

Review of Proposed FY 2023 & FY 2024 Biennial Budget and Charges

GLWA Board of Directors

January 26, 2022



Financial Plan Schedule

- **11/9/2021** - Capital Improvement Programs (Rollout #1)
- **11/16/2021** - Preliminary Units of Service (Rollout #2)
- **12/17/2021** – Regular Audit Committee – Budget Session #1 (receives long-term forecast; budget draft; charges strategy)
- **1/6/2022** – Preliminary Proposed FY 2023 Budget and Financial Plan and Preliminary Charges (Rollout #3)
- **1/20/2022** – Follow Up Review Session (Rollout #4)
- **1/21/2022** – Special Audit Committee – Budget Session #2
- • **1/26/2022** – Board Briefing - Budget, Charges, Financial Plan
- **2/11/2022** – Special Audit Committee Meeting - Budget Session #3
- **2/23/2022** – GLWA Public Hearing; Board action follows on or after this date after Public Hearing conducted
- **7/1/2022** – Effective Date for Charges

Executive Summary of FY 2023 & FY 2024 Budget and FY 2023 Charge Proposals



Three Key BUDGET Categories

“BUDGET” = “Revenue Requirement”

1. *Operations & Maintenance Expense*
2. *Capital Program Funding (Past, Present, and Future)*
 - ✓ Debt Service
 - ✓ Deposit to the Improvement and Extension (I&E) Fund
(a/k/a Revenue Financed Capital Improvements or Paygo Capital)
3. *Non-Operating Commitments*
 - ✓ GLWA’s Share of the Closed, Legacy DWSD Pension Liability Pool
 - ✓ Water Residential Assistance Program Deposit
 - ✓ Lease Payment

Note: Master Bond Ordinance defines (*in much greater detail*) how funds received are prioritized among the above categories

Water System

5 

Treatment Plants



816 miles of transmission main



3.8 MILLION PEOPLE SERVED



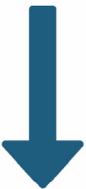
88 Member Partners across **112** communities



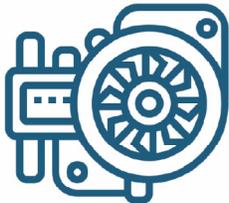
Treatment capacity of **1,720** million gallons per day



3 Water Intakes



19 BOOSTER PUMP STATIONS

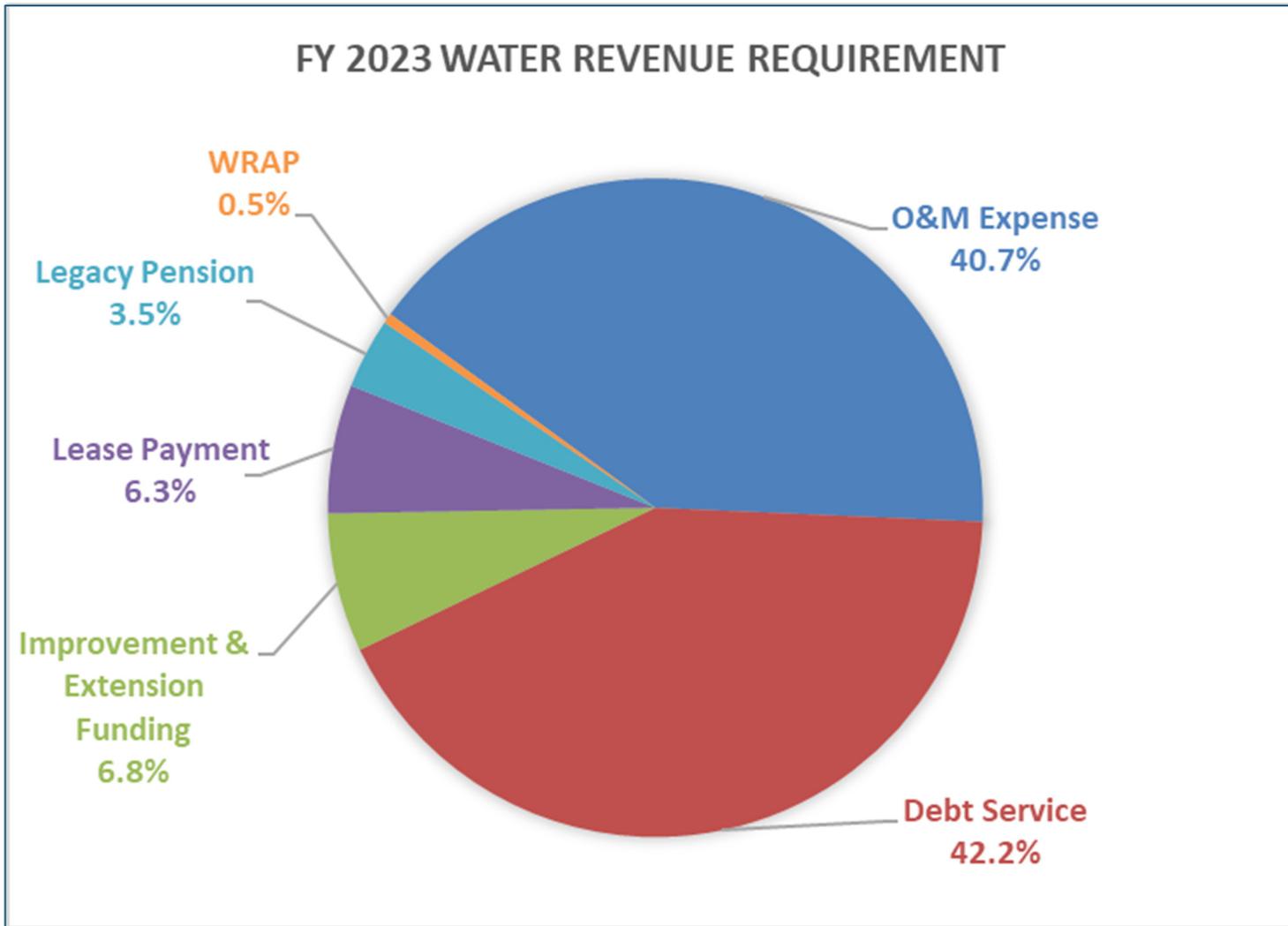


1,698 SQ. MILE service area

MISSION:

To exceed our member partner's expectations by utilizing best practices in the treatment and transmission of water and wastewater, while promoting health communities and economic growth.

FY 2023 Proposed Water Revenue Requirement

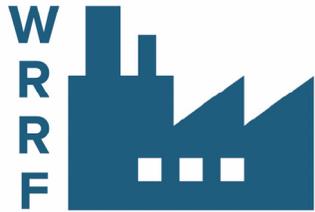


Total Budget
\$356 Million

3.5% Increase
(\$12 Million)
from prior year
driven by 11%
increase in
debt service
category

Nearly 100%
funded by
service
charges

Wastewater System



The largest single-site wastewater treatment facility in the United States



195 miles of trunk sewers & interceptors



2.8 MILLION
PEOPLE SERVED



19 Member Partners
across **79** communities



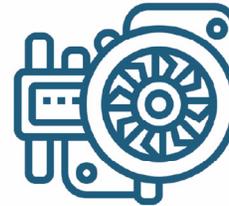
Treatment capacity of **1,700**
million gallons per day



