380	$394,808	-$4,572	-1.1%
Debt Service - WWTP	$0	$3,080,975	$3,080,975	--
Debt Service - Collector	$0	$0	$0	--
Capital Outlay / Reserves	$844,542	$1,675,615	$831,073	98.4%
Total	$6,662,272	$10,734,533	$4,072,261	61.1%
User Charge Revenues at Current Rates	$5,938,929	$6,839,157	$900,228	15.2%
Other Income / Withdrawals from ERF	$126,323	$791,334	$665,011	526.4%
Total Revenues at Current Rates	$6,065,252	$7,630,491	$1,565,239	25.8%
Required Increase in Revenues			$3,104,042	
Percentage Increase in User Charge Revenues			45.4%	

Proposed Phased-In Rate Schedule

Billing Cycle - Quarterly
Billing Units - CCF

Flat Charge

Connection Size	Current Charge	Proposed Charges - 2020-2022
5/8	$15.00	$15.00
3/4	$15.00	$15.00
1	$24.00	$24.00
1 1/2	$39.00	$39.00
2	$60.00	$60.00
3	$108.00	$108.00
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6	$342.00	$342.00
8	$543.00	$543.00
10	$813.00	$813.00
12	$1,080.00	$1,080.00

Usage Charges

	Units	Current Rate	Proposed Rate - 2020	Proposed Rate - 2021	Proposed Rate - 2022
Domestic Sewage	$/CCF	$1.26	$1.50	$1.74	$1.97
Unmetered	Per Quarter	$36.42	$40.50	$44.58	$48.49
Surcharge Rates					
BOD	$/pound	$0.224	$0.223	$0.222	$0.222
TSS	$/pound	$0.211	$0.235	$0.259	$0.283
Phosphorus	$/pound	$4.177	$4.791	$5.405	$6.020
NH-3	$/pound	$0.559	$0.449	$0.339	$0.230
Holding Tank Waste	$ / 1,000 gal.	$5.70	$6.94	$8.18	$9.43
Septic Tank Waste	$ / 1,000 gal.	$15.90	$18.02	$20.14	$22.26
Grease Trap Waste	$ / 1,000 gal.	$46.00	$50.41	$54.82	$59.22
Admin. Charge	$ / load	$11.00	$14.00	$17.00	$20.00
Onalaska	$ / MG	$1,631.00	$1,945.00	$2,259.00	$2,574.00
La Crescent	$ / MG	$1,631.00	$1,945.00	$2,259.00	$2,574.00
Campbell	$ / MG	$1,631.00	$1,945.00	$2,259.00	$2,574.00
Shelby	$ / MG	$1,631.00	$1,945.00	$2,259.00	$2,574.00
Wholesale	$ / CCF	$1.22	$1.45	$1.69	$1.93