

August 1, 2023

2023 WATER RATE STUDY:

# Village of Kronenwetter, WI

## Phase I: Long-Range Cash Flow Analysis



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## 2023 Water Rate Study

### Section 1 — Historical Analysis

#### Village of Kronenwetter, WI

# Table 1

## Water Rate Performance

*Village of Kronenwetter, WI*

		Shown with no increase				Est	Budget
Revenue Requirement						2022	2023
Component	Description	2018	2019	2020	2021	2022	2023
<b>Cash Basis</b>							
1	O&M and PILOT	\$483,487	\$497,410	\$505,191	\$420,465	\$341,802	\$510,342
2	Debt	\$113,015	\$0	\$0	\$0	\$0	\$0
3	Cash Funded Capital^	\$121,568	\$108,975	\$31,300	\$46,378	\$54,744	\$40,000
Less:							
	Other Revenue	\$39,810	\$42,021	\$45,198	\$45,699	\$45,737	\$31,360
	Interest Income	\$6,201	\$8,568	\$6,395	\$4,363	\$3,942	\$15,000
	Revenue Requirement (Costs less Other Income)	\$672,059	\$555,796	\$484,898	\$416,781	\$346,867	\$503,982
	User Rates Revenue	\$702,723	\$688,576	\$752,008	\$780,577	\$793,875	\$752,500
	Rate Adequacy	\$30,665	\$132,780	\$267,110	\$363,796	\$447,008	\$248,518
	Rate Adjustment Needed	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Utility Basis (PSC)</b>							
1	O&M and PILOT	\$483,487	\$497,410	\$505,191	\$420,465	\$341,802	\$510,342
2	Depreciation	\$85,155	\$88,205	\$90,070	\$91,305	\$93,223	\$106,483
	NIRB	\$2,862,116	\$2,885,208	\$2,867,720	\$2,810,223	\$2,645,311	\$3,130,171
	PSC Benchmark ROR (%)	4.90%	5.70%	4.90%	4.90%	4.90%	6.50%
3	PSC Benchmark ROR (\$)	\$140,244	\$164,457	\$140,518	\$137,701	\$129,620	\$203,461
Less:							
	Other Revenue	\$39,810	\$42,021	\$45,198	\$45,699	\$45,737	\$31,360
	Interest Income	\$6,201	\$8,568	\$6,395	\$4,363	\$3,942	\$15,000
	Revenue Requirement (Costs less Other Income)	\$662,875	\$699,483	\$684,186	\$599,409	\$514,966	\$773,926
	User Rates Revenue	\$702,723	\$688,576	\$752,008	\$780,577	\$793,875	\$752,500
	Rate Adequacy	\$39,848	(\$10,907)	\$67,822	\$181,168	\$278,909	(\$21,426)
	Rate Adjustment Needed	0.00%	1.58%	0.00%	0.00%	0.00%	2.85%