8 
CSOs

3 
Interceptors

9 PUMP
STATIONS

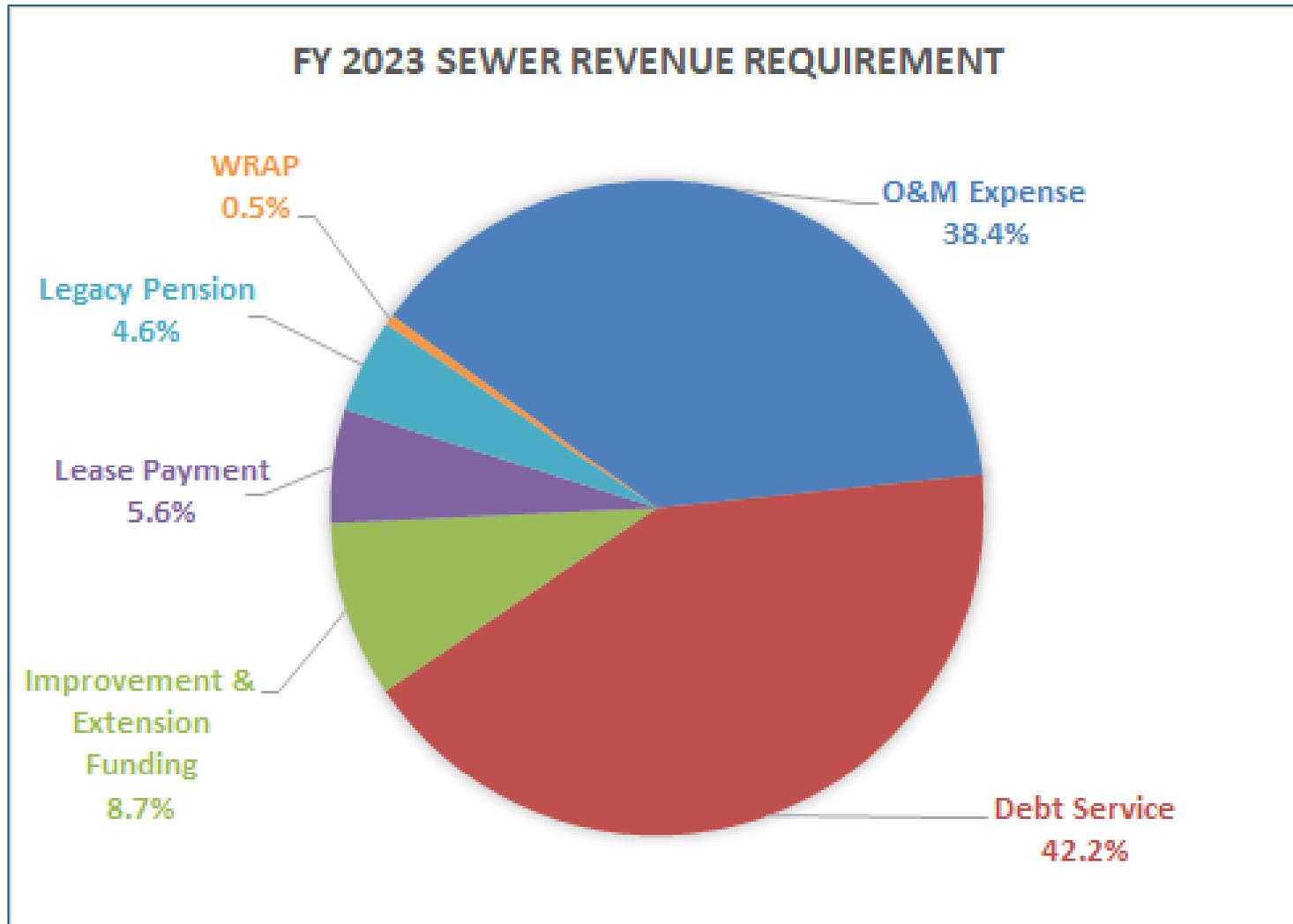


944 SQ. MILE
service area

VISION:

Through regional collaboration, GLWA strives to be the provider of choice, dedicated to efficiently and effectively delivering the nation's best water and sewer services in partnership with our member partners.

FY 2023 Proposed Sewer Revenue Requirement



Total Budget
\$487 Million

2.5% Increase
(\$12 Million)
from prior year
driven nearly
equally by
O&M and
capital
program

Nearly 100%
funded by
service
charges

Financial Plan Highlights

| System | Water | Sewer |
|--|--|--|
| Theme | <i>Capital and O&M Pressures</i> | <i>Long-term Sustainability in Sight</i> |
| Annual Revenue Requirement Increase Limit | 3.5% (less than the 4% Promise) | 2.5% (less than the 4% Promise) |
| Capital Spending Ratio | Assumes an 80% of CIP Spend Rate thru 2027 then 100% | Assumes a 75% of CIP Spend Rate thru 2027 then 100% |
| Reliance on Debt for Capital | <i>More</i> | <i>Less</i> |
| Debt Service Coverage Ratios | <i>Declines</i> | <i>Improves</i> |
| Risks that we are managing | Increased Capital vs. 3.5% Revenue Assumption Increased Regulatory Requirements Legacy Pension | Increased Regulatory and Resiliency Requirements Legacy Pension |

Financial Plan Highlights - continued

| System | Water | Sewer |
|---|---|--|
| O&M Biennial Budget Forecast - FY 2023 & FY 2024 | <p>Overall increase of 0.6% for FY 2023 and 2.7% for FY 2024</p> <p>Strategic Emphasis on Water Technician Apprenticeship Program for recruitment, retention, and succession planning (25 positions)</p> <p>Increase in Central & Admin for Planning CIP Group, new emergency management group, and staff recruitment</p> | <p>Overall increase of 3.2% for FY 2023 and 2.9% for FY 2024</p> <p>Emphasis on recruitment and retention base level wage adjustments in some classifications</p> <p>Increase in Central & Admin for Planning CIP Group, new emergency management group, and staff recruitment</p> |
| O&M Forecast Over the Five Year Plan | <p>Average of 2.0% in total</p> | <p>Average of 2.0% in total</p> |

Financial Plan Highlights - continued

| System | Water | Sewer |
|--|--|--|
| <p>Debt Service – Biennial Budget FY 2023 & FY 2024</p> | <p>Debt Service will increase in both years FY 2023 \$14.9 million higher than approved FY 2022 Budget due to: Naturally occurring amortization schedule variances; Progress on DWRF Funded CIP projects; Forecasted Revenue Bond Sale</p> | <p>Debt Service will decline in FY 2023 and then increase in FY 2024 FY 2023 \$1.6 million <u>lower</u> than approved FY 2022 Budget due to: Naturally occurring amortization schedule variances; Recognition of lower variable rate interest on 2006D Bonds; FY 2024 increase due to Forecasted Revenue Bond Sale</p> |
| <p>Debt Service – Forecast for FYs 2025 – 2027</p> <p>FY 2032 Debt Service Coverage Forecast – 10 Year Plan (GLWA Share)</p>  | <p><i>Continued steady increases to support additional forecasted bond sales and DWRF activity</i></p> <p>Forecasted FY 2027 Debt Service is \$50 million (37%) higher than Amended FY 2022 Budget</p> <p>FY 2032 Debt Service Coverage: 1.32x</p> | <p><i>Relatively minor increases</i></p> <p>Forecasted FY 2027 Debt Service is less than \$16 million (~ 8%) higher than Amended FY 2022 Budget</p> <p>FY 2032 Debt Service Coverage: 1.72x</p> |

Financial Plan Highlights - continued

| System | Water | Sewer |
|-----------------------------------|--|--|
| Other Revenue Requirements | <p><i>Legacy Pension Allocation is fixed through FY 2023</i> <i>Forecasted reduction starting in FY 2024</i> <i>Future amounts subject to actuarial updates</i></p> <p><i>Total Lease Payment is fixed @ \$50 million for life of the Lease - Amount allocated to Water is \$22.5 million</i></p> <p><i>WRAP Deposit fixed at 0.5% of revenue from charges</i></p> | <p><i>Legacy Pension Allocation is fixed through FY 2023</i> <i>Forecasted reduction starting in FY 2024</i> <i>Future amounts subject to actuarial updates</i></p> <p><i>Total Lease Payment is fixed @ \$50 million for life of the Lease - Amount allocated to Sewer is \$27.5 million</i></p> <p><i>WRAP Deposit fixed at 0.5% of revenue from charges</i></p> |

Water Charges Overview

Proposed 3.7% System Increase = 3.5% Budget Increase + 0.2% to address negative budgeted sales revenue variance

Proposed FY 2023 Water Charges represent a **uniform 3.4% increase** over existing charges for 84 of the 88 Member Partners

- Slightly lower than that (~ 2.9%) for the 3 Non Master Metered Member Partners
- St. Clair County DPW now a Model Contract customer and proposed charges reflect contract demands

FY 2023 Strategy embraces stability and simplicity

- FY 2024 will reflect new demands resulting from the Contract Alignment Process (“CAP”)

Sewer Charges Overview

Proposed 3.7% System Increase = 2.5% Budget Increase + 1.2% to address reinstatement of Highland Park Bad Debt Expense recovery

Proposed FY 2023 Sewer Charges represent a **uniform 4.5% increase** over existing charges for Suburban *Wholesale* Member Partners

- 2.5% to address FY 2023 Budget increase;
- 2.0% to fund Highland Park Bad Debt Expense

Proposed FY 2023 Sewer Charges to *Detroit* represent the **2.5% budget increase**

FY 2023 continue SHAREs developed for FY 2022

- Will remain in effect for FY 2024 Charges
- Scheduled to be adjusted for FY 2025 Charges

One Pager Series - Operations & Maintenance Budget, Charges and Bad Debt Expense



The GLWA "revenue requirement budget" is the basis for establishing the annual charges for services. Nearly 53% of the FY 2022 budget of \$843 million are legal commitments such as debt service (42%), lease payment (6%), Water Residential Assistance Program (WRAP) (0.5%) and legacy liabilities (4%). Capital funding reserve for replacement is 7.9% of the total budget. The Operations & Maintenance (O&M) expense represents \$332 million, or 39% of the total. This analysis focuses on O&M expense, as compared to the prior year, to provide insight into O&M expense increase of 2%, or \$6.7 million.

Staffing & Personnel The staffing plan (number of positions) is at 1,293 (increase of 54). Full-time Equivalents (FTE), which is the pro-rata hours that a position is budgeted is at 1,234.44 (increase of 18.19). Key changes are noted in this analysis.

Water Operations - increase of \$1.5 million Factors increasing the budget are mainly due to Personnel Costs (\$3.3 million) related to the staffing plan increase of 29 (24.25 FTEs), 25 positions are for the new Water Technician Apprenticeship Program, as well as increases in medical plan fringe benefits. Factors decreasing the budget include Contractual Services which decreased (\$1.7 million) due to the alum sludge removal, hauling, and disposal project for the Springwells, Northeast, and Southwest Water Treatment Plants.

Wastewater Operations - increase of \$2.8 million Factors increasing the budget are mainly due to Personnel Costs (\$1.8 million) which reflect an increase in base level wages for some classifications to recruit and retain personnel. Note that the staffing plan positions has increased by 2 but FTEs decreased by 9.56 due to the recruiting challenges. Increases

¹ Includes the Planning Services, Systems Control, Facility and Fleet Operations; Field Service Operations; Energy, Research & Innovation; Transformation; Information Technology; and Security & Integrity (includes HazMat).

