

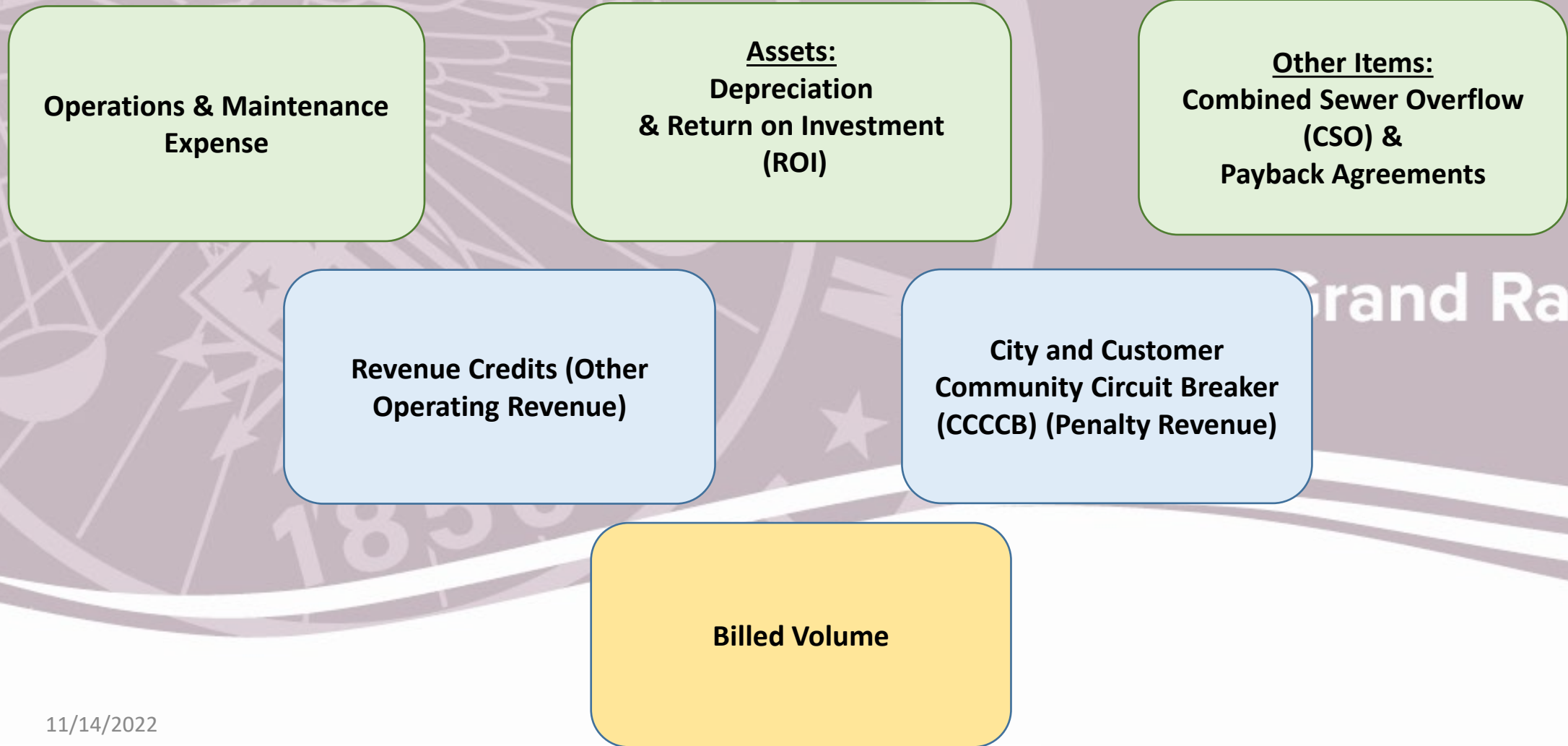


City of Grand Rapids

Water & Sewer Systems

**46th Annual Preliminary Rate Study
November 15, 2022**

Building Blocks of the Revenue Requirement



