

August 1, 2023

2023 SEWER RATE STUDY:

# Village of Kronenwetter, WI

## Phase I: Long-Range Cash Flow Analysis



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## 2023 Sewer Rate Study

### Section 1 — Historical Analysis

#### Village of Kronenwetter, WI

# Table 1

## Sewer Rate Performance

Village of Kronenwetter, WI

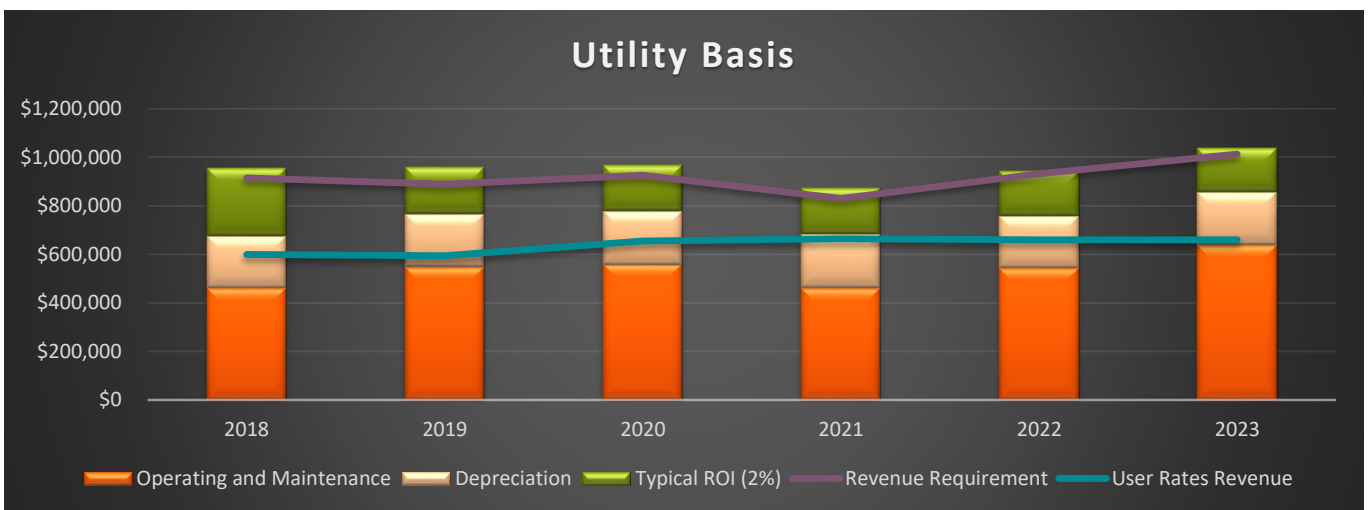
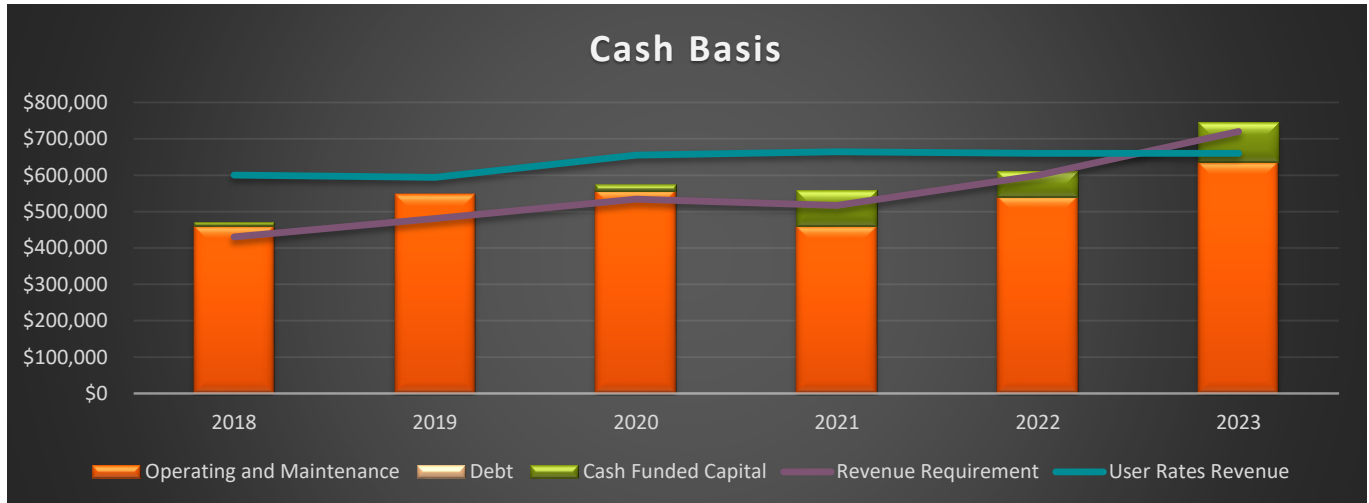
Revenue Requirement		Shown with no increase				Est	Est
Component	Description	2018	2019	2020	2021	2022	2023
<b>Cash Basis</b>							
1	Operating and Maintenance	\$460,425	\$548,509	\$557,352	\$460,190	\$540,933	\$635,621
2	Debt	\$0	\$0	\$0	\$0	\$0	\$0
3	Cash Funded Capital	\$10,383	\$0	\$17,629	\$97,591	\$70,750	\$110,000
Less:							
	Other Revenue	\$28,666	\$51,872	\$29,167	\$33,452	\$4,894	\$4,500
	Interest Income	\$11,783	\$15,710	\$11,689	\$7,635	\$7,016	\$21,000
	Revenue Requirement (Costs less Other Income)	\$430,359	\$480,927	\$534,125	\$516,694	\$599,773	\$720,121
	User Rates Revenue	\$600,118	\$594,179	\$655,122	\$664,497	\$660,000	\$660,000
	Rate Adequacy	\$169,759	\$113,252	\$120,997	\$147,803	\$60,227	(\$60,121)
	Rate Adjustment Needed	0.00%	0.00%	0.00%	0.00%	0.00%	9.11%
<b>Utility Basis (PSC)</b>							
1	Operating and Maintenance	\$460,425	\$548,509	\$557,352	\$460,190	\$540,933	\$635,621
2	Depreciation	\$215,317	\$217,691	\$219,926	\$222,261	\$217,957	\$221,070
	NIRB	\$13,992,288	\$9,531,609	\$9,490,894	\$9,431,103	\$9,219,421	\$9,088,726
3	Typical ROI (2%)	\$279,846	\$190,632	\$189,818	\$188,622	\$184,388	\$181,775
Less:							
	Other Revenue	\$28,666	\$51,872	\$29,167	\$33,452	\$4,894	\$4,500
	Interest Income	\$11,783	\$15,710	\$11,689	\$7,635	\$7,016	\$21,000
	Revenue Requirement (Costs less Other Income)	\$915,139	\$889,250	\$926,240	\$829,986	\$931,369	\$1,012,965
	User Rates Revenue	\$600,118	\$594,179	\$655,122	\$664,497	\$660,000	\$660,000
	Rate Adequacy	(\$315,021)	(\$295,071)	(\$271,118)	(\$165,489)	(\$271,369)	(\$352,965)
	Rate Adjustment Needed	52.49%	49.66%	41.38%	24.90%	41.12%	53.48%