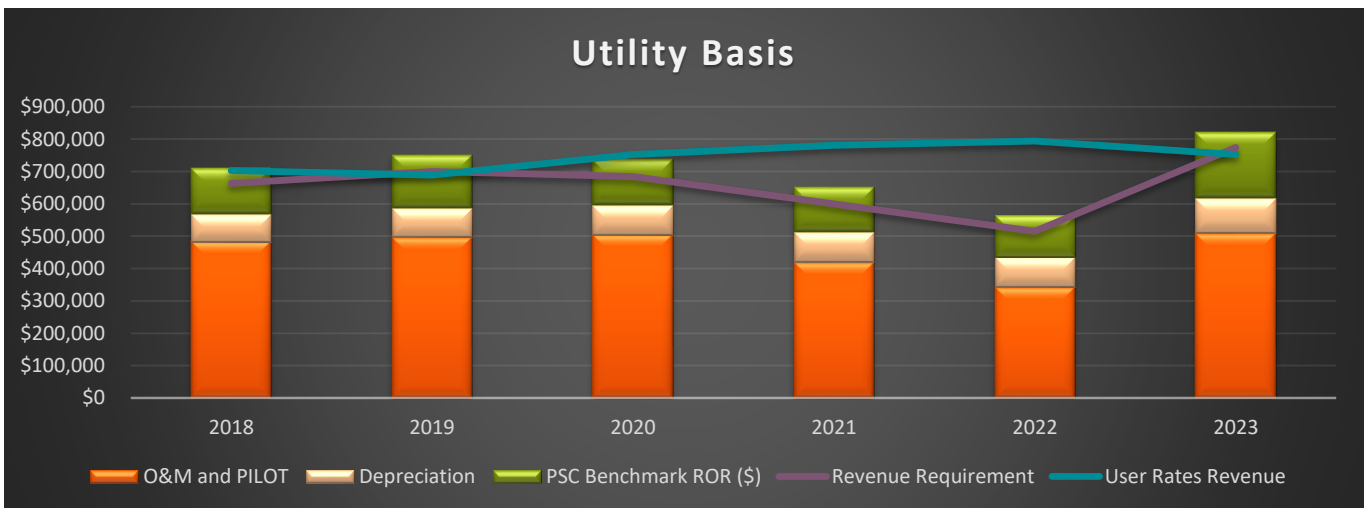
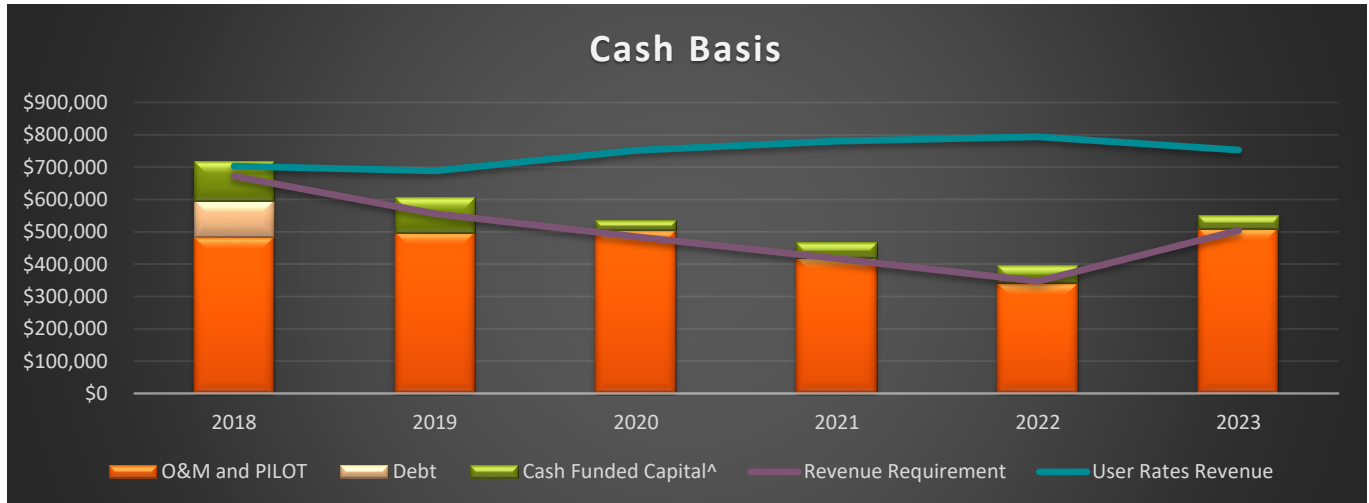
### Notes:

^Includes annual capital not funded with debt and recommended debt coverage at 1.1x annual debt payment