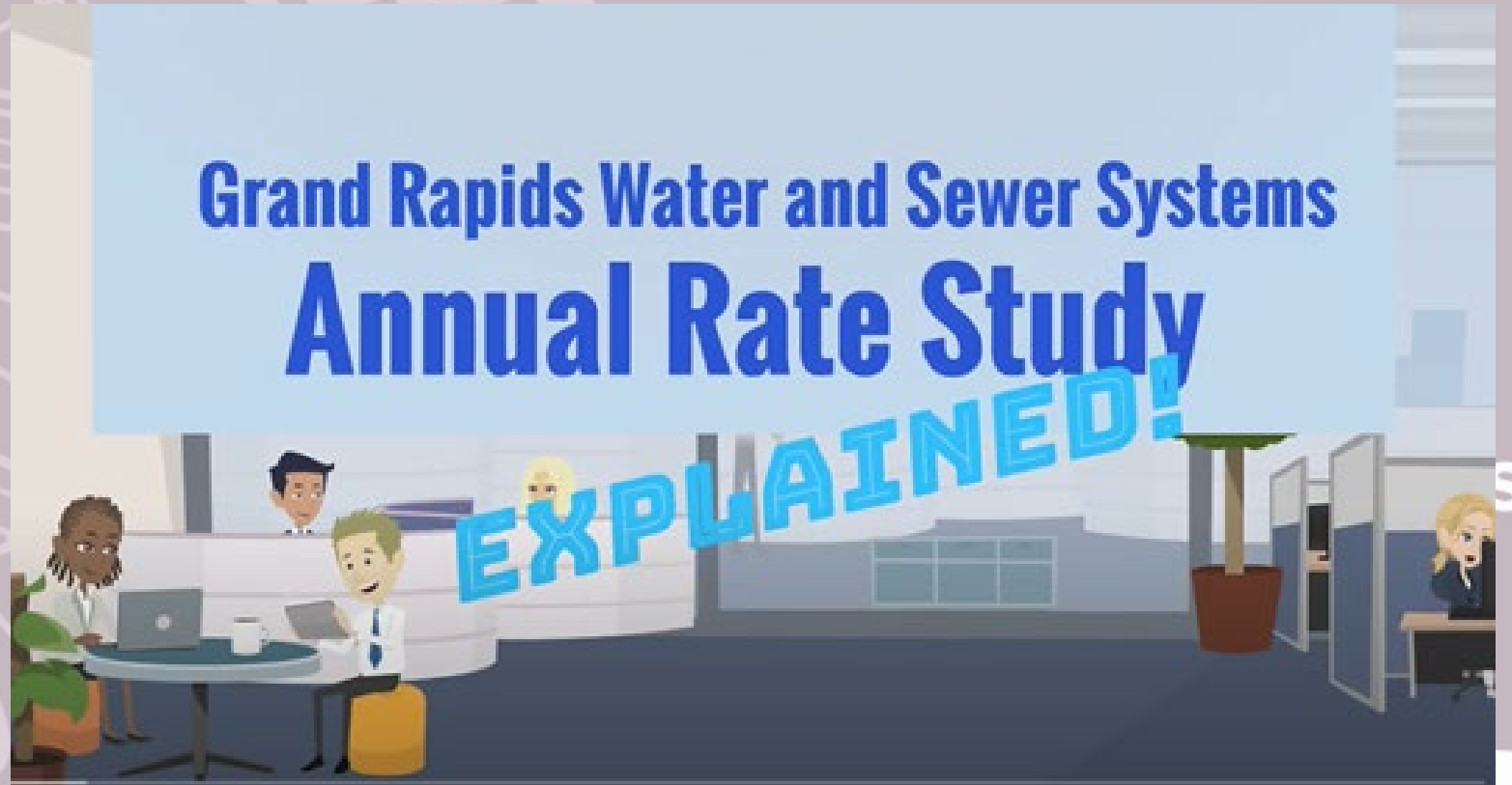
“¡Ahora
en
Español!”

Available here:

[Water and Sewer Rate Study
\(grandrapidsmi.gov\)](https://www.grandrapidsmi.gov)

Grand Rapids Water and Sewer Systems Annual Rate Study

EXPLAINED!