### Notes:

^Includes recommended debt coverage at 1.1x annual debt payment

## Table 2 Sewer Utility Rate Performance Charts

*Village of Kronenwetter, WI*



### Table 3

## Sewer Utility Cash Flow Analysis - Historical 2018-2022

*Village of Kronenwetter, WI*

	Actual				Estimated
	2018	2019	2020	2021	2022
<b>Revenues</b>					
Total Revenues from User Rates	\$600,118	\$594,179	\$655,122	\$664,497	\$660,000
<b>Percent Increase to User Rates</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>
Total Other Revenues	\$40,449	\$67,582	\$41,606	\$41,087	\$11,910
Total Revenues	\$640,567	\$661,761	\$696,728	\$705,584	\$671,910
<b>Less: Expenses</b>					
Operating and Maintenance	\$460,425	\$548,509	\$557,352	\$460,190	\$540,933
PILOT Payment	\$3,895	\$4,173	\$4,801	\$4,599	\$5,000
Net Before Debt Service and Capital Expenditures	\$176,247	\$109,079	\$134,575	\$240,795	\$125,977
Existing Debt P&I	\$0	\$0	\$0	\$0	\$0
Transfer In (Out)	\$0	\$0	\$0	\$0	\$0
Less: Capital Improvements	\$10,383	\$0	\$17,629	\$97,591	\$70,750
Debt Issued/Grants/Aid	\$0	\$0	\$0	\$0	\$0
Reconcile to Audit	(\$35,949)	(\$6,561)	(\$27,842)	(\$38,728)	\$0
<b>Net Annual Cash Flow</b>	<b>\$129,915</b>	<b>\$102,518</b>	<b>\$89,104</b>	<b>\$104,476</b>	<b>\$55,227</b>
<u>Restricted and Unrestricted Cash Balance:</u>					
Balance at first of year	\$911,215	\$1,041,130	\$1,143,648	\$1,232,752	\$1,337,228
Net Annual Cash Flow Addition/(subtraction)	\$129,915	\$102,518	\$89,104	\$104,476	\$55,227
Balance at end of year	\$1,041,130	\$1,143,648	\$1,232,752	\$1,337,228	\$1,392,455

**Notes:**

## Table 4 Sewer Utility Financial Benchmarking Analysis

Village of Kronenwetter, WI

	Actual				Estimated	Budget
	2018	2019	2020	2021	2022	2023
<b>Target minimum cash balance</b>						
Target minimum working capital - Ehlers <sup>1</sup>	319,250	323,866	284,355	316,204	356,954	366,118
Actual Days Cash Available - PSC <sup>2</sup>	825	761	807	1,061	940	762
Actual Days Cash Available - Moody's <sup>3</sup>	825	761	807	1,061	940	762
Actual Days Cash Available - S&P <sup>4</sup>	825	761	807	1,061	940	762
<b>Actual working capital-cash balance</b>						
Over (Under) Ehlers target	1,041,130	1,143,648	1,232,752	1,337,228	1,392,455	1,327,334
Over (Under) PSC target (90 days)	721,880	819,782	948,397	1,021,024	1,035,500	961,215
Over (Under) Moody's target (150 days)	735	671	717	971	850	672
Over (Under) S&P target (150 days)	675	611	657	911	790	612

### Notes:

- 1) Target capital equals 5 mos of next year's operating expenses, including depreciation, plus 100% of debt.
- 2) PSC formula = O&M expense + taxes + interest on long term debt ÷ 365 to get expense per day. Then Unrestricted Cash ÷ expense per day
- 3) Moody's Formula = [(Unrestricted Cash + Liquid Investments) \* 365 days] ÷ Total O&M Expenses less Depreciation
- 4) S&P Formula = [(Unrestricted Cash + Liquid Investments) \* 365 days] ÷ Total O&M Expenses less Depreciation; include designated reserve funds: ERFs, RSFs, etc

### Rate of Return

Average Utility Plant in Service	17,328,733	13,065,469	13,202,964	13,311,359	13,317,634	13,408,009
Less: Utility Plant Accumulated Depreciation	3,336,445	3,533,860	3,712,070	3,880,256	4,098,213	4,319,283
Average Net Investment Rate Base (NIRB)	13,992,288	9,531,609	9,490,894	9,431,103	9,219,421	9,088,726
Net Operating Income	(46,958)	(120,149)	(92,989)	15,498	(93,996)	(192,191)
ROR	-0.34%	-1.26%	-0.98%	0.16%	-1.02%	-2.11%
Typical	2.00%					

### Cost Recovery

Operating Revenues	628,784	646,051	684,289	697,949	664,894	664,500
Operating Expenses incl. Depr & Amortization	675,742	766,200	777,278	682,451	758,891	856,691
Cost Recovery	0.93	0.84	0.88	1.02	0.88	0.78
Cost Recovery w/o Depr.	1.37	1.18	1.23	1.52	1.23	1.05

### Notes:

This operating ratio indicates whether operating revenues (mostly charges to customers) were sufficient to cover operations and capital (in the form of depreciation) for the water and/or wastewater utility in the fiscal year. A ratio of less than 1 could be a sign of financial concern. In general, this ratio should be higher than 1 to accommodate future capital investments.