## Table 2

### Water Utility Rate Performance Charts

*Village of Kronenwetter, WI*



**Table 3****Water 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	\$702,723	\$688,576	\$752,008	\$780,577	\$793,875
<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>
Other Revenues					
Interest Income	\$6,201	\$8,568	\$6,395	\$4,363	\$3,942
Other Income	\$61,564	\$56,710	\$56,296	\$57,697	\$49,341
Total Other Revenues	\$67,765	\$65,278	\$62,691	\$62,060	\$53,283
<b>Total Revenues</b>	<b>\$770,488</b>	<b>\$753,854</b>	<b>\$814,699</b>	<b>\$842,637</b>	<b>\$847,158</b>
<b>Less: Expenses</b>					
Operating and Maintenance	\$316,271	\$337,528	\$341,409	\$263,423	\$341,802
PILOT Payment	\$167,216	\$159,882	\$163,782	\$157,042	\$0
<b>Net Before Debt Service and Capital Expenditures</b>	<b>\$287,001</b>	<b>\$256,444</b>	<b>\$309,508</b>	<b>\$422,172</b>	<b>\$505,356</b>
Existing Debt P&I	\$113,015	\$0	\$0	\$0	\$0
Transfer In (Out)/Cap. Contrib.	\$0	\$0	\$0	\$0	\$0
Less: Capital Improvements	\$110,266	\$108,975	\$31,300	\$46,378	\$54,744
Debt Proceeds/Grants	\$0	\$0	\$0	\$0	\$0
Reconcile to Audit	\$1,990	\$9,775	\$23,930	-\$12,613	
<b>Net Annual Cash Flow</b>	<b>\$65,710</b>	<b>\$157,244</b>	<b>\$302,138</b>	<b>\$363,181</b>	<b>\$450,612</b>
<u>Restricted and Unrestricted Cash Balance:</u>					
Balance at first of year	\$396,766	\$462,476	\$619,720	\$921,858	\$1,285,039
Net Annual Cash Flow Addition/(subtraction)	\$65,710	\$157,244	\$302,138	\$363,181	\$450,612
Balance at end of year	\$462,476	\$619,720	\$921,858	\$1,285,039	\$1,735,651

**Notes:**

## Table 4

# Water 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>	293,991	297,428	262,770	233,506	309,256	418,576
Actual Days Cash Available - PSC <sup>2</sup>	533	670	986	1,781	1,853	1,421
Actual Days Cash Available - Moody's <sup>3</sup>	534	670	986	1,781	1,853	1,421
Actual Days Cash Available - S&P <sup>4</sup>	534	670	986	1,781	1,853	1,421
<b>Actual working capital-cash balance</b>						
Over (Under) Ehlers target	168,485	322,293	659,088	1,051,533	1,426,394	1,568,593
Over (Under) PSC target (90 days)	443	580	896	1,691	1,763	1,331
Over (Under) Moody's target (150 days)	384	520	836	1,631	1,703	1,271
Over (Under) S&P target (150 days)	384	520	836	1,631	1,703	1,271

### Notes:

- 1) Target capital equals 5 mos of next year's operating expenses, including depreciation, plus 100% of following year's 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	3,926,193	4,014,720	4,071,684	4,093,363	4,134,260	4,709,569
Plus: Materials and Supplies	7,477	7,804	8,070	12,089	15,859	15,859
Less: Utility Plant Accumulated Depreciation	967,213	1,051,946	1,145,635	1,247,801	1,358,795	1,465,278
Less: Regulatory Liability	104,341	85,370	66,399	47,428	28,457	9,486
Average Net Investment Rate Base (NIRB)	2,862,116	2,885,208	2,867,720	2,810,223	2,762,867	3,250,664
Net Operating Income	173,758	148,848	202,096	303,591	404,587	167,035
ROR	6.07%	5.16%	7.05%	10.80%	14.64%	5.14%
Benchmark	4.90%	5.70%	4.90%	4.90%	4.90%	6.50%

### Cost Recovery

Operating Revenues	742,533	730,597	797,206	826,276	839,612	783,860
Operating Expenses incl. Depr & Amortization	689,472	705,579	713,826	630,647	560,415	742,215
Operating Expenses w/o Depr & Amortization	483,487	497,410	505,191	420,465	341,802	510,342
Cost Recovery incl. Depr	1.08	1.04	1.12	1.31	1.50	1.06
Cost Recovery w/o Depr	1.43	1.42	1.41	1.50	1.64	1.45
Target	1.00	1.00	1.00	1.00	1.00	1.00