² Includes the Board of Directors, Chief Executive Officer, Chief Administrative & Compliance Officer (includes Risk Management & Safety), General Counsel, Public Affairs, Organizational Development and Financial Services.



Proposed FY 2023 Service Charges

One Pager Series
FY 2023 Budget Analysis
Proposed as of December 17, 2021

have also been recognized in the medical plan fringe benefits. Unallocated Reserves increased (\$1.1 million) to cover area of risk such as chemical price increases.

Centralized Services¹ - increase \$1.6 million Factors increasing the budget include the addition of 11 positions (6.25 FTEs) (\$1.9 million) in Planning Services primarily to support the Capital Improvement Plan with the completion of AECOM's support in late FY 2023. Security is adding 3 security officers for Systems Operations for expanded coverage. The contract increased (\$0.3 million); and Facility Operations increased (\$0.5 million) for a gate repair. Factors decreasing the budget are in the Planning Services Area in which project timelines adjusted for both the Linear System Integrity Program (LSIP) (\$1.2 million) and the Water Master Plan (\$0.4 million).

Administrative Services² - increase \$0.8 million Factors increasing are mainly due to Personnel Costs: Organizational Development is adding 5 positions (4 FTEs) to support onboarding and training (\$0.6 million); Procurement is adding 3 positions (1.5 FTEs) to manage increased workload (\$0.4 million); Financial Services, while decreasing 9 positions (9.75 FTE), has an overall increase to in costs due to the skill level for succession and (\$0.6 million). Contractual Services increased (\$0.5 million) to support ERP implementation. Legal services contracts also increased (\$0.5 million). Factors decreasing are Unallocated Reserves (\$1.1 million) and Contractual Services for the Board of Directors will be decreased (\$0.7 million) for a one-time project.

Questions? Contact the Office of the Chief Financial Officer at cfo@glwater.org

Wastewater Sewer Service and submitted for review. The GLWA Public Hearing in scheduled for beginning July 1,

Key Elements.

daily operations such as the people, and parts to the pipelines), the water system, Water program (WRAP) for pension, and budget is also included.

Plan (CIP): Partners evaluate the of the regional funded by a and debt.

Quantifies each data, and other this includes the each year. For the per partner is

(CIP): The inputs are applied to an policy to allocate (i.e. budget) by purification for disposal for each is the charge partner.

on? Visit us



What is "Bad Debt Expense"?

One Pager Series
Proposed FY 2023 Water & Sewer Service Charges
December 15, 2021

Proposed FY 2023 Water System Charges

The average system charge adjustment for water is a 3.7 percent increase. This is the result of 1) a proposed Water budget increase of 3.5 percent; and 2) reduced baseline revenues related to decreased estimated sales volumes, which adds 0.2 percent to the needed charge increase. As a result of the 2018 Contract Alignment Process (CAP), the FY 2023 Units of Service changed for only 4 member partners. This has significantly improved charge stability among member partner communities. The proposed water charges reflect a uniform increase in wholesale revenue requirements of 3.6 percent, with a uniform average charge increase of 3.4 percent for the 84 member partners that did not have changes in contractual or estimated demands.

Approved FY 2023 Sewer System Charges

The average system charge adjustment for sewer is also a 3.7 percent increase. This is the result of 1) a proposed Sewer budget increase of 2.5 percent; and 2) reinstatement of a bad debt surcharge related to Highland Park which adds 1.2 percent to the charge increase. The recently updated Sewer Shares, which were collaboratively established through the Sewer Charges Workgroup, were included in the calculations for the FY 2022 charges. This update continues with the proposed FY 2023 charges resulting in a uniform impact of charge adjustments for all member partners.

| Average System Charge Adjustments | | |
|-----------------------------------|-------|-------|
| Year | Water | Sewer |
| 2018 | 1.8% | -0.7% |
| 2019 | 1.8% | 0.1% |
| 2020 | 0.6% | 0.8% |
| 2021 | 3.2% | 2.8% |
| 2022 | 1.5% | -0.6% |
| 2023 proposed | 3.7% | 3.7% |
| 6-Year Average | 2.1% | 0.9% |

water and billed for. Typically, each user, each billed account, pays their

community is, generally, billed for. Each user, each billed account, pays their

required to be timely. For a bad debt expense, like other chemicals, personnel.

GLWA recover the bad debt the system. We worked equitable providing not pay for cost shifts to years.

How is Bad Debt Expense Reported?

GLWA is transparent in identifying and reporting accounts with late payments in public monthly reports and presentations. It is important for stakeholders to be informed of financial matters that impact the system - and potentially their costs in the future.

Is GLWA Required to Allocate Bad Debt Expense in Calculating Charges?

Yes, the 2011 Order to Incorporate Rate Settlements into Wastewater Contracts and Dismiss All Prior Rate Settlements, requires GLWA to allocate the bad debt expense in its sewer charges. A similar approach has been applied to water charges.

Water System Bad Debt Expense Allocation

The bad debt expense is recovered from all customer classes.

Sewer System Bad Debt Expense Allocation

The 2011 Order requires bad debt expense recovery from "wholesale contract customers" be recovered from that same customer class.

Do Our Current Charges Include Bad Debt Recovery?

Unfortunately, there is one community that receives water and sewer service for which we have been unable to collect. We know this is frustrating. You have our commitment to continue to resolve the matter.

What if the Delinquent Bad Debt is Paid by the Community that received the Service?

GLWA maintains records that would provide an allocation credit back to the communities that funded the bad debt expense. Depending on the timing and amount, we would work with Member Partners to determine the preferred method(s) to address the credit.

Questions?

Please contact General Counsel Randal Brown via randal.brown@glwater.org.

Benchmarking

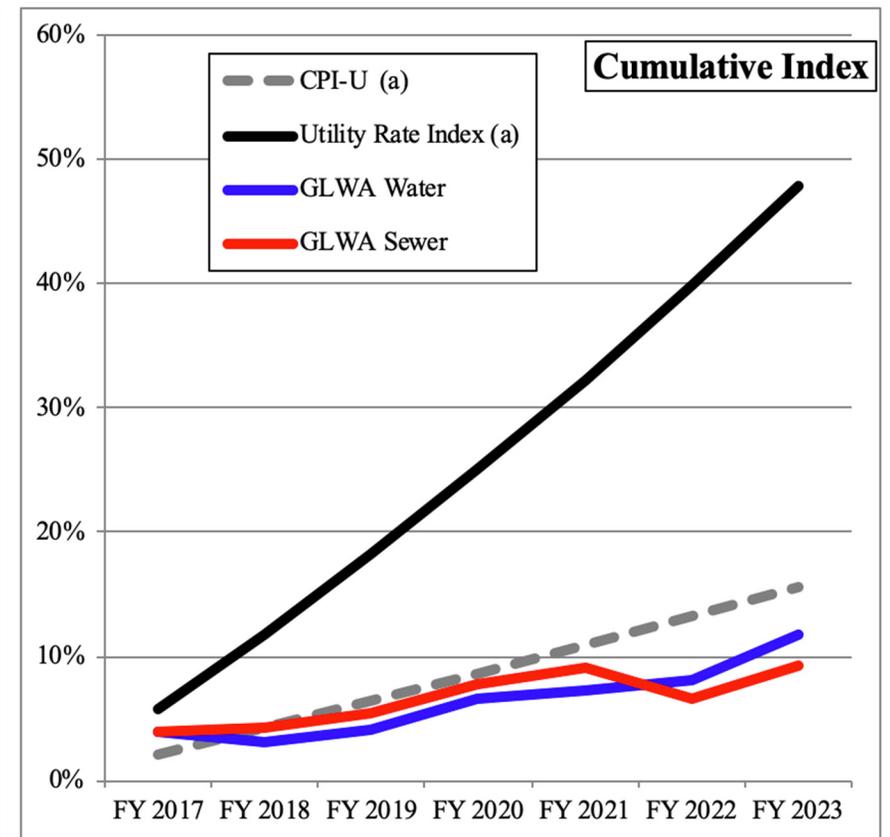
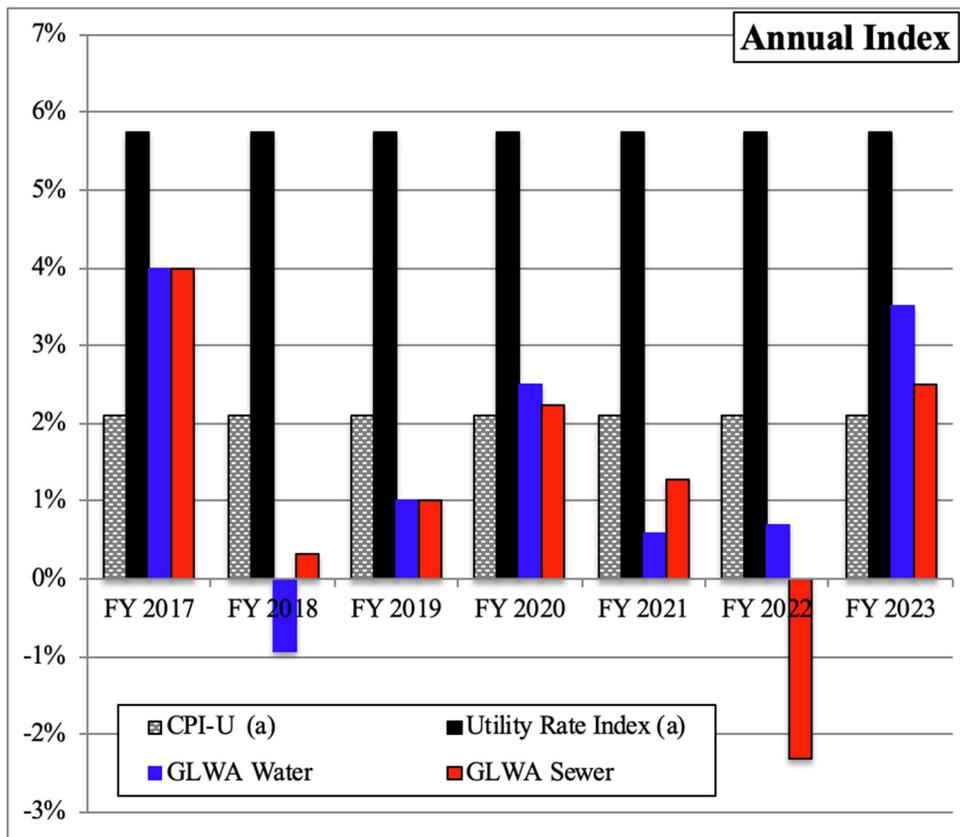


