

City of Lucas, Texas

Water and Wastewater Rate Study and Five Year Financial Plan

Presented

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Capex Consulting Group

Email: jsnowden@capexconsulting.com

Web site: www.capexconsulting.com



Water and Wastewater Rate Study Objectives

- **Review operating history, debt obligations, and prepare forecasts**
 - Review billing system data and confirm implementation of previous rate recommendations and customer classes
 - Evaluate existing and proposed debt
- **Evaluate current rate structure**
 - Does each customer class contribute an equitable share of revenue based on demand?
 - Are revenues generated at appropriate levels of consumption for each customer class
 - Do rates generate revenue sufficient to pay current and forecast operating and capital costs?
- **Develop and assist with implementation of an improved rate structure**
 - Eliminate cross customer-class subsidies
 - Reduce revenue declines related to weather events
 - Compare current & recommended rates to relevant peer group
 - Provide multi-year rate phase-in
 - Generate revenue sufficient to fund operating and capital costs in a variety of consumption scenarios

Wholesale and Retail Water Flows

CITY OF LUCAS		
WATER & WASTEWATER SYSTEM FLOWS		
	NTMWD Treated Water Deliveries	Metered Water Consumpt
	MG	MG
FYE 2017	506.2	473.9
FYE 2018	562.4	503.2
FYE 2019	527.6	444.2
FYE 2020	549.2	565.6
FYE 2021	548.4	493.5
FYE 2022	728.8	649.6
6 YEAR AVG. ANNUAL GROWTH RATE	7.6%	6.5%

History of Account Growth

CITY OF LUCAS									
Accounts by Customer Class									
	ANNUAL AVERAGE								
	FYE 2017	FYE 2018	FYE 2019	FYE 2020	FYE 2021	FYE 2022	Avg Annual Growth Rate 2017-22	Avg New Accts per Annum	
Water									
Residential Inside	2,170	2,339	2,397	2,439	2,510	2,587	3.6%	83	
Residential Outside	186	102	87	91	92	92	-13.1%	-19	
Commercial Inside	76	83	91	94	97	100	5.7%	5	
Commercial Outside	2	7	7	8	7	10	37.0%	2	
Total Water	2,446	2,534	2,582	2,632	2,706	2,788	2.7%	69	
Annual Rate of Increase	3.7%	3.6%	1.9%	1.9%	2.8%	3.1%			
Wastewater									
Commercial Inside	18	21	22	22	24	25	6.4%	1	
SYSTEM TOTAL	2,464	2,555	2,604	2,654	2,730	2,813	2.7%	70	
Annual Rate of Increase	3.8%	3.7%	1.9%	1.9%	2.8%	3.1%			

Revenue and Expense History

CITY OF LUCAS, TEXAS								
UTILITY COST OF SERVICE AND RATE DESIGN STUDY								
SUMMARY OF REVENUES & EXPENDITURES								
COMBINED UTILITY RATE & NON RATE REVENUES	FYE 17 Budget - Actual	FYE 18 Budget - Actual	FYE 19 Budget - Actual	FYE 20 Budget - Actual	FYE 21 Budget - Actual	FYE 22 - Actuals TBR	FYE 23 - Proposed	AVG. ANNUAL GROWTH FYE 2017-22
OPERATING REVENUE								
Water Sales	\$3,230,660	\$4,102,599	\$3,559,687	\$4,601,629	\$4,277,983	\$5,792,196	\$4,353,461	12.4%
Total Service Revenues	\$3,230,660	\$4,102,599	\$3,559,687	\$4,601,629	\$4,277,983	\$5,792,196	\$4,353,461	12.4%
Total Other Charges for Services	\$841,800	\$905,329	\$667,211	\$608,786	\$791,014	\$520,924	\$431,200	-9.2%
Total Operating Revenues	\$4,072,461	\$5,007,927	\$4,226,898	\$5,210,415	\$5,068,997	\$6,313,121	\$4,784,661	9.2%
OPERATING EXPENSES								
WATER FUND - OPERATIONS	\$2,775,692	\$3,033,245	\$3,093,086	\$3,236,102	\$3,244,015	\$3,580,976	\$4,014,716	5.2%
PUBLIC WORKS ENGINEERING	\$114,140	\$100,469	\$120,888	\$136,157	\$235,324	\$159,658	\$196,003	6.9%
Total Operating Expenditures	\$2,889,833	\$3,133,714	\$3,213,974	\$3,372,259	\$3,479,339	\$3,743,134	\$4,215,394	5.3%

