Agenda
Committee of the Whole Meeting

City of Kalamazoo

Monday, August 29, 2022 5:00 PM

City Commission Chambers – 241 West South Street

A. CALL TO ORDER/ROLL CALL

B. COMMUNICATIONS

C. PUBLIC COMMENTS

D. SPECIAL AGENDA ITEMS

E. COMMITTEE OF THE WHOLE

F. WORK SESSION

1. 2022 - 2023 Utility Rates

G. COMMISSIONER COMMENTS

H. ADJOURNMENT

THE CITY OF Kalamazoo

FY2023 Proposed Utility Rates

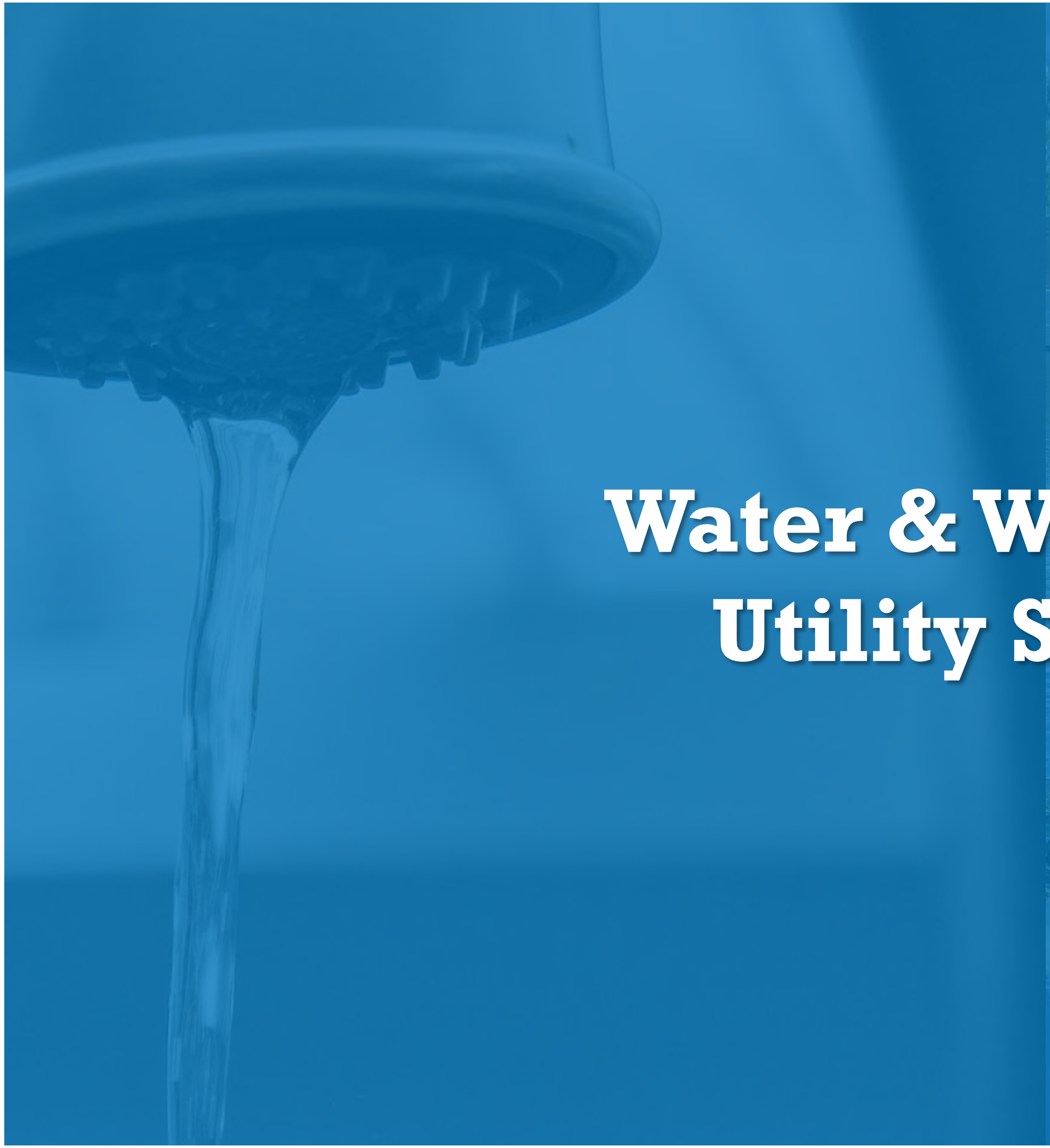
Monday, August 29, 2022

Agenda

Overview of Utilities

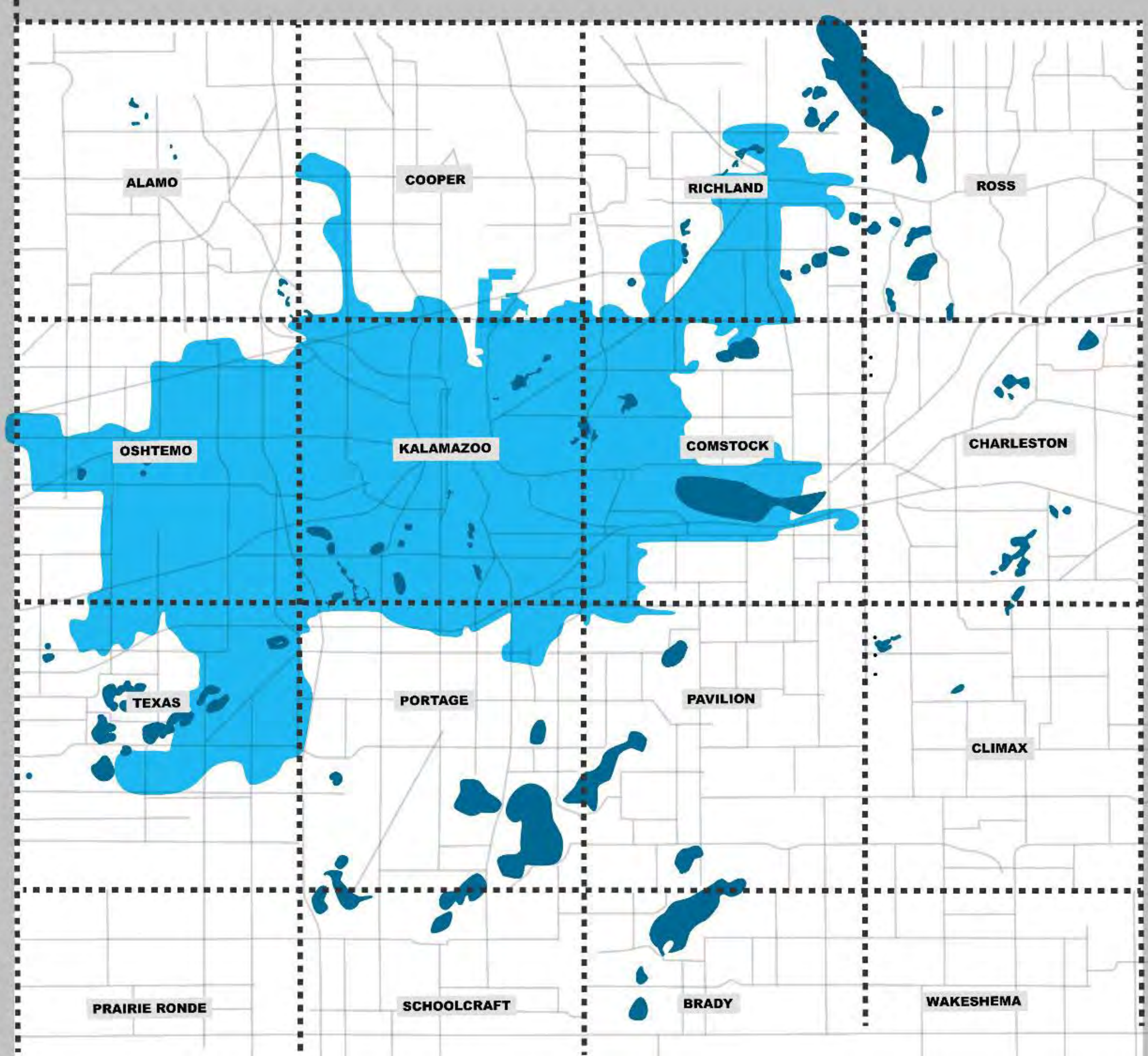
2023 Projects

Proposed 2023 Utility Rates



Water & Wastewater Utility Systems

Kalamazoo Water system

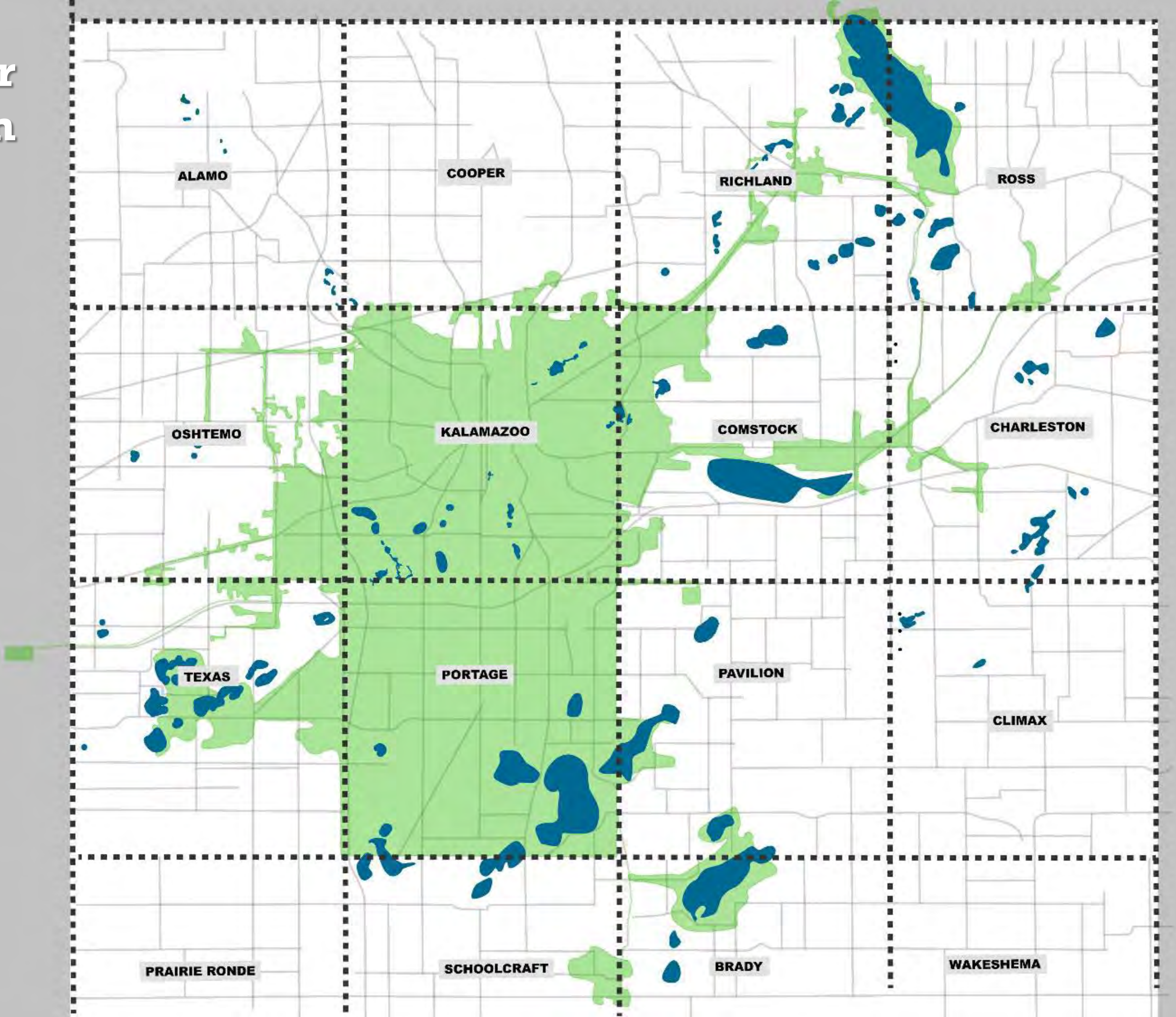


Michigan's largest groundwater-only water supply

- 41,669 connections
- 838 miles of water main
- 7,000 fire hydrants
- 11 elevated storage facilities
- 20 booster/bleeder stations
- 13 point of entry treatment plants
- 94 production wells

- Two dams or surface water managed sites
- 16 US Geological Survey gauge stations
- 38 million gallons per day average max demand
- 46 million gallons per day max demand (1988)
- More than 150 million gallons per day aquifer capacity

Wastewater system



Michigan's only powdered activated carbon treatment plant

- 568 miles of pipes between 8" and 78" diameter
- 892.4 total system miles
- 54 million gallons per day design capacity
- 26.68 million gallons per day average annual flow
- 77 million gallons per day max flow

- Only treatment plant in the nation with EPA exemption for pharmaceutical manufacturing
- Designed and built to treat manufacturing waste streams and support regional economic growth
- *99.83% compliance rating

Calculated compliance 1-1-2022 to 6-30-2022

2023 Capital Projects

Lead service line replacements

Replace cast iron water main

Station, treatment, and process improvements

Sewer improvements

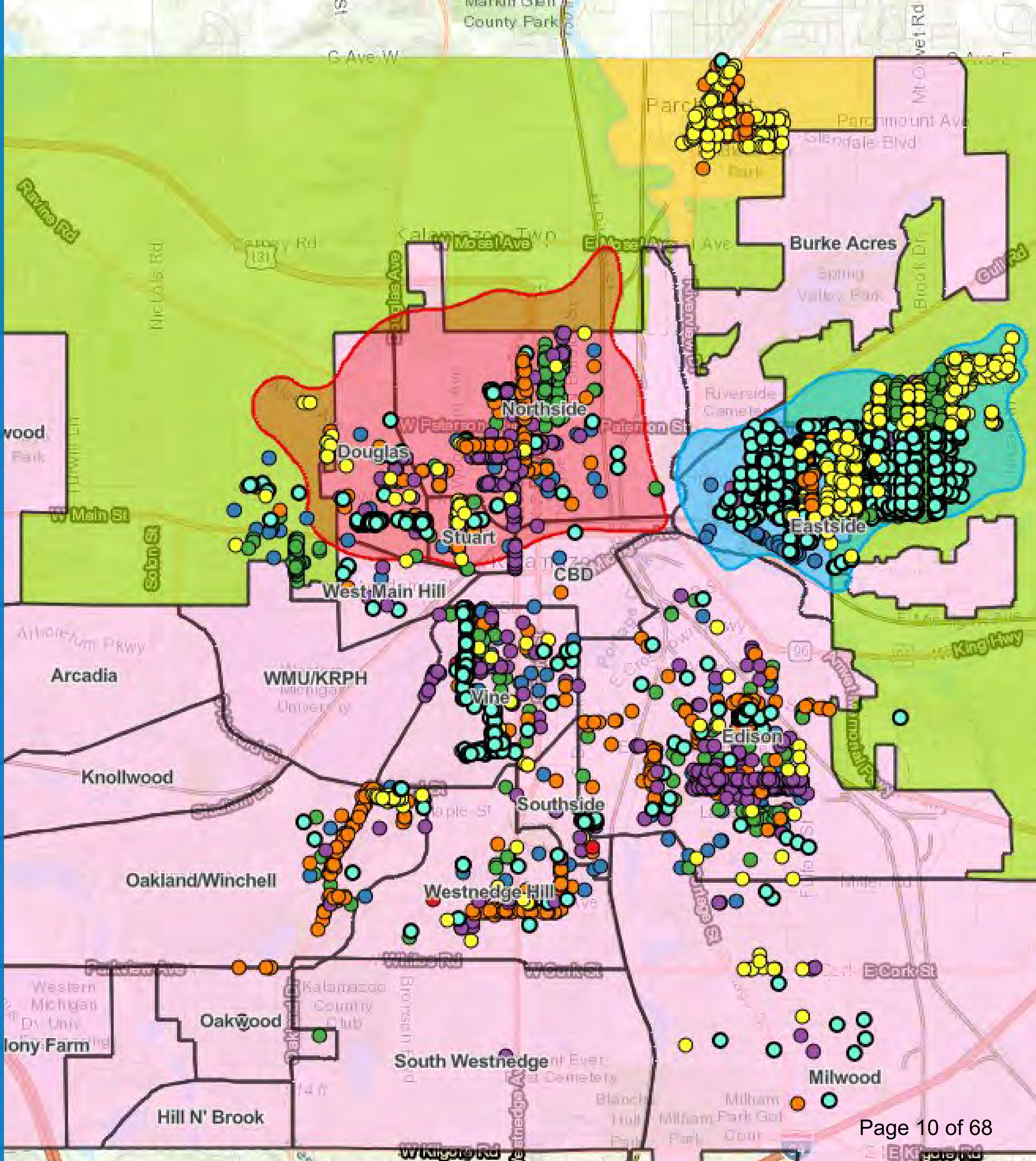
Wastewater treatment improvements

Lead service line replacements

Neighborhood area projects and prioritized replacement based on testing results

North Kalamazoo project incudes more than 2,000 replacements in 2022-2024

940 lead services replaced in 2021, highest number ever in one-year, annual goal of 500 per year



Free lead testing and filters

Public Services in partnership with CPED and community volunteers are placing door hangers with resources to connect citizens to free water filters, testing and information on how to keep families safe from lead.