15-Year Historical Rate Changes

Rate Study Year	Water Supply System			Sewage Disposal System		
	Revenue Requirements	% change in RR over prev year	% gross rate incr (decr) **	Revenue Requirements	% change in RR over prev year	% gross rate incr (decr) **
2007	\$ 40,270,271	1.62%	4.95%	\$ 42,742,825	11.60%	15.73%
2008	42,017,680	4.34%	2.45%	47,092,925	10.18%	14.69%
2009	42,939,752	2.19%	9.89%	51,378,424	9.10%	14.04%
2010	41,200,107	-4.05%	-6.27%	49,673,390	-3.32%	-3.30%
2011	41,802,404	1.46%	5.15%	50,082,541	0.82%	2.89%
2012	39,247,442	-6.11%	-4.41%	48,183,681	-3.79%	-2.46%
2013	38,646,748	-1.53%	-4.30%	48,946,212	1.58%	2.46%
2014	40,055,985	3.65%	2.50%	49,962,043	2.08%	2.81%
2015	40,178,439	0.31%	1.00%	49,868,027	-0.19%	0.30%
2016	41,187,517	2.51%	3.63%	50,400,344	1.07%	0.36%
2017	42,828,972	3.99%	2.45%	52,319,981	3.81%	3.08%
2018	43,868,464	2.43%	2.71%	54,611,300	4.38%	3.28%
2019	45,752,997	4.30%	2.47%	56,969,417	4.32%	3.49%
2020	45,501,943	-0.55%	0.62%	61,242,290	7.50%	7.92%
2021	47,692,896	4.82%	4.08%	62,943,059	2.78%	4.00%
2022*	50,122,073	5.09%	5.68%	63,232,742	0.46%	1.07%
AVG	42,707,106	1.53%	2.04%	52,478,075	3.27%	4.40%

* Revenue Requirements per the 2022 Preliminary Rate Study.

** The percentage gross rate increase (decrease) differs from the annual percentage change in Revenue Requirements due to differences in usage volumes/customers/application of Circuit Breaker
 -Annual inflation for the 12 months ending September 2022 was 8.2%

Grand Rapids

Rate Impact Factors - Water

2022 Water Rate Study Rate Drivers	% Impact
Increases:	
Assets – ROI and Depreciation: \$34.2M in service (water mains, Livingston PS, Wilson PS, LMFP Investments) (ROI % up)	3.77%
Revenue Credits/Integrated Connection Fee Credit (permits/inspections and connection fees down)	0.64%
Revenue Expectation (3-yr avg water billed volume down)	0.56%
O&M – Personnel services (union wage increases and sign on bonuses) Chemical pricing increases	0.47%
Circuit Breaker Credit (penalty revenue applied down)	0.24%
Proposed System Average Rate Increase	5.68%

and Rapids

Rate Impact Factors - Sewer

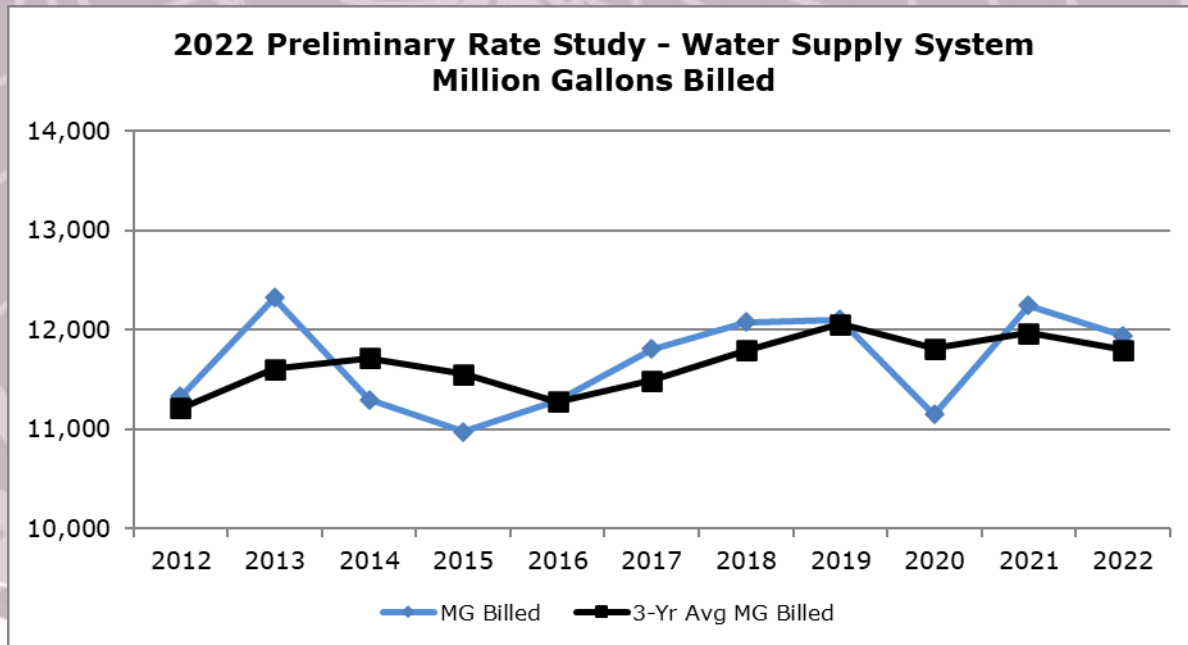
2022 Sewer Rate Study Rate Drivers	% Impact
Increases:	
Assets – ROI and Depreciation: \$13.3M in service (sewer mains, Market Ave Sewer Relocation, WRRF Investments) (ROI % up)	1.79%
O&M – GVRBA contract work Consumers Energy Chemical pricing increases	1.45%
Revenue Expectation (3-yr avg sewer billed volume down)	0.61%
Circuit Breaker Credit (penalty revenue applied down)	0.20%
Decreases:	
Revenue Credits/Integrated Connection Fee Credit (surcharge revenue up plus some green gas revenue from the digester)	(2.02%)
CSO Debt Service Requirement (GR only)	(0.96%)
Proposed Rate Increase	1.07%