### 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	12,485,513	12,569,723	12,605,261	12,770,814	13,175,374	14,265,374
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	2,960,026	3,154,256	3,359,320	3,578,730	3,817,905	4,049,778
Total Net Assets	12,485,513	12,569,723	12,605,261	12,770,814	13,175,374	14,265,374
Asset Depreciation	23.71%	25.09%	26.65%	28.02%	28.98%	28.39%

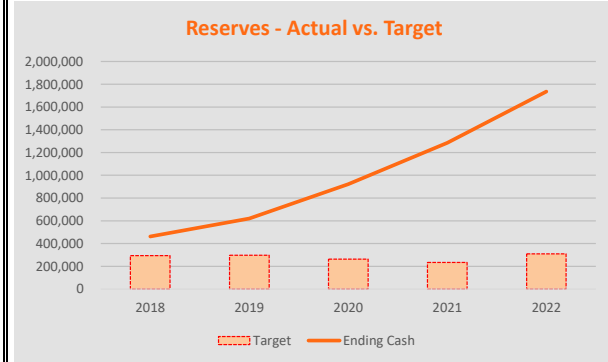
**Notes:**

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).

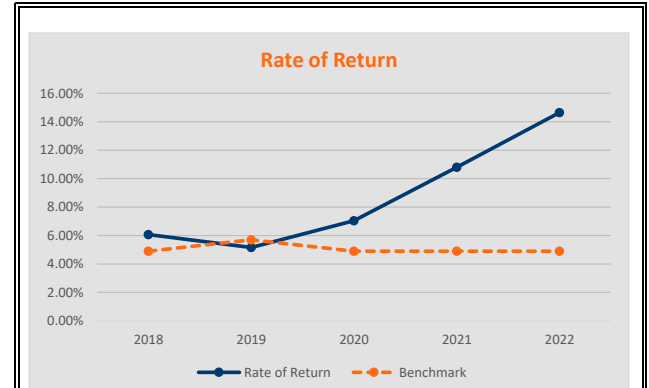
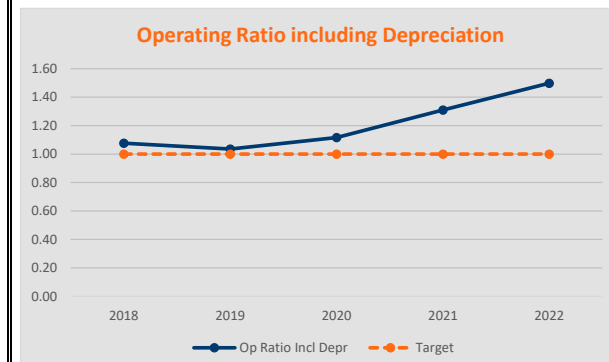
## Table 5 Water Utility Financial Health Charts

Village of Kronenwetter, WI

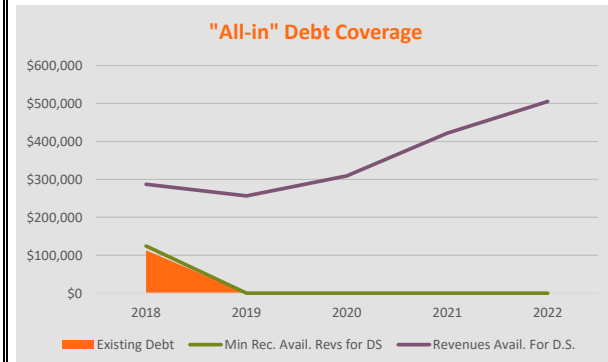
Can you pay for 5 mos. Of O&M and next year's debt?



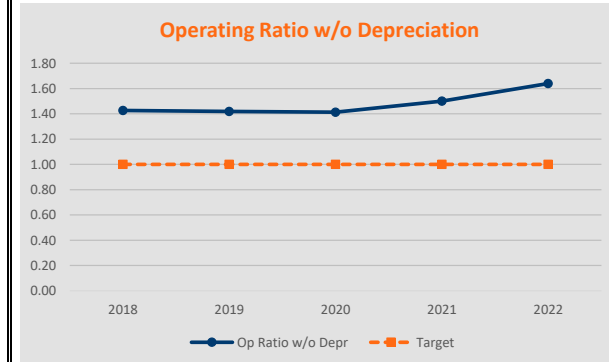
Did you generate enough revenues to pay for O&M and capital?



