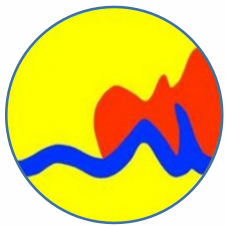


Grand Rapids Water & Sewer Systems Preliminary Rate Study 2019





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) **
2004	\$ 35,193,350	0.13%	4.41%	\$ 32,212,584	5.28%	9.03%
2005	37,329,089	6.07%	5.94%	36,283,756	12.64%	12.76%
2006	39,629,260	6.16%	0.63%	38,301,107	5.56%	4.94%
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	6.51%	2.71%	54,611,300	8.36%	3.28%
2019*	45,748,236	6.82%	2.46%	56,969,417	8.89%	3.49%
AVG	40,758,982	2.13%	2.07%	47,439,285	4.60%	5.26%

* Revenue Requirements per the 2019 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.



Building Blocks of the Revenue Requirement

**Operating and
Maintenance
Expense**

**Assets:
Depreciation
& Return on Investment**

**Other Items:
CSO &
Payback Agreements**

**Revenue
Credits**

**City and Customer
Community Circuit
Breaker**

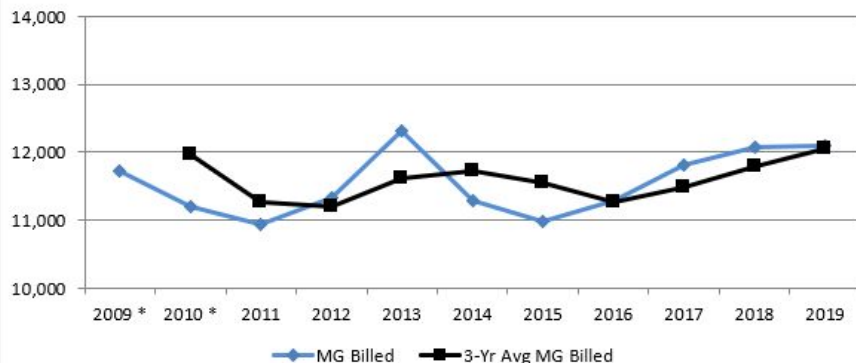
**Billed
Volume**



Billed Volume Average – Revenue Expectation

- 2019 Water volume up 0.26% over 2018
- 3-Yr Avg Water volume **up** by 2.22%

2019 Preliminary Rate Study - Water Supply System
Million Gallons Billed

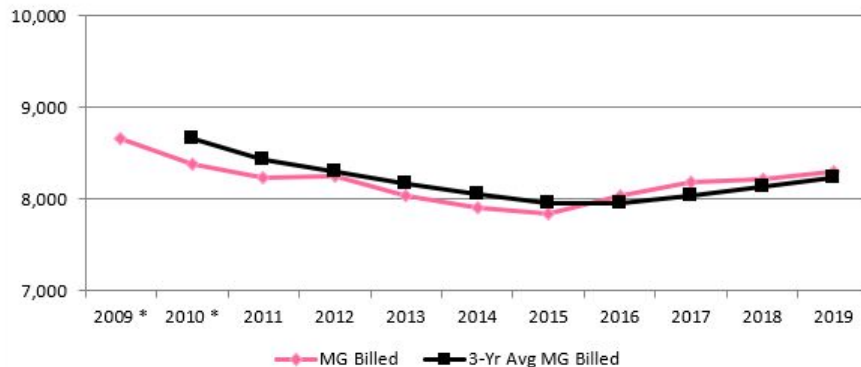


* Volumes were restated from these Rate Studies to reflect actual billings without adjustment for accrued revenues.

- 2019 Sewer Volume up 1.01% from 2018

• 3-Yr Avg Sewer Volume **up** by 1.01%

2019 Preliminary Rate Study - Sewage Disposal System
Million Gallons Billed



* Volumes were restated from these Rate Studies to reflect actual billings without adjustment for accrued revenues.