GLWA BUDGET Adjustments Compared to Utility Indices

Annual
CPI-U (a)
Utility Rate Index (a)
GLWA Water
GLWA Sewer

| Annual Index | | | | | | |
|--------------|---------|---------|---------|---------|---------|---------|
| FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
| 2.1% | 2.1% | 2.1% | 2.1% | 2.1% | 2.1% | 2.1% |
| 5.8% | 5.8% | 5.8% | 5.8% | 5.8% | 5.8% | 5.8% |
| 4.0% | -0.9% | 1.0% | 2.5% | 0.6% | 0.7% | 3.5% |
| 4.0% | 0.3% | 1.0% | 2.2% | 1.3% | -2.3% | 2.5% |

| Cumulative Index | | | | | | |
|------------------|---------|---------|---------|---------|---------|---------|
| FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
| 2.1% | 4.2% | 6.4% | 8.7% | 11.0% | 13.3% | 15.7% |
| 5.8% | 11.8% | 18.3% | 25.1% | 32.3% | 39.9% | 47.9% |
| 4.0% | 3.0% | 4.1% | 6.7% | 7.3% | 8.0% | 11.8% |
| 4.0% | 4.3% | 5.4% | 7.7% | 9.1% | 6.5% | 9.2% |

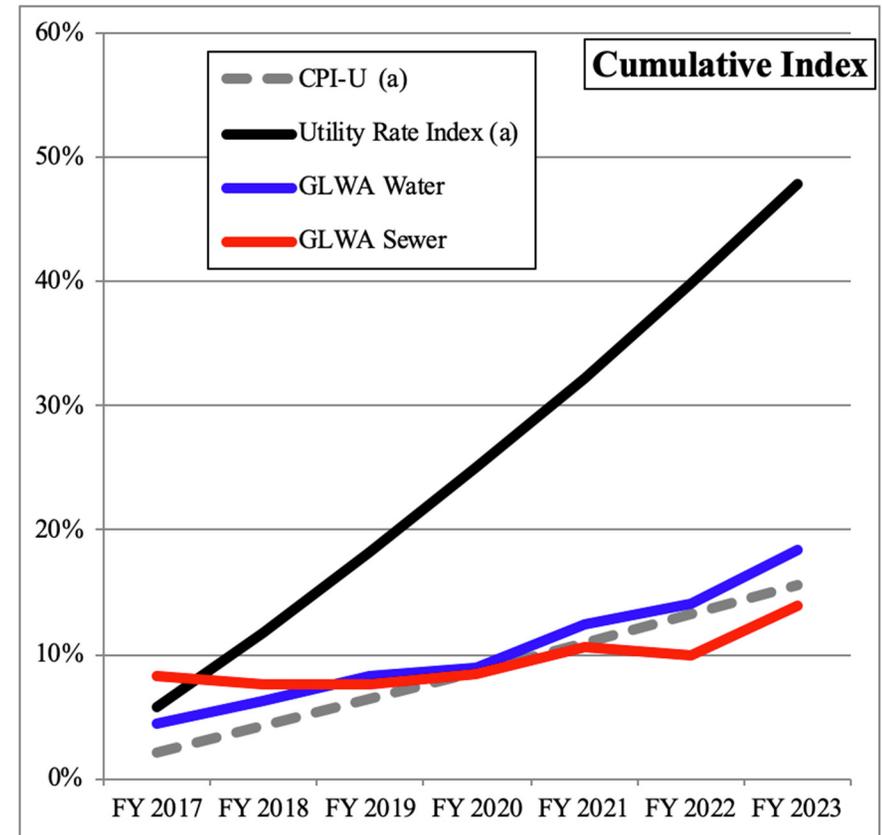
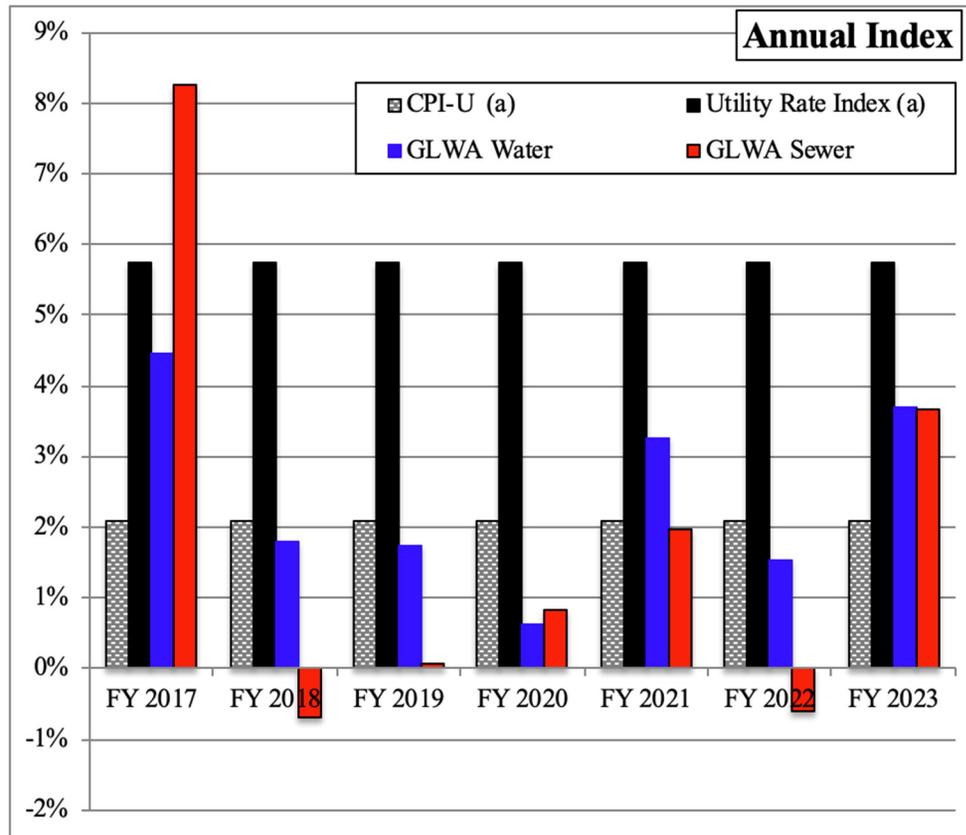


GLWA CHARGE Adjustments Compared to Utility Indices

Annual
CPI-U (a)
Utility Rate Index (a)
GLWA Water
GLWA Sewer

| Annual Index | | | | | | |
|--------------|---------|---------|---------|---------|---------|---------|
| FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
| 2.1% | 2.1% | 2.1% | 2.1% | 2.1% | 2.1% | 2.1% |
| 5.8% | 5.8% | 5.8% | 5.8% | 5.8% | 5.8% | 5.8% |
| 4.5% | 1.8% | 1.8% | 0.6% | 3.2% | 1.5% | 3.7% |
| 8.3% | -0.7% | 0.1% | 0.8% | 2.0% | -0.6% | 3.7% |

| Cumulative Index | | | | | | |
|------------------|---------|---------|---------|---------|---------|---------|
| FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
| 2.1% | 4.2% | 6.4% | 8.7% | 11.0% | 13.3% | 15.7% |
| 5.8% | 11.8% | 18.3% | 25.1% | 32.3% | 39.9% | 47.9% |
| 4.5% | 6.3% | 8.2% | 8.9% | 12.4% | 14.1% | 18.3% |
| 8.3% | 7.5% | 7.6% | 8.5% | 10.6% | 9.9% | 14.0% |