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Billed Volume

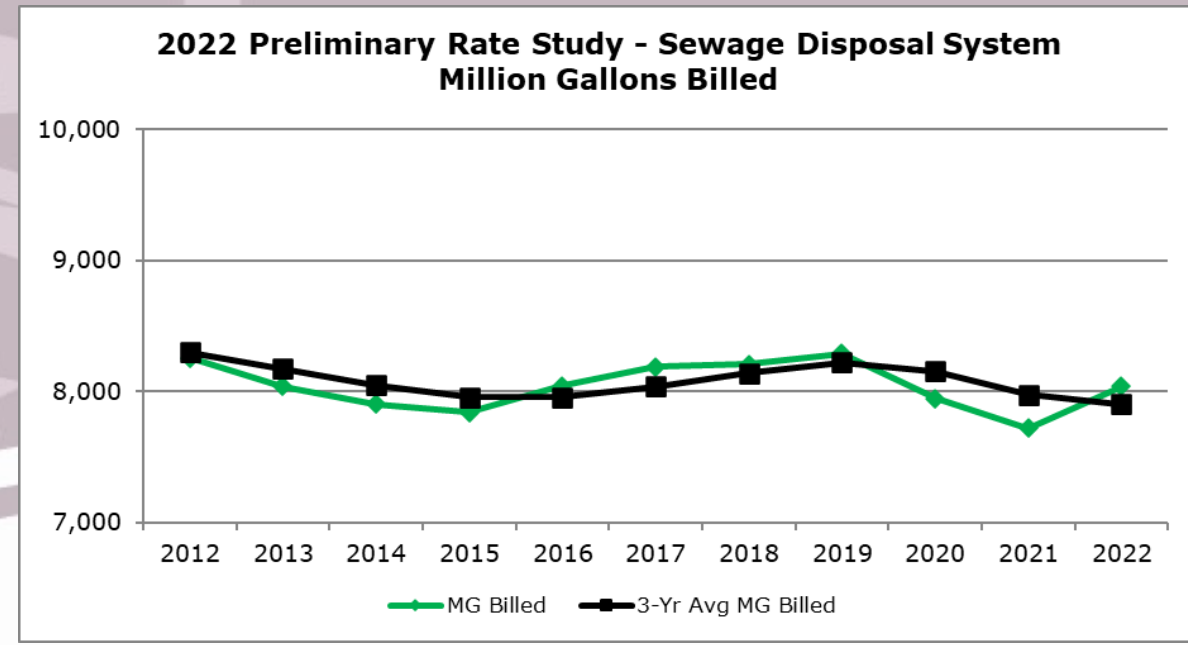
Water Supply System

2022 Water volume down (2.48%) over 2021
3-Yr Avg Water volume **down** (1.42%)



Sewer Disposal System

2022 Sewer Volume up 4.13% over 2021
3-Yr Avg Sewer Volume **down** (0.89%)



Partner Communities Water Billed Volume FY22

VOLUME = 1,000 GALLONS

<i>MUNICIPALITY</i>	<i>FY18 VOL BILLED</i>	<i>FY19 VOL BILLED % CHANGE</i>	<i>FY20 VOL BILLED % CHANGE</i>	<i>FY21 VOL BILLED % CHANGE</i>	<i>FY22 VOL BILLED % CHANGE</i>	<i>FY18 - FY22 % CHANGE</i>
GRAND RAPIDS	6,346,480	6,417,706 1.12%	5,899,570 -8.07%	6,288,343 6.59%	6,151,371 -2.18%	-3.07%
WALKER	939,897	929,719 -1.08%	835,703 -10.11%	952,327 13.96%	923,869 -2.99%	-1.71%
KENTWOOD	1,377,822	1,342,574 -2.56%	1,190,449 -11.33%	1,305,704 9.68%	1,270,170 -2.72%	-7.81%
CASCADE TWP	739,323	695,896 -5.87%	585,011 -15.93%	686,898 17.42%	697,931 1.61%	-5.60%
GRAND RAPIDS TWP	541,008	545,871 0.90%	462,801 -15.22%	573,570 23.93%	528,741 -7.82%	-2.27%
TALLMADGE TWP	37,179	41,592 11.87%	37,831 -9.04%	48,587 28.43%	52,057 7.14%	40.02%
EAST GRAND RAPIDS**	419,637	413,246 -1.52%	422,907 2.34%	430,073 1.69%	429,664 -0.10%	2.39%
OTTAWA COUNTY***	1,209,789	1,280,873 5.88%	1,299,136 1.43%	1,492,668 14.90%	1,426,225 -4.45%	17.89%
ADA TWP	463,080	438,337 -5.34%	417,313 -4.80%	466,832 11.87%	461,794 -1.08%	-0.28%