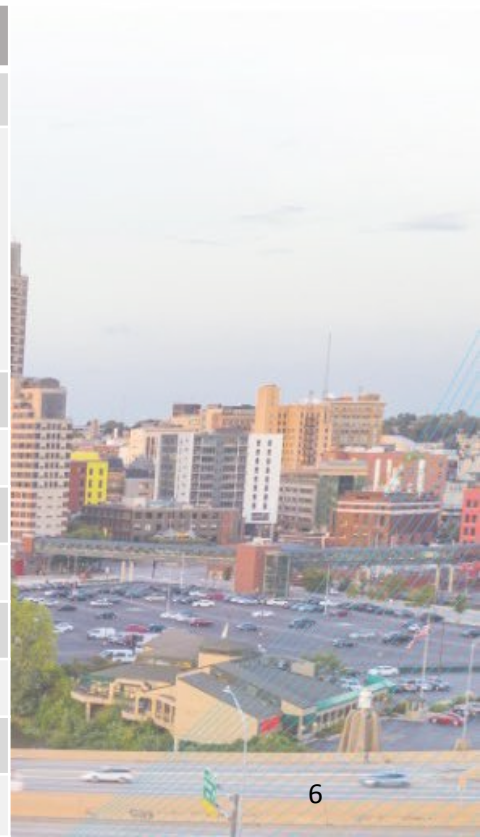
Rate Impact Factors - Water

Rate Drivers	% Impact
Increases:	
O&M – Construction in Progress Advanced Meter Program + other supplies Staffing + Benefits Electricity Costs Savings	2.11%
Integrated Connection Fees	0.27%
Assets – ROI and Depreciation	0.26%
Circuit Breaker Credit	0.04%
Decreases:	
Revenue Credits	(0.22%)
Proposed Rate Increase	2.46%



Rate Impact Factors - Sewer

Rate Drivers	% Impact
Increases:	
O&M – Construction in Progress Staffing + Benefits Advanced Meter Program Contractual Services/Temp Services Electricity Costs Savings	1.61%
Assets – ROI and Depreciation (\$30M Biodigester Preload)	1.72%
Revenue Credits	0.36%
Circuit Breaker Credit	0.05%
Decreases:	
Capital Investment Reimbursement (Payback Agreement)	(0.16%)
Integrated Revenues	(0.05%)
CSO Debt Service Requirement (GR Only)	(0.04%)
Proposed Rate Increase	3.49%





Changes in project

- Market conditions
 - RINs market price drop
 - Additional firm pricing
 - Timing of project completion and generated revenue
- Additions to project scope

Phasing of rates

- 2020 Sewer rates increase of \$3.16 per quarter or \$13 per year
- 2021 Sewer rates will be determined based on project timing and phase-in of revenues
- Rates can be mitigated by proven operation cost control efforts
- The biodigestion system will produce rate savings in future years

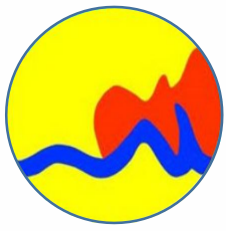
Project Budget	
Biodigester	\$57,286,593
RNG	14,821,200
Phosphorus	7,604,700
Consumers	995,000
Engineering	4,619,590
Total	\$85,327,083

What has not changed

- Renewable energy and sustainability benefits remain strong
- Less costly than alternatives and those alternatives did not produce renewable energy and sustainability benefits

Moving forward

- Added capacity to the project team will now include new city engineer
- Complete bidding in mid-November (Phosphorus)



Circuit Breaker Calculation

	Water/Sewer
City & Customer Community Circuit Breaker (CCCCB): Penalty Revenue (87.5%)*	\$843,397
Individual Circuit Breaker (ICB):	
Penalty Revenue (12.5%)	120,486
Other Non-op Revenue	80,000
Total ICB	\$200,486
Total Circuit Breaker Funds	\$1,043,883
*CCCCB funds used in 2019 Rate Study	\$642,684



Prelim 2020 Rate Impact by Community

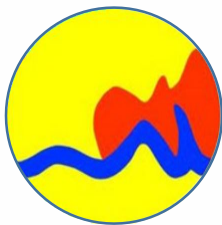
	WATER (1)		SEWER (1)	
	AMOUNT	PERCENT	AMOUNT	PERCENT
GRAND RAPIDS	\$ 859,431	3.28%	\$ 1,143,135	3.03%
WALKER	115,717	3.37%	188,979	3.99%
KENTWOOD	145,729	3.30%	172,433	3.99%
CASCADE TWP	24,176	0.63%	100,300	3.99%
GRAND RAPIDS TWP	82,352	3.42%	102,135	3.99%
TALLMADGE TWP	(28,207)	-11.73%	(45,081)	-9.25%
WRIGHT TWP	N/A	N/A	11,268	3.99%
EAST GRAND RAPIDS	(14,648)	-1.77%	98,137	11.94%
ADA TWP	10,696	0.83%	130,167	10.31%
OTTAWA COUNTY	(95,305)	-4.66%	NA	NA
GAINES TWP	N/A	N/A	542	0.26%
CALEDONIA TWP	N/A	N/A	18,397	12.77%
SYSTEM	\$ 1,099,939	2.46%	\$ 1,920,412	3.49%