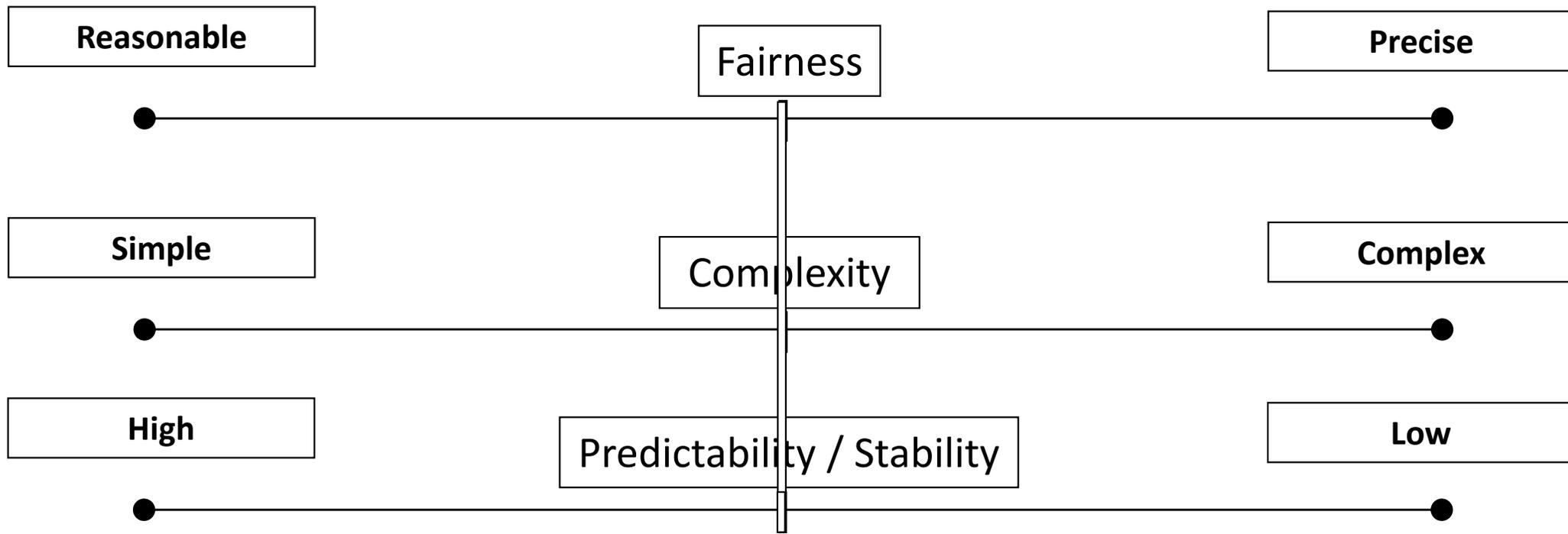


GLWA Charge Simplicity and Stability Strategies



Utility Charges Methodology: Cost of Service *Continuum*

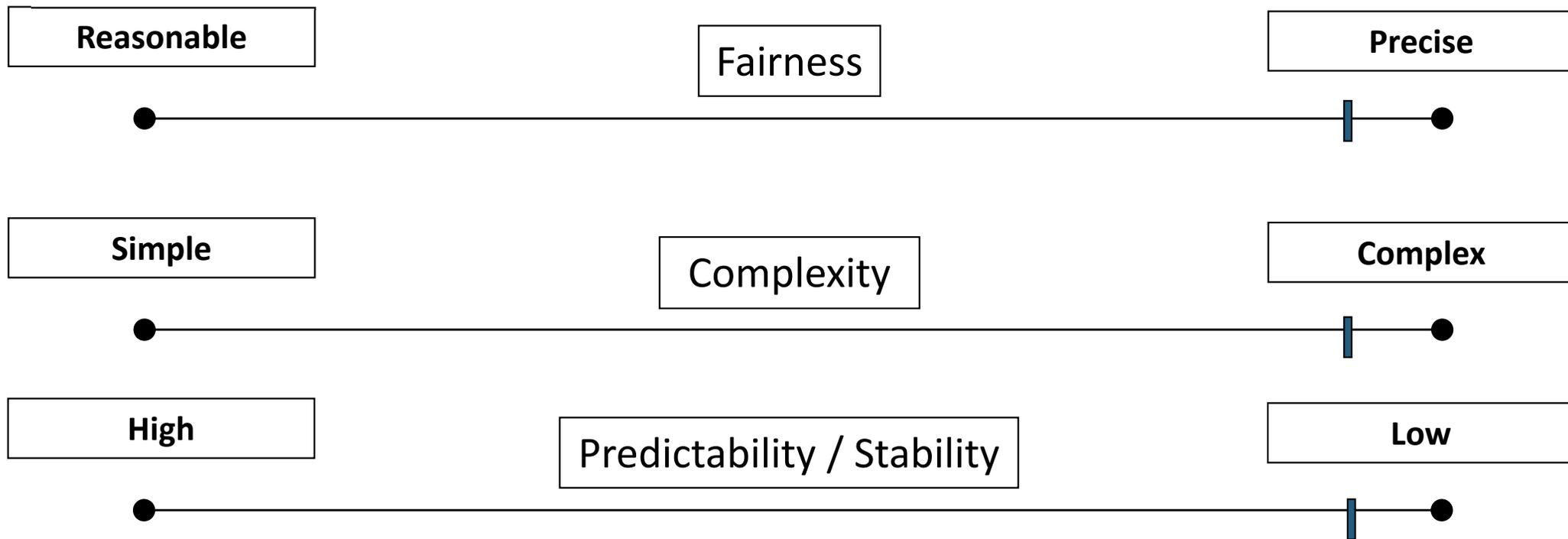
Legacy Fundamental Principle: *“Use best available, verifiable information to establish water and sewer charges”*



Prior to Sewer Rate Simplification, a pursuit of precision led to unintended consequences of high complexity and low predictability and stability.

Utility Charges Methodology: Cost of Service *Continuum*

Sewer Rate Simplification sought to ***maintain*** fair charges while ***decreasing*** complexity and ***improving*** predictability and stability



Lessons Learned from GLWA Sewer SHARES

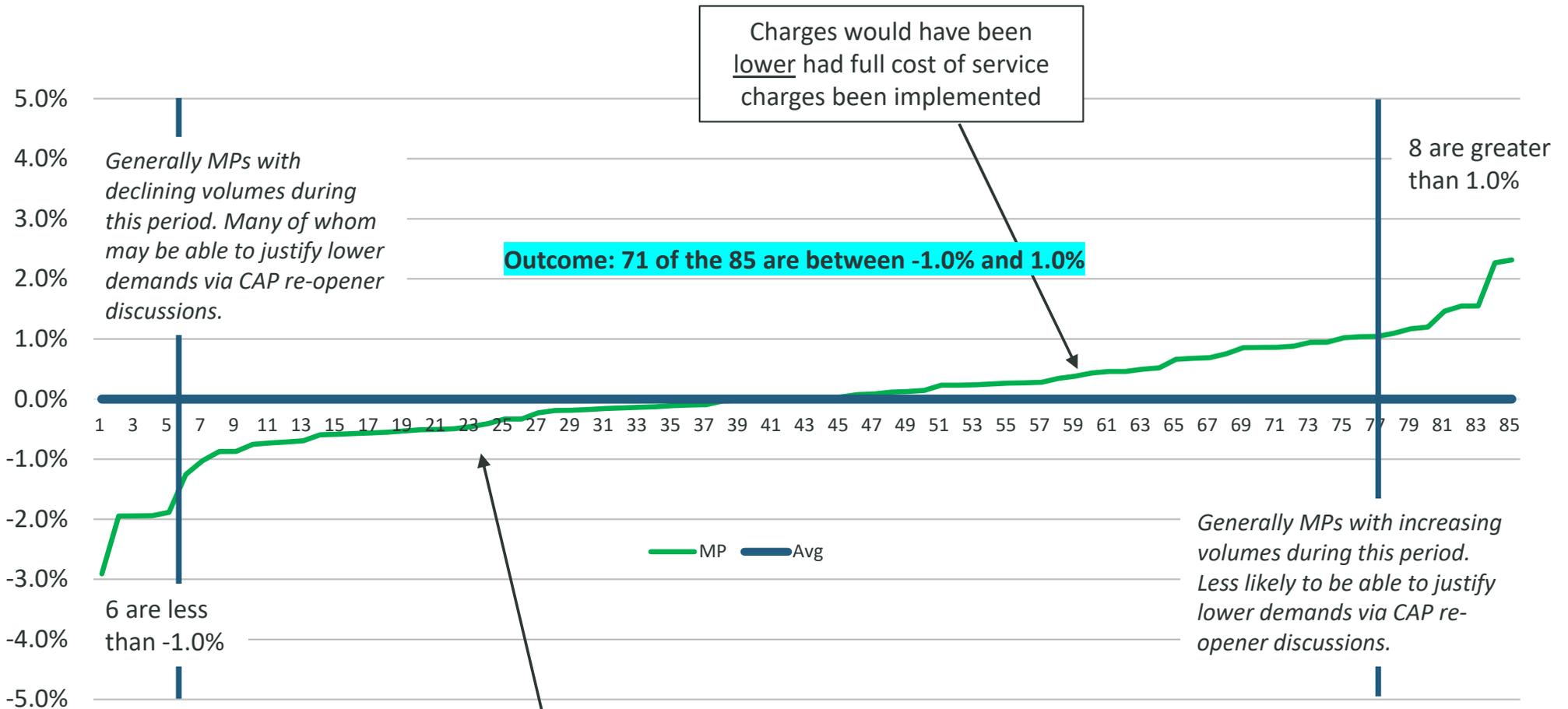
- ✓ While contributed volumes, and related levels of service, may vary amongst Member Partners year to year over the long term the relative level of service is fairly stable
- ✓ There is value in recognizing this stability that is fundamental in the current Sewer Charges Methodology:
 - ✓ *Commitment to using 10 year historical average flow contributions to determine SHARES*
 - ✓ *Hold SHARES constant for 3 year periods*