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



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







## 2023 Water Rate Study

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

#### Village of Kronenwetter, WI

## Table 6

### Water Utility Capital Improvement Plan

*Village of Kronenwetter, WI*

Projects	Funding	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Totals
Water Meter Change Out	Cash	40,000	40,000	40,000								120,000
Water Filtration Project	Revenue Debt	1,050,000	2,525,000									3,575,000
Water & Sewer GIS System	Cash		50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	450,000
10 Year Well Inspection	Cash			50,000				50,000				100,000
Well 3	Revenue Debt										4,000,000	4,000,000
<b>Actual CIP Costs</b>		<b>1,090,000</b>	<b>2,615,000</b>	<b>140,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>100,000</b>	<b>50,000</b>	<b>50,000</b>	<b>4,050,000</b>	<b>8,245,000</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	1,050,000	2,525,000	0	0	0	0	0	0	0	4,000,000	7,575,000
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	0	0	0	0	0	0	0	0	0	0	0
Cash	40,000	90,000	140,000	50,000	50,000	50,000	100,000	50,000	50,000	50,000	670,000
<b>Total</b>	<b>1,090,000</b>	<b>2,615,000</b>	<b>140,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>100,000</b>	<b>50,000</b>	<b>50,000</b>	<b>4,050,000</b>	<b>8,245,000</b>

Notes:

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

	2032	
	Revenue Bonds	Water Portion
	2032 Water Projects	
CIP Projects <sup>1</sup>	4,000,000	4,000,000
Less Other Available Revenues		
Cash Available	(2,200,000)	(2,200,000)
Net Borrowing Requirement	1,800,000	1,800,000
Debt Service Reserve		
Debt Service Reserve Funds On Hand	-	0
New Debt Service Reserve Requirement	190,000	190,000
Subtotal Reserve Fund Requirement	190,000	190,000
Estimated Issuance Expenses	84,600	84,600
<b>TOTAL TO BE FINANCED</b>	<b>2,074,600</b>	<b>2,074,600</b>
Estimated Interest Earnings	4.00% (18,000)	(18,000)
Assumed spend down (months)	3.00	
Rounding	3,400	3,400
<b>NET BOND SIZE</b>	<b>2,060,000</b>	<b>2,060,000</b>