TOTAL	12,074,215	12,105,814 0.26%	11,150,721 -7.89%	12,245,001 9.81%	11,941,820 -2.48%	-1.10%

Partner Communities Sewer Billed Volume FY22

VOLUME = 1,000 GALLONS

MUNICIPALITY	FY18		FY19		FY20		FY21		FY22		FY18 - FY22
	VOL BILLED	% CHANGE	VOL BILLED	% CHANGE	VOL BILLED	% CHANGE	VOL BILLED	% CHANGE	VOL BILLED	% CHANGE	% CHANGE
GRAND RAPIDS	4,931,223	-0.24%	4,998,134	1.36%	4,782,754	-4.31%	4,706,480	-1.59%	4,848,898	3.03%	-1.67%
WALKER	646,233	-0.73%	637,561	-1.34%	596,412	-6.45%	604,510	1.36%	628,004	3.89%	-2.82%
KENTWOOD	1,069,319	3.56%	1,060,147	-0.86%	976,528	-7.89%	1,001,673	2.57%	991,359	-1.03%	-7.29%
CASCADE	353,054	-1.59%	357,434	1.24%	330,505	-7.53%	335,188	1.42%	351,062	4.74%	-0.56%
GRAND RAPIDS TWP	284,378	-1.78%	293,245	3.12%	278,126	-5.16%	284,929	2.45%	291,121	2.17%	2.37%
TALLMADGE	24,350	13.50%	27,276	12.02%	25,812	-5.37%	27,089	4.95%	29,628	9.37%	21.67%
WRIGHT TWP	18,885	-2.98%	19,834	5.03%	20,025	0.96%	12,023	-39.96%	15,037	25.07%	-20.37%
EAST GRAND RAPIDS	441,259	12.13%	461,287	4.54%	498,507	8.07%	359,057	-27.97%	459,754	28.04%	4.19%
ADA TWP	296,101	-6.12%	291,737	-1.47%	292,738	0.34%	264,616	-9.61%	276,776	4.60%	-6.53%
CALEDONIA TWP	29,741	-5.98%	28,715	-3.45%	25,910	-9.77%	21,012	-18.90%	30,777	46.47%	3.48%
GAINES TWP	113,527	-15.19%	115,345	1.60%	122,183	5.93%	103,780	-15.06%	116,742	12.49%	2.83%
TOTAL	8,208,070	0.22%	8,290,715	1.01%	7,949,500	-4.12%	7,720,357	-2.88%	8,039,158	4.13%	-2.06%