GLWA Water Charge Stability Strategies

- ✓ Model contract reopeners previously were “staggered”
 - ✓ Result was changes in individual Member Partner demands created charge volatility every year
- ✓ Contract Alignment Process (CAP) initiated for FY 2020 charges sought to minimize annual volatility
 - ✓ *Universal contract demand review every 4 years*
- ✓ Augmented by “Mod” / “No Mod” strategy
 - ✓ *Only implement specific cost of service adjustments for Member Partners with “out of cycle” demand changes*
 - ✓ *Applied for FY 2021, FY 2022, and proposed FY 2023 Charges*

Stability Achieved: Illustration of Water “Mod / No Mod” Charge Approach for FY 2021 thru FY 2023

Chart indicates the **average annual** variance between actual charges adopted / proposed compared to the charges that would have been calculated via full cost of service studies. After removing 3 outliers, the range of variance for the remaining 85 Member Partners runs from a 2.5% reduction to a 2.5% increase



Supplemental Schedules For Reference



Water Biennial BUDGET Highlights: Comprehensive Revenue Requirements

Schedule 1A - Water System Revenue Requirements Biennial Budget

| | FY 2022 Adopted Budget | FY 2022 Amended Budget | FY 2023 Department Requested | FY 2023 Dollar Variance | FY 2023 Percent Variance | FY 2024 Department Requested | FY 2024 Dollar Variance | FY 2024 Percent Variance |
|---|------------------------------|------------------------------|------------------------------------|-------------------------------|--------------------------------|------------------------------------|-------------------------------|--------------------------------|
| Water System Revenue Requirements | | | | | | | | |
| Revenues | | | | | | | | |
| Revenues from Charges | \$ 342,808,200 | \$340,408,200 | \$354,946,100 | \$ 12,137,900 | 3.5% | \$ 366,527,400 | \$ 11,581,300 | 3.3% |
| Other Operating Revenue | 175,000 | 175,000 | 175,000 | - | 0.0% | 175,000 | - | 0.0% |
| Non-Operating Revenue | 1,047,300 | 1,547,300 | 950,500 | (96,800) | -9.2% | 1,831,700 | 881,200 | 92.7% |
| Total Revenues | 344,030,500 | 342,130,500 | \$356,071,600 | \$ 12,041,100 | 3.5% | \$368,534,100 | \$ 12,462,500 | 3.5% |
| Revenue Requirements | | | | | | | | |
| Operations & Maintenance (O&M) Expense | \$ 143,933,800 | \$143,933,800 | \$144,847,700 | \$ 913,900 | 0.6% | \$ 148,707,300 | \$ 3,859,600 | 2.7% |
| General Retirement System Legacy Pension | 6,048,000 | 6,048,000 | 6,048,000 | - | 0.0% | - | (6,048,000) | -100.0% |
| Debt Service | 135,481,000 | 135,121,000 | 150,337,100 | 14,856,100 | 11.0% | 159,237,000 | 8,899,900 | 5.9% |
| General Retirement System Accelerated Pension | 6,268,300 | 6,268,300 | 6,268,300 | - | 0.0% | 3,647,500 | (2,620,800) | -41.8% |
| Water Residential Assistance Program Contribution | 1,705,500 | 1,705,500 | 1,770,500 | 65,000 | 3.8% | 1,842,700 | 72,200 | 4.1% |
| Regional System Lease | 22,500,000 | 22,500,000 | 22,500,000 | - | 0.0% | 22,500,000 | - | 0.0% |
| Improvement & Extension Fund Transfer Pending | 28,093,900 | 26,553,900 | 24,300,000 | (3,793,900) | -13.5% | 32,599,600 | 8,299,600 | 34.2% |
| Annual Water System Revenue Requirements | \$ 344,030,500 | \$342,130,500 | \$356,071,600 | \$ 12,041,100 | 3.5% | \$ 368,534,100 | \$ 12,462,500 | 3.5% |

| | | | | |
|---|-------------------|-------------|-------------------|-------------|
| <i>Change in Annual Revenue Requirement</i> | 12,041,100 | 3.5% | 12,462,500 | 3.5% |
| <i>Change Attributable to Non-Charge Revenue (FY 2023 reduction in investment earnings)</i> | 96,800 | 0.0% | (881,200) | -0.2% |
| <i>Change Attributable to Sales Revenue (FY 2023 attributable to decreased projected Water Sales)</i> | 512,100 | 0.1% | - | 0.0% |
| Charge Adjustment (Based on Revenue Requirement Increase of 3.5%) | 12,650,000 | 3.7% | 11,581,300 | 3.3% |

Sewer Biennial BUDGET Highlights: Comprehensive Revenue Requirements

Schedule 1B - Sewer System Revenue Requirements Biennial Budget

| Sewer System Revenue Requirements | FY 2022 Adopted Budget | FY 2022 Amended Budget | FY 2023 Department Requested | FY 2023 Dollar Variance | FY 2023 Percent Variance | FY 2024 Department Requested | FY 2024 Dollar Variance | FY 2024 Percent Variance |
|---|------------------------------|------------------------------|------------------------------------|-------------------------------|--------------------------------|------------------------------------|-------------------------------|--------------------------------|
| Revenues | | | | | | | | |
| Revenues from Charges | \$ 474,005,900 | \$471,005,900 | \$485,760,000 | \$ 11,754,100 | 2.5% | \$ 496,787,900 | \$ 11,027,900 | 2.3% |
| Other Operating Revenue | 400,000 | 400,000 | 400,000 | - | 0.0% | 400,000 | - | 0.0% |
| Non-Operating Revenue | 1,023,300 | 1,523,300 | 1,154,900 | 131,600 | 12.9% | 2,309,900 | 1,155,000 | 100.0% |
| Total Revenues | 475,429,200 | 472,929,200 | \$487,314,900 | \$ 11,885,700 | 2.5% | \$499,497,800 | \$ 12,182,900 | 2.5% |
| Revenue Requirements | | | | | | | | |
| Operations & Maintenance (O&M) Expense | \$ 181,299,800 | \$181,299,800 | \$187,052,600 | \$ 5,752,800 | 3.2% | \$ 192,419,100 | \$ 5,366,500 | 2.9% |
| General Retirement System Legacy Pension | 10,824,000 | 10,824,000 | 10,824,000 | - | 0.0% | - | (10,824,000) | -100.0% |
| Debt Service | 207,209,500 | 204,984,500 | 205,638,100 | (1,571,400) | -0.8% | 220,662,100 | 15,024,000 | 7.3% |
| General Retirement System Accelerated Pension | 11,620,700 | 11,620,700 | 11,620,700 | - | 0.0% | 6,930,300 | (4,690,400) | -40.4% |
| Water Residential Assistance Program Contribution | 2,358,300 | 2,358,300 | 2,423,800 | 65,500 | 2.8% | 2,497,500 | 73,700 | 3.0% |
| Regional System Lease | 27,500,000 | 27,500,000 | 27,500,000 | - | 0.0% | 27,500,000 | - | 0.0% |
| Improvement & Extension Fund Transfer Pending | 34,616,900 | 34,341,900 | 42,255,700 | 7,638,800 | 22.1% | 49,488,800 | 7,233,100 | 17.1% |
| Annual Sewer System Revenue Requirements | \$ 475,429,200 | \$472,929,200 | \$487,314,900 | \$ 11,885,700 | 2.5% | \$ 499,497,800 | \$ 12,182,900 | 2.5% |

| | | | | |
|--|-------------------|-------------|-------------------|-------------|
| <i>Change in Annual Revenue Requirement</i> | 11,885,700 | 2.5% | 12,182,900 | 2.5% |
| <i>Change Attributable to Non-Charge Revenue (FY 2023 increase in investment earnings)</i> | (131,600) | 0.0% | (1,155,000) | -0.2% |
| <i>Change Attributable to Sales Revenue (Reinstitution of Highland Park Bad Debt Adjustment)</i> | 5,394,100 | 1.2% | - | 0.0% |
| <i>Charge Adjustment (Based on Revenue Requirement Increase of 2.5%)</i> | 17,148,200 | 3.7% | 11,027,900 | 2.3% |

Four Operating Categories

Schedule 2C – Operations & Maintenance Biennial Budget by Service Area

| Operating Area | FY 2022 Adopted Budget | FY 2022 Amended Budget | FY 2023 Department Requested | FY 2023 Dollar Variance | FY 2023 Percent Variance | FY 2024 Department Requested | FY 2024 Dollar Variance | FY 2024 Percent Variance |
|---------------------------|------------------------------|------------------------------|------------------------------------|-------------------------------|--------------------------------|------------------------------------|-------------------------------|--------------------------------|
| A Water System Operations | \$ 74,813,000 | \$ 74,813,000 | \$ 76,309,300 | \$ 1,496,300 | 2.0% | \$ 77,835,400 | \$ 1,526,100 | 2.0% |
| B Sewer System Operations | 111,971,400 | 111,971,400 | 114,785,600 | 2,814,200 | 2.5% | 117,466,100 | 2,680,500 | 2.3% |
| C Centralized Services | 103,845,900 | 103,845,900 | 105,405,300 | 1,559,400 | 1.5% | 109,235,600 | 3,830,300 | 3.6% |
| D Administrative Services | 34,603,300 | 34,603,300 | 35,400,100 | 796,800 | 2.3% | 36,589,300 | 1,189,200 | 3.4% |
| Grand Total | \$325,233,600 | \$325,233,600 | \$ 331,900,300 | \$ 6,666,700 | 2.0% | \$341,126,400 | \$ 9,226,100 | 2.8% |