**Notes:**

1) Source of Project Totals

**Table 8**  
**Water Utility Projected Debt Service Payments (PROPOSED)**

*Village of Kronenwetter, WI*

NAME	SDWFL (Water Filtration) Proj. No. 5533-04				Water Revenue Bonds Series 2031				PROPOSED Water Utility Debt Service Summary				
AMT DATED MATURE	\$3,575,000 6/26/2024 5/1				\$2,060,000 6/1/2032 5/1								
Year	Principal	Est. Rate <sup>2</sup>	Interest	Total	Principal	Est. Rate <sup>4</sup>	Interest	Total	Total Prin	Total Int	Total P&I	Prin Outstanding	Year
2023									0	0	0	0	2023
2024	0	2.695%	85,106	85,106					0	85,106	85,106	3,575,000	2024
2025	137,225	2.695%	94,497	231,722					137,225	94,497	231,722	3,437,775	2025
2026	140,923	2.695%	90,749	231,672					140,923	90,749	231,672	3,296,852	2026
2027	144,721	2.695%	86,900	231,621					144,721	86,900	231,621	3,152,130	2027
2028	148,621	2.695%	82,947	231,569					148,621	82,947	231,569	3,003,509	2028
2029	152,627	2.695%	78,888	231,515					152,627	78,888	231,515	2,850,882	2029
2030	156,740	2.695%	74,719	231,459					156,740	74,719	231,459	2,694,142	2030
2031	160,964	2.695%	70,438	231,402					160,964	70,438	231,402	2,533,178	2031
2032	165,302	2.695%	66,042	231,344		7.000%	60,083	60,083	165,302	126,125	291,427	4,427,875	2032
2033	169,757	2.695%	61,527	231,284	100,000	7.000%	140,700	240,700	269,757	202,227	471,984	4,158,118	2033
2034	174,332	2.695%	56,890	231,222	100,000	7.000%	133,700	233,700	274,332	190,590	464,922	3,883,786	2034
2035	179,030	2.695%	52,129	231,159	100,000	7.000%	126,700	226,700	279,030	178,829	457,859	3,604,756	2035
2036	183,855	2.695%	47,239	231,094	100,000	7.000%	119,700	219,700	283,855	166,939	450,794	3,320,901	2036
2037	188,810	2.695%	42,217	231,027	100,000	7.000%	112,700	212,700	288,810	154,917	443,727	3,032,091	2037
2038	193,899	2.695%	37,060	230,959	100,000	7.000%	105,700	205,700	293,899	142,760	436,659	2,738,192	2038
2039	199,124	2.695%	31,764	230,888	100,000	7.000%	98,700	198,700	299,124	130,464	429,588	2,439,068	2039
2040	204,490	2.695%	26,325	230,816	100,000	7.000%	91,700	191,700	304,490	118,025	422,516	2,134,578	2040
2041	210,002	2.695%	20,740	230,742	100,000	7.000%	84,700	184,700	310,002	105,440	415,442	1,824,576	2041
2042	215,661	2.695%	15,004	230,665	100,000	7.000%	77,700	177,700	315,661	92,704	408,365	1,508,915	2042
2043	221,473	2.695%	9,114	230,587	100,000	7.000%	70,700	170,700	321,473	79,814	401,287	1,187,442	2043
2044	227,442	2.695%	3,065	230,507	100,000	7.000%	63,700	163,700	327,442	66,765	394,207	860,000	2044
2045					125,000	7.000%	55,825	180,825	125,000	55,825	180,825	735,000	2045
2046					125,000	7.000%	47,075	172,075	125,000	47,075	172,075	610,000	2046
2047					125,000	7.000%	38,325	163,325	125,000	38,325	163,325	485,000	2047
2048					125,000	7.000%	29,575	154,575	125,000	29,575	154,575	360,000	2048
2049					125,000	7.000%	20,825	145,825	125,000	20,825	145,825	235,000	2049
2050					125,000	7.000%	12,075	137,075	125,000	12,075	137,075	110,000	2050
2051					110,000	7.000%	3,850	113,850	110,000	3,850	113,850	(0)	2051
TOTALS	3,575,000		1,133,360	4,708,360	2,060,000		1,494,033	3,554,033	5,635,000	2,627,394	8,262,394		TOTALS

**Notes:**

- 1) Rate assumes rate of recent sale of similar transaction
- 2) Rate assumes 55% of current program market rate plus 100 bps (or 1.00%).
- 3) Rate assumes recent WI/TE/Rev/BQ sale plus 50 bps (or 0.50%).
- 4) Rate assumes previous proposed issuance in plan plus 50 bps (or 0.50%).

**Legend:**

  Maturities subject to optional redemption (callable)