(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 CCCCCB).

DISCLOSE RELIEF PROVIDED BY CITY & CUSTOMER COMMUNITY CIRCUIT BREAKER (CCCCCB)

	WATER		SEWER	
	AMOUNT	PERCENT	AMOUNT	PERCENT
SYSTEM REVENUE REQUIREMENT	\$ 45,748,236	2.46%	\$ 56,969,417	3.49%
ADD: CCCCCB RELIEF	366,203	0.82%	276,482	0.50%
SYSTEM CHANGE- WITHOUT RELIEF	\$ 46,114,439	3.28%	\$ 57,245,899	3.99%





Prelim 2020 Quarterly Bill by Community

	APPROXIMATE QUARTERLY BILL		CHANGE	
	2019	2020	DOLLARS	PERCENT
GRAND RAPIDS				
WATER	\$ 86.28	\$ 89.28	\$ 3.00	3.48%
SEWER	119.04	122.20	3.16	2.65%
	<u>\$ 205.32</u>	<u>\$ 211.48</u>	<u>\$ 6.16</u>	3.00%
BASE RATIO	1.00	1.00		
WALKER				
WATER	\$ 85.32	\$ 88.41	\$ 3.09	3.62%
SEWER	133.55	138.99	5.44	4.07%
	<u>\$ 218.87</u>	<u>\$ 227.40</u>	<u>\$ 8.53</u>	3.90%
RATIO TO GR	1.07	1.08		
KENTWOOD				
WATER	\$ 87.48	\$ 90.81	\$ 3.33	3.81%
SEWER	73.22	76.44	3.22	4.40%
	<u>\$ 160.70</u>	<u>\$ 167.25</u>	<u>\$ 6.55</u>	4.08%
RATIO TO GR	0.78	0.79		
CASCADE TWP				
WATER	\$ 134.46	\$ 135.54	\$ 1.08	0.80%
SEWER	147.89	153.88	5.99	4.05%
	<u>\$ 282.35</u>	<u>\$ 289.42</u>	<u>\$ 7.07</u>	2.50%
RATIO TO GR	1.38	1.37		
GRAND RAPIDS TWP				
WATER	\$ 101.40	\$ 105.00	\$ 3.60	3.55%
SEWER	129.28	134.53	5.25	4.06%
	<u>\$ 230.68</u>	<u>\$ 239.53</u>	<u>\$ 8.85</u>	3.84%
RATIO TO GR	1.12	1.13		
TALLMADGE TWP				
WATER	\$ 110.61	\$ 93.96	\$ (16.65)	-15.05%
SEWER	282.06	256.82	(25.24)	-8.95%
	<u>\$ 392.67</u>	<u>\$ 350.78</u>	<u>\$ (41.89)</u>	-10.67%
RATIO TO GR	1.91	1.66		

* THE COMPARISONS ABOVE ARE BASED ON SYSTEM AVERAGE DOMESTIC CUSTOMER

QUARTERLY CONSUMPTION OF:	WATER-	27.00	UNITS OR	20,196	GALLONS
	SEWER -	19.00	UNITS OR	14,212	GALLONS
	NO. OF MONTHS:	3			





Next Steps

- **November 8th:** Prelim Rate Study available & 30-day review and comment period open for partner communities
- **November 12th:** Rate Study Presentation to City of Grand Rapids Commission & Initiation of 20 day Public Comment Period
- **November 14th:** Rate Study Presentation to Utility Advisory Board
- **Late November/Early December:** Meetings with Partner Communities
- **December 17th:** Approval of the 2020 Water and Sanitary Sewer System Rates by resolution by the City of Grand Rapids Commission

Rate studies available online at:

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