Schedule 2E – Operations & Maintenance Expense by Fund with Centralized & Administrative Services Allocated – Biennial Budget

| System | FY 2022 Adopted Budget | FY 2022 Amended Budget | FY 2023 Department Requested | FY 2023 Dollar Variance | FY 2023 Percent Variance | FY 2024 Department Requested | FY 2024 Dollar Variance | FY 2024 Percent Variance |
|--------------------|------------------------------|------------------------------|------------------------------------|-------------------------------|--------------------------------|------------------------------------|-------------------------------|--------------------------------|
| Water | \$143,933,800 | \$143,933,800 | \$ 144,847,700 | \$ 913,900 | 0.6% | \$148,707,300 | \$ 3,859,600 | 2.7% |
| Wastewater | 181,299,800 | 181,299,800 | 187,052,600 | 5,752,800 | 3.2% | 192,419,100 | 5,366,500 | 2.9% |
| Grand Total | \$325,233,600 | \$325,233,600 | \$ 331,900,300 | \$ 6,666,700 | 2.0% | \$341,126,400 | \$ 9,226,100 | 2.8% |

Operations & Maintenance Expenses by Type

Schedule 2A - Operations & Maintenance Expense by Expense Type (Water and Sewer Combined) - Biennial Budget

| Operations & Maintenance Expense | FY 2022 Adopted Budget | FY 2022 Amended Budget | FY 2023 Department Requested | FY 2023 Dollar Variance | FY 2023 Percent Variance | FY 2024 Department Requested | FY 2024 Dollar Variance | FY 2024 Percent Variance |
|----------------------------------|------------------------------|------------------------------|------------------------------------|-------------------------------|--------------------------------|------------------------------------|-------------------------------|--------------------------------|
| 2.1 Salaries & Wages | \$ 71,970,000 | \$ 71,001,100 | \$ 75,760,200 | \$ 3,790,200 | 5.3% | \$ 80,648,900 | \$ 4,888,700 | 1.2% |
| 2.2 Workforce Development | 976,700 | 976,700 | 1,801,900 | 825,200 | 84.5% | 1,874,600 | 72,700 | 0.0% |
| 2.3 Overtime | 6,954,500 | 6,897,500 | 6,891,200 | (63,300) | -0.9% | 6,838,900 | (52,300) | 0.2% |
| 2.4 Employee Benefits | 27,134,500 | 26,829,400 | 30,087,300 | 2,952,800 | 10.9% | 32,505,800 | 2,418,500 | 3.0% |
| 2.5 Transition Services | 8,401,700 | 8,296,100 | 7,603,700 | (798,000) | -9.5% | 7,603,700 | - | 2.9% |
| Total Personnel Costs | 115,437,400 | 114,000,800 | 122,144,300 | 6,706,900 | 5.8% | 129,471,900 | 7,327,600 | 6.0% |
| 3.1 Electric | 39,633,300 | 39,633,300 | 39,966,000 | 332,700 | 0.8% | 40,151,000 | 185,000 | 0.7% |
| 3.2 Gas | 5,565,600 | 5,565,600 | 5,791,300 | 225,700 | 4.1% | 5,861,800 | 70,500 | 1.6% |
| 3.3 Sewage Service | 2,079,100 | 2,079,100 | 2,268,400 | 189,300 | 9.1% | 2,295,100 | 26,700 | 1.2% |
| 3.4 Water Service | 3,120,000 | 3,120,000 | 2,981,700 | (138,300) | -4.4% | 3,036,800 | 55,100 | 1.9% |
| Total Utilities Costs | 50,398,000 | 50,398,000 | 51,007,400 | 609,400 | 1.2% | 51,344,700 | 337,300 | 0.7% |
| 4.1 Chemicals | 16,044,300 | 16,044,300 | 16,118,600 | 74,300 | 0.5% | 16,211,400 | 92,800 | 1.0% |
| 4.2 Supplies & Other | 35,024,800 | 36,082,000 | 35,358,100 | 333,300 | 1.0% | 35,449,500 | 91,400 | -2.5% |
| 4.3 Contractual Services | 103,375,700 | 104,834,700 | 105,299,200 | 1,923,500 | 1.9% | 106,326,500 | 1,027,300 | 1.0% |
| 5.1 Capital Program Allocation | (3,471,000) | (3,471,000) | (4,376,200) | (905,200) | 26.1% | (5,419,400) | (1,043,200) | 0.4% |
| 5.2 Shared Services | (1,892,500) | (2,775,700) | (2,925,000) | (1,032,500) | 54.6% | (2,977,100) | (52,100) | -47.9% |
| 6.0 Capital Outlay | 3,534,900 | 3,534,900 | 2,814,500 | (720,400) | -20.4% | 2,972,500 | 158,000 | 5.6% |
| 7.0 Unallocated Reserve | 6,782,000 | 6,585,600 | 6,459,400 | (322,600) | -4.8% | 7,746,400 | 1,287,000 | 30.7% |
| Total Other Categories | 159,398,200 | 160,834,800 | 158,748,600 | (649,600) | -0.4% | 160,309,800 | 1,561,200 | 1.0% |
| Grand Total | \$325,233,600 | \$325,233,600 | \$331,900,300 | \$ 6,666,700 | 2.0% | \$341,126,400 | \$ 9,226,100 | 2.8% |

Water Five Year Plan Summary

| Schedule 1C - Water System Revenue Requirements Five-Year Plan | | | | | | | |
|--|------------------------------|------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| | FY 2022 Adopted Budget | FY 2022 Amended Budget | FY 2023 Department Requested | FY 2024 Department Requested | FY 2025 Department Requested | FY 2026 Department Requested | FY 2027 Department Requested |
| Water System Revenue Requirements | | | | | | | |
| Revenues | | | | | | | |
| Revenues from Charges | \$ 342,808,200 | \$340,408,200 | \$354,946,100 | \$366,527,400 | \$ 377,369,800 | \$ 388,663,000 | \$402,515,800 |
| Other Operating Revenue | 175,000 | 175,000 | 175,000 | 175,000 | 175,000 | 175,000 | 175,000 |
| Non-Operating Revenue | 1,047,300 | 1,547,300 | 950,500 | 1,831,700 | 3,888,000 | 5,944,900 | 5,909,500 |
| Total Revenues | 344,030,500 | 342,130,500 | \$356,071,600 | \$368,534,100 | \$381,432,800 | \$394,782,900 | \$408,600,300 |
| Revenue Requirements | | | | | | | |
| Operations & Maintenance (O&M) Expense | \$ 143,933,800 | \$143,933,800 | \$144,847,700 | \$148,707,300 | \$ 154,338,200 | \$ 155,636,900 | \$159,155,500 |
| General Retirement System Legacy Pension | 6,048,000 | 6,048,000 | 6,048,000 | - | - | - | - |
| Debt Service | 135,481,000 | 135,121,000 | 150,337,100 | 159,237,000 | 170,589,900 | 180,955,100 | 185,569,700 |
| General Retirement System Accelerated Pension | 6,268,300 | 6,268,300 | 6,268,300 | 3,647,500 | 4,425,300 | 4,394,200 | 4,219,400 |
| Water Residential Assistance Program Contribution | 1,705,500 | 1,705,500 | 1,770,500 | 1,842,700 | 1,907,200 | 1,973,900 | 2,043,000 |
| Regional System Lease | 22,500,000 | 22,500,000 | 22,500,000 | 22,500,000 | 22,500,000 | 22,500,000 | 22,500,000 |
| Improvement & Extension Fund Transfer Pending | 28,093,900 | 26,553,900 | 24,300,000 | 32,599,600 | 27,672,200 | 29,322,800 | 35,112,700 |
| Annual Water System Revenue Requirements | \$ 344,030,500 | \$342,130,500 | \$356,071,600 | \$368,534,100 | \$ 381,432,800 | \$ 394,782,900 | \$408,600,300 |
| <i>Forecasted Adjustment</i> | | | 3.5% | 3.5% | 3.5% | 3.5% | 3.5% |