All Water and Wastewater Debt

CITY OF LUCAS							
SUMMARY OF ALL WATER & WW DEBT							
ISSUE			Original Amount Issued	Range of Interest Rates	Bal. End FY 2022	% Allocated to Water	% Allocated To WW
Certificates of Obligation, Series 2007			\$2,500,000	Variable	\$625,000	100%	0%
Certificates of Obligation, Series 2017 - UF Component			\$2,920,000	3.0%	\$2,345,000	100%	0%
Certificates of Obligation, Series 2019 - UF Component			\$1,390,000	5.0%	\$1,240,000	100%	0%
General Obligation, Series 2020 - UF Component			\$1,165,000	4.0%	\$1,070,000	100%	0%
TOTAL			\$7,975,000		\$5,280,000	\$5,280,000	\$0
FYE	Begin Period Debt	Less Refundings	Plus Additions	Principal	Interest	Total Debt Service	Ending Principal
2022	\$5,775,000	\$0	\$0	\$495,000	\$177,135	\$672,135	\$5,280,000
2023	\$5,280,000	\$0	\$0	\$410,000	\$159,549	\$569,549	\$4,870,000
2024	\$4,870,000	\$0	\$0	\$415,000	\$144,511	\$559,511	\$4,455,000
2025	\$4,455,000	\$0	\$0	\$430,000	\$129,099	\$559,099	\$4,025,000
2026	\$4,025,000	\$0	\$0	\$445,000	\$113,261	\$558,261	\$3,580,000
2027	\$3,580,000	\$0	\$0	\$450,000	\$98,224	\$548,224	\$3,130,000
2028	\$3,130,000	\$0	\$0	\$335,000	\$84,318	\$419,318	\$2,795,000
2031	\$2,095,000	\$0	\$0	\$370,000	\$53,405	\$423,405	\$1,725,000
2032	\$1,725,000	\$0	\$0	\$240,000	\$45,305	\$285,305	\$1,485,000
2038	\$180,000	\$0	\$0	\$90,000	\$3,544	\$93,544	\$90,000
2039	\$90,000	\$0	\$0	\$90,000	\$1,181	\$91,181	\$0
2040	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Pro Forma Cash Flow under Current Rates – Avg. Consumption