The door knocking campaign started 7-15-2022 and will continue every other weekend through 9-30-2022

90th Percentile Lead Sampling Results*

Kalamazoo – 7 ppb
Action level – 15 ppb

*Confirmation by EGLE 8-10-2022

Water main replacement

Replace remaining cast iron water main pipe with ductile iron

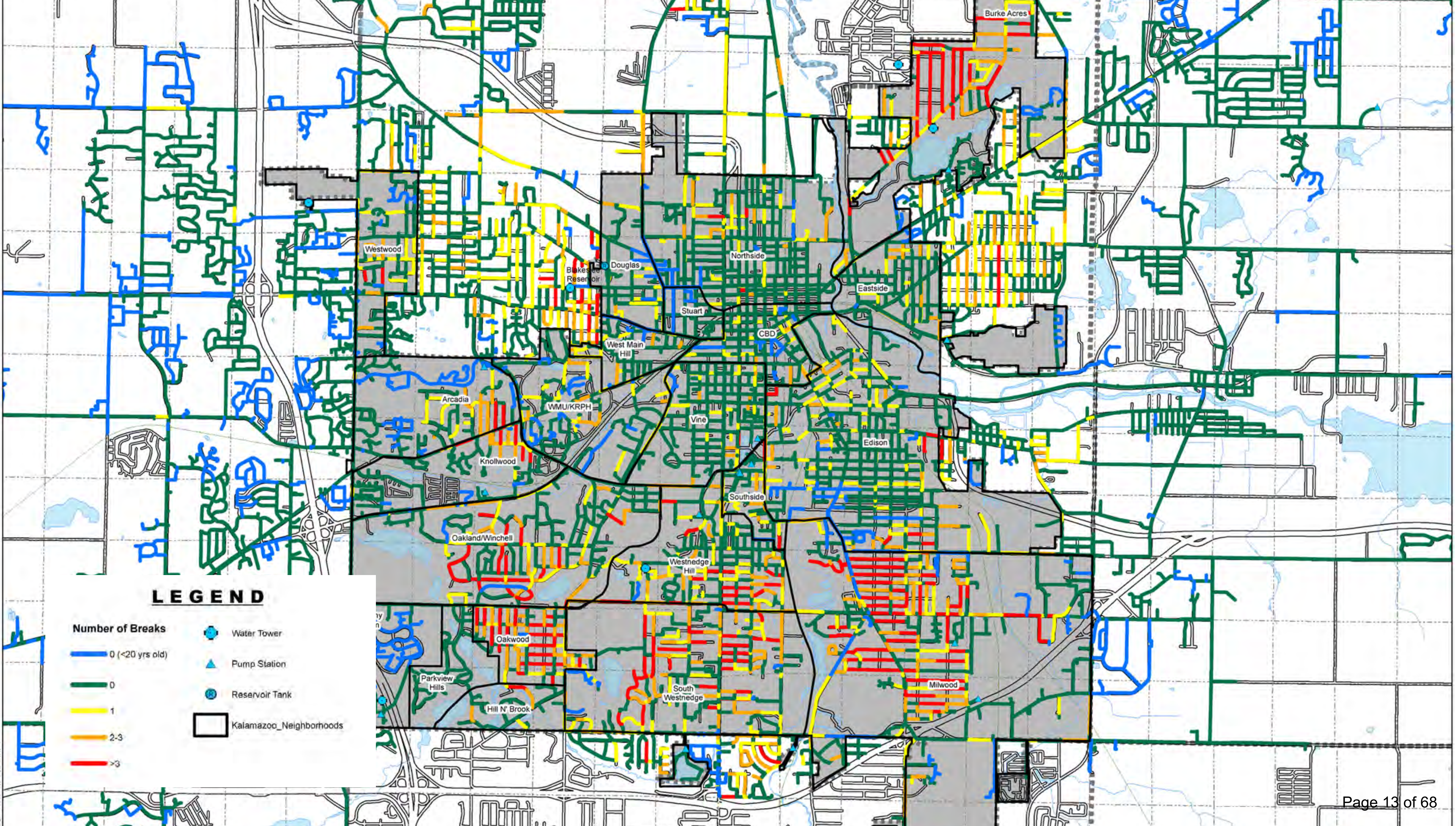
Herbert, Martin, Fellows Ct., Newton Ct., Ransom, Westnedge, Whites

Arlington, Dartmouth, Pinehurst, Campbell, Commonwealth, N. Clarendon, N. Berkley, Waverly, Wilmette, Crown (all Township)

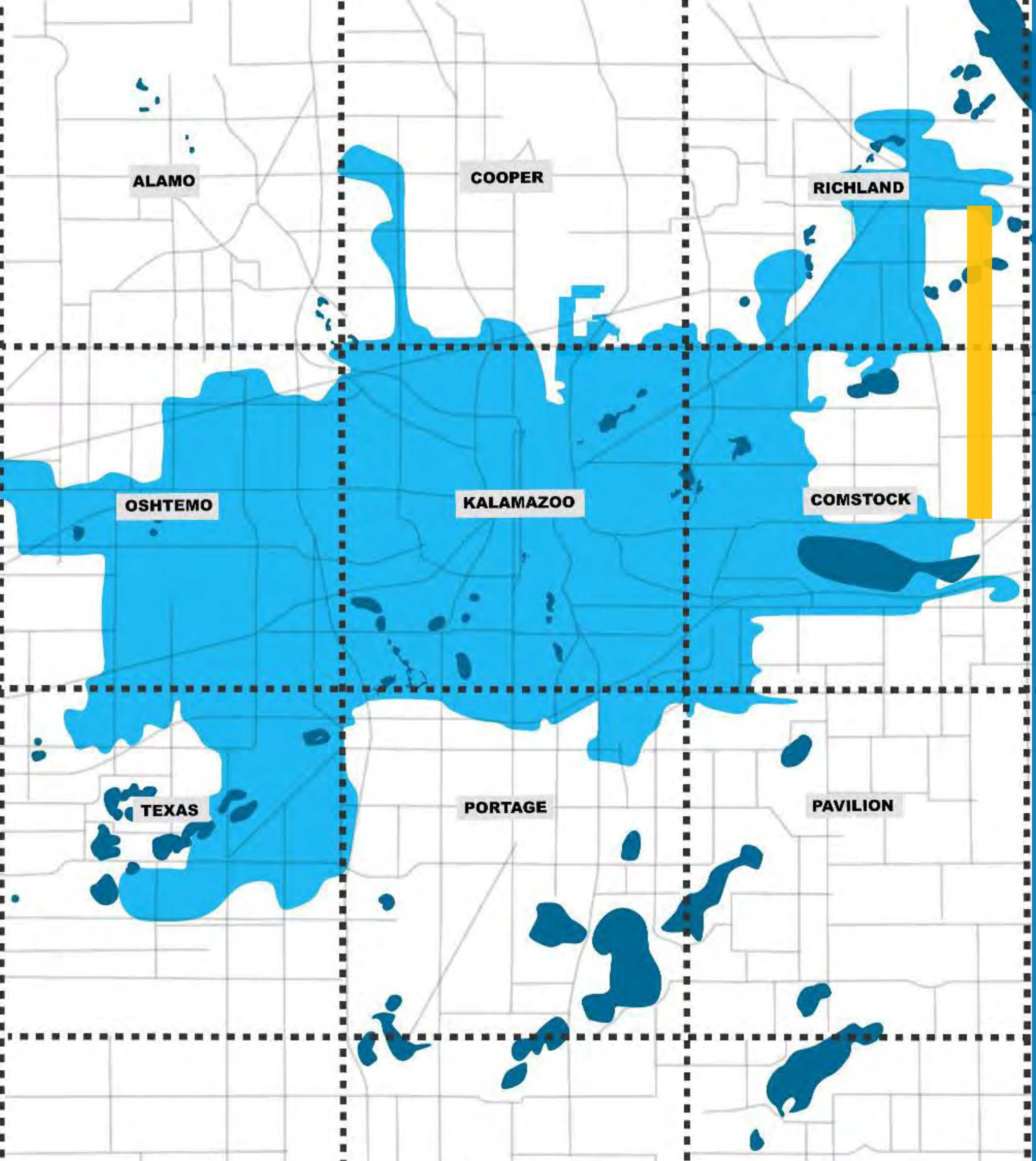
Lake street (Township) awarded 2022

Portage street replacement completed in 2021, Parkview Ave 2022

Cork Street and Oakland Drive completed in 2020



Burke Acres
Westwood
Douglas
Blakeslee Reservoir
Northside
Eastside
Stuart
CBD
West Main Hill
Arcadia
WMU/KRPH
Vine
Edison
Knollwood
Southside
Oakland/Winchell
Westnedge Hill
Oakwood
Parkview Hills
Hill N' Brook
South Westnedge
Milwood
LEGEND
Number of Breaks
0 (<20 yrs old)
0
1
2-3
>3
Water Tower
Pump Station
Reservoir Tank
Kalamazoo_Neighborhoods



Water main & transmission looping

33rd Street (Richland & Comstock Townships) and Parkview Avenue awarded in 2022 – work to continue through 2024

Connect mains to multiple feed sources

Water quality, fire demand, redundancy, and reliability

Current engineering design standard and EGLE requirement

Increase storage capacity

Replace aging and undersized facilities

Critical for fire protection and future growth

Districts should have 25% max daily demand available

Siesta tower completed in 2020

Texas Township project completion expected November 2022

Treatment & station improvements

Continue to implement automated treatment in 2023

Optimize corrosion control and iron sequestration

Significant benefits for water quality

Station consolidation – Born Court to Central

Treatment & station improvements

Station No.5 Replacement (Schippers / East Michigan)

District wide improvement, conversion from intermediate peaking station to base load station

Full scale iron treatment

Full scale manganese treatment

Full scale PFAS treatment

Training, lab, study and pilot facilities onsite

Future ability to increase hydraulic capacity

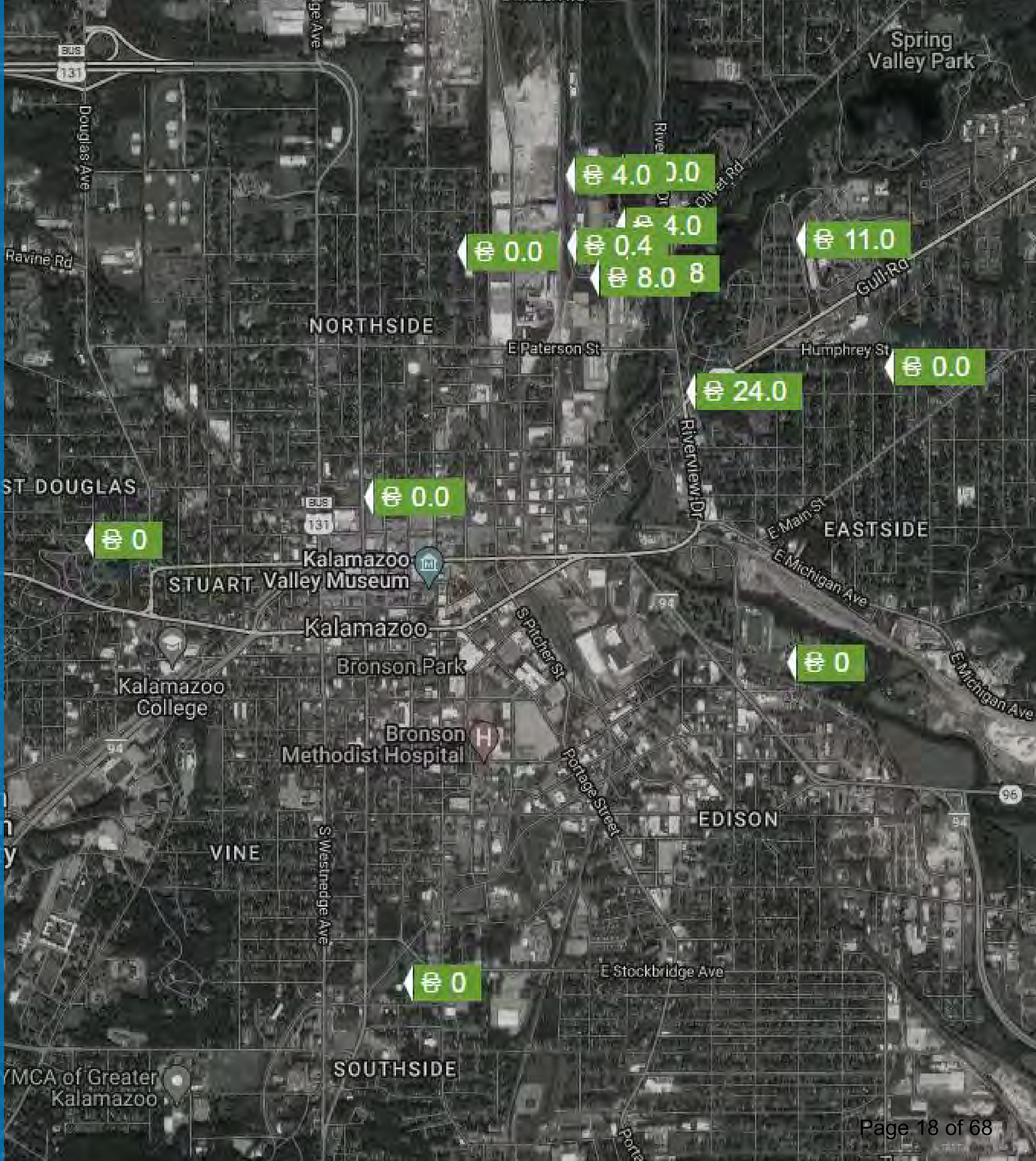
Odor control

Four of four carbon scrubber units online since 2021

Odor monitoring and tracking through Envirosuite increased scope and functionality, community real time access and trending

Graphic Packaging International clarifier discharge reroute and elimination of the junction chamber

Passive odor treatment on Davis-River Interceptors



Sewer Upgrades

John Street Siphon – increase capacity of sanitary sewers in the John St,. Lake St., Crosstown area

Newton Ct., Fellows Ct. sanitary sewer replacement

Vine Street trunk capacity increase

Ransom interceptor capacity increase

Sanitary sewer rehabilitation by lining

Manhole rehabilitation by concrete monoform

Manhole casting replacements and concrete ride quality improvement (Townships) partnership with RCKC

Tertiary Treatment

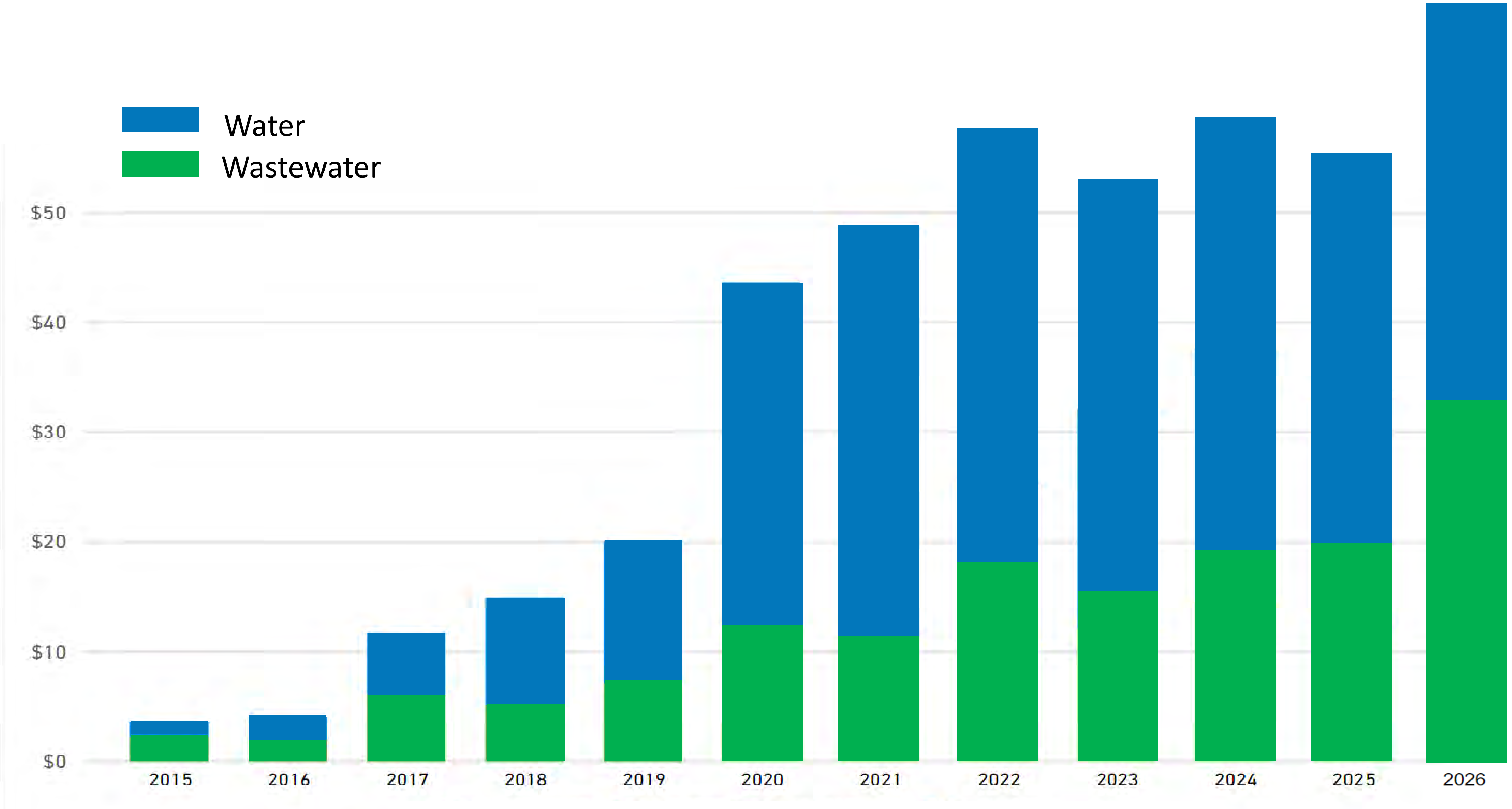
Rehabilitate final filtering process

Contract awarded January 2022

Scheduled to be operational August 2023

Improves water entering the Kalamazoo River

Capital Investment in Utilities ($ millions)