Sewer Five Year Plan Summary

| Schedule 1D - Sewer System Revenue Requirements Five-Year Plan | | | | | | | |
|--|------------------------------|------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| | FY 2022 Adopted Budget | FY 2022 Amended Budget | FY 2023 Department Requested | FY 2024 Department Requested | FY 2025 Department Requested | FY 2026 Department Requested | FY 2027 Department Requested |
| Sewer System Revenue Requirements | | | | | | | |
| Revenues | | | | | | | |
| Revenues from Charges | \$ 474,005,900 | \$471,005,900 | \$485,760,000 | \$496,787,900 | \$ 506,968,600 | \$ 517,455,700 | \$530,569,100 |
| Other Operating Revenue | 400,000 | 400,000 | 400,000 | 400,000 | 400,000 | 400,000 | 400,000 |
| Non-Operating Revenue | 1,023,300 | 1,523,300 | 1,154,900 | 2,309,900 | 4,616,600 | 6,929,100 | 6,935,300 |
| Total Revenues | 475,429,200 | 472,929,200 | \$487,314,900 | \$499,497,800 | \$511,985,200 | \$524,784,800 | \$537,904,400 |
| Revenue Requirements | | | | | | | |
| Operations & Maintenance (O&M) Expense | \$ 181,299,800 | \$181,299,800 | \$187,052,600 | \$192,419,100 | \$ 193,561,800 | \$ 196,786,700 | \$200,011,500 |
| General Retirement System Legacy Pension | 10,824,000 | 10,824,000 | 10,824,000 | - | - | - | - |
| Debt Service | 207,209,500 | 204,984,500 | 205,638,100 | 220,662,100 | 212,468,500 | 214,204,100 | 221,024,900 |
| General Retirement System Accelerated Pension | 11,620,700 | 11,620,700 | 11,620,700 | 6,930,300 | 8,679,800 | 8,609,800 | 8,216,700 |
| Water Residential Assistance Program Contribution | 2,358,300 | 2,358,300 | 2,423,800 | 2,497,500 | 2,559,900 | 2,623,900 | 2,689,500 |
| Regional System Lease | 27,500,000 | 27,500,000 | 27,500,000 | 27,500,000 | 27,500,000 | 27,500,000 | 27,500,000 |
| Operating Reserve Deposit | - | - | - | - | - | - | - |
| DWSD Budget Shortfall/(Surplus) Pending | - | - | - | - | - | - | - |
| Improvement & Extension Fund Transfer Pending | 34,616,900 | 34,341,900 | 42,255,700 | 49,488,800 | 67,215,200 | 75,060,300 | 78,461,800 |
| Annual Sewer System Revenue Requirements | \$ 475,429,200 | \$472,929,200 | \$487,314,900 | \$499,497,800 | \$ 511,985,200 | \$ 524,784,800 | \$537,904,400 |
| <i>Forecasted Adjustment</i> | | | 2.5% | 2.5% | 2.5% | 2.5% | 2.5% |

Water Biennial BUDGET Highlights: Capital Financing Plan

Schedule 5A - Water Capital Financing Plan

Water Construction Fund

| Inflows & Outflows | Current Year | Biennial Budget | | Forecast | | |
|---|----------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | FY 2022 Estimated | FY 2023 Requested | FY 2024 Forecast | FY 2025 Forecast | FY 2026 Forecast | FY 2027 Forecast |
| Water Construction Fund | | | | | | |
| Bond Proceeds, Net | \$175,750,000 | \$0 | \$0 | \$256,500,000 | \$0 | \$261,250,000 |
| Bond Fund Earnings on Investments | 67,500 | 128,800 | 365,900 | 1,199,400 | 1,309,400 | 1,088,600 |
| Grant Revenues (DWRP Loans) | 36,527,000 | 54,992,000 | 59,446,000 | 21,442,000 | 2,400,000 | 22,505,000 |
| Transfers from I&E Fund | 106,836,800 | 28,735,400 | 18,221,400 | 17,914,700 | 20,159,900 | 26,149,600 |
| Project Expenditures | (143,368,000) | (157,354,000) | (182,214,000) | (179,147,000) | (141,599,000) | (121,496,000) |
| Increase (Decrease) in Construction Funds | \$175,813,300 | (\$73,497,800) | (\$104,180,700) | \$117,909,100 | (\$117,729,700) | \$189,497,200 |
| Beginning Year Net Position | 12,438,000 | 188,251,300 | 114,753,500 | 10,572,800 | 128,481,900 | 10,752,200 |
| Projected Ending Net Position | \$188,251,300 | \$114,753,500 | \$10,572,800 | \$128,481,900 | \$10,752,200 | \$200,249,400 |

Water Improvement & Extension Fund

| Inflows & Outflows | Current Year | Biennial Budget | | Forecast | | |
|---|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|
| | FY 2022 Estimated | FY 2023 Requested | FY 2024 Forecast | FY 2025 Forecast | FY 2026 Forecast | FY 2027 Forecast |
| Water Improvement & Extension Fund | | | | | | |
| Water System Revenue Transfers | \$26,553,900 | \$24,300,000 | \$32,599,600 | \$27,672,200 | \$29,322,800 | \$35,112,700 |
| Receipt of DWSD Shortfall Loan Interest | - | - | - | - | - | - |
| Budgeted Capital Outlay | (17,006,600) | (15,452,600) | (13,403,600) | (10,379,900) | (9,626,700) | (9,007,600) |
| Transfer to Construction Fund | (106,836,800) | (28,735,400) | (18,221,400) | (17,914,700) | (20,159,900) | (26,149,600) |
| Increase (Decrease) in I&E Reserves | (\$97,289,500) | (\$19,888,000) | \$974,600 | (\$622,400) | (\$463,800) | (\$44,500) |
| Beginning Year Net Position | 207,475,000 | 110,185,500 | 90,297,500 | 91,272,100 | 90,649,700 | 90,185,900 |
| Projected Ending Net Position | \$110,185,500 | \$90,297,500 | \$91,272,100 | \$90,649,700 | \$90,185,900 | \$90,141,400 |

Sewer Biennial BUDGET Highlights: Capital Financing Plan

Schedule 5B - Sewer Capital Financing Plan Sewer Construction Fund

| Inflows & Outflows | Current Year | Biennial Budget | | Forecast | | |
|---|----------------------|----------------------|---------------------|---------------------|---------------------|----------------------|
| | FY 2022 Estimated | FY 2023 Requested | FY 2024 Forecast | FY 2025 Forecast | FY 2026 Forecast | FY 2027 Forecast |
| Sewer Construction Fund | | | | | | |
| Bond Proceeds, Net | \$137,750,000 | \$0 | \$0 | \$104,500,000 | \$0 | \$123,500,000 |
| Bond Fund Earnings on Investments | 96,000 | 86,200 | 256,600 | 581,600 | 396,900 | 388,100 |
| Grant Revenues (CWRF Loans) | 14,149,000 | 18,720,000 | 10,247,000 | 9,785,000 | 15,357,000 | 7,198,000 |
| Transfers from I&E Fund | 47,953,800 | 26,444,900 | 38,173,500 | 58,839,200 | 66,826,700 | 68,348,000 |
| Project Expenditures | (79,538,000) | (94,449,000) | (121,735,000) | (138,392,000) | (118,267,000) | (98,480,000) |
| Increase (Decrease) in Construction Funds | \$120,410,800 | (\$49,197,900) | (\$73,057,900) | \$35,313,800 | (\$35,686,400) | \$100,954,100 |
| Beginning Year Net Position | 11,473,000 | 131,883,800 | 82,685,900 | 9,628,000 | 44,941,800 | 9,255,400 |
| Projected Ending Net Position | \$131,883,800 | \$82,685,900 | \$9,628,000 | \$44,941,800 | \$9,255,400 | \$110,209,500 |

Sewer Improvement & Extension Fund

| Inflows & Outflows | Current Year | Biennial Budget | | Forecast | | |
|---|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|
| | FY 2022 Estimated | FY 2023 Requested | FY 2024 Forecast | FY 2025 Forecast | FY 2026 Forecast | FY 2027 Forecast |
| Sewer Improvement & Extension Fund | | | | | | |
| Sewer System Revenue Transfers | \$34,341,900 | \$42,255,700 | \$49,488,800 | \$67,215,200 | \$75,060,300 | \$78,461,800 |
| Receipt of DWSD Shortfall Loan Interest | 406,400 | - | - | - | - | - |
| Budgeted Capital Outlay | (15,965,100) | (18,447,100) | (11,610,500) | (8,106,700) | (8,671,900) | (10,256,600) |
| Transfer to Construction Fund | (47,953,800) | (26,444,900) | (38,173,500) | (58,839,200) | (66,826,700) | (68,348,000) |
| Increase (Decrease) in I&E Reserves | (\$29,170,600) | (\$2,636,300) | (\$295,200) | \$269,300 | (\$438,300) | (\$142,800) |
| Beginning Year Net Position | 122,385,000 | 93,214,400 | 90,578,100 | 90,282,900 | 90,552,200 | 90,113,900 |
| Projected Ending Net Position | \$93,214,400 | \$90,578,100 | \$90,282,900 | \$90,552,200 | \$90,113,900 | \$89,971,100 |

Highland Park Bad Debt Expense – Sewer From the GLWA / Detroit Service Agreement*

EXHIBIT B-V

Modified List of Relevant Ratemaking Terms

B. Revenue Requirements

3. Bad Debt Expense.

c. The Authority shall review the differences between the projected bad debt expense assigned to specific customer classes (noted below) in a rate year and the actual bad debt expense incurred for that rate year. Any negative variance between the projected bad debt expense and the actual bad debt expense incurred for that year shall be incorporated into the revenue requirement for the next-commencing rate year to insure that revenue shortfalls due to nonpayment of sewer charges are recovered.

d. For purposes of this clause, specific customer classes are defined as:

| | Bad Debt Expense | Responsible Customer Class |
|----|------------------------------|------------------------------|
| 1. | Detroit Retail Customers | Detroit Retail Customers |
| 2. | Wholesale Contract Customers | Wholesale Contract Customers |
| 3. | Surcharge Customers | Surcharge Customers |
| 4. | Wayne County Hwy Drainage | Wayne County Hwy Drainage |
| 5. | Michigan DOT Hwy Drainage | Michigan DOT Hwy Drainage |
| 6. | Industrial Waste Control | Industrial Waste Control |



GLWA
Great Lakes Water Authority