CITY OF LUCAS

CASH FLOW SUMMARY-WATER & WW

CONSUMPTION SCENARIO

AVERAGE

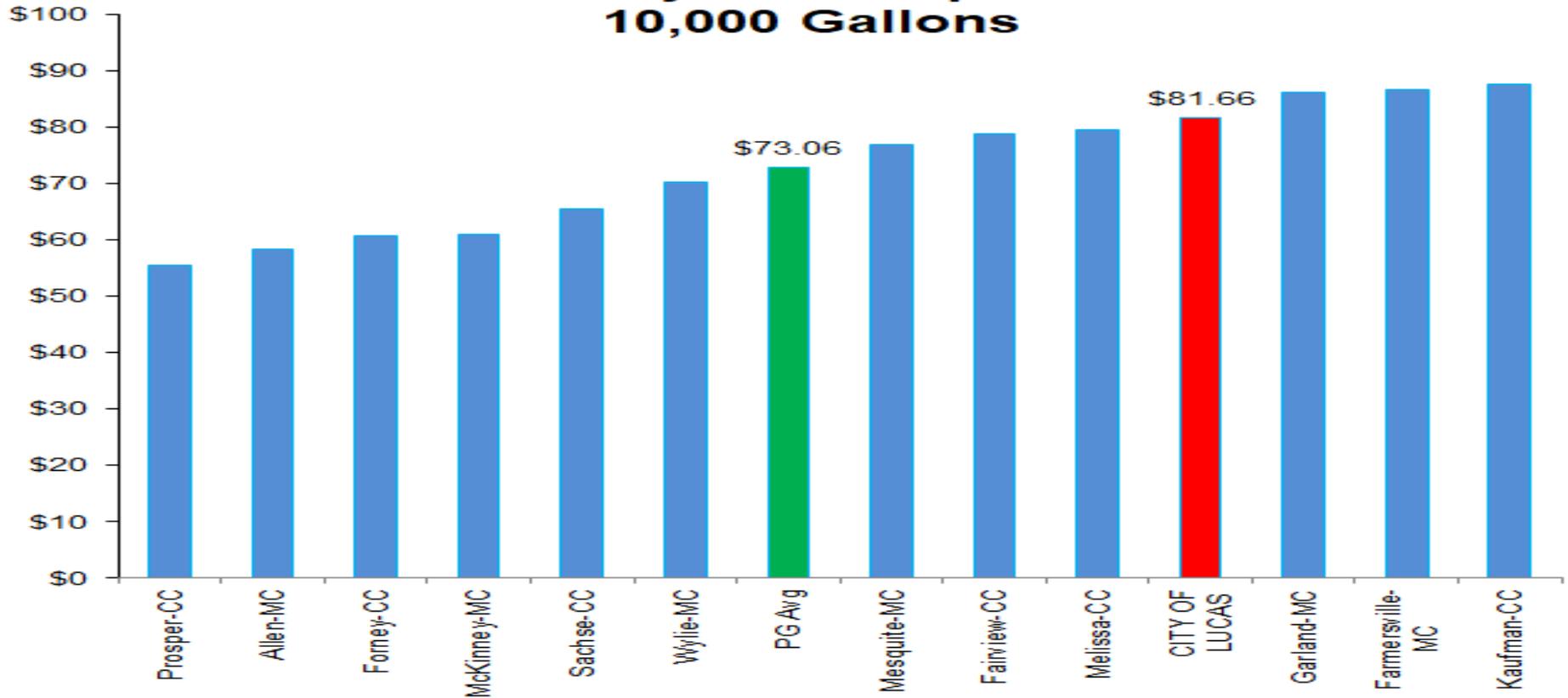
	FYE			FYE		
	2022	2023	2024	2025	2026	2027
Rate Revenues	\$5,824,357	\$4,538,600	\$4,633,003	\$4,729,370	\$4,827,741	\$4,928,158
Non-Rate Revenues	\$520,924	\$431,200	\$448,448	\$466,386	\$485,041	\$504,443
TOTAL REVENUES	\$6,345,281	\$4,969,800	\$5,081,451	\$5,195,756	\$5,312,782	\$5,432,601
TOTAL EXPENSES	\$3,743,134	\$4,215,394	\$4,701,220	\$5,141,744	\$5,580,771	\$6,001,605
Net Rev. Avail. For Debt Svc.	\$2,602,147	\$754,406	\$380,231	\$54,011	-\$267,990	-\$569,004
DS- GEN. OBLIGATION / AD VALOREM TAX SUPPORTED						
TOTAL ALL DEBT SERVICE	\$672,135	\$569,549	\$559,511	\$559,099	\$558,261	\$548,224
Coverage Ratio on All Debt: Current Rev, Current	3.87	1.32	0.68	0.10	-0.48	-1.04
CASH AFTER ALL DEBT SVC.	\$1,930,012	\$184,858	(\$179,280)	(\$505,088)	(\$826,251)	(\$1,117,228)
Total Capital Outlays	\$0	\$150,000	\$607,500	\$565,375	\$623,644	\$582,326
FY END BALANCE	\$1,930,012	\$34,858	(\$786,780)	(\$1,070,463)	(\$1,449,895)	(\$1,699,554)

Water Revenue: Distribution of Metered Water Consumption and Billed Revenue by Customer Class

CITY OF LUCAS				
REVENUE TO DEMAND COMPARISON BY CUSTOMER CLASS				
Water				
Customer Class	FYE 2021 Billed Revenue	FYE 2021 Volume	% Billed Revenue to Total	% Billed Usage to Total
Residential Inside	\$3,890,053	461,941,600	90.1%	93.6%
Residential Outside	\$108,078	7,649,100	2.5%	1.5%
Commercial Inside	\$255,029	20,143,200	5.9%	4.1%
Commercial Outside	\$66,551	3,799,600	1.5%	0.8%
Total	\$4,319,711	493,533,500	100%	100%

Residential Peer Group Comparison – Current Water Rates $\frac{3}{4}$ " Meter

Current Residential Water Monthly Bill Comparison 10,000 Gallons



Note: MC = Member City, CC = Customer City

Cost Impact of Proposed Water Rates: Residential

CITY OF LUCAS

PROPOSED WATER RATES:

Residential Inside

NO. ACCOUNTS

2,510

AVERAGE CONSUMPTION

16,117

AVERAGE CONSUMPTION - WINTER

8,242

CONSUMPTION SCENARIO

PROPOSED

METER SIZE ASSUMPTION FOR CALC

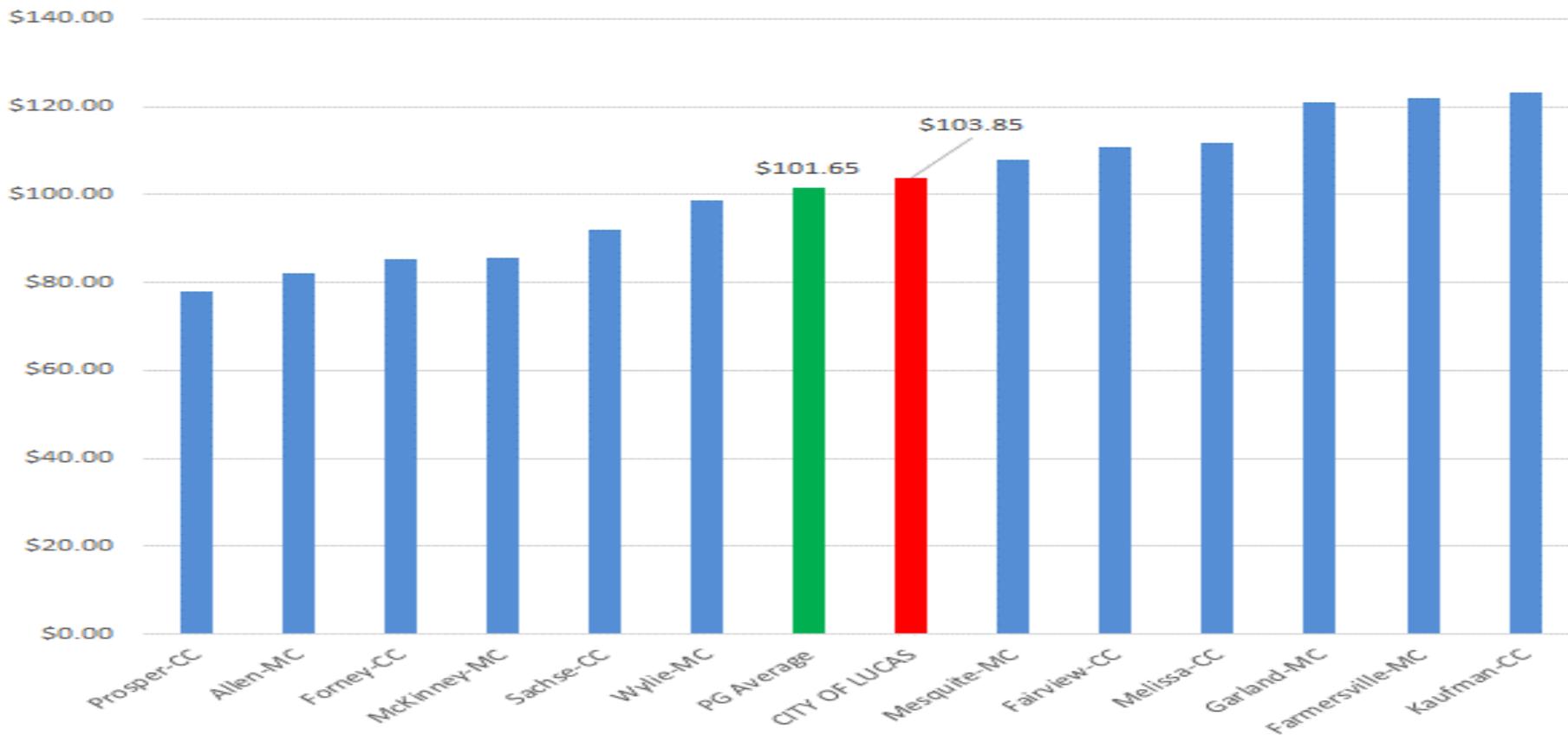
5/8 & 3/4" Meter - R1

		FYE2022	03/01/23	10/01/23	10/01/24	10/01/25	10/01/26	Avg Annual Increase
Impact on Monthly Bill			<i>\$ Incr.</i>					
Usage - Gallons	4,000	\$37.71	\$39.64	\$41.61	\$43.62	\$45.67	\$47.75	4.8%
<i>Cost Increase</i>			<i>\$1.94</i>	<i>\$1.97</i>	<i>\$2.01</i>	<i>\$2.05</i>	<i>\$2.09</i>	<i>\$2.01</i>
Usage - Gallons	6,000	\$52.06	\$54.71	\$57.44	\$60.23	\$63.11	\$66.07	4.9%
<i>Cost Increase</i>			<i>\$2.65</i>	<i>\$2.72</i>	<i>\$2.80</i>	<i>\$2.88</i>	<i>\$2.96</i>	<i>\$2.80</i>
Usage - Gallons	10,000	\$81.66	\$85.79	\$90.07	\$94.50	\$99.09	\$103.85	4.9%
<i>Cost Increase</i>			<i>\$4.13</i>	<i>\$4.28</i>	<i>\$4.43</i>	<i>\$4.59</i>	<i>\$4.76</i>	<i>\$4.44</i>
Usage - Gallons	16,000	\$128.16	\$134.62	\$141.33	\$148.33	\$155.61	\$163.19	5.0%
<i>Cost Increase</i>			<i>\$6.46</i>	<i>\$6.72</i>	<i>\$6.99</i>	<i>\$7.28</i>	<i>\$7.58</i>	<i>\$7.01</i>
Usage - Gallons	21,000	\$166.90	\$175.30	\$184.05	\$193.18	\$202.70	\$212.64	5.0%
<i>Cost Increase</i>			<i>\$8.40</i>	<i>\$8.75</i>	<i>\$9.13</i>	<i>\$9.52</i>	<i>\$9.94</i>	<i>\$9.15</i>