Five-Year Capital by Category

Water	2022	2023	2024	2025	2026	TOTAL
Water Source & Pumping	6,423,000	8,883,000	9,593,000	8,353,000	3,089,000	**36,341,000**
Water Infrastructure	4,077,022	11,157,023	7,777,024	1,277,025	1,677,026	**25,965,120**
Water New Projects	24,502,022	12,252,023	15,902,024	17,047,025	25,152,026	**94,855,120**
Water Total*	**38,957,044**	**37,355,346**	**39,368,348**	**35,805,350**	**36,080,352**	**187,566,440**
Wastewater						
Wastewater Plant & General Improvements	13,335,022	9,002,023	12,202,024	15,602,025	29,502,026	**79,643,120**
Sanitary Sewer Mains	2,525,000	6,035,000	6,600,000	3,700,000	3,300,000	**22,160,000**
Wastewater Operating	1,819,000	621,000	621,000	621,000	621,000	**4,303,000**
Wastewater Total*	**17,709,022**	**15,688,023**	**19,453,024**	**19,958,025**	**33,458,026**	**106,226,120**
not all categories shown						
TOTAL	**56,666,066**	**53,043,369**	**58,821,372**	**55,763,375**	**69,538,378**	**293,832,560**

2023 Proposed Utility Rates

What we pay makes a difference for our water and wastewater

Utility bills pay for the operation, maintenance, and improvement of our utilities.

Kalamazoo’s rates remain lower than average for public utilities

Principles of 2021 water agreement

Traditional rate development resulted in differing rates for City Customers and Township Customers

Shared benefits and **simplified process**

Equalized water rates that embrace **rate stability** objectives

New water agreement approved in 2021

Achieves **regional cooperation** objectives

Equalized rates

Shared benefits

Rate stability

Simplified process

Rate increases fund enhanced service

Recommendations embrace previous forecasts from 2021 plus inflationary increases, project and cost escalations realized since December 2021

Previous forecasts were for 12% to 15% Water and Wastewater

Timing of rate increases has financial impacts

Rate increases fund enhanced service

Recommended Water system increase of 20% effective January 1, 2023

Recommended Wastewater system increase of 20% effective October 1, 2022

Similar, but declining increases needed subsequent years to support enhanced service

Kalamazoo rates will remain low compared to peers

Water rates remain below average

Proposed rates embrace the **Equalized Water Rates** principle

Equalized rates in 2022

Proposed water rate increase to "typical" residential customers:

City = approx. $5.47 to $8.87 per month (depending on meter size and usage)

Township = approx. $5.47 to $8.87 per month

Wastewater has more complicated customer classes

Retail inside of the City

Retail outside of the City

Wholesale municipalities

Contract industries

- Pfizer
- Graphics Packaging

Wastewater rates remain below average

Proposed rates continue to follow 1988 and 1998 rate settlement agreements

Elimination of final phase of 2013-2016 “True-Up”

Proposed water rate increase to typical residential customers:

City = approx. $3.47 to $6.05 per month

Township = approx. $4.77 to $8.45 per month

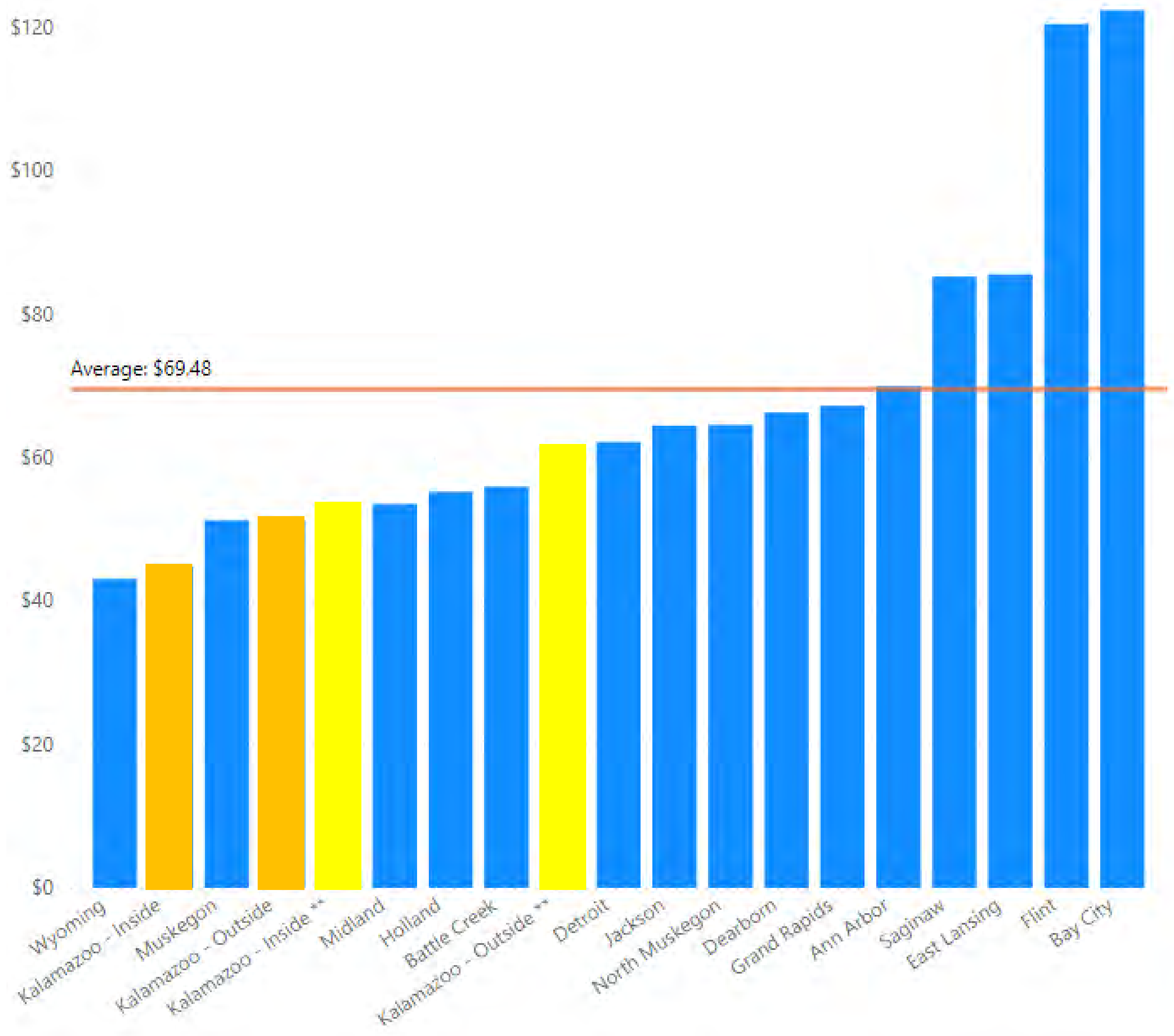
Estimated total impact

City:
approx. $8.94 to $14.93 per month

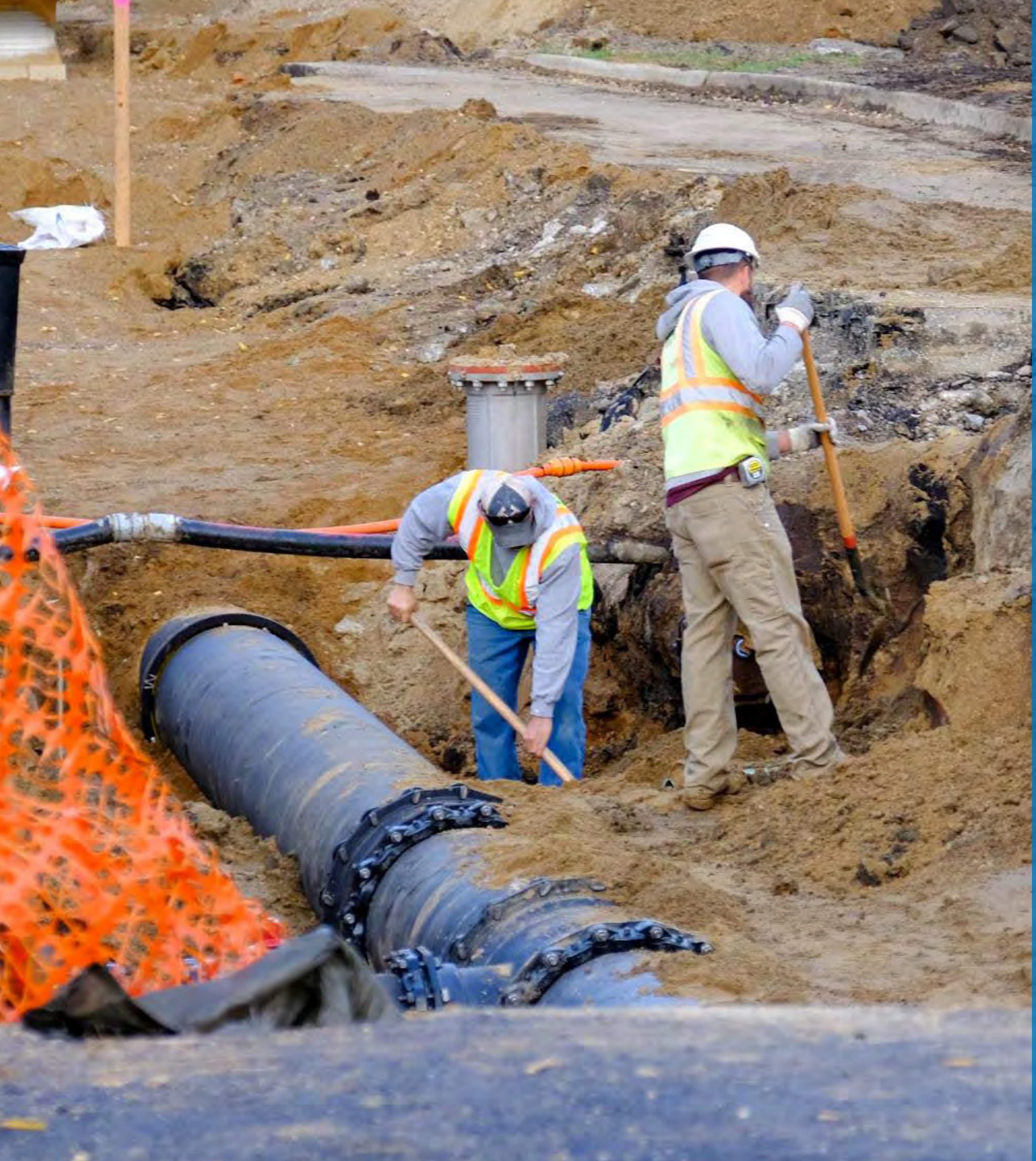
Township:
approx. $10.24 to $17.32 per month

Average cost remains less than one cent per gallon.

Monthly Residential Combined Utility Bill



**Proposed rates



Uncertainty in utility funds

Changes in commercial and industrial usage

Engineered project estimates vs. actual bid amount

Unplanned capital needs

Interest rates

Regulatory requirements and changes

Expanding help for customers

Kalamazoo water affordability plan implementation in 2024

Delinquent shut offs suspended indefinitely

Payment plan options and extensions

Smart meters help identify issues

Low Income Household Water Assistance Program (LIHWAP)

Up to 200% of Federal Poverty Level, Assistance Provided for past due water and wastewater bills, program through September 2023, Administered via Community Action (877) 422-2726

Future federal & state resources

Staff are tracking all possible funding sources for water & wastewater

Over $6 million in grants awarded for Kalamazoo Water in 2022

Funds have not yet been released by Feds or State for water & wastewater

If funds are received it will lessen the need for future rate increases

Next steps

First reading Tuesday, September 6, 2022

City Commission action requested Monday, September 19, 2022

Effective dates staggered – wastewater rates to go into effect on October 1, 2022; water rates to go into effect on January 1, 2023

Discussion

TFG

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MEMORANDUM

Kalamazoo Water and Wastewater Rates
Proposed Rate Adjustments

August 23, 2022

To: James Baker

From: Bart Foster

The intent of this this memorandum is to introduce proposed Water and Wastewater Rates for the City to place in effect for 2023. The proposed Wastewater Rates have been developed presuming an effective date of October 1, 2022. The proposed Water Rates have been developed presuming an effective date of January 1, 2023.

Executive Summary

The financial performance of the City's Water and Wastewater Utilities has been materially impacted by supply chain, inflationary and related pressures that are being experienced world-wide. The financial health of the Water and (particularly) Wastewater Funds are being negatively impacted by these developments, to the extent that significant immediate actions are prudent. I am recommending that the City implement 20% increases in all Water and Wastewater Rates consistent with the schedule introduced above.

The consequences of not taking the action suggested above include short term financial performance that produces metrics well below desired objectives, particularly for the Wastewater Fund. The recommended October 1, 2022 effective date for the Wastewater rate increase is designed to result in positive impacts in reported 2022 financial performance.

Specifically, it is my recommendation to uniformly increase ALL utility rates by 20%, regardless of customer class or location. The urgency of the situation does not allow for detailed cost of service and rate studies, and the 2023 budget and capital improvement programs are not yet available to support such studies. Further, with the equalization of City and Township Water Rates in 2022 the import of detailed cost of service studies on an annual basis is diminished. ***It is my understanding that the Utility Policy Committee has endorsed this recommendation regarding 2023 Water Rates***. Finally, there are ongoing developments regarding Wastewater Rate methodologies (including contract discussions and modifications regarding measuring treatment operations) that merit delaying any Wastewater cost of service study until next year. The intent of this recommendation is to not further adjust any Water or Wastewater Rates until 2024, and to have all future rate adjustments become effective as close to January 1 of the budget year in question.

The balance of this memorandum, and other materials provided under separate cover, are designed to provide additional information and support regarding the recommendations.

Background

The City's 2022 Water and Wastewater Rates were adopted in February 2022 and became effective in early March. Those rates were originally set forth in "Rate Reports" that were prepared and published in December 2021[1]. The Rate Reports contained financial forecasts for each Fund through 2026, and identified (at the time) proposed rate adjustments for 2022, and forecasted additional rate adjustments for 2023 through 2026. The forecasts in the rate reports sprung off the City's 2022 budget, and intelligence regarding "known" financial plans and realities as of November 2021. The original rate adjustment "plan of record" set forth in those reports is summarized below.

Kalamazoo Utility Rate Adjustment Forecast as of 12/1/2021

	Water Rate Adjustment		***Wastewater*** Rate Adjustment		
	Annual	Cumulative	Annual	Cumulative	
2022	15.0%	*15.0%*	12.0%	*12.0%*	*Approved Feb 2022*
2023	15.0%	*32.3%*	12.0%	*25.4%*	*Forecasted*
2024	7.5%	*42.2%*	7.5%	*34.8%*	*Forecasted*
2025	7.5%	*52.8%*	7.5%	*45.0%*	*Forecasted*
2026	7.5%	*64.3%*	7.5%	*55.8%*	*Forecasted*

While the financial forecasts summarized above dealt with different objectives and realities for the Water and Wastewater Funds, in general they reflected a need to address continued enhancement of the level of capital investment required for both systems, and a need to ensure that reserve fund balances in each Fund were sufficient to meet City policies on liquidity levels. As noted in the original report . . .

> " *. . . in recent years revenue shortfalls (particularly for the Wastewater Utility), an enhanced level of capital investment requirements (particularly for the Water Utility), and a principal planning focus on reserve balances have resulted less favorable results, and an erosion of the "owner's equity" goal. At the end of 2020 both the Water and Wastewater Utility reported a negative "Net Unrestricted Position."*
>
> *The preliminary forecasts are designed to reverse recent financial performance that produced less than planned results and to enhance the net financial position of the Water and Wastewater Utilities.*"

Subsequent to adoption of the 2022 budget for both Funds, and the approval of the 2022 Water and Wastewater Rates, the financial performance of both funds have been materially impacted by supply chain, inflationary and related pressures that are being experienced world-wide. I'll not exhaustively document those here, but in general it has been reported that the 2022 annual operating budgets for the Water and Wastewater Funds need to be amended upward by approximately $1 million (~6%) and $4.3 million (~ 18%), respectively. Additional pressures on future operating budgets starting in 2023 will undoubtedly be realized as well. The capital improvement projects for both systems have experienced similar cost increases, and in some

[1] The forecasts were contained in a memorandum report dated December 1, 2021 which is included as an appendix to each Rate Report. Stakeholders are encouraged to review that appendix for more background on this topic.

instances have resulted in the City's decision to re-evaluate certain major projects. Further, interest rates continue to increase steadily, and utility rates will continue to be pressured to pay higher costs of borrowing to finance capital improvements. At this stage it does not appear that there is any relief to recently experienced higher prices and cost levels, and that they may continue throughout the five-year forecast period contemplated by the financial plans set forth in the December 2021 Rate Reports.