### Leverage

Total Long-Term Debt	0	0	0	0	0	0
Total Net Assets	10,874,154	10,765,542	10,714,254	10,816,759	10,724,778	10,548,588
Debt-to Equity Ratio	0.00	0.00	0.00	0.00	0.00	0.00

### Notes:

This indicator measures the existing level of leveraging of assets, and is used by funders and bond rating agencies to evaluate the risk of providing additional loans to the utility. The ratio indicates the amount of long-term debt that exists for every \$1 of assets (fund equity). A utility with a ratio greater than 1.0 has more long-term debt than equity in the system's assets. There are no natural benchmarks for this indicator, and funders and bond rating agencies will assess this ratio in various ways. In general, the higher this ratio, the more likely the utility will be considered to be over-leveraged and the more difficult it will be for the utility to obtain additional loans. For this ratio, Net Assets are equal to the Net Investment Rate Base of the utility.

### Condition of Assets:

Accumulated Depreciation Expense	3,336,445	3,533,860	3,712,070	3,880,256	4,098,213	4,319,283
Average Total Plant in Service	17,328,733	13,065,469	13,202,964	13,311,359	13,317,634	13,408,009
Asset Depreciation	16.15%	21.29%	21.95%	22.57%	23.53%	24.37%

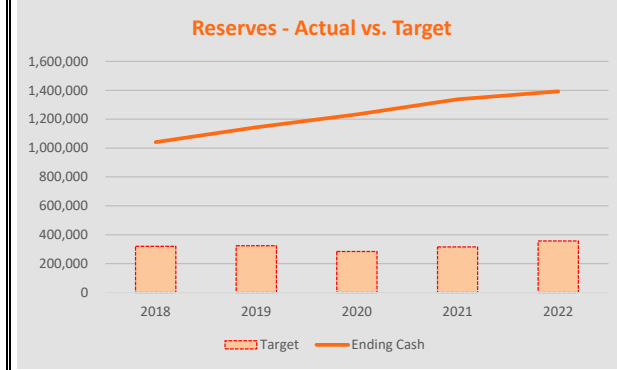
### Notes:

This indicator of infrastructure condition estimates the portion of the average expected life of the utility's physical assets that has already passed. As this ratio approaches 100%, the capital assets become fully depreciated, and infrastructure needs replacement or rehabilitation. The accuracy of this indicator relies heavily on the accuracy of the depreciation schedule, and historic pricing likely distorts this indicator (newer utilities may be slightly disadvantaged as a result).

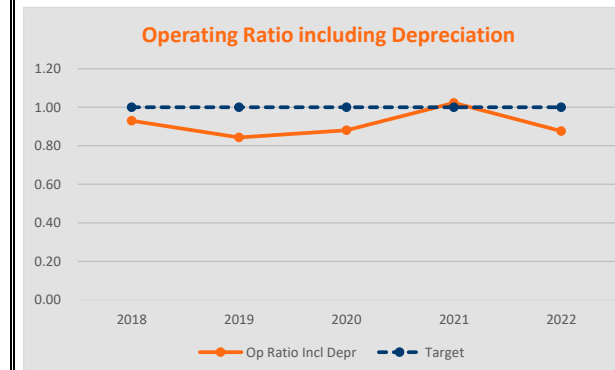
## Table 5 Sewer Utility Financial Health Charts

Village of Kronenwetter, WI

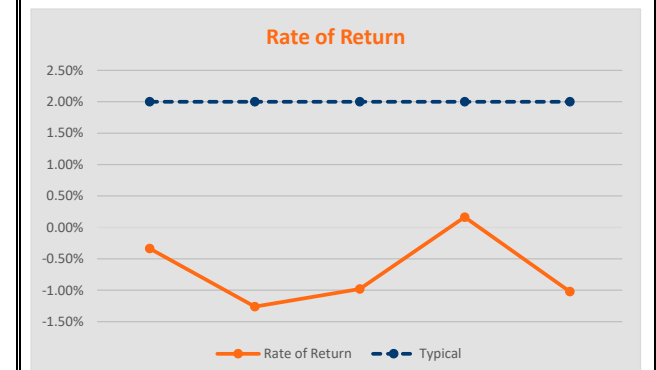
Can you pay for 5 mos. of O&M and next year's debt?



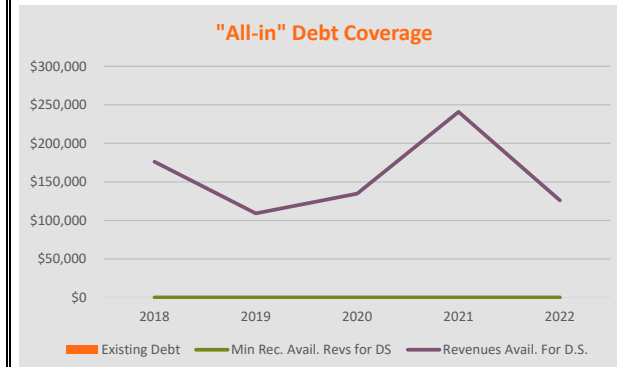
Did you generate enough revenues to pay for O&M and capital?



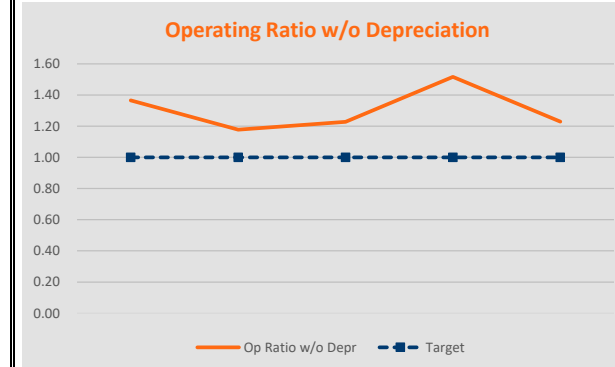
Did you generate enough revenues to pay for O&M and capital?