Note: 5/8" meter used for comparison purposes in order to be consistent with peer group Cities reporting to TML

Forecast Res. Peer Group Comparison after Water Rate Increases – 7% Annual PG Escalator Assumed

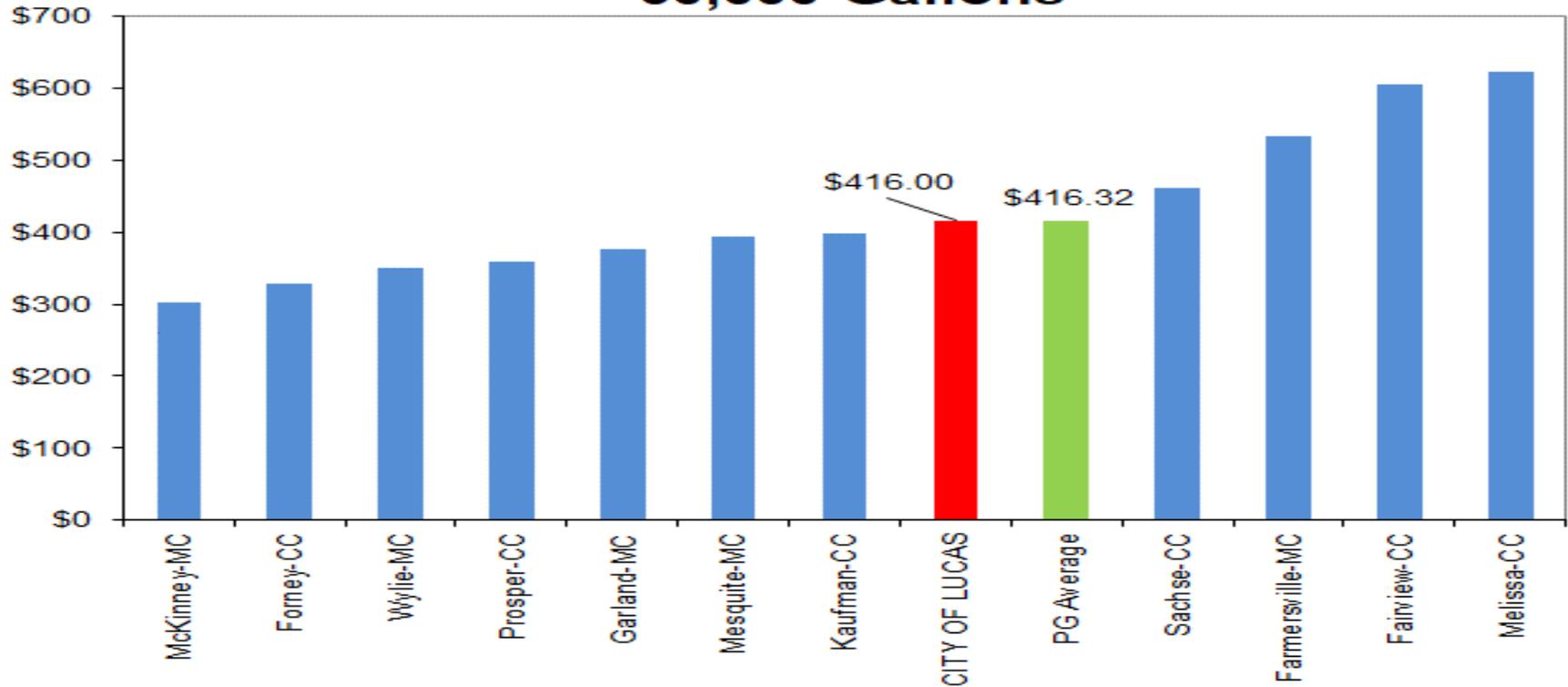
FYE 2027 Forecast
Residential Water Rates @ 10,000 Gallons



Note: MC = Member City, CC = Customer City

Commercial Peer Group Comparison – Current Water Rates

Current Commercial Water Monthly Bill Comparison 50,000 Gallons



Note: MC = Member City, CC = Customer City

Cost of Proposed Water Rates: Commercial

CITY OF LUCAS

PROPOSED WATER RATES:

Commercial Inside

NO. ACCOUNTS

97

AVERAGE CONSUMPTION

21,410

AVERAGE CONSUMPTION - WINTER

13,100

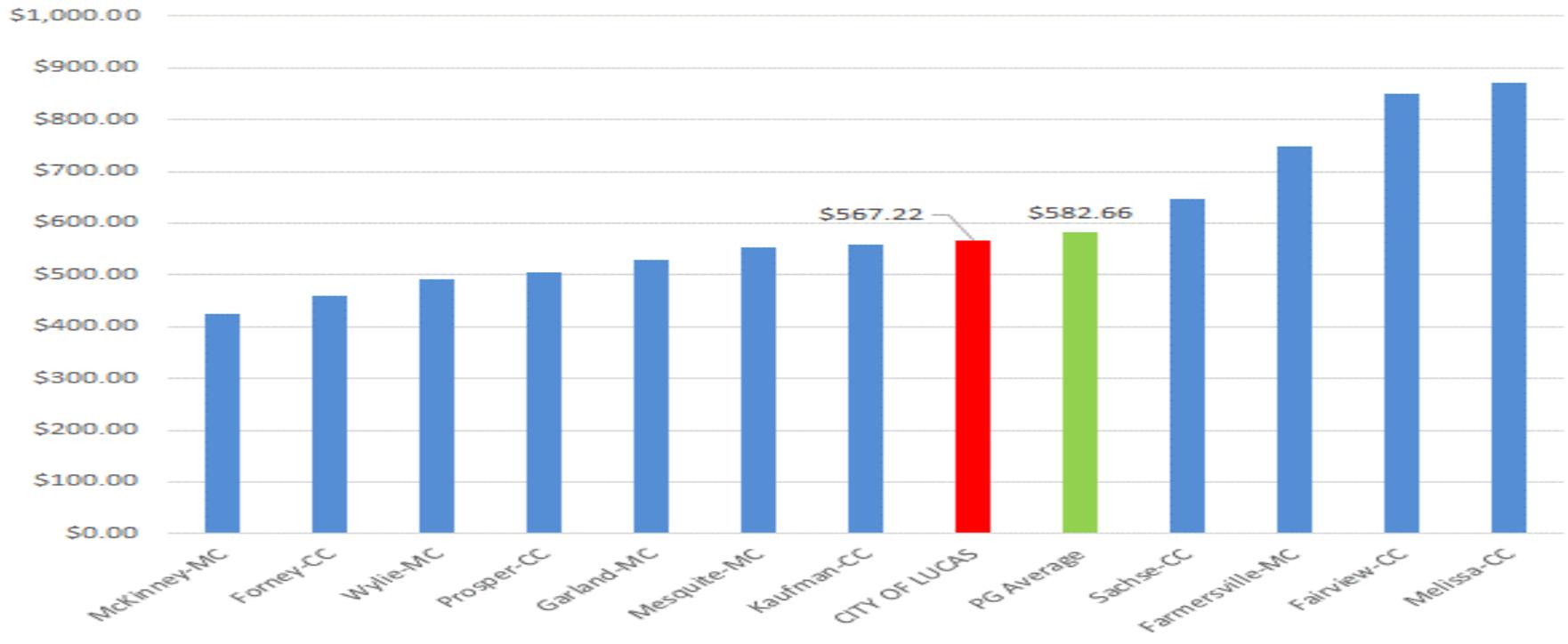
METER SIZE ASSUMPTION FOR CALC

5/8 & 3/4" Meter - CI

	FYE2022	03/01/23	10/01/23	10/01/24	10/01/25	10/01/26	Avg Annual Increase
Impact on Monthly Bill		\$ Incr.					
Usage	50,000	\$416.00	\$442.72	\$471.09	\$501.21	\$533.22	6.4%
Cost Increase			\$26.72	\$28.37	\$30.13	\$32.00	\$30.24

Forecast Comm. Peer Group Comparison after Water Rate Increases – 7% Annual PG Escalator Assumed