I have been asked to prepare preliminary updated forecasts, and to provide recommended rate adjustments for 2023 – to be implemented as soon as possible. The objective of such recommendations is to stabilize the financial outlook for the utilities.

Summary Findings and Recommendations

I recommend the City implement "across the board" rate increases of 20% for both the Water and Wastewater Systems. As noted herein the objective of these extraordinary adjustments is to address recently experienced higher cost levels, and to ensure financial results that produce acceptable metrics for both Systems. The analysis set forth in this memorandum assumes that the proposed action would be effective on October 1, 2022 for the Wastewater System (to provide enhanced levels of revenue for the last three months of 2022) and on January 1, 2023 for the Water System. Importantly, these actions will also set a higher baseline revenue benchmark for both Systems as financial plans and potential rate adjustments are considered for 2024 and beyond. See below for an updated forecast summary.

Kalamazoo Utility Rate Adjustment Forecast as of 8/23/2022

	Water Rate Adjustment		***Wastewater*** Rate Adjustment		
	Annual	Cumulative	Annual	Cumulative	
2022	15.0%	*15.0%*	12.0%	*12.0%*	*Approved Feb 2022*
2023	**20.0%**	*38.0%*	**20.0%**	*34.4%*	*Proposed Jan 2023 / Oct 2022*
2024	12.0%	*54.6%*	10.0%	*47.8%*	*Forecasted*
2025	12.0%	*73.1%*	10.0%	*62.6%*	*Forecasted*
2026	12.0%	*93.9%*	10.0%	*78.9%*	*Forecasted*

Note that preliminary updated forecast summarized above anticipates that the immediate rate adjustments for 2023 would be the only adjustments until January 1, 2024. However the forecasted rate adjustments for the remainder of the planning period are higher for both systems than those forecasted in the December 2021 baseline plan. More details on the updated forecasts are presented in the remainder of this memorandum. It is important to note that the forecasted rate adjustments beyond 2023 do **not** reflect proposed action at this time. Rather they are initial forecasts. This version of the "Proposed Forecast" should be considered preliminary – as the intent is to update is to formally update these financial plans when information on the 2023 budget and the updated CIP becomes available to support the overall financial plan for 2023 and beyond.

The consequences of not taking the action suggested above include short term financial performance that produces metrics well below desired objectives, particularly for the

Wastewater Fund. In order to illustrate the updated outlook, I've established three forecast scenarios:

1. The original "Baseline Forecast" prepared in support of the 2022 budget and rates;
2. The "Current Estimate" based on recent developments;
3. A "Proposed Forecast" that would result from the recommended rate increases.

Each of these scenarios evaluates the adequacy of existing and proposed Water and Wastewater Rates to meet the financial obligations in a sustainable manner. There are several means to evaluate the "sustainability" of utility financial performance. The City has an approved Utility Financial Policy that serves as a guide for key metrics to evaluate. The forecast update focusses in large part on three key metrics that are linked to that policy, as set forth below.

1. Debt service coverage, measured against targets established by legal covenants to bondholders, the Utility Financial Policy, and sustainability targets from the investment community;
2. Liquidity measures ("days cash"), keying off targeted reserve balances – also established by the Utility Financial Policy;
3. The "equity" in the Systems as measured by adjusted, unrestricted net position. The notion of maintaining It is also referenced in the Utility Financial Policy.

See exhibits below for an executive summary of the forecasted metrics for each system under each scenario.

Wastewater Forecast - Key Ratios

Executive Summary Comparison

	2022	2023	2024	2025	2026
Debt Service Coverage Ratio Targets					
Rate Covenant	*1.20*	*1.20*	*1.20*	*1.20*	*1.20*
Utility Financial Policy Min	*1.40*	*1.40*	*1.40*	*1.40*	*1.40*
Sustainability Target	*1.75*	*1.75*	*1.75*	*1.75*	*1.75*
Debt Service Coverage Ratio Projections					
Baseline Forecast for 2022 Rates	***1.86***	***2.77***	***2.81***	***3.08***	***3.61***
Current Estimate	***1.15***	***1.17***	***1.29***	***1.22***	***1.12***
Proposed Forecast	***1.74***	***2.01***	***2.22***	***2.30***	***2.26***
Target Days Cash Ratio	*169*	*170*	*171*	*172*	*173*
Days Cash Ratio Projections					
Baseline Forecast for 2022 Rates	***183***	***177***	***178***	***179***	***180***
Current Estimate	***134***	***120***	***124***	***127***	***125***
Proposed Forecast	***153***	***168***	***175***	***175***	***175***
Unrestricted Net Position - $ millions					
Baseline Forecast for 2022 Rates	***$0.14***	***$1.85***	***$4.63***	***$8.53***	***$13.71***
Current Estimate	***($2.72)***	***($6.14)***	***($9.24)***	***($12.69)***	***($17.37)***
Proposed Forecast	***($1.20)***	***($1.26)***	***$0.06***	***$2.59***	***$5.75***

Water Forecast - Key Ratios
Executive Summary Comparison

	2022	2023	2024	2025	2026
Debt Service Coverage Ratio Targets					
Rate Covenant	***1.20***	***1.20***	***1.20***	***1.20***	***1.20***
Utility Financial Policy Minimum	***1.40***	***1.40***	***1.40***	***1.40***	***1.40***
Sustainability Target	***1.75***	***1.75***	***1.75***	***1.75***	***1.75***
Debt Service Coverage Ratio Projections					
Baseline Forecast for 2022 Rates	1.51	1.62	1.47	***1.37***	***1.34***
Current Estimate	1.47	***1.23***	***1.17***	***1.08***	***1.04***
Proposed Forecast	1.47	1.46	1.48	1.49	1.57
Target Days Cash Ratio	***179***	***180***	***181***	***182***	***183***
Days Cash Ratio Projections					
Baseline Forecast for 2022 Rates	***139***	***185***	***185***	***187***	***188***
Current Estimate	***214***	***184***	***180***	***160***	***160***
Proposed Forecast	***214***	***184***	***184***	***185***	***186***
Unrestricted Net Position - $ millions					
Baseline Forecast for 2022 Rates	***$24.56***	***$29.18***	***$33.00***	***$35.74***	***$36.95***
Current Estimate	***$23.38***	***$24.79***	***$25.68***	***$25.13***	***$22.65***
Proposed Forecast	***$23.38***	***$27.17***	***$31.65***	***$36.80***	***$42.51***

As noted above, the forecasted short-term metrics funder the "Current Estimate" Scenario for the Wastewater Fund are particularly concerning. Absent taking the recommended action the projected debt service coverage for 2022 will likely fall below the both the 1.20 Rate Covenant and the minimum 1.40 target established by the Utility Financial Policy. The liquidity balance may fall well below the 180 days cash target. Perhaps most importantly, this initial analysis indicates a possibility that the Wastewater Fund will report a net deficit position at the end of 2022 – even if additional revenues are realized. The implications for the Water Fund are similar, although the significant financial pressures would emerge in 2023 and beyond.

The Proposed Forecast scenario has been prepared to mitigate the recent financial pressures and to produce metrics that are more in line with the Baseline Forecast established via the 2022 budget and rates. The balance of this discussion provides more detail on my preliminary analysis. Again, these preliminary updated forecasts are based on existing budgets and Capital Improvement Programs. The intent is to formally update these forecasted financial plans when information on the 2023 budget and the updated CIP becomes available to support the overall financial plan for 2023 and beyond.

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Analysis

In addition to further detail on the operating expense impacts summarized above, I have obtained and reviewed:

- Preliminary year-end financial statements and related support documents for 2021;
- Updated information on year-to-date 2022 billed revenues to Water and Wastewater customers and customer classes;
- Detailed information on results of the 2022 Water and Wastewater bond transactions, including proceeds provided, pricing results, and impacts on debt service compared with what was projected in the original Rate Reports;
- Additional financial information based on discussions with City staff.

All of this information provides additional intelligence with which to preliminarily update the forecasts contained in the 2022 Rate Reports. I offer the following findings and observations based on my initial review. These findings are presented in a strategic order designed to support the cadence of my analysis and approach.

- Operating Expenses:
  - As noted above, recently experienced operating expense levels are materially higher than budgeted for both Systems. I've assumed that the adjusted figures introduced above (annual increases of $1 million for Water and $4.3 million for Wastewater) establish a new baseline for spending, in current dollars. The forecasted operating expenses throughout the period are assumed to exhibit the same relative growth over the baseline levels that was established via the original forecast. ***The higher level of operating expenses is driving the need for immediate action on rate levels for both systems. Developments in some of the other topics listed below actually serve to mitigate the magnitude of the proposed adjustments.***
  - For perspective, simply attempting to address the higher O&M levels would require an annualized increase of almost 4% for the Water System and 15% for the Wastewater System. Attempting to meet these higher cost levels with a rate increase that will only be in effect for 3 months would quadruple both of those factors.
  - Based on conversations with City staff, initial 2023 budget preparations have identified the need for enhanced personnel levels, further pressuring operating expense needs.
  - The updated forecast will need to reflect new realities in inflationary impacts on future operating expenses.

- Capital Improvement Plan Requirements:

- Individual CIP projects are experiencing dramatic cost increases as well. However some projects have been deferred or are experiencing delays, in part due to supply chain issues, etc. For purposes of this initial forecast update I've assumed no change in the overall level of capital improvements for both systems.
- However the Wastewater CIP for 2022 was finalized after the "Baseline Forecast" Scenario was prepared in December 2021, and the "Current Estimate" indicates much higher levels of CIP requirements.

- Beginning Fund Balances as of 1/1/2022:
  - Actual fund balances available as of the beginning of the current year are moderately higher than assumed for the original forecast. This additional liquidity assists in meeting the forecast challenges, and lowers the proposed adjustments moderately.

- Revenues:
  - Based on a review of 6 months of current billing data, Wastewater billings to the monitored industries are running ahead of the target established for the 2022 Wastewater Rates. The positive variance is about $600,000 year-to-date, or just under 7%. A significant contributor to this positive variance is Graphic Packaging. Based on conversations with staff it is anticipated that this higher level of contributions will continue for the foreseeable future. I've assumed continuation of this positive variance for the rest of the year (a total annual increase of $1 million), and throughout the forecast period, which further mitigates the Wastewater rate challenge.
  - Billings to other Wastewater customer classes appear to be tracking close to original projections, and no adjustment is warranted.
  - Billings to certain Water customer classes exceed the level assumed in the original forecast. While this performance merits additional review, I've preliminarily assumed a $300,000 annual increase in baseline Water revenues.
  - I suspect that the investment earnings included in the original forecast are likely overly conservative given recent interest rate developments. I've not made any adjustments for 2022, but my updated assumptions for 2023 and beyond will basically double the forecasted earnings, which partially offsets the need for rate revenue in those years.

- Bonding Requirements / Debt Service:
  - The City took advantage of the low interest rate environment to secure more proceeds to finance capital improvements with the 2022 Revenue Bond

transactions than were included in the original forecasts. The Water System proceeds were over $4 million greater than anticipated, and the Wastewater System proceeds were over $8 million greater.

- The original forecasts were (intentionally) conservatively high with respect to projected debt service in 2022 for the recently issued transactions, as we assumed a full year of principal and interest amortization.
- Despite securing more proceeds than originally planned, the actual debt service for 2022 will be lower than planned in the original forecast by approximately $1.7 million for Water and $700,000 for Wastewater.
- However, the same inflationary pressures impacting operating expenses are impacting the costs of capital improvement projects, and the costs of borrowing to finance those improvements.
- Further, preliminary updated CIP estimates for the Wastewater Utility are materially higher than those included in the "Baseline Forecast."
- I've assumed 3.5% annual increases in the amounts included in the existing CIPs starting in 2024, and have increased the assumed interest rate for future borrowings to 5%.
- As a result of these changed assumptions, the "Current Estimate" scenario requires significant additional issuance of debt (and related debt service increases) to finance capital improvements.
- The "Proposed Forecast" would mitigate the projected debt levels, as additional rate revenue allows for more of the CIPs to be funded via "pay-go" monies.

Detailed Forecast Exhibits

As noted above, I have prepared updated financial forecasts for the Water and Wastewater Utilities. The forecasts are summarized in the attached exhibits, which follow the same basic format I've utilized in prior analyses, and which largely are reflected in the "Baseline Forecast" exhibits from December 2021. However I've modified / added certain exhibits to further illustrate the forecasts. The exhibit page number references are consistent between the separate Water (W) and Wastewater (WW) page numbers.

Once again, this version of the "Proposed Forecast" should be considered preliminary – as the intent is to update is to formally update these financial plans when information on the 2023 budget and the updated CIP becomes available to support the overall financial plan for 2023 and beyond. Also, as with any formally published forecasts – this caveat:

> *In conducting our studies and formulating our projections and opinions contained herein, we reviewed the books, records, agreements, capital improvement programs and other information produced by the City as we deemed necessary. While we consider such books, records, and other documents to be reliable, we have not verified the accuracy of these documents. The projections set forth herein are intended as*

"forward-looking statements". Actual results may differ materially from those projected, as influenced by conditions, events, and circumstances that may actually occur.

Herewith a brief introduction of the exhibits.

1. Capital Improvement Program Financing
    - *Illustrates forecasted plan resulting from application of this CIP financing strategy:*
        - Where water projects are designated as Drinking Water Revolving Fund (DWRF) eligible, I've assumed debt service based on the draw down schedules for those specific projects and loans;
        - Projects designed to result in short lived assets are restricted to "pay go" funding from existing reserve balances and future revenues;
        - All other projects are deemed "debt eligible" and are forecasted to be financed by a strategic combination of debt and revenues in a manner that aligns with the Utility Financial Policy objectives regarding debt service coverage ratios, reserve fund balances, and net worth measurements.
    - *Note that the forecast anticipates the issuance of new money revenue bond transactions to occur in every year for both the Water and Wastewater Utilities. The size and nature of these transactions are subject to change, and could be impacted by availability of additional State Revolving Fund Loans and related external financing sources. Also note the relatively larger need for forecasted additional Water bond sales compared to Wastewater due to the relatively larger Water CIP requirements. The annual capital investment requirements for the Water System equates to almost 1 ½ years of revenue, which is a remarkably high metric. The comparable Wastewater metric is approximately 8 ½ months of annual revenue, which is still robust while not as challenging as Water.*
2. Revenue Requirements Financing Plan
    - *Graphical depiction of the "business plan" for the Water and Wastewater Utilities. The proposed 20% "system" rate increase for 2023 is shown in 2022 for Wastewater, assuming the October 1, 2022 effective date, but only provides three months of increased revenue in 2022. The forecasted annual "system" rate increases shown for 2024 through 2027 are consistent with those presented earlier. These are not necessarily intended to reflect rate adjustments applicable to ALL customer classes. The impacts of specific future rate adjustments are subject to the cost of service and rate studies presented in other reports.*
3. Debt Service Coverage Ratios
    - *Presents the debt service coverage targets, and the forecasted ratios under the three scenarios presented earlier in this discussion.*
    - *Under the Proposed Forecast scenario:*

            * The Water metrics struggle. While they are higher than the Utility Financial Policy minimum in all years, and begin to rise starting in 2026, they fail to reach the Sustainability Target.
            * The Wastewater metrics are healthy – debt service coverage is not the primary concern for Wastewater

4. Fund Balance Summary – Days Cash Ratio
    - *Illustrates "non-restricted" liquidity balances, and the forecasted metrics for each scenario.*
    - *The Proposed Forecast scenario for both systems is designed to provide liquidity that is in line with the Utility Financial Policy targets.*
    - *Note the dramatically low metrics in the "Current Estimate" scenario for both Systems.*
5. Projected Net Position
    - *Presents the "GAAP Basis" view of the forecasts, focusing on the projected reported net position for the systems. Both "Total" and "Adjusted Unrestricted" depictions of Net Positions are shown.*
    - *The "Adjusted Unrestricted" metric is the primary concern, as low reported figures could trigger forced action plans.*
        * This metric is not a concern in the "Proposed Forecast" Scenario for Water.
        * The negative position for the Wastewater System in the "Baseline Forecast" and "Current Estimate" scenarios are concerning and drive the need for accelerated action on Wastewater Rates. Even under the "Proposed Forecast" Scenario the Wastewater metric is not forecasted to be "in the black" until 2024 and the growth is still slow.

Again, I reiterate the fluidity of changing financial conditions and the preliminary nature of this forecast update. This analysis is based on review of interim 2022 financial data available as of the beginning of June, and in cases represents review of updated data through the month of July. Having said that, I firmly believe that this analysis provides an interim road map for future financial decisions, and supports the recommended actions regarding Water and Wastewater Rates for 2023.