Do you generate revenues to pay for O&M and debt service?



Did you generate revenues needed to pay for O&M?





## 2023 Sewer Rate Study

### Section 2 — Long-Range Cash Flow Analysis

Village of Kronenwetter, WI



## Table 6 Sewer Utility Capital Improvement Plan

*Village of Kronenwetter, WI*

Projects	Funding	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Totals
Sewer Lift Station Rebuild Program	User Fees	20,000	50,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	550,000
New Lift Station (#12): Design	Cash		50,000									50,000
New Lift Station (#12): Construction	Revenue Debt							1,000,000				1,000,000
Sewer Ordinance and Rate Study	Cash	50,000										50,000
Sewer Interceptor Capacity Review & Design	Cash				140,000							140,000
Water Meter Change Out	Cash	40,000	40,000	40,000								120,000
Water & Sewer GIS System	User Fees		50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	450,000
Vac Truck	Revenue Debt			360,000	360,000							720,000
New Storage Building/Garage (heated)	Revenue Debt		340,000									340,000
<b>Actual CIP Costs</b>		<b>110,000</b>	<b>530,000</b>	<b>510,000</b>	<b>610,000</b>	<b>110,000</b>	<b>110,000</b>	<b>1,110,000</b>	<b>110,000</b>	<b>110,000</b>	<b>110,000</b>	<b>3,420,000</b>

Sources of Funding	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
G.O. Debt	0	0	0	0	0	0	0	0	0	0	0
Revenue Debt	0	340,000	360,000	360,000	0	0	1,000,000	0	0	0	2,060,000
Grants/Aids	0	0	0	0	0	0	0	0	0	0	0
Special Assessment	0	0	0	0	0	0	0	0	0	0	0
User Fees/Annual Surplus	20,000	100,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	1,000,000
Tax Levy	0	0	0	0	0	0	0	0	0	0	0
Equipment Replacement Fund	0	0	0	0	0	0	0	0	0	0	0
Cash	90,000	90,000	40,000	140,000	0	0	0	0	0	0	360,000
<b>Total</b>	<b>110,000</b>	<b>530,000</b>	<b>510,000</b>	<b>610,000</b>	<b>110,000</b>	<b>110,000</b>	<b>1,110,000</b>	<b>110,000</b>	<b>110,000</b>	<b>110,000</b>	<b>3,420,000</b>

**Notes:**

**Table 7**  
**Capital Improvements Financing Plan**  
*Village of Kronenwetter, WI*

	2024		2029	
	Revenue Bonds	Sewer Portion	Revenue Bonds	Sewer Portion
<b>CIP Projects<sup>1</sup></b>	2024 Sewer Projects <b>1,060,000</b>	<b>1,060,000</b>	2029 Sewer Projects <b>1,000,000</b>	<b>1,000,000</b>
<b>Less Other Available Revenues</b>				
Cash Available	(135,000)	(135,000)	(400,000)	(400,000)
ERF Funds	-	0	-	0
<b>Net Borrowing Requirement</b>	<b>925,000</b>	<b>925,000</b>	<b>600,000</b>	<b>600,000</b>
<b>Debt Service Reserve</b>				
Debt Service Reserve Funds On Hand	-	0	(95,000)	(95,000)
New Debt Service Reserve Requirement	95,000	95,000	170,000	170,000
<b>Subtotal Reserve Fund Requirement</b>	<b>95,000</b>	<b>95,000</b>	<b>75,000</b>	<b>75,000</b>
<b>Estimated Issuance Expenses</b>	<b>62,163</b>	<b>62,163</b>	<b>57,788</b>	<b>57,788</b>
<b>TOTAL TO BE FINANCED</b>	<b>1,082,163</b>	<b>1,082,163</b>	<b>732,788</b>	<b>732,788</b>
Estimated Interest Earnings	4.00% (21,200)	(21,200)	4.00% (20,000)	(20,000)
Assumed spend down (months)	6.00		6.00	
Rounding	4,038	4,038	2,213	2,213
<b>NET BOND SIZE</b>	<b>1,065,000</b>	<b>1,065,000</b>	<b>715,000</b>	<b>715,000</b>