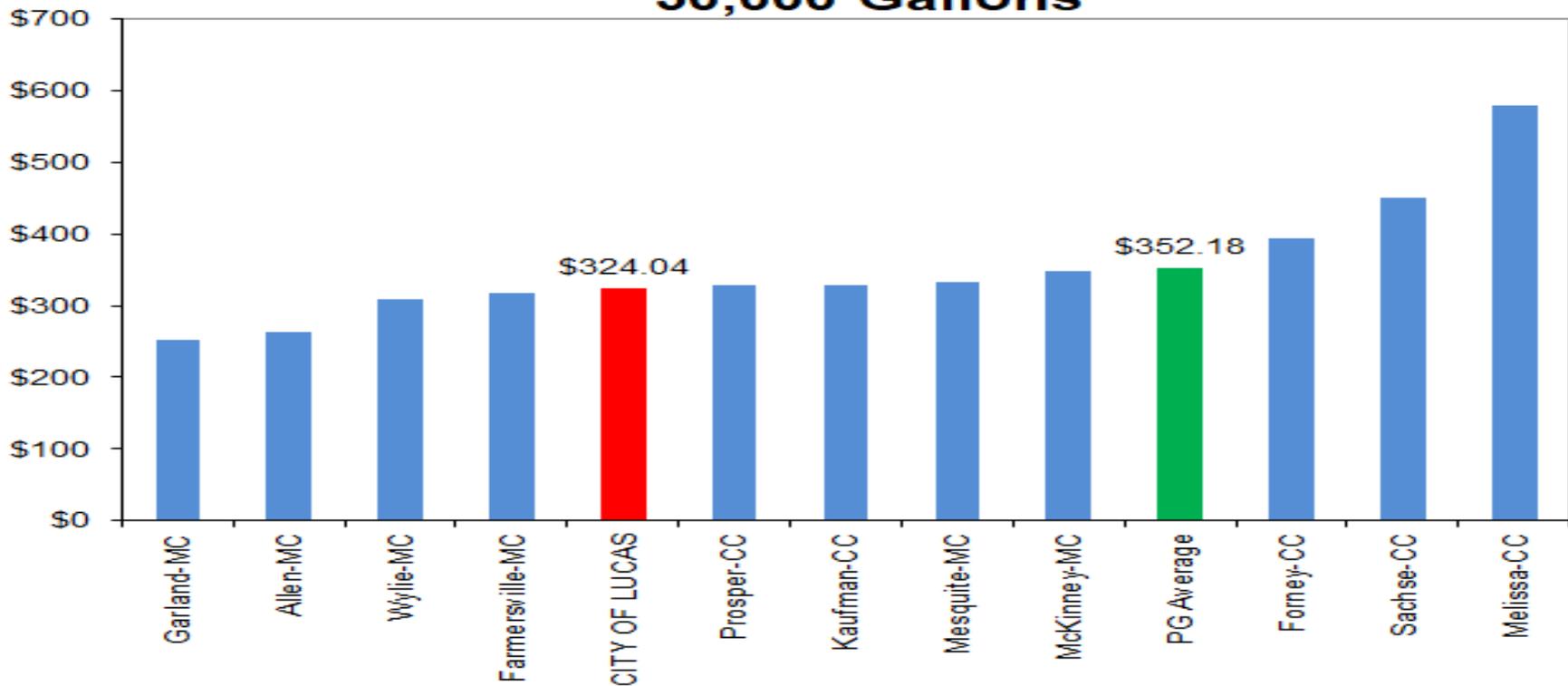
**FYE 2027 Forecast
Commercial
Meter Size = 5/8" and 3/4"
Water Bill @ 50,000 Gallons**



Note: MC = Member City, CC = Customer City

Commercial Peer Group Comparison – Current Wastewater Rates ¾” Meter

Current Commercial Wastewater Monthly Bill Comparison 50,000 Gallons



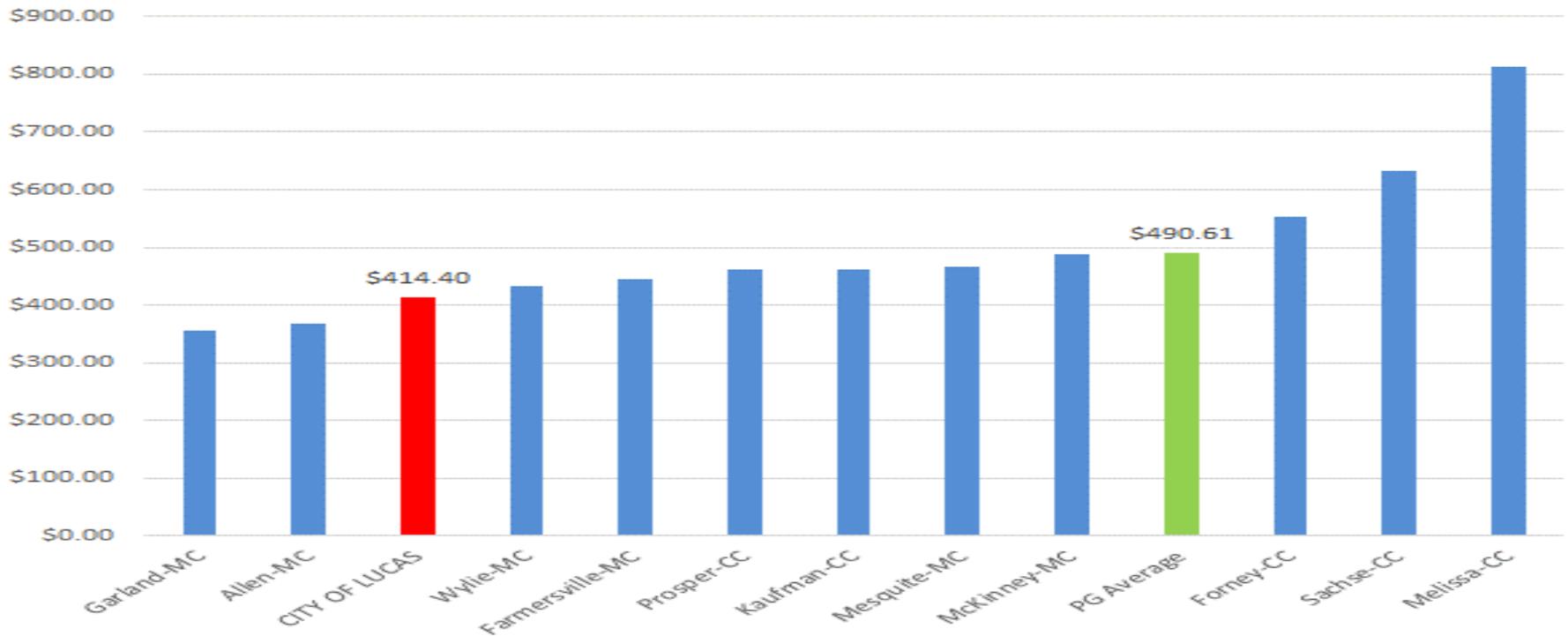
Note: MC = Member City, CC = Customer City