The proposed schedule of Water and Wastewater Rates for 2023 is attached as an exhibit to this memorandum report.

I am prepared to discuss this material at your convenience.

Proposed 2023 Water and Wastewater Rates

Water Utility

Comparison of Existing and Proposed Water Rates
Proposed Rates Designed to be Effective January 1, 2023

Line No.		(1) Existing $/unit	(2) Proposed $/unit	(3) Variance $/unit	(4) % Variance
	Commodity Charges - $/cu mtr				
	City Customers				
1	Single Family	0.734	0.881	0.147	20.0%
2	Multi Family	0.540	0.648	0.108	20.0%
3	Commercial	0.612	0.734	0.122	19.9%
4	Seasonal	1.193	1.432	0.239	20.0%
	Township Customers				
5	Single Family	0.734	0.881	0.147	20.0%
6	Multi-Family	0.540	0.648	0.108	20.0%
7	Commercial	0.612	0.734	0.122	19.9%
8	Seasonal	1.193	1.432	0.239	20.0%
	Fire Protection Detector Checks				
9	City Customers	0.612	0.734	0.122	19.9%
10	Township Customers	0.612	0.734	0.122	19.9%

Water Utility

Comparison of Existing and Proposed Water Rates
Proposed Rates Designed to be Effective January 1, 2023

Line No.		(1) Existing $/unit	(2) Proposed $/unit	(3) Variance $/unit	(4) % Variance
	Meter Service Charges - $/bill				
	City Customers - Quarterly				
11	5/8"-3/4"	44.47	53.36	8.89	20.0%
12	1"	59.71	71.65	11.94	20.0%
13	1-1/2"	74.95	89.94	14.99	20.0%
14	2"	116.86	140.23	23.37	20.0%
15	3"	425.52	510.62	85.10	20.0%
16	4"	539.83	647.80	107.97	20.0%
17	6"	806.57	967.88	161.31	20.0%
18	8"	1,111.41	1,333.69	222.28	20.0%
	City Customers - Monthly				
19	5/8"-3/4"	19.06	22.87	3.81	20.0%
20	1"	24.14	28.97	4.83	20.0%
21	1-1/2"	29.22	35.06	5.84	20.0%
22	2"	43.19	51.83	8.64	20.0%
23	3"	146.08	175.30	29.22	20.0%
24	4"	184.18	221.02	36.84	20.0%
25	6"	273.10	327.72	54.62	20.0%
26	8"	374.71	449.65	74.94	20.0%
	Township Customers - Quarterly				
27	5/8"-3/4"	44.47	53.36	8.89	20.0%
28	1"	59.71	71.65	11.94	20.0%
29	1-1/2"	74.95	89.94	14.99	20.0%
30	2"	116.86	140.23	23.37	20.0%
31	3"	425.52	510.62	85.10	20.0%
32	4"	539.83	647.80	107.97	20.0%
33	6"	806.57	967.88	161.31	20.0%
34	8"	1,111.41	1,333.69	222.28	20.0%
	Township Customers - Monthly				
35	5/8"-3/4"	19.06	22.87	3.81	20.0%
36	1"	24.14	28.97	4.83	20.0%
37	1-1/2"	29.22	35.06	5.84	20.0%
38	2"	43.19	51.83	8.64	20.0%
39	3"	146.08	175.30	29.22	20.0%
40	4"	184.18	221.02	36.84	20.0%
41	6"	273.10	327.72	54.62	20.0%
42	8"	374.71	449.65	74.94	20.0%

Water Utility

Comparison of Existing and Proposed Water Rates
Proposed Rates Designed to be Effective January 1, 2023

Line No.		(1) Existing $/unit	(2) Proposed $/unit	(3) Variance $/unit	(4) % Variance
	Fire Protection				
	Quarterly Detector Checks - Service Charges - $/bill				
43	City Customers				
44	4"	82.81	99.37	16.56	20.0%
45	6"	126.49	151.79	25.30	20.0%
46	8"	210.51	252.61	42.10	20.0%
47	10"	507.56	609.07	101.51	20.0%
	Township Customers				
48	4"	82.81	99.37	16.56	20.0%
49	6"	126.49	151.79	25.30	20.0%
50	8"	210.51	252.61	42.10	20.0%
51	10"	507.56	609.07	101.51	20.0%
	Monthly Detector Checks - Service Charges - $/bill				
52	City Customers				
53	4"	45.20	54.24	9.04	20.0%
54	6"	59.76	71.71	11.95	20.0%
55	8"	87.77	105.32	17.55	20.0%
56	10"	186.79	224.15	37.36	20.0%
	Township Customers				
57	4"	45.20	54.24	9.04	20.0%
58	6"	59.76	71.71	11.95	20.0%
59	8"	87.77	105.32	17.55	20.0%
60	10"	186.79	224.15	37.36	20.0%
	Fire Hydrants - $/hydrant/year				
61	Public	0.00	0.00	0.00	NA
62	Private	40.00	40.00	0.00	0.0%

Wastewater Utility

Comparison of Existing and Proposed Wastewater Rates
Proposed Rates Designed to be Effective October 1, 2022

						User Charge Summary					
						Existing Rates			Proposed Rates		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Line No.		Existing $/unit	Proposed $/unit	Variance $/unit	% Variance	OM&R $/unit	Capital $/unit	Total $/unit	OM&R $/unit	Capital $/unit	Total $/unit
	Fixed Monthly Charges - $/month										
	Municipal Wholesale Customers										
1	Portage	329,600	395,500	65,900	20.0%	237,800	91,800	329,600	285,400	110,100	395,500
2	Galesburg	8,500	10,200	1,700	20.0%	5,900	2,600	8,500	7,100	3,100	10,200
3	Vicksburg	21,000	25,200	4,200	20.0%	15,100	5,900	21,000	18,100	7,100	25,200
4	Gull Lake	68,400	82,100	13,700	20.0%	49,500	18,900	68,400	59,400	22,700	82,100
5	Augusta	5,000	6,000	1,000	20.0%	3,600	1,400	5,000	4,300	1,700	6,000
6	Mattawan	27,800	33,400	5,600	20.1%	20,100	7,700	27,800	24,100	9,300	33,400
7	South County	8,200	9,800	1,600	19.5%	5,900	2,300	8,200	7,100	2,700	9,800
	Monitored Industrial Customers *										
8	Allnex	39,500	47,400	7,900	20.0%	37,300	2,200	39,500	44,800	2,600	47,400
9	Arvco	1,700	2,000	300	17.6%	1,600	100	1,700	1,900	100	2,000
10	Kalsec	67,100	80,500	13,400	20.0%	55,100	12,000	67,100	66,100	14,400	80,500
	Commodity Charges - $/cu mtr										
11	Inside City Retail Customers	0.757	0.908	0.151	19.9%	0.653	0.104	0.757	0.784	0.124	0.908
12	Outside City Retail Customers	1.066	1.279	0.213	20.0%	0.653	0.413	1.066	0.784	0.495	1.279
13	*Portage SW Interceptor*	*0.828*	*0.994*	*0.166*	*20.0%*	*0.575*	*0.253*	*0.828*	*0.690*	*0.304*	*0.994*
14	*Charleston Township Municipal*	*0.728*	*0.874*	*0.146*	*20.1%*	*0.525*	*0.203*	*0.728*	*0.630*	*0.244*	*0.874*
	Meter Service Charges - $/bill										
	Inside City Customers - Quarterly										
15	5/8"	13.21	15.85	2.64	20.0%	12.75	0.46	13.21	15.30	0.55	15.85
15	3/4"	13.67	16.40	2.73	20.0%	13.17	0.50	13.67	15.80	0.60	16.40
16	1"	15.08	18.10	3.02	20.0%	14.43	0.65	15.08	17.32	0.78	18.10
17	1-1/2"	16.95	20.34	3.39	20.0%	16.12	0.83	16.95	19.34	1.00	20.34
18	2"	22.09	26.51	4.42	20.0%	20.76	1.33	22.09	24.91	1.60	26.51
19	3"	59.95	71.94	11.99	20.0%	54.91	5.04	59.95	65.89	6.05	71.94
20	4"	73.97	88.76	14.79	20.0%	67.56	6.41	73.97	81.07	7.69	88.76
21	6"	106.70	128.04	21.34	20.0%	97.07	9.63	106.70	116.48	11.56	128.04
22	Flat Rate	77.78	93.34	15.56	20.0%	69.13	8.65	77.78	82.96	10.38	93.34

Wastewater Utility

Comparison of Existing and Proposed Wastewater Rates
Proposed Rates Designed to be Effective October 1, 2022

						User Charge Summary					
						Existing Rates			Proposed Rates		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Line No.		Existing $/unit	Proposed $/unit	Variance $/unit	% Variance	OM&R $/unit	Capital $/unit	Total $/unit	OM&R $/unit	Capital $/unit	Total $/unit
	Inside City Customers - Monthly										
23	5/8"-3/4"	10.09	12.11	2.02	20.0%	9.94	0.15	10.09	11.93	0.18	12.11
24	1"	10.25	12.30	2.05	20.0%	10.08	0.17	10.25	12.10	0.20	12.30
25	1-1/2"	10.71	12.85	2.14	20.0%	10.50	0.21	10.71	12.60	0.25	12.85
26	2"	11.34	13.61	2.27	20.0%	11.06	0.28	11.34	13.27	0.34	13.61
27	3"	13.05	15.66	2.61	20.0%	12.61	0.44	13.05	15.13	0.53	15.66
28	4"	25.67	30.80	5.13	20.0%	23.99	1.68	25.67	28.79	2.01	30.80
29	6"	30.35	36.42	6.07	20.0%	28.21	2.14	30.35	33.85	2.57	36.42
30	8"	41.25	49.50	8.25	20.0%	38.04	3.21	41.25	45.65	3.85	49.50
	Outside City Customers - Quarterly										
31	5/8"	16.82	20.18	3.36	20.0%	12.75	4.07	16.82	15.30	4.88	20.18
32	3/4"	17.65	21.18	3.53	20.0%	13.17	4.48	17.65	15.80	5.38	21.18
33	1"	20.14	24.17	4.03	20.0%	14.43	5.71	20.14	17.32	6.85	24.17
34	1-1/2"	23.45	28.14	4.69	20.0%	16.12	7.33	23.45	19.34	8.80	28.14
35	2"	32.57	39.08	6.51	20.0%	20.76	11.81	32.57	24.91	14.17	39.08
36	3"	99.70	119.64	19.94	20.0%	54.91	44.79	99.70	65.89	53.75	119.64
37	4"	124.57	149.48	24.91	20.0%	67.56	57.01	124.57	81.07	68.41	149.48
38	6"	182.59	219.11	36.52	20.0%	97.07	85.52	182.59	116.48	102.63	219.11
38	Flat Rate	107.63	129.16	21.53	20.0%	69.13	38.50	107.63	82.96	46.20	129.16
	Outside City Customers - Monthly										
39	5/8"-3/4"	11.29	13.55	2.26	20.0%	9.94	1.35	11.29	11.93	1.62	13.55
40	1"	11.57	13.88	2.31	20.0%	10.08	1.49	11.57	12.10	1.78	13.88
41	1-1/2"	12.40	14.88	2.48	20.0%	10.50	1.90	12.40	12.60	2.28	14.88
42	2"	13.50	16.20	2.70	20.0%	11.06	2.44	13.50	13.27	2.93	16.20
43	3"	16.54	19.85	3.31	20.0%	12.61	3.93	16.54	15.13	4.72	19.85
44	4"	38.92	46.70	7.78	20.0%	23.99	14.93	38.92	28.79	17.91	46.70
45	6"	47.21	56.65	9.44	20.0%	28.20	19.01	47.21	33.84	22.81	56.65
46	8"	66.55	79.86	13.31	20.0%	38.04	28.51	66.55	45.65	34.21	79.86
47	Dewatering Customers	7.85	9.42	1.57	20.0%	7.85	0.00	7.85	9.42	0.00	9.42

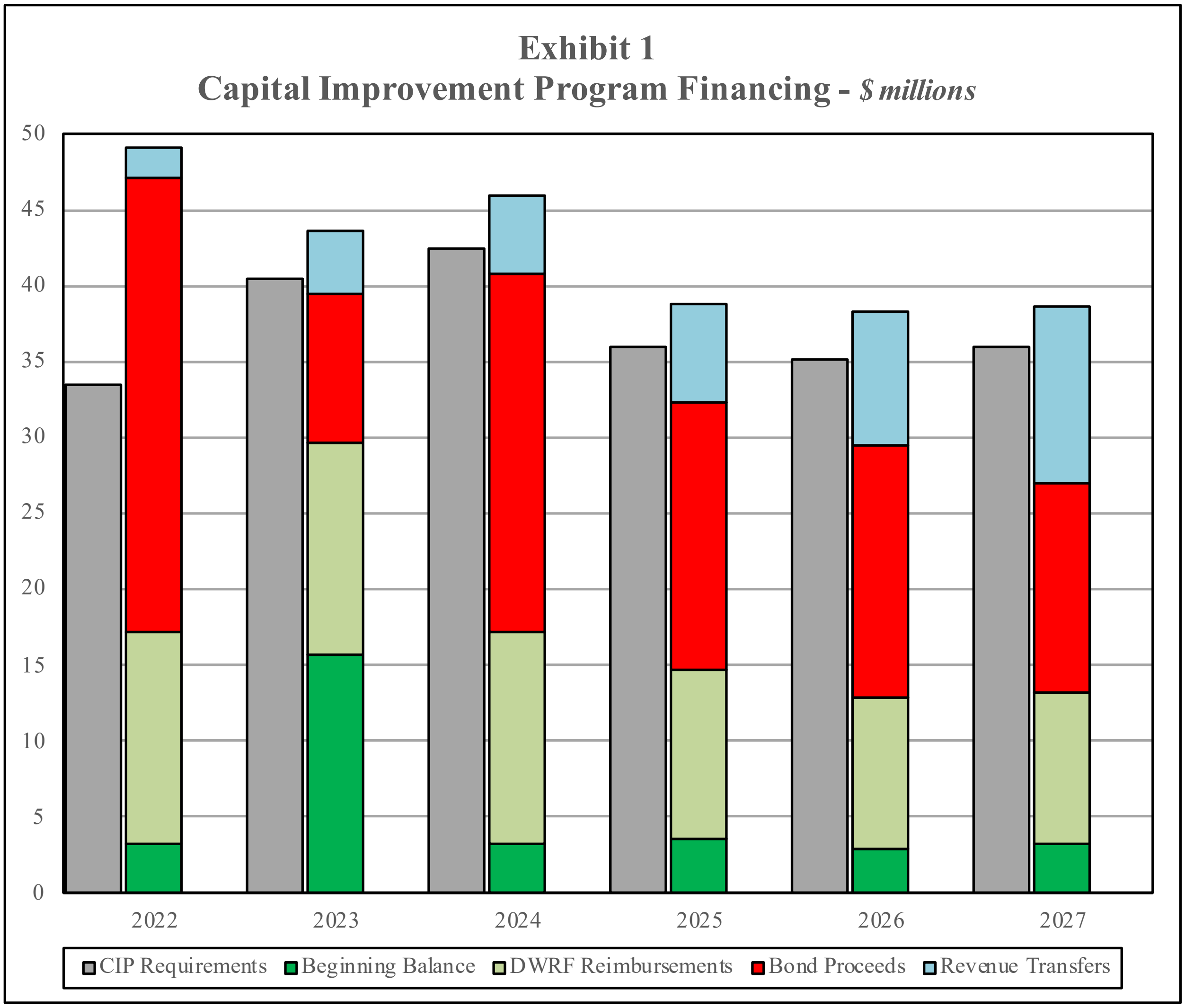
Wastewater Utility

Comparison of Existing and Proposed Wastewater Rates
Proposed Rates Designed to be Effective October 1, 2022

						User Charge Summary					
						Existing Rates			Proposed Rates		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Line No.		Existing $/unit	Proposed $/unit	Variance $/unit	% Variance	OM&R $/unit	Capital $/unit	Total $/unit	OM&R $/unit	Capital $/unit	Total $/unit
	Quantity / Quality Charges										
	Commodity Charges - $/cu mtr										
48	Pfizer	0.306	0.367	0.061	19.9%	0.325	(0.019)	0.306	0.390	(0.023)	0.367
49	Graphic Packaging	0.140	0.168	0.028	20.0%	0.325	(0.185)	0.140	0.390	(0.222)	0.168
50	Inside City Industrial	0.359	0.431	0.072	20.1%	0.325	0.034	0.359	0.390	0.041	0.431
51	Outside City Industrial	0.639	0.767	0.128	20.0%	0.325	0.314	0.639	0.390	0.377	0.767
	COD Charges - $/kg										
52	Pfizer	0.282	0.338	0.056	19.9%	0.254	0.028	0.282	0.305	0.033	0.338
53	Graphic Packaging	0.262	0.314	0.052	19.8%	0.254	0.008	0.262	0.305	0.009	0.314
54	Inside City Industrial	0.262	0.314	0.052	19.8%	0.254	0.008	0.262	0.305	0.009	0.314
55	Outside City Industrial	0.287	0.344	0.057	19.9%	0.254	0.033	0.287	0.305	0.039	0.344
	TSS Charges - $/kg										
56	Pfizer	0.861	1.033	0.172	20.0%	0.820	0.041	0.861	0.984	0.049	1.033
57	Graphic Packaging	0.809	0.971	0.162	20.0%	0.820	(0.011)	0.809	0.984	(0.013)	0.971
58	Inside City Industrial	0.809	0.971	0.162	20.0%	0.820	(0.011)	0.809	0.984	(0.013)	0.971
59	Outside City Industrial	0.862	1.034	0.172	20.0%	0.820	0.042	0.862	0.984	0.050	1.034
	NH3 Charges - $/kg										
60	Pfizer	3.347	4.016	0.669	20.0%	3.006	0.341	3.347	3.607	0.409	4.016
61	Graphic Packaging	3.143	3.772	0.629	20.0%	3.006	0.137	3.143	3.607	0.165	3.772
62	Inside City Industrial	3.145	3.774	0.629	20.0%	3.006	0.139	3.145	3.607	0.167	3.774
63	Outside City Industrial	3.410	4.092	0.682	20.0%	3.006	0.404	3.410	3.607	0.485	4.092