**Notes:**

1) Source of Project Totals

**Table 8****Sewer Utility Projected Debt Service Payments (PROPOSED)***Village of Kronenwetter, WI*

NAME	Sewer Revenue Bonds Series 2024				Sewer Revenue Bonds Series 2027				PROPOSED Sewer Utility Debt Service Summary				
AMT DATED MATURE	\$1,065,000 6/1/2024 5/1				\$715,000 6/1/2029 5/1								
Year	Principal	Est. Rate <sup>1</sup>	Interest	Total	Principal	Est. Rate <sup>2</sup>	Interest	Total	Total Prin	Total Int	Total P&I	Prin Outstanding	Year
2023									0	0	0		2023
2024									0	0	0	1,065,000	2024
2025	0	5.50%	82,981	82,981					0	82,981	82,981	1,065,000	2025
2026	60,000	5.50%	56,925	116,925					60,000	56,925	116,925	1,005,000	2026
2027	60,000	5.50%	53,625	113,625					60,000	53,625	113,625	945,000	2027
2028	60,000	5.50%	50,325	110,325					60,000	50,325	110,325	885,000	2028
2029	60,000	5.50%	47,025	107,025					60,000	47,025	107,025	1,540,000	2029
2030	60,000	5.50%	43,725	103,725	50,000	6.00%	59,275	109,275	110,000	103,000	213,000	1,430,000	2030
2031	60,000	5.50%	40,425	100,425	50,000	6.00%	38,400	88,400	110,000	78,825	188,825	1,320,000	2031
2032	60,000	5.50%	37,125	97,125	50,000	6.00%	35,400	85,400	110,000	72,525	182,525	1,210,000	2032
2033	60,000	5.50%	33,825	93,825	50,000	6.00%	32,400	82,400	110,000	66,225	176,225	1,100,000	2033
2034	60,000	5.50%	30,525	90,525	50,000	6.00%	29,400	79,400	110,000	59,925	169,925	990,000	2034
2035	60,000	5.50%	27,225	87,225	50,000	6.00%	26,400	76,400	110,000	53,625	163,625	880,000	2035
2036	60,000	5.50%	23,925	83,925	50,000	6.00%	23,400	73,400	110,000	47,325	157,325	770,000	2036
2037	60,000	5.50%	20,625	80,625	50,000	6.00%	20,400	70,400	110,000	41,025	151,025	660,000	2037
2038	60,000	5.50%	17,325	77,325	50,000	6.00%	17,400	67,400	110,000	34,725	144,725	550,000	2038
2039	60,000	5.50%	14,025	74,025	50,000	6.00%	14,400	64,400	110,000	28,425	138,425	440,000	2039
2040	60,000	5.50%	10,725	70,725	50,000	6.00%	11,400	61,400	110,000	22,125	132,125	330,000	2040
2041	55,000	5.50%	7,563	62,563	55,000	6.00%	8,250	63,250	110,000	15,813	125,813	220,000	2041
2042	55,000	5.50%	4,538	59,538	55,000	6.00%	4,950	59,950	110,000	9,488	119,488	110,000	2042
2043	55,000	5.50%	1,513	56,513	55,000	6.00%	1,650	56,650	110,000	3,163	113,163	0	2043
2044	0	5.50%	0		0	6.00%	0		0	0	0	0	2044
TOTALS	1,065,000		603,969	1,668,969	715,000		323,125	1,038,125	1,780,000	927,094	2,707,094		TOTALS

**Notes:**

1) Rate assumes recent WI/TE/Rev/BQ sale plus 50 bps (or 0.50%).

2) Rate assumes previous proposed plan issue plus 50 bps (or 0.50%).

**Table 9**  
**Sewer Utility Cash Flow Analysis - Projected 2023-2032**

*Village of Kronenwetter, WI*

	Budget	Projected								
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
<b>Revenues</b>										
Total Revenues from User Rates <sup>1</sup>	\$660,000	\$712,800	\$769,824	\$831,410	\$872,980	\$916,629	\$962,461	\$1,010,584	\$1,040,901	\$1,072,129
Percent Increase to User Rates	0.00%	8.00%	8.00%	8.00%	5.00%	5.00%	5.00%	5.00%	3.00%	3.00%
Cumulative Percent Rate Increase	0.00%	8.00%	16.64%	25.97%	32.27%	38.88%	45.83%	53.12%	57.71%	62.44%
Dollar Amount Increase to Revenues		\$52,800	\$57,024	\$61,586	\$41,570	\$43,649	\$45,831	\$48,123	\$30,318	\$31,227
Total Other Revenues	\$25,500	\$25,598	\$25,696	\$25,794	\$25,894	\$25,993	\$26,094	\$26,195	\$26,297	\$26,399
Total Revenues	\$685,500	\$738,398	\$795,520	\$857,204	\$898,874	\$942,623	\$988,555	\$1,036,779	\$1,067,198	\$1,098,527
<b>Less: Expenses</b>										
Operating and Maintenance	\$635,621	\$648,333	\$661,300	\$674,526	\$688,017	\$701,777	\$715,812	\$730,129	\$744,731	\$759,626
PILOT Payment	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Net Before Debt Service and Capital Expenditures	\$44,879	\$85,064	\$129,219	\$177,678	\$205,857	\$235,846	\$267,742	\$301,650	\$317,467	\$333,901
<b>Debt Service</b>										
Existing Debt P&I	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New (2023-2032) Debt Service P&I	\$0	\$0	\$82,981	\$116,925	\$113,625	\$110,325	\$107,025	\$213,000	\$188,825	\$182,525
Total Debt Service	\$0	\$0	\$82,981	\$116,925	\$113,625	\$110,325	\$107,025	\$213,000	\$188,825	\$182,525
Transfer In (Out)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Less: Capital Improvements	\$110,000	\$592,163	\$510,000	\$610,000	\$110,000	\$110,000	\$1,167,788	\$110,000	\$110,000	\$110,000
Debt Issued/Grants/Aid	\$0	\$1,065,000	\$0	\$0	\$0	\$0	\$715,000	\$0	\$0	\$0
<b>Net Annual Cash Flow</b>	<b>(\$65,121)</b>	<b>\$557,902</b>	<b>(\$463,762)</b>	<b>(\$549,247)</b>	<b>(\$17,768)</b>	<b>\$15,521</b>	<b>(\$292,070)</b>	<b>(\$21,350)</b>	<b>\$18,642</b>	<b>\$41,376</b>
<b>Restricted and Unrestricted Cash Balance:</b>										
Balance at first of year	\$1,392,455	\$1,327,334	\$1,885,235	\$1,421,474	\$872,227	\$854,459	\$869,980	\$577,910	\$556,560	\$575,201
Net Annual Cash Flow Addition/(subtraction)	(\$65,121)	\$557,902	(\$463,762)	(\$549,247)	(\$17,768)	\$15,521	(\$292,070)	(\$21,350)	\$18,642	\$41,376
Balance at end of year	\$1,327,334	\$1,885,235	\$1,421,474	\$872,227	\$854,459	\$869,980	\$577,910	\$556,560	\$575,201	\$616,578
"All-in" Debt Coverage	N/A	N/A	1.56	1.52	1.81	2.14	2.50	1.42	1.68	1.83

**Notes:**

- 1) Assumes no changes in customer count or usage beyond Test Year.
- 2) Assumes 2.00% annual inflation beyond budget year.