## Table 9

### Water Utility Cash Flow Analysis - Projected 2023-2032

Village of Kronenwetter, WI

	Budget 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
<b>Revenues</b>										
Total Revenues from User Rates <sup>1</sup>	\$752,500	\$752,500	\$775,075	\$798,327	\$822,277	\$846,945	\$872,354	\$898,524	\$925,480	\$1,136,705
Percent Increase to User Rates	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	22.82%
Cumulative Percent Rate Increase	0.00%	0.00%	3.00%	6.09%	9.27%	12.55%	15.93%	19.41%	22.99%	51.06%
Dollar Amount Increase to Revenues		\$0	\$22,575	\$23,252	\$23,950	\$24,668	\$25,408	\$26,171	\$26,956	\$211,225
Total Other Revenues	\$49,360	\$46,824	\$47,292	\$47,765	\$48,242	\$48,725	\$49,212	\$49,704	\$50,537	\$51,386
Total Revenues	\$801,860	\$799,324	\$822,367	\$846,092	\$870,519	\$895,670	\$921,566	\$948,229	\$976,018	\$1,188,091
<b>Less: Expenses</b>										
Operating and Maintenance <sup>2</sup>	\$510,342	\$515,445	\$520,600	\$525,806	\$531,064	\$536,375	\$541,738	\$547,156	\$552,627	\$558,154
PILOT Payment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Before Debt Service and Capital Expenditures	\$291,518	\$283,878	\$301,767	\$320,286	\$339,455	\$359,296	\$379,827	\$401,073	\$423,390	\$629,937
<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	\$85,106	\$231,722	\$231,672	\$231,621	\$231,569	\$231,515	\$231,459	\$231,402	\$291,427
Total Debt Service	\$0	\$85,106	\$231,722	\$231,672	\$231,621	\$231,569	\$231,515	\$231,459	\$231,402	\$291,427
Transfer In (Out)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Less: Capital Improvements	\$1,090,000	\$2,615,000	\$140,000	\$50,000	\$50,000	\$50,000	\$100,000	\$50,000	\$50,000	\$4,134,600
Debt Proceeds	\$1,050,000	\$2,525,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,060,000
<b>Net Annual Cash Flow</b>	<b>\$251,518</b>	<b>\$108,772</b>	<b>(\$69,955)</b>	<b>\$38,614</b>	<b>\$57,834</b>	<b>\$77,727</b>	<b>\$48,313</b>	<b>\$119,613</b>	<b>\$141,988</b>	<b>(\$1,736,090)</b>
<b>Restricted and Unrestricted Cash Balance:</b>										
Balance at first of year	\$1,735,651	\$1,987,169	\$2,095,941	\$2,025,986	\$2,064,599	\$2,122,434	\$2,200,161	\$2,248,473	\$2,368,087	\$2,510,075
Net Annual Cash Flow Addition/(subtraction)	\$251,518	\$108,772	-\$69,955	\$38,614	\$57,834	\$77,727	\$48,313	\$119,613	\$141,988	-\$1,736,090
Balance at end of year	\$1,987,169	\$2,095,941	\$2,025,986	\$2,064,599	\$2,122,434	\$2,200,161	\$2,248,473	\$2,368,087	\$2,510,075	\$773,985
"All-in" Debt Coverage	N/A	3.34	1.30	1.38	1.47	1.55	1.64	1.73	1.83	2.16
PSC Days Cash on Hand	1,331	1,184	1,112	1,132	1,164	1,207	1,232	1,300	1,380	222

**Notes:**

- 1) Assumes no changes in customer count or usage beyond Test Year.
- 2) Assumes 1.00% annual inflation beyond budget year.

**Legend:**

- Simplified Rate Case (projected eligibility)
- Conventional (Full) Rate Case

## Table 10

### Water Utility Financial Benchmarking Analysis Projected 2023 - 2032

Village of Kronenwetter, WI

	Budget 2023	2024	2025	2026	2027	Projected 2028	2029	2030	2031	2032
<b>Target minimum cash balance</b>										
Target minimum working capital - Ehlers <sup>1</sup>	418,576	592,075	595,715	598,545	601,396	604,499	607,852	610,766	692,209	912,402
Actual Days Cash Available - PSC <sup>2</sup>	1,421	1,274	1,202	1,222	1,254	1,297	1,322	1,390	1,470	312
Actual Days Cash Available - Moody's <sup>3</sup>	1,421	1,484	1,420	1,433	1,459	1,497	1,515	1,580	1,658	382
Actual Days Cash Available - S&P <sup>4</sup>	1,421	1,484	1,420	1,433	1,459	1,497	1,515	1,580	1,658	382
<b>Actual working capital-cash balance</b>										
Over (Under) Ehlers target	1,987,169	2,095,941	2,025,986	2,064,599	2,122,434	2,200,161	2,248,473	2,368,087	2,510,075	773,985
Over (Under) PSC target (90 days)	1,568,593	1,503,866	1,430,271	1,466,054	1,521,037	1,595,662	1,640,621	1,757,321	1,817,865	(138,417)
Over (Under) Moody's target (150 days)	1,331	1,184	1,112	1,132	1,164	1,207	1,232	1,300	1,380	222
Over (Under) S&P target (150 days)	1,271	1,334	1,270	1,283	1,309	1,347	1,365	1,430	1,508	232