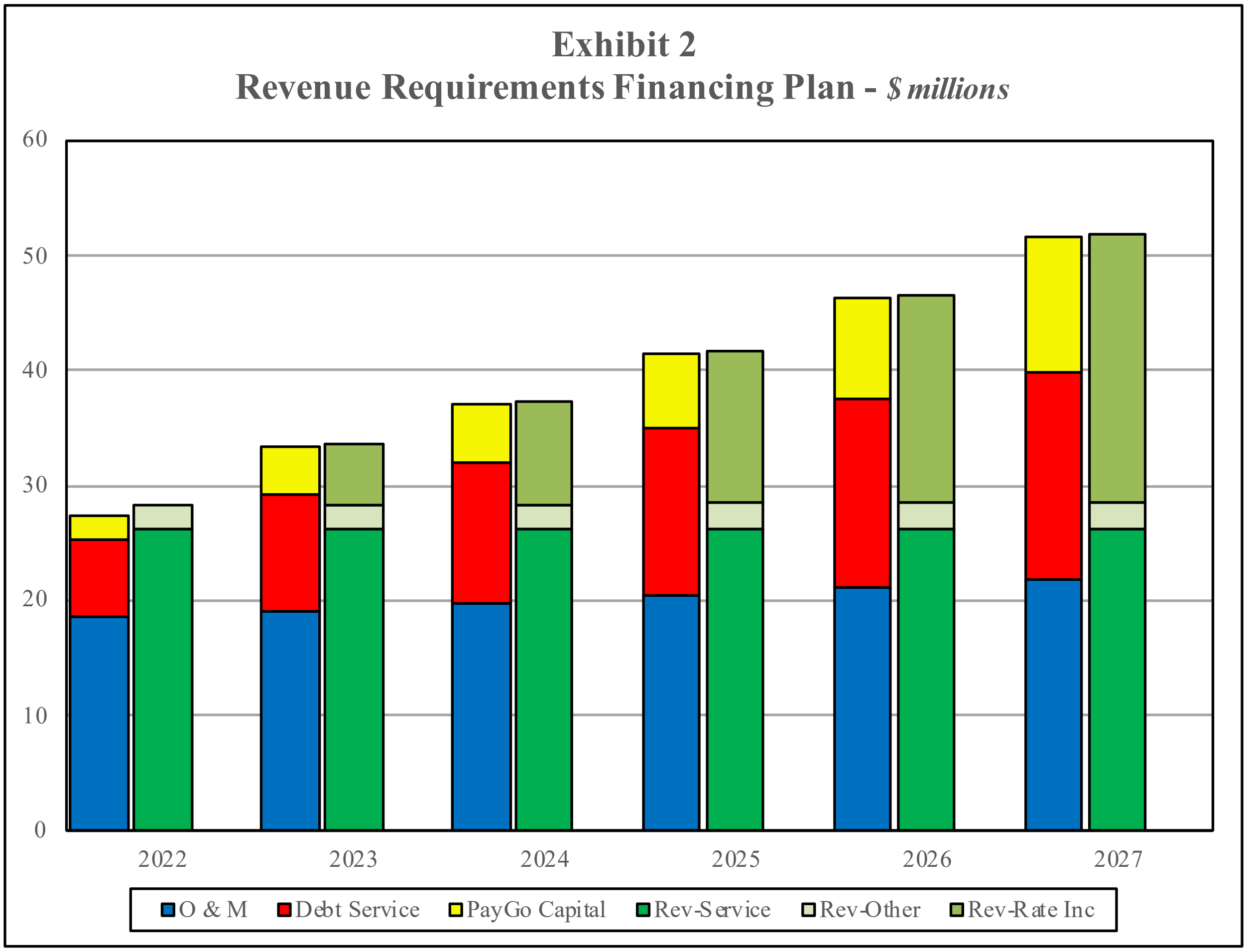
Forecast Exhibits

Water Utility Financial Plan Summary



	2022	2023	2024	2025	2026	2027
CIP Req't	33.5	40.4	42.4	36.0	35.1	35.9
Sources						
Beg Balance	3.2	15.7	3.2	3.6	2.8	3.2
DWRF Reimb	14.0	14.0	14.0	11.0	10.0	10.0
Bond Sale	29.5	10.0	24.0	18.0	17.0	14.0
less: Issue Exp	0.4	(0.2)	(0.4)	(0.3)	(0.3)	(0.3)
Revenue Transfers	2.0	4.1	5.2	6.5	8.8	11.7
CIAC	0.0	0.0	0.0	0.0	0.0	0.0
	------	------	------	------	------	------
Total Sources	49.2	43.6	46.0	38.8	38.3	38.6
End Balance	15.7	3.2	3.6	2.8	3.2	2.7

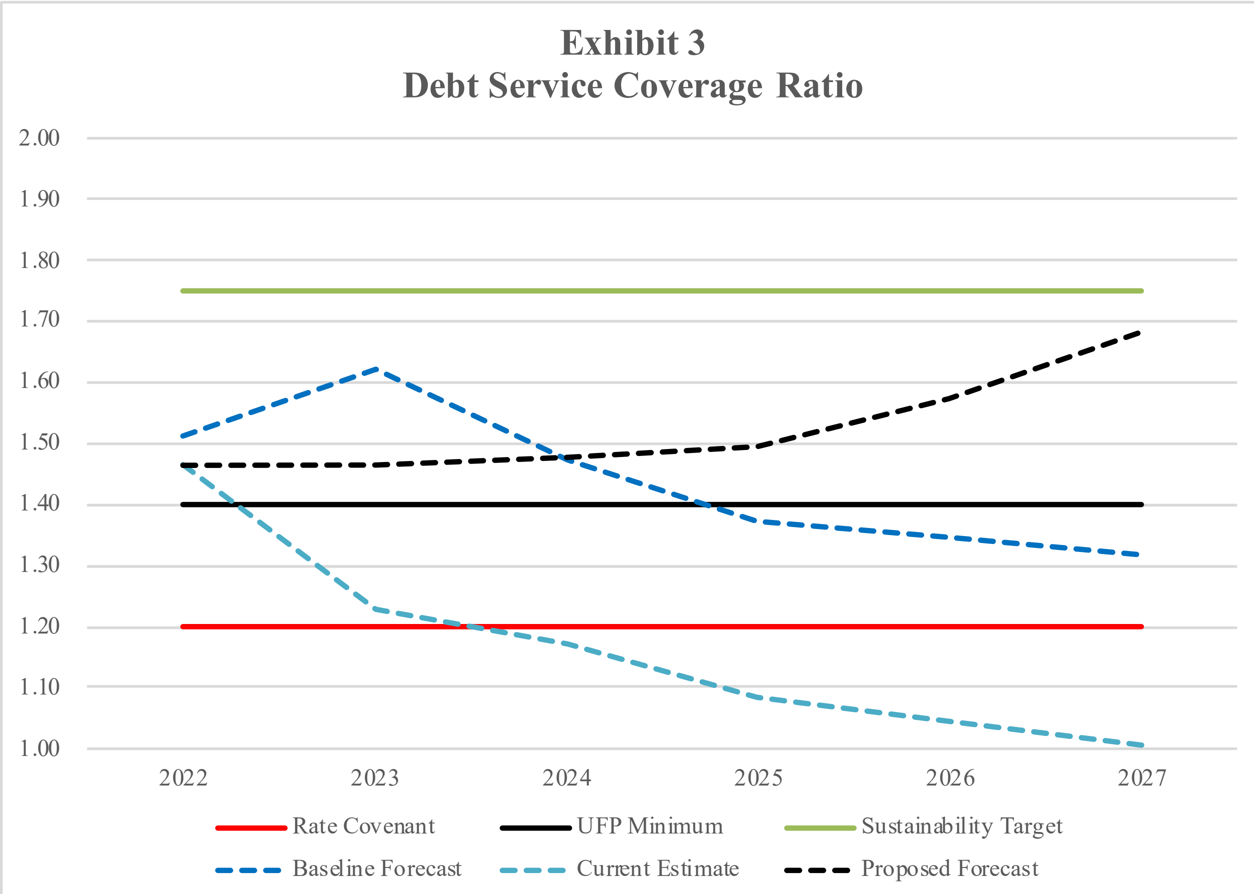
Water Utility Financial Plan Summary



	2022	2023	2024	2025	2026	2027	
Revenue							
Rates	26.3	26.3	26.3	26.3	26.3	26.3	
Rate Increases	***0.0%***	***20.0%***	***12.0%***	***12.0%***	***12.0%***	***12.0%***	88.8%
Rate Increases	0.0	5.3	9.0	13.3	18.0	23.3	
Other	2.0	2.1	2.1	2.2	2.3	2.4	
	-------	-------	-------	-------	-------	-------	
Total Revenue	28.2	33.6	37.4	41.8	46.6	52.0	
Revenue Req'ts							
O&M *	18.5	19.2	19.8	20.5	21.2	21.9	
Debt Service	6.8	10.0	12.1	14.4	16.3	18.0	
Pay Go Capital	2.0	4.1	5.2	6.5	8.8	11.7	
	-------	-------	-------	-------	-------	-------	
Total Rev Req'ts	27.4	33.3	37.1	41.5	46.3	51.7	
Balance - Reserves	0.8	0.3	0.3	0.3	0.3	0.3	
DS Covg	1.47	1.46	1.48	1.49	1.57	1.68	

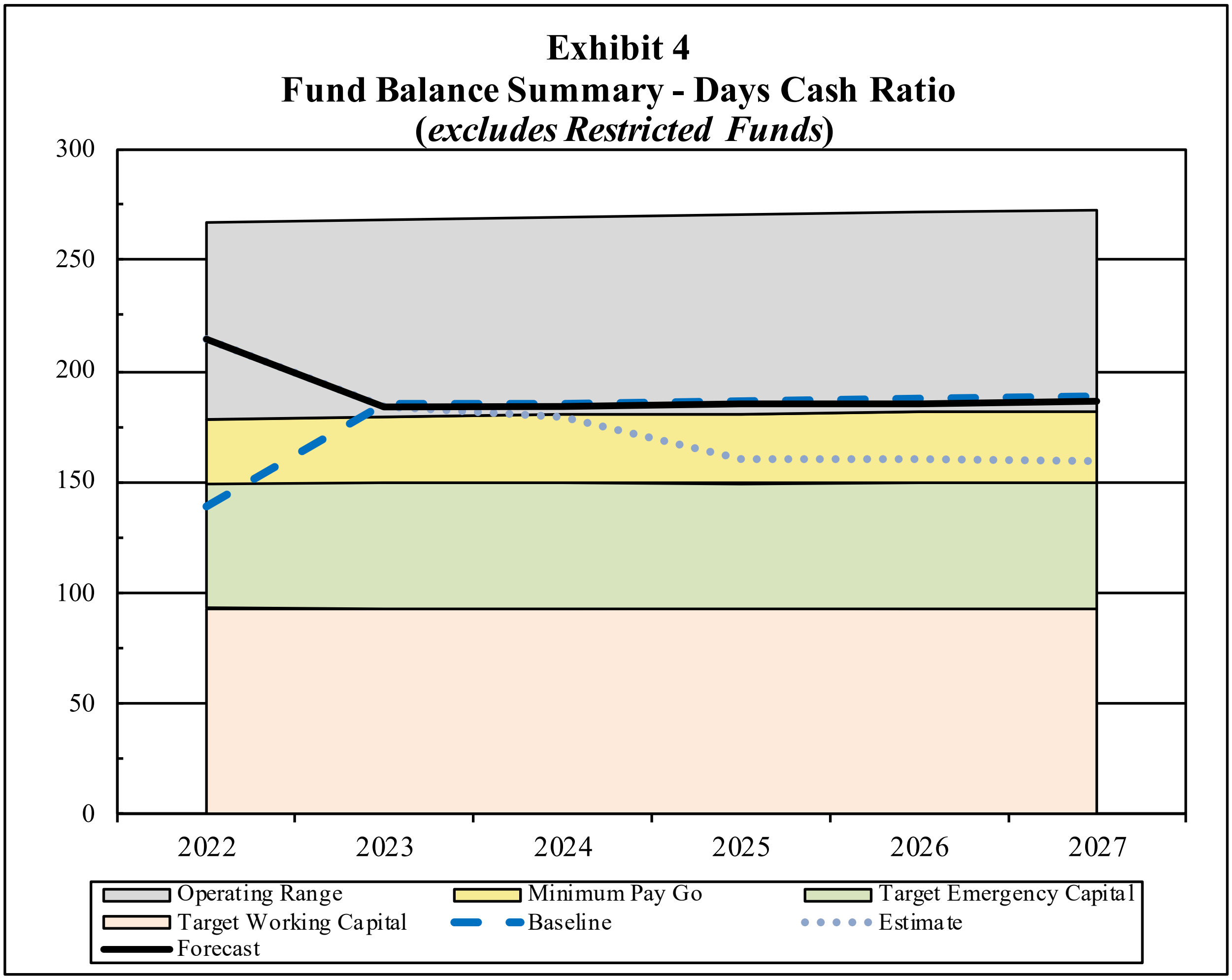
** Includes OPEB Debt Service and Contributions and PILOT*

Water Utility Financial Plan Summary



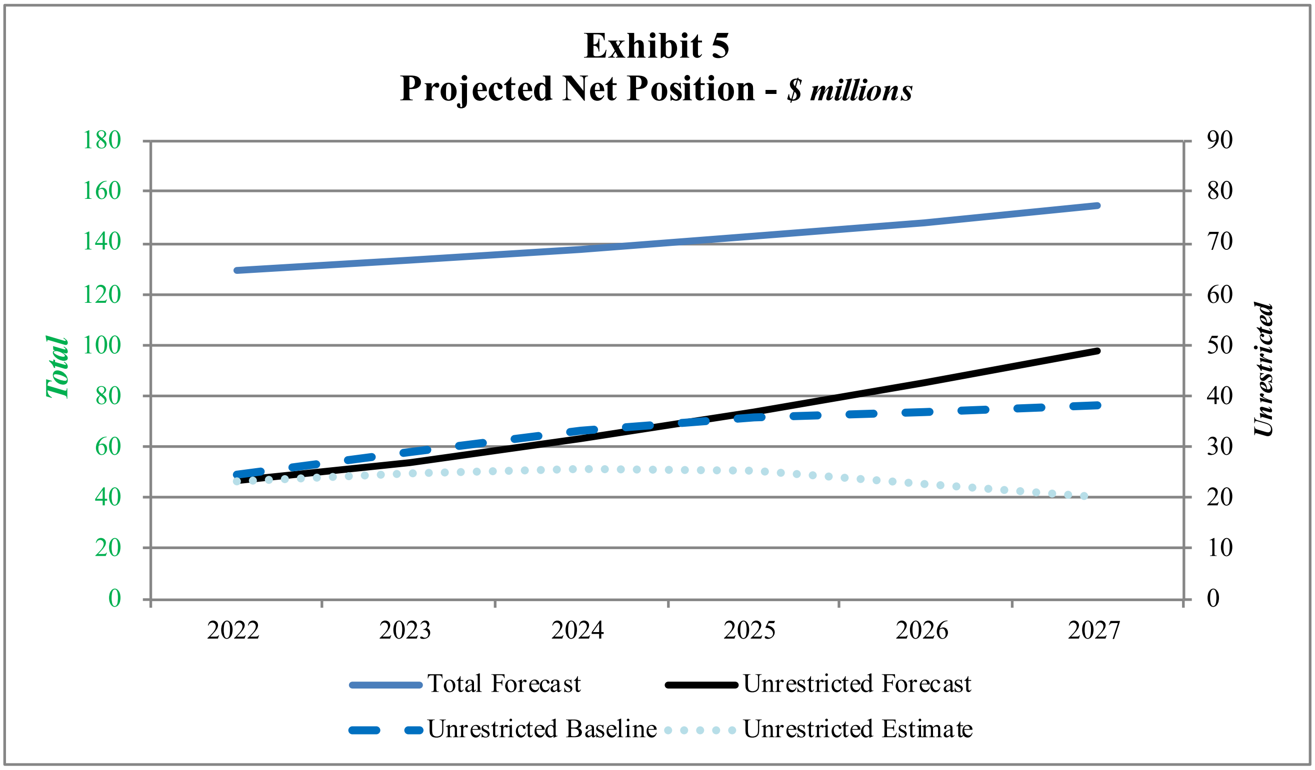
	2022	2023	2024	2025	2026	2027
Rate Covenant	1.20	1.20	1.20	1.20	1.20	1.20
UFP Minimum	1.40	1.40	1.40	1.40	1.40	1.40
Sustainability Target	1.75	1.75	1.75	1.75	1.75	1.75
Baseline Forecast	1.51	1.62	1.47	***1.37***	***1.34***	***1.32***
Current Estimate	1.47	***1.23***	***1.17***	***1.08***	***1.04***	***1.01***
Proposed Forecast	1.47	1.46	1.48	1.49	1.57	1.68