**Legend:**

- Increase depicted to maintain with assumed O&M inflation
- Increase needed above inflationary adjustment

# Table 10

## Sewer Utility Financial Benchmarking Analysis Projected 2023 - 2032

Village of Kronenwetter, WI

	Budget	Projected								
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
<b>Target minimum cash balance</b>										
Target minimum working capital - Ehlers <sup>1</sup>	366,118	462,598	510,457	519,636	523,771	533,177	657,131	640,742	642,350	643,514
Actual Days Cash Available - PSC <sup>2</sup>	762	1,061	697	435	421	422	277	244	255	270
Actual Days Cash Available - Moody's <sup>3</sup>	762	1,008	732	421	363	364	208	193	199	215
Target minimum working capital - S&P <sup>4</sup>	762	1,008	732	421	363	364	208	193	199	215
<b>Actual working capital-cash balance</b>										
Over (Under) Ehlers target	1,327,334	1,885,235	1,421,474	872,227	854,459	869,980	577,910	556,560	575,201	616,578
Over (Under) PSC target (90 days)	961,215	1,422,638	911,017	352,591	330,688	336,803	(79,221)	(84,182)	(67,148)	(26,936)
Over (Under) Moody's target (150 days)	672	971	607	345	331	332	187	154	165	180
Over (Under) S&P target (150 days)	612	858	582	271	213	214	58	43	49	65
Over (Under) S&P target (150 days)	612	858	582	271	213	214	58	43	49	65

### Notes:

- 1) Target capital equals 5 mos of next year's operating expenses, including depreciation, plus 100% of debt.
- 2) PSC formula = O&M expense + taxes + interest on long term debt ÷ 365 to get expense per day. Then Unrestricted Cash ÷ expense per day
- 3) Moody's Formula = [(Unrestricted Cash + Liquid Investments) \* 365 days] ÷ Total O&M Expenses less Depreciation
- 4) S&P Formula = [(Unrestricted Cash + Liquid Investments) \* 365 days] ÷ Total O&M Expenses less Depreciation; include designated reserve funds: ERFs, RSFs, etc

<b>Rate of Return</b>										
Average Utility Plant in Service	13,408,009	13,728,009	14,248,009	14,808,009	15,168,009	15,278,009	15,888,009	16,498,009	16,608,009	16,718,009
Less: Utility Plant Accumulated Depreciation	4,319,283	4,549,634	4,799,414	5,069,365	5,355,774	5,646,268	5,953,220	6,289,006	6,628,876	6,972,829
Average Net Investment Rate Base (NIRB)	9,088,726	9,178,375	9,448,595	9,738,644	9,812,235	9,631,741	9,934,789	10,209,003	9,979,133	9,745,180
Net Operating Income	(192,191)	(161,339)	(136,665)	(108,431)	(96,763)	(70,911)	(55,527)	(50,506)	(38,827)	(26,529)
ROR	-2.11%	-1.76%	-1.45%	-1.11%	-0.99%	-0.74%	-0.56%	-0.49%	-0.39%	-0.27%
Typical	2.00%									

<b>Cost Recovery</b>										
Operating Revenues	664,500	717,345	774,414	836,046	877,663	921,359	967,238	1,015,409	1,045,774	1,077,050
Operating Expenses incl. Depr & Amortization	856,691	878,684	911,080	944,477	974,426	992,270	1,022,765	1,065,915	1,084,601	1,103,579
Cost Recovery	0.78	0.82	0.85	0.89	0.90	0.93	0.95	0.95	0.96	0.98
Cost Recovery w/o Depr.	1.05	1.11	1.17	1.24	1.28	1.31	1.35	1.39	1.40	1.42

**Notes:**

This operating ratio indicates whether operating revenues (mostly charges to customers) were sufficient to cover operations and capital (in the form of depreciation) for the water and/or wastewater utility in the fiscal year. A ratio of < 1 could be a sign of financial concern. In general, this ratio should be > 1 to accommodate future capital investments.

<b>Leverage</b>										
Total Long-Term Debt	0	1,065,000	1,065,000	1,005,000	945,000	885,000	1,540,000	1,430,000	1,320,000	1,210,000
Total Net Assets	10,548,588	10,341,138	10,137,597	9,988,399	9,854,222	9,749,249	9,605,227	9,468,091	9,366,863	9,284,286
Debt-to Equity Ratio	0.00	0.10	0.11	0.10	0.10	0.09	0.16	0.15	0.14	0.13

**Notes:**

This indicator measures the existing level of leveraging of assets, and is used by funders and rating agencies to evaluate the risk of providing additional loans to the utility. The ratio indicates the amount of long-term debt that exists for every \$1 of assets (fund equity). A utility with a ratio > 1 has more long-term debt than equity in the system's assets. There are no natural benchmarks for this indicator, and funders and rating agencies will assess this ratio in various ways. In general, the higher this ratio, the more likely the utility will be considered to be over-leveraged and the more difficult it will be for the utility to obtain additional loans. Net Assets are equal to the Net Investment Rate Base of the utility.

<b>Condition of Assets:</b>										
Accumulated Depreciation Expense	4,319,283	4,549,634	4,799,414	5,069,365	5,355,774	5,646,268	5,953,220	6,289,006	6,628,876	6,972,829
Average Total Plant in Service	13,408,009	13,728,009	14,248,009	14,808,009	15,168,009	15,278,009	15,888,009	16,498,009	16,608,009	16,718,009
Asset Depreciation	24.37%	24.89%	25.20%	25.50%	26.10%	26.98%	27.26%	27.60%	28.53%	29.43%

**Notes:**

This indicator of infrastructure condition estimates the portion of the average expected life of the utility's physical assets that has already passed. As this ratio approaches 100%, the capital assets become fully depreciated, and infrastructure needs replacement or rehabilitation. The accuracy of this indicator relies heavily on the accuracy of the depreciation schedule, and historic pricing likely distorts this indicator (newer utilities may be slightly disadvantaged as a result).