System Investment –Asset Additions June 30, 2022

Water Supply System: \$34.2M		Sewer Disposal System: \$13.3M	
Integrated System: \$4.7M		Integrated System: \$1.6M	
LMFP Switchgear Replacements	\$2.4M	WRRF – Biodigestion	\$767k
LMFP Revetment Improvements	\$1.2M	WRRF – Biogas to RNG	\$214k
LMFP Residual Improvements	\$628k	WRRF – Phosphorus Recovery	\$298k
LMFP Septic System Ph2	\$423k	Other WRRF	\$306k
Non-Integrated System: \$29.5M		Non-Integrated System: \$11.7M	
Grand Rapids:		Grand Rapids:	
-Water Mains (\$222k Livingston, \$125k Mason-Monroe)	\$17.1M	-Sewer Mains (\$5.8M Market Ave and Plaster Creek)	\$11.7M
-Auxiliary Equipment: Livingston PS, Wilson PS, Bristol PS, Dean Lake PS, distribution gear valves, pressure mod	\$4.1M	Cascade:	
-Process Equipment: Livingston PS, Wilson PS, Booster D	\$3.2M	-Sewer Mains	\$32k
-Buildings: Livingston PS, Wilson PS	\$2.5M		
-Storage: Wilson PS	\$1.6M		
-Land Improvement/Machinery: Livingston PS	\$387k		
Walker:			
-Water Mains	\$691k		

-Denotes zoned (shared) asset.

Circuit Breaker Calculation

	Water/Sewer
City & Customer Community Circuit Breaker (CCCCB): Penalty Revenue (87.5%)*	\$913,118
Individual Circuit Breaker (ICB):	
Penalty Revenue (12.5%)	130,446
Other Non-op Revenue	80,000
Total ICB	\$210,446
Total Circuit Breaker Funds	\$1,123,564
*CCCCB funds used in 2022 Rate Study	\$680,880

Kent County Community Action (KCCA) facilitates the ICB on behalf of the City of Grand Rapids. In Calendar year (CY) 2022, the ICB moved to a reimbursement model for disbursements rather than issuing “draws”. Total remaining ICB balance for CY 2022 is \$129,209.77.

Grand Rapids

Prelim 2023 Rate Impact by Community

Retail Communities: charges assessed directly to User based on water consumption (except for Wright Twp – REUs). Readiness to Serve (RTS) based on meter size and Commodity based on volume. City of GR maintains assets and bills users directly.

Wholesale Communities: charges assessed directly to Wholesale Community based on water consumption measured through a master meter at the point of service in the customer community. Readiness to Serve (RTS) based on non-integrated system requirements and Commodity based on volume. Customer community maintains assets and bills users directly.

	WATER (1)		SEWER (1)	
	AMOUNT	PERCENT	AMOUNT	PERCENT
RETAIL COMMUNITIES				
GRAND RAPIDS	\$ 1,740,355	6.27%	\$ 528,951	1.27%
WALKER	57,121	1.50%	14,984	0.27%
NET OF CONTRIBUTION OF:	(181,741)		-	
KENTWOOD	200,019	4.25%	88,770	1.71%
CASCADE TWP	137,344	3.76%	52,124	1.71%
GRAND RAPIDS TWP	160,044	6.27%	50,307	1.71%
TALLMADGE TWP	7,941	3.31%	8,231	1.71%
WRIGHT TWP	N/A	N/A	(45,285)	-13.59%
WHOLESALE COMMUNITIES				
EAST GRAND RAPIDS	3,577	0.41%	12,761	0.99%
ADA TWP	123,810	8.85%	6,865	0.44%
OTTAWA COUNTY	83,034	3.40%	NA	NA
GAINES TWP	N/A	N/A	(42,901)	-12.05%
CALEDONIA TWP	N/A	N/A	(2,878)	-1.34%
SYSTEM	\$ 2,694,987	5.68%	\$ 671,929	1.07%

(1) Change in revenue requirements based on revenues currently generated from rates, customer base and volumes reported in the preliminary rate study (Includes consideration for relief from CCCCB).