Water Utility Financial Plan Summary



	2022	2023	2024	2025	2026	2027
	$ millions	*$ millions*	*$ millions*	*$ millions*	*$ millions*	*$ millions*
Fund Balance Targets						
Working Capital	4.8	5.0	5.1	5.3	5.5	5.7
Emergency Capital	2.9	3.0	3.1	3.2	3.3	3.4
Min. Pay Go Fund	1.5	1.6	1.7	1.8	1.9	2.0
	-------	-------	-------	-------	-------	-------
Target Unrestricted	9.2	9.5	9.9	10.3	10.7	11.1
Days Cash Ratio	***178***	***179***	***180***	***181***	***181***	***182***
Range Max @ *150%*	13.7	14.3	14.9	15.4	16.0	16.6
Days Cash	***267***	***269***	***270***	***271***	***272***	***273***
Projections						
Working Capital	4.8	5.0	5.1	5.3	5.5	5.7
Emergency Capital	2.9	3.0	3.1	3.2	3.3	3.4
Pay Go Fund	3.2	1.7	1.8	1.9	2.0	2.1
	-------	-------	-------	-------	-------	-------
Total Unrestricted	10.9	9.6	10.0	10.4	10.8	11.2
Days Cash Ratio	***214***	***184***	***184***	***185***	***186***	***186***

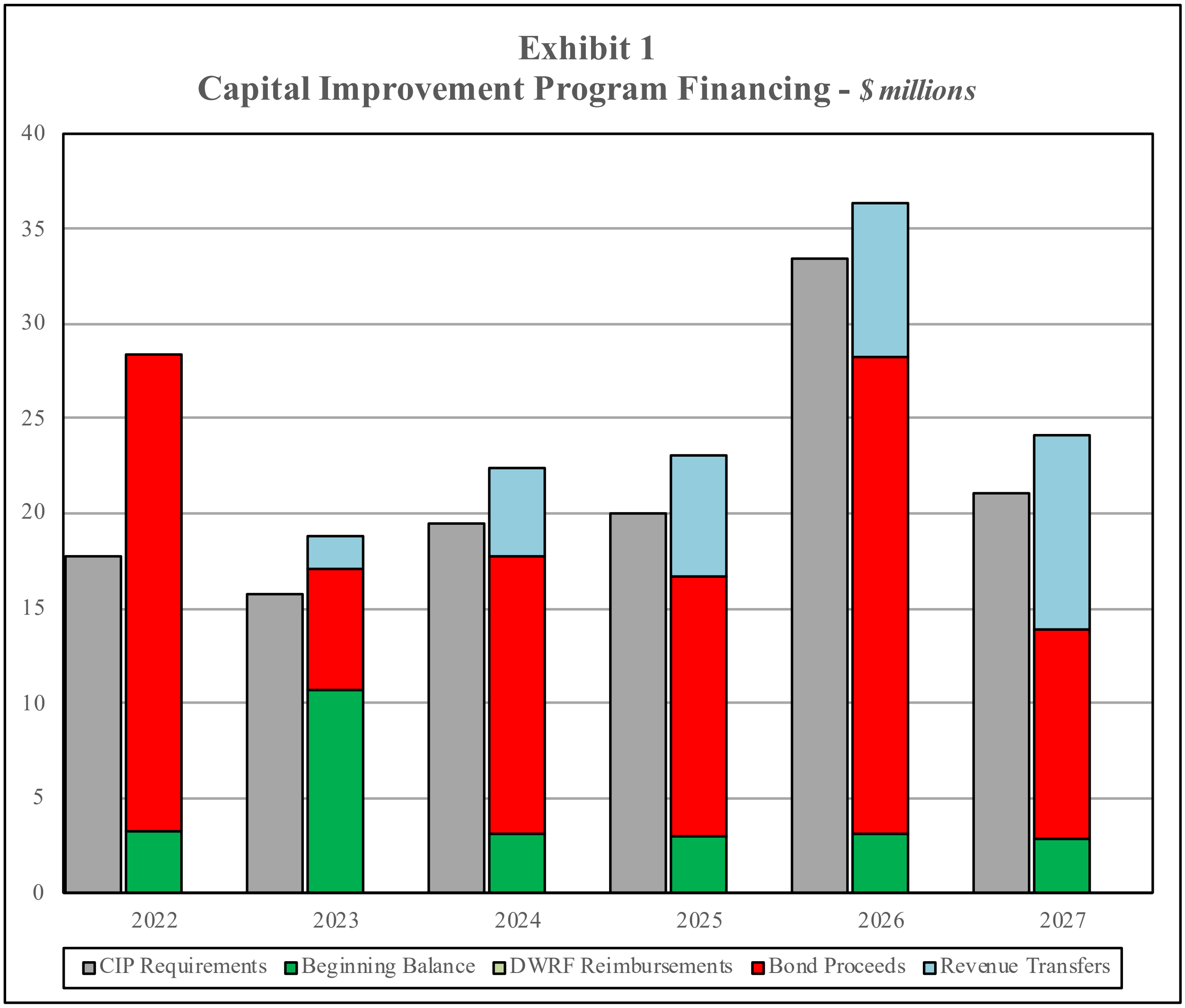
Water Utility Financial Plan Summary



	2022	2023	2024	2025	2026	2027
	$ millions	*$ millions*	*$ millions*	*$ millions*	*$ millions*	*$ millions*
Revenues	28.2	33.6	37.4	41.8	46.6	52.0
CIAC	(18.0)	(18.6)	(19.3)	(19.9)	(20.7)	(21.4)
Operating Exp (a)	0.0	0.0	0.0	0.0	0.0	0.0
less: Depr Expense	(4.7)	(5.5)	(7.1)	(9.5)	(12.4)	(16.0)
less: Interest Exp (b)	(4.4)	(5.7)	(6.6)	(7.2)	(7.8)	(8.2)
	-------	-------	-------	-------	-------	-------
Prxy Chg Net Pos	1.2	3.8	4.5	5.2	5.7	6.3
Begin Net Position	128.1	129.3	133.0	137.5	142.7	148.4
End Net Position	129.3	133.0	137.5	142.7	148.4	154.7
Adjusted Unrestricted Net Position						
Beginning	22.2	23.4	27.2	31.7	36.8	42.5
Change	1.2	3.8	4.5	5.2	5.7	6.3
	-------	-------	-------	-------	-------	-------
Ending	23.4	27.2	31.7	36.8	42.5	48.8

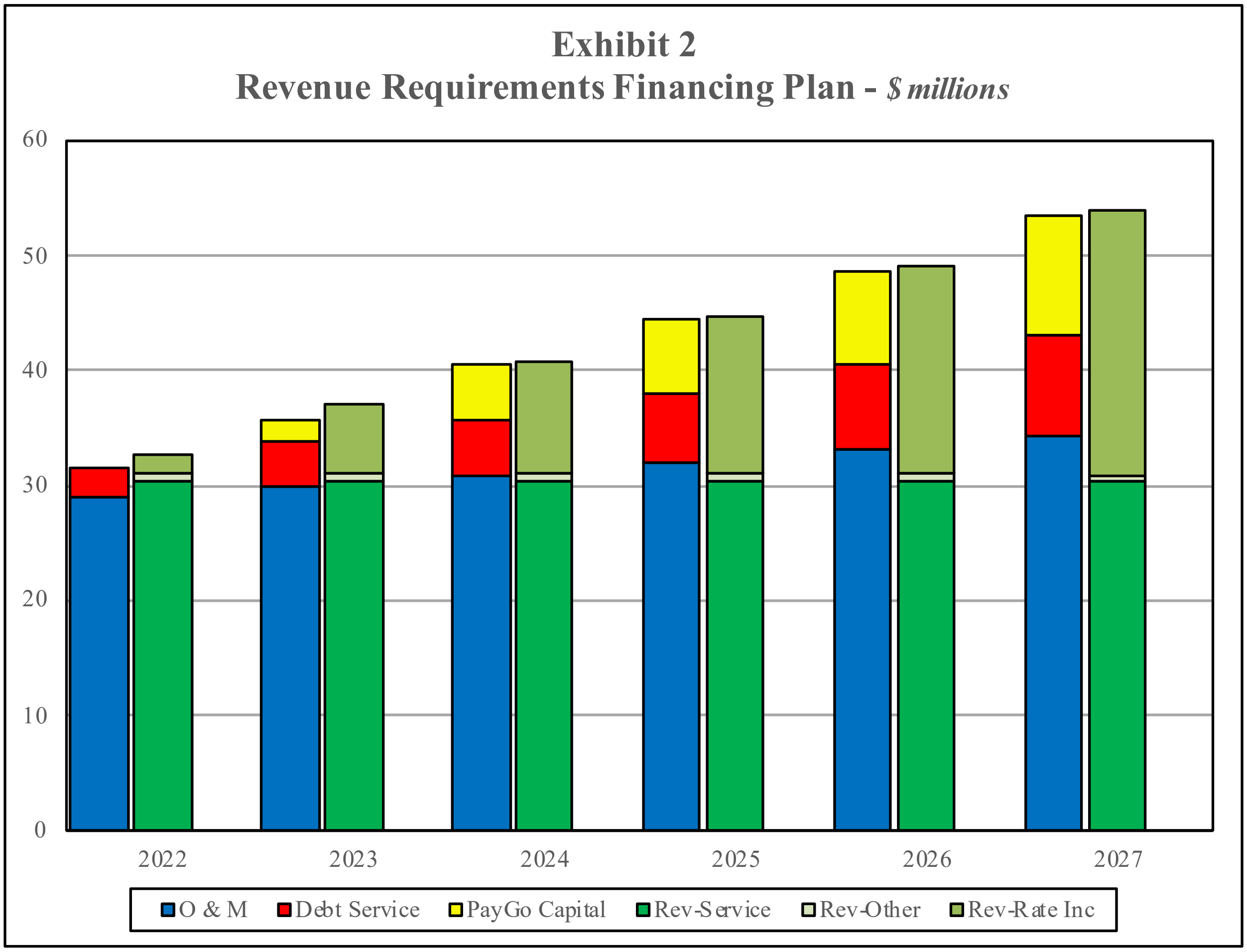
(a) Includes PILOT, excludes OPEB debt service
(b) Includes OPEB Bond interest

Wastewater Utility Financial Plan Summary



	2022	2023	2024	2025	2026	2027
CIP Req't	17.7	15.7	19.5	20.0	33.5	21.0
Sources						
Beg Balance	3.2	10.7	3.1	3.0	3.2	2.9
DWRF Reimb	0.0	0.0	0.0	0.0	0.0	0.0
Bond Sale	27.6	7.0	16.0	15.0	27.5	12.0
less: Issue Exp	(2.4)	(0.6)	(1.4)	(1.3)	(2.4)	(1.0)
Revenue Transfers	0.0	1.7	4.7	6.4	8.0	10.3
CIAC	0.0	0.0	0.0	0.0	0.0	0.0
	------	------	------	------	------	------
Total Sources	28.4	18.8	22.4	23.1	36.3	24.1
End Balance	10.7	3.1	3.0	3.2	2.9	3.1

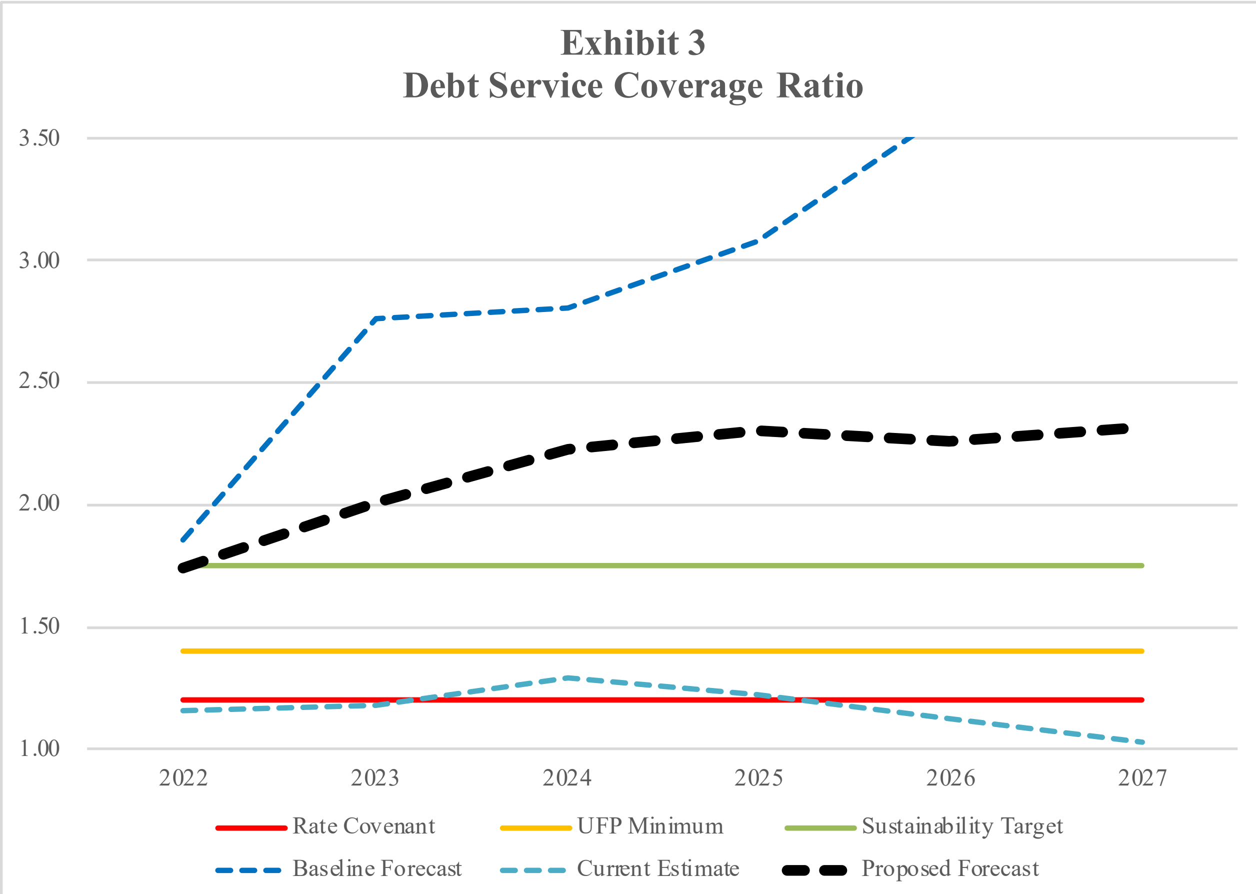
Wastewater Utility Financial Plan Summary



	2022	2023	2024	2025	2026	2027	
Revenue							
Rates	30.3	30.3	30.3	30.3	30.3	30.3	
Rate Increases	***20.0%***	***0.0%***	***10.0%***	***10.0%***	***10.0%***	***10.0%***	75.7%
Rate Increases	1.5	6.1	9.7	13.7	18.1	23.0	
Other	0.8	0.8	0.8	0.8	0.7	0.6	
	------	------	------	------	------	------	
Total Revenue	32.6	37.2	40.9	44.8	49.1	53.9	
Revenue Req'ts							
O&M *	28.9	29.9	31.0	32.0	33.1	34.3	
Debt Service	2.6	4.0	4.8	5.9	7.5	8.8	
Pay Go Capital	0.0	1.7	4.7	6.4	8.0	10.3	
	------	------	------	------	------	------	
Total Rev Req'ts	31.5	35.6	40.4	44.4	48.7	53.4	
Balance - Reserves	1.1	1.6	0.4	0.4	0.5	0.5	
DS Covg	1.74	2.01	2.22	2.30	2.26	2.32	