## Table 11

### Sewer Utility Statement of Projected Revenue Bond Coverage

*Village of Kronenwetter, WI*

Year	Total Operating Revenues	Less: Total O&M Expense	Amount Available for Debt Service	Existing Rev Debt	Future Rev Debt (2023-2032)			
				Total	Total	Total Sewer Debt Service	Coverage	Debt Service Capacity @ 1.25x
2023	685,500	(635,621)	49,879	-	-	-	N/A	39,903
2024	738,398	(648,333)	90,064	-	-	-	N/A	72,051
2025	795,520	(661,300)	134,219	-	82,981	82,981	1.62	24,394
2026	857,204	(674,526)	182,678	-	116,925	116,925	1.56	29,217
2027	898,874	(688,017)	210,857	-	113,625	113,625	1.86	55,061
2028	942,623	(701,777)	240,846	-	110,325	110,325	2.18	82,352
2029	988,555	(715,812)	272,742	-	107,025	107,025	2.55	111,169
2030	1,036,779	(730,129)	306,650	-	213,000	213,000	1.44	32,320
2031	1,067,198	(744,731)	322,467	-	188,825	188,825	1.71	69,148
2032	1,098,527	(759,626)	338,901	-	182,525	182,525	1.86	88,596

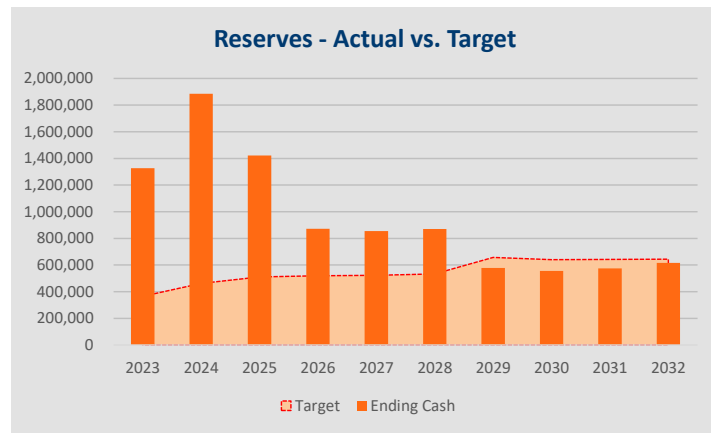
**Notes:**

1) Revenue Coverage determined from PROPOSED 2024 Revenue Bonds.

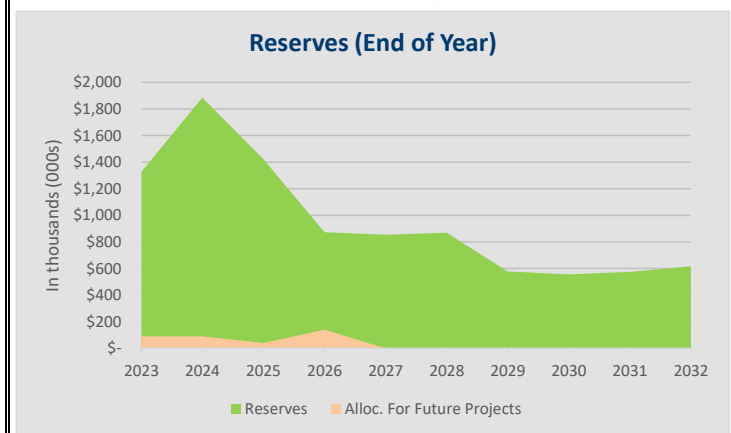
## Table 12 Sewer Utility Long-Range Planning Analysis

*Village of Kronenwetter, WI*

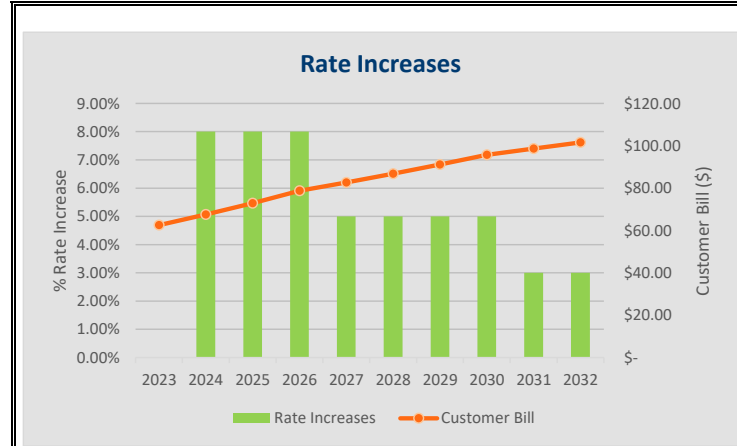
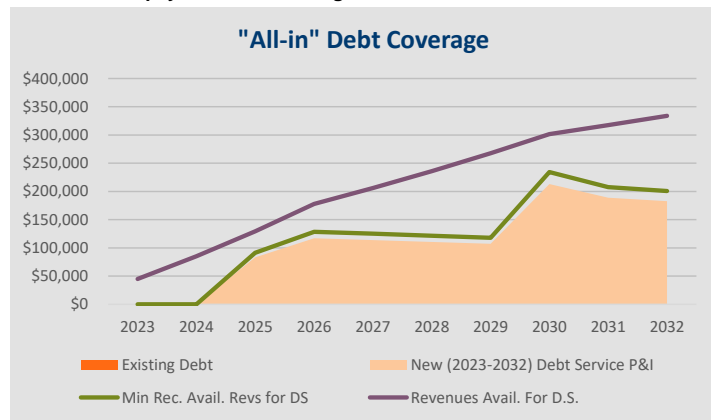
Are rates set to maintain adequate reserves?



How much reserves are planned for future projects?



Are rates set to pay for financial obligations?