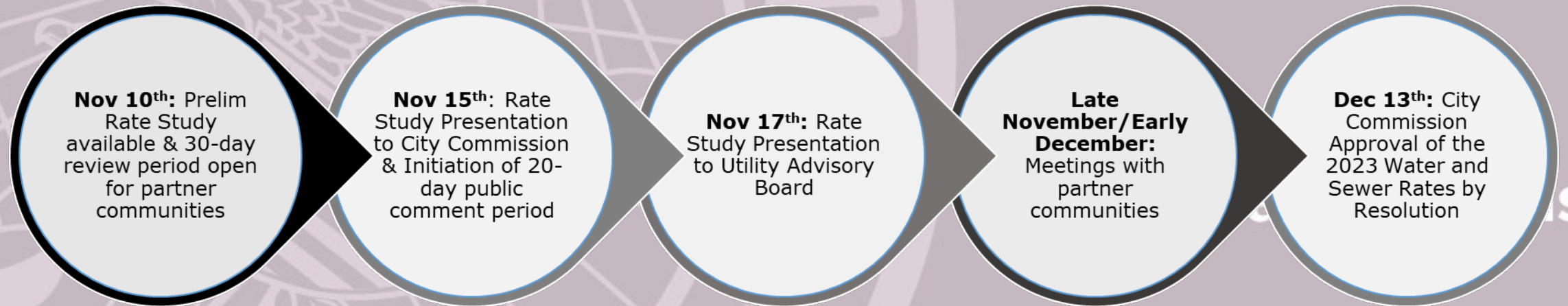
Preliminary 2023 Quarterly Bill

	<u>APPROXIMATE QUARTERLY BILL</u>		<u>CHANGE</u>	
	<u>2022</u>	<u>2023</u>	<u>DOLLARS</u>	<u>PERCENT</u>
GRAND RAPIDS				
WATER	\$ 99.90	\$ 106.14	\$ 6.24	6.25%
SEWER	140.64	142.38	1.74	1.24%
	<u>\$ 240.54</u>	<u>\$ 248.52</u>	<u>\$ 7.98</u>	3.32%
BASE RATIO	1.00	1.00		
WALKER				
WATER	\$ 99.36	\$ 100.83	\$ 1.47	1.48%
SEWER	163.26	163.65	0.39	0.24%
	<u>\$ 262.62</u>	<u>\$ 264.48</u>	<u>\$ 1.86</u>	0.71%
RATIO TO GR	1.09	1.06		
KENTWOOD				
WATER	\$ 101.37	\$ 105.75	\$ 4.38	4.32%
SEWER	97.98	99.45	1.47	1.50%
	<u>\$ 199.35</u>	<u>\$ 205.20</u>	<u>\$ 5.85</u>	2.93%
RATIO TO GR	0.83	0.83		
CASCADE TWP				
WATER	\$ 139.89	\$ 145.20	\$ 5.31	3.80%
SEWER	188.19	191.22	3.03	1.61%
	<u>\$ 328.08</u>	<u>\$ 336.42</u>	<u>\$ 8.34</u>	2.54%
RATIO TO GR	1.36	1.35		
GRAND RAPIDS TWP				
WATER	\$ 111.81	\$ 118.77	\$ 6.96	6.22%
SEWER	152.04	154.56	2.52	1.66%
	<u>\$ 263.85</u>	<u>\$ 273.33</u>	<u>\$ 9.48</u>	3.59%
RATIO TO GR	1.10	1.10		
TALLMADGE TWP				
WATER	\$ 90.96	\$ 94.86	\$ 3.90	4.29%
SEWER	269.91	274.41	4.50	1.67%
	<u>\$ 360.87</u>	<u>\$ 369.27</u>	<u>\$ 8.40</u>	2.33%
RATIO TO GR	1.50	1.49		

* THE COMPARISONS ABOVE ARE BASED ON SYSTEM AVERAGE DOMESTIC CUSTOMER
 QUARTERLY CONSUMPTION OF: WATER- 30.00 UNITS OR 22,440 GALLONS
 SEWER - 21.00 UNITS OR 15,708 GALLONS
 NO. OF MONTHS: 3

of Grand Rapids

2022 Water & Sewer Rate Study Schedule



Rate studies available online at:

<https://www.grandrapidsmi.gov/Government/Departments/Water-System/Water-and-Sewer-Rate-Study>