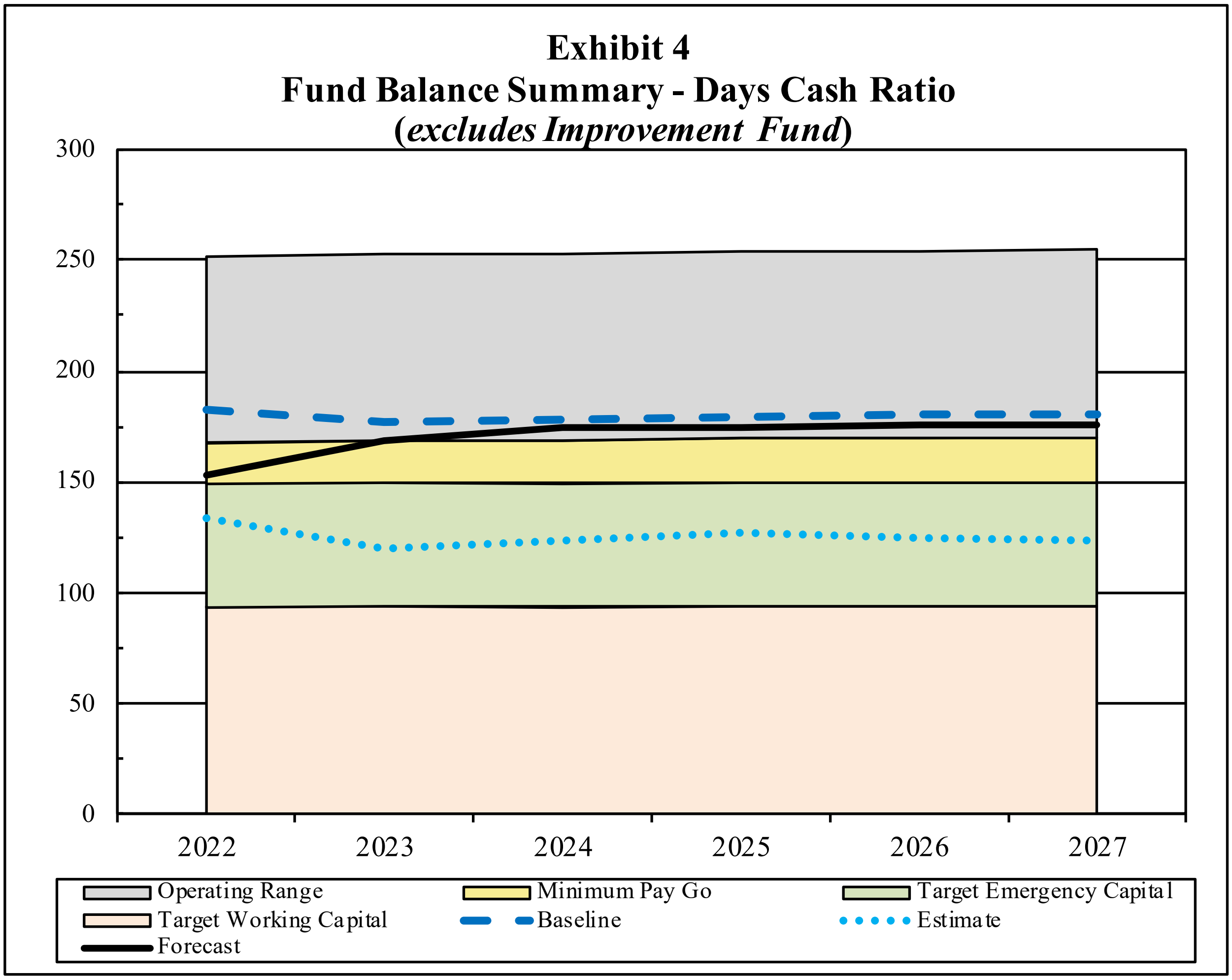
** Includes OPEB Debt Service and Contributions and PILOT*

Wastewater Utility Financial Plan Summary



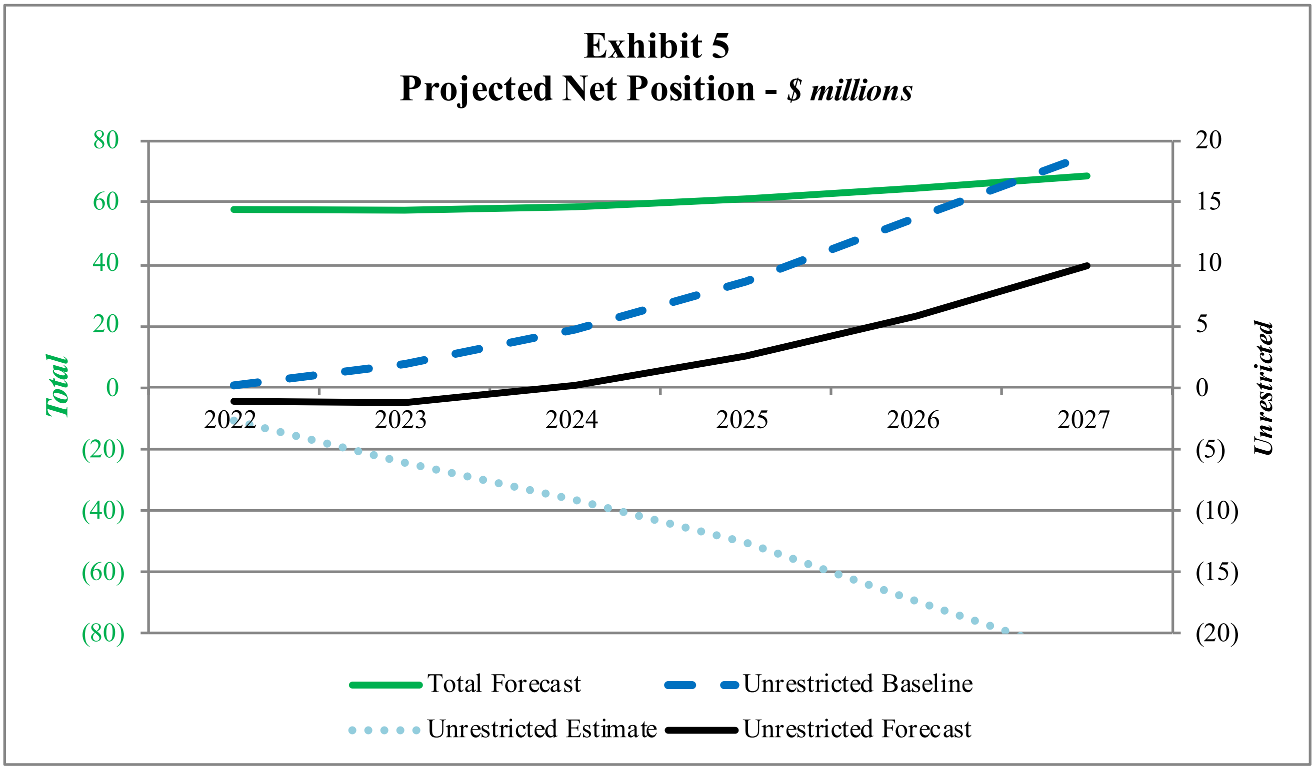
	2022	2023	2024	2025	2026	2027
Rate Covenant	1.20	1.20	1.20	1.20	1.20	1.20
UFP Minimum	1.40	1.40	1.40	1.40	1.40	1.40
Sustainability Target	1.75	1.75	1.75	1.75	1.75	1.75
Baseline Forecast	***1.86***	***2.77***	***2.81***	***3.08***	***3.61***	***4.15***
Current Estimate	***1.15***	***1.17***	***1.29***	***1.22***	***1.12***	***1.03***
Proposed Forecast	1.74	***2.01***	***2.22***	***2.30***	***2.26***	***2.32***

Wastewater Utility Financial Plan Summary



	2022 *$ millions*	2023 *$ millions*	2024 *$ millions*	2025 *$ millions*	2026 *$ millions*	2027 *$ millions*
Fund Balance Targets						
Working Capital	7.5	7.7	8.0	8.3	8.6	8.9
Emergency Capital	4.5	4.6	4.8	5.0	5.1	5.3
Min. Pay Go Fund	1.5	1.6	1.7	1.8	1.9	2.0
	-------	-------	-------	-------	-------	-------
Target Unrestricted	13.5	14.0	14.5	15.1	15.6	16.2
Days Cash Ratio	***168***	***168***	***169***	***169***	***170***	***170***
Range Max @ *150%*	20.2	21.0	21.8	22.6	23.4	24.3
Days Cash	***251***	***252***	***253***	***254***	***254***	***255***
Projections						
Working Capital	7.3	7.7	8.0	8.3	8.6	8.9
Emergency Capital	3.5	4.6	4.8	5.0	5.1	5.3
Pay Go Fund	1.1	1.2	1.8	1.9	2.0	2.1
	-------	-------	-------	-------	-------	-------
Total Unrestricted	11.9	13.6	14.6	15.2	15.7	16.3
Days Cash Ratio	***153***	***168***	***175***	***175***	***175***	***176***

Wastewater Utility Financial Plan Summary



	2022	2023	2024	2025	2026	2027
	$ millions	*$ millions*	*$ millions*	*$ millions*	*$ millions*	*$ millions*
Revenues	32.6	37.2	40.9	44.8	49.1	53.9
CIAC	(28.3)	(29.3)	(30.3)	(31.4)	(32.5)	(33.7)
Operating Exp (a)	0.0	0.0	0.0	0.0	0.0	0.0
less: Depr Expense	(4.8)	(5.2)	(6.0)	(7.1)	(8.8)	(11.0)
less: Interest Exp (b)	(1.9)	(2.7)	(3.3)	(3.8)	(4.7)	(5.1)
	------	------	------	------	------	------
Prxy Chg Net Pos	(2.3)	(0.1)	1.3	2.5	3.2	4.1
Begin Net Position	60.0	57.6	57.5	58.9	61.4	64.6
End Net Position	57.6	57.5	58.9	61.4	64.6	68.7
Adjusted Unrestricted Net Position						
Beginning	1.1	(1.2)	(1.3)	0.1	2.6	5.7
Change	(2.3)	(0.1)	1.3	2.5	3.2	4.1
	------	------	------	------	------	------
Ending	(1.2)	(1.3)	0.1	2.6	5.7	9.9

(a) Includes PILOT, excludes OPEB debt service
(b) Includes OPEB Bond interest

Technical Memorandum

Stantec

To:	James Baker, Director Public Services City of Kalamazoo 241 W. South Street Kalamazoo, MI 49007	From:	Andrew Burnham, Vice President 777 S Harbour Island Boulevard Suite 600 Tampa FL 33602
Project/File:	224801991	Date:	August 24, 2022

Reference: Water Rate Analysis Independent Review

Background

In July 2022, Stantec Consulting Services Inc. (Stantec) was notified by the City of Kalamazoo (City) that it had been selected to provide water rate consulting assistance to the Public Services Department from 2022 to 2024. Immediately upon notification, the City requested that Stantec perform an independent review of an interim or mid-year water rate analysis prepared by its current water rate consultant (The Foster Group, or "TFG") in response to notable changes in conditions since the most recent prior year rate analysis. In response to that time-sensitive request, Stantec was provided with and has reviewed the following information:

1) Report on 2022 Water Rates, prepared by The Foster Group in December 2021
2) Water Service Agreement between the City and the Townships
3) Mid-Year Rate Adjustments Memorandum, prepared by TGF on July 7, 2022
4) Updated Mid-Year Rate Adjustments Memorandum, prepared by TFG on July 22, 2022
5) Supporting spreadsheet models for various scenarios prepared by TFG in support of the mid-year rate adjustment analysis performed in July and August of 2022
6) Proposed Rate Adjustments Memorandum, prepared by TFG on August 23, 2022

As part of reviewing the above information, Stantec was able to participate in conference calls with City staff and TFG to discuss questions, initial observations, and to request clarification and historical context. Moreover, Stantec was also able to participate in a review and discussion of the mid-year rate analysis and options as part of the Utility Policy Meeting on August 11th, during which Stantec offered many of the observations and recommendations presented herein.

In consideration of the above, this technical memorandum has been prepared to summarize our observations regarding changes since the December 2021 Water Rate Report and the most recent mid-year update and proposed rate adjustments prepared by TFG. Moreover, this memorandum will also present a suggested approach or timeline for future year rate calculations.

Reference: Water Rate Analysis Independent Review

2022 Report on Water Rates Prepared in December 2021 – Expectations and Observations

The City's water rates for 2022 were adopted in February and became effective in early March. These rates were established based upon an analysis prepared by TFG in 2021 that was officially published in December of 2021. This report included financial forecasts through 2026, including proposed rate adjustments for 2022 and forecasted rate adjustments for 2023 through 2026. The forecast in the report started from the City's 2022 budget, and incorporated information regarding expected changes available as of November 2021. In reviewing the 2022 Report on Water Rates, Stantec highlighted the following relative to projections for 2022 through 2026:

1) $25.9M of rate revenue in 2022, with no assumed changes in customer base or usage patterns over the forecast period
2) 2022 operating and maintenance expenses of $17.2M, adjusted by 3.0% annual inflation
3) $37.5M of average annual capital improvement requirements from 2022 to 2026, with approximately $3.9M or 10% funded from annual revenues or operating funds.
4) Bond interest rate assumption of 3.6% for all future borrowing in the forecast period
5) Projected debt service coverage of 1.51 in 2022, dropping to 1.43x in 2026
6) Rate Increases: 15.0% in 2022 and 2023; 7.5% annually thereafter (through 2026)
7) Lower levels of reserves in 2022 and 2023, however identified minimum policy targets for Operating and Emergency Capital Reserves met in 2024 through 2026.

In general, Stantec finds that the forecast was prepared using the most current data available and reasonable assumptions based on current economic conditions at the time it was conducted. However, it is important to note that the level of debt financing projected for the identified amount of future capital is a concern. Future consideration should be given to a higher level of cash funding of capital that can more sustainably support this level of capital spending into the future and balance the recovery of capital costs from both current and future customers.

Mid-Year Analysis Performed in July & August – Notable Changes & Risks

As indicated in the memoranda prepared by TFG, the water system has been impacted by recent spikes in inflation that have been observed throughout the country since the 2022 Report on Water Rates was prepared. In reviewing the Proposed Rate Adjustments Memorandum dated August 23, 2022, Stantec has noted the following relative to projections for 2022 through 2026:

1) Slightly higher rate revenue of $26.3M in 2022, with no assumed changes in customer base or usage patterns over the forecast period
2) 2022 operating and maintenance expenses of $18.2M (increase of $1.0M over prior projection), adjusted by 3.5% annual inflation
3) Same level of average annual capital improvement requirements from 2022 to 2026 of $37.5M, but about $5.3M or 15% funded from annual revenues or operating funds.
4) Bond interest rate assumption of 5.0% for future borrowing in forecast period
5) Projected debt service coverage of 1.47 in 2022, <u>increasing</u> to 1.57x by 2026
6) Rate Increases: 20.0% in 2023; 12.0% annually thereafter *(with assumed implementation in January of each fiscal year, versus past practice of March implementation)*
7) Minimum reserve policy targets are met in all years of the forecast period.

In general, Stantec finds that the mid-year forecast is reasonable, reflective of current economic conditions, and presents levels of future rate adjustments that would improve debt coverage to the sustainability target level. However, it is important to note that while the level of debt projected for future capital has been reduced, it is still a concern. Future forecasts should consider more cash funding of capital to sustainably support the level of ongoing or recurring capital needs to balance the recovery of capital costs from both current and future customers.

Additionally, as part of our detailed review of the updated or mid-year forecasts prepared by TFG, discussions with City staff and TFG, experience with other systems, and industry trends, we offer the following considerations that may cause actual results and levels of future rate increases to vary from current projections that will be critical to monitor as part of future forecasts:

1) Due to conservation awareness and increased water efficiency of newer fixtures, there could be a reduction to water use per account (consistent with industry trends) that may cause revenues to be lower than presently projected.

2) The current economic environment may result in higher near-term increases in costs beyond the 3.5% inflation assumption. However, it is also possible that future costs may rise at lower levels more consistent with historical inflation rates. Similarly, there is a high level of interest rate volatility that may cause future interest rates to vary from current assumptions. The impacts of variances on these assumptions may be material.

3) Material changes in the amount, timing, and funding sources of capital requirements will have a substantial impact on the level of future rate increases included in the forecast.

Summary of Findings, Conclusions, and Recommendations

In consideration of the information reviewed and discussions with City staff, TFG, and the UPC during its meeting on August 11, 2022, Stantec offers the following opinions:

1) That the 2022 Report on Water Rates was prepared using the most current data available and reasonable assumptions based on current economic conditions at the time it was conducted.
2) There is anticipated to be an increase of approximately $1M in water operating costs for 2022 that have occurred since the 2022 Report on Water Rates was provided in December of 2021. While not specifically verified, the primarily causes of the increase are attributed by City staff to current unprecedented inflation levels and continued supply chain issues.
3) Larger water rate increases are needed for 2023 and future years than previously projected to satisfy debt coverage and reserve policies as well as fund the same level of capital considering the increased operating costs and current expectations for future inflation and interest rates.
4) Stantec supports the recommendation from TFG for an across-the-board rate increase of 20% in the City's water rates effective in January of 2023, with the intent of no further adjustments to water rates until 2024, and that future rate adjustments become effective as close to January 1 of the budget year in question as possible.
5) The City should begin its cost of service and rate setting process for 2024 rates in the Spring of 2023. This will coincide with the availability of final approved budget information for 2023 as well as complete actual results for 2022. This will allow sufficient time to complete the analysis and review scenarios and options with the UPC during the Summer such that specific rate recommendations can be made by the UPC to the City for approval during the Fall.
6) Considering recent and projected increases in rates needed to satisfy the costs of providing clean and safe water for the community, the City should continue to evaluate household affordability and consider modifications to its customer assistance programs as appropriate.

If you have any questions or would like to discuss this Technical Memorandum, please do not hesitate to call me at (904) 631-5109.

Respectfully yours,

STANTEC CONSULTING SERVICES INC.

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andrew.burnham@stantec.com