## 2023 Sewer Rate Study

### Section 3 — Rate Impact Analysis

#### Village of Kronenwetter, WI

**Table 13****Projected Impact of CIP on Typical Residential Utility Bill***Village of Kronenwetter, WI*

Year	Water					Sewer					Utility Bill (Annual)	Change Over Prior Year	% of MHI (84,435)	Year
	Increase	Water Vol. Charge <sup>1</sup>	Water User Charge <sup>2</sup>	Utility Bill (Quarterly)	Change Over Prior Year	Increase	Sewer Vol. Charge <sup>3</sup>	Sewer User Charge <sup>3</sup>	Utility Bill (Quarterly)	Change Over Prior Year				
		<u>Tiered</u>	<u>Serv. + PFP</u>				<u>1,000 Gal</u>	<u>Gen Service</u>						
2022		3.59	29.40	\$ 72.48			3.39	21.85	\$ 62.53		\$ 540.04		0.64%	2022
2023	0.00%	3.59	29.40	\$ 72.48	\$ -	0.00%	3.39	21.85	\$ 62.53	\$ -	\$ 540.04	\$ -	0.64%	2023
2024	0.00%	3.59	29.40	\$ 72.48	\$ -	8.00%	3.66	23.60	\$ 67.53	\$ 5.00	\$ 560.05	\$ 20.01	0.66%	2024
2025	3.00%	3.70	30.28	\$ 74.65	\$ 2.17	8.00%	3.95	25.49	\$ 72.93	\$ 5.40	\$ 590.36	\$ 30.31	0.70%	2025
2026	3.00%	3.81	31.19	\$ 76.89	\$ 2.24	8.00%	4.27	27.52	\$ 78.77	\$ 5.83	\$ 622.66	\$ 32.30	0.74%	2026
2027	3.00%	3.92	32.13	\$ 79.20	\$ 2.31	5.00%	4.48	28.90	\$ 82.71	\$ 3.94	\$ 647.64	\$ 24.98	0.77%	2027
2028	3.00%	4.04	33.09	\$ 81.58	\$ 2.38	5.00%	4.71	30.35	\$ 86.84	\$ 4.14	\$ 673.68	\$ 26.05	0.80%	2028
2029	3.00%	4.16	34.08	\$ 84.02	\$ 2.45	5.00%	4.94	31.86	\$ 91.19	\$ 4.34	\$ 700.84	\$ 27.16	0.83%	2029
2030	3.00%	4.29	35.11	\$ 86.54	\$ 2.52	5.00%	5.19	33.46	\$ 95.75	\$ 4.56	\$ 729.16	\$ 28.32	0.86%	2030
2031	3.00%	4.42	36.16	\$ 89.14	\$ 2.60	3.00%	5.35	34.46	\$ 98.62	\$ 2.87	\$ 751.04	\$ 21.87	0.89%	2031
2032	22.82%	5.42	44.41	\$ 109.49	\$ 20.34	3.00%	5.51	35.49	\$ 101.58	\$ 2.96	\$ 844.25	\$ 93.21	1.00%	2032
<b>Total Change over planning period</b>					<b>\$ 37.01</b>						<b>\$ 304.21</b>	<b>\$ 304.21</b>		

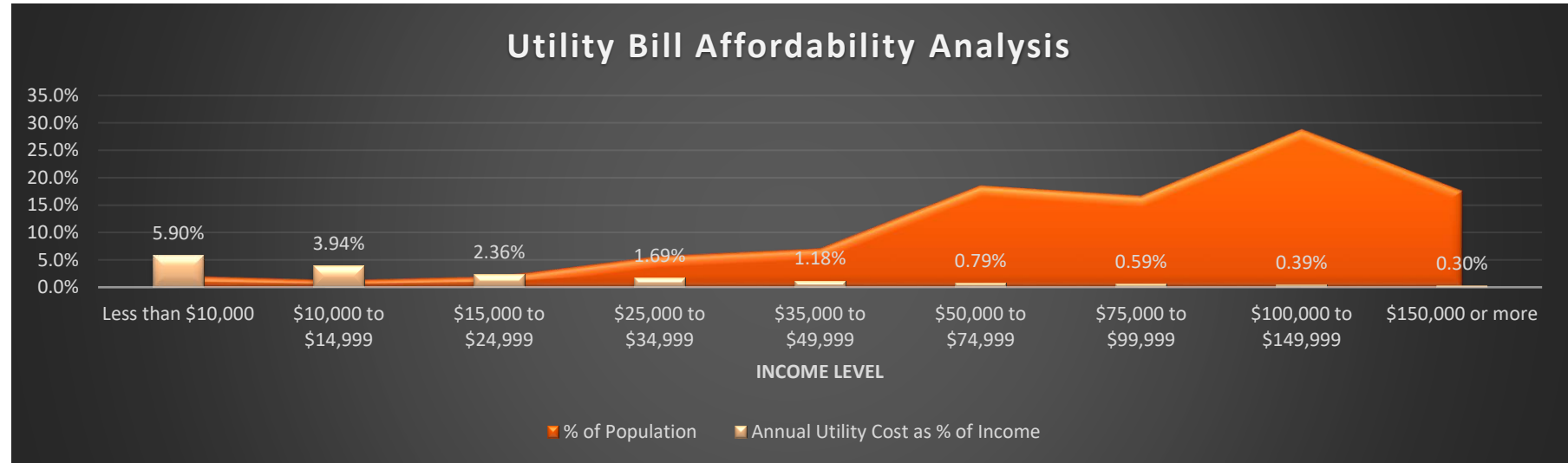
**Notes:**

1. Current water volumetric rate is \$3.59 per 1,000 Gallons up to the first 15,000 gallons per quarter.
2. The water user charges include a quarterly service charge of \$16.20 plus a public fire protection charge of \$13.20 for a 5/8 inch meter.
3. The current Sewer volumetric rate is \$3.39 per 1,000 gallons and a service charge of \$21.85 for 5/8 inch meter.
4. The usage is assumed to be 12,000 Gallons per quarter.

**Table 14**

**Projected Impact of CIP on Typical Residential Utility Bill - Affordability**

*Village of Kronenwetter, WI*



**Notes:**

- 1) Utility Cost taken as a 5-year average of water and wastewater bills for an average (5/8"; 12 kgal./qtr.) Residential User.
- 2) City Income Level from U.S. Census Bureau's American Community Survey.
- 3) 11.1% of residential customers are estimated to have less than \$35,000 of income. These households will have spent more than 3.47% of their income under the 4-year average for this plan.