Cost of Proposed Wastewater Rates: Commercial

CITY OF LUCAS								
PROPOSED WASTEWATER RATES:				Commercial Inside				
NO. ACCOUNTS		25						
AVERAGE CONSUMPTION		14,542						
AVERAGE CONSUMPTION - WINTER		14,736						
METER SIZE ASSUMPTION FOR CALC				SC50 - 5/8" Meter				
		FYE2022	03/01/23	10/01/23	10/01/24	10/01/25	10/01/26	Avg Annual Increase
Impact on Monthly Bill			\$ Incr.	\$ Incr.	\$ Incr.	\$ Incr.	\$ Incr.	
Usage - Gallons	50,000	\$324.04	\$340.58	\$357.84	\$375.88	\$394.72	\$414.40	5.0%
Cost Increase			\$16.53	\$17.27	\$18.03	\$18.84	\$19.69	\$18.07

Forecast Commercial Peer Group Comparison after WW Rate Increases – 7% Annual PG Escalator Assumed

**FYE 2027 Forecast
Commercial
Meter Size = 5/8" and 3/4"
Wastewater Bill @ 50,000 Gallons**



Note: MC = Member City, CC = Customer City

Pro Forma Cash Flow under Recommended Rates – Average Consumption

CITY OF LUCAS

CASH FLOW SUMMARY-WATER & WW

CONSUMPTION SCENARIO

AVERAGE

	FYE	FYE	FYE	FYE	FYE	FYE
	2022	2023	2024	2025	2026	2027
Rate Revenues	\$5,824,357	\$4,904,760	\$5,518,744	\$5,915,980	\$6,338,590	\$6,788,282
Non-Rate Revenues	\$520,924	\$431,200	\$448,448	\$466,386	\$485,041	\$504,443
TOTAL REVENUES	\$6,345,281	\$5,335,960	\$5,967,192	\$6,382,366	\$6,823,631	\$7,292,725
TOTAL EXPENSES	\$3,743,134	\$4,215,394	\$4,701,220	\$5,141,744	\$5,580,771	\$6,001,605
Net Rev. Avail. For Debt Svc.	\$2,602,147	\$1,120,566	\$1,265,972	\$1,240,621	\$1,242,859	\$1,291,120
DS- GEN. OBLIGATION / AD VALOREM TAX SUPPORTED						
TOTAL ALL DEBT SERVICE	\$672,135	\$569,549	\$559,511	\$559,099	\$558,261	\$548,224
Coverage Ratio on All Debt: Current Rev, Current	3.87	1.97	2.26	2.22	2.23	2.36
CASH AFTER ALL DEBT SVC.	\$1,930,012	\$551,017	\$706,460	\$681,523	\$684,598	\$742,896
Total Capital Outlays	\$0	\$150,000	\$607,500	\$565,375	\$623,644	\$582,326
FY END BALANCE	\$1,930,012	\$401,017	\$98,960	\$116,148	\$60,954	\$160,570

Recommended Next Steps

- Incorporate Staff and Council comments into study
- Advise ratepayers of proposed increases
- Approve rate ordinance