#### Notes:

- 1) Target capital equals 5 mos of next year's operating expenses, including depreciation, plus 100% of following year's 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	4,703,694	6,556,194	7,933,694	8,028,694	8,078,694	8,128,694	8,203,694	8,278,694	8,328,694	10,378,694
Plus: Materials and Supplies	8,860	8,860	8,860	8,860	8,860	8,860	8,860	8,860	8,860	8,860
Less: Utility Plant Accumulated Depreciation	1,572,897	1,732,389	1,951,247	2,173,752	2,397,916	2,623,738	2,851,771	3,082,568	3,315,023	3,593,357
Less: Regulatory Liability	9,486	0	0	0	0	0	0	0	0	0
Average Net Investment Rate Base (NIRB)	3,130,171	4,832,665	5,991,307	5,863,802	5,689,638	5,513,816	5,360,783	5,204,986	5,022,531	6,794,197
Net Operating Income	167,035	109,236	67,608	82,326	99,683	117,708	135,872	154,194	174,692	335,199
ROR	5.34%	2.26%	1.13%	1.40%	1.75%	2.13%	2.53%	2.96%	3.48%	4.93%
Projected PSC Benchmark	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%

#### Cost Recovery

Operating Revenues	783,860	784,174	807,065	830,637	854,910	879,905	905,643	932,147	959,775	1,171,686
Operating Expenses incl. Depr & Amortization	742,215	800,328	864,847	873,701	880,618	887,587	895,161	903,343	910,472	961,877
Operating Expenses w/o Depr & Amortization	510,342	515,445	520,600	525,806	531,064	536,375	541,738	547,156	552,627	558,154
Cost Recovery incl. Depr	1.06	0.98	0.93	0.95	0.97	0.99	1.01	1.03	1.05	1.22
Cost Recovery w/o Depr	1.45	1.55	1.66	1.66	1.66	1.65	1.65	1.65	1.65	1.72
Target	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

#### 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.

#### Leverage

Total Long-Term Debt	0	3,575,000	3,437,775	3,296,852	3,152,130	3,003,509	2,850,882	2,694,142	2,533,178	4,427,875
Total Net Assets	13,915,558	16,530,558	16,670,558	16,720,558	16,770,558	16,820,558	16,920,558	16,970,558	17,020,558	21,070,558
Debt-to Equity Ratio	0.00	0.22	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.21

#### 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.

#### Condition of Assets:

Accumulated Depreciation Expense	4,049,778	4,334,660	4,678,908	5,026,803	5,376,357	5,727,569	6,080,992	6,437,179	6,795,024	7,198,748
Total Net Assets	13,915,558	16,530,558	16,670,558	16,720,558	16,770,558	16,820,558	16,920,558	16,970,558	17,020,558	21,070,558
Asset Depreciation	29.10%	26.22%	28.07%	30.06%	32.06%	34.05%	35.94%	37.93%	39.92%	34.16%

#### 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

### Water Utility Statement of Projected Revenue Bond Coverage

*Village of Kronenwetter, WI*

Year	Total Operating Revenues	Transfers In (Out)	Less:	Amount Available for Debt Service	Existing Rev Debt	Future Rev Debt (2023-2032)			
			Total O&M Expense		Total	Total	Total Water Debt Service	Coverage	Debt Service Capacity @ 1.25x
2023	801,860	0	(510,342)	291,518	-	-	-	N/A	233,214
2024	799,324	0	(515,445)	283,878	-	85,106	85,106	3.34	141,997
2025	822,367	0	(520,600)	301,767	-	231,722	231,722	1.30	9,691
2026	846,092	0	(525,806)	320,286	-	231,672	231,672	1.38	24,556
2027	870,519	0	(531,064)	339,455	-	231,621	231,621	1.47	39,943
2028	895,670	0	(536,375)	359,296	-	231,569	231,569	1.55	55,868
2029	921,566	0	(541,738)	379,827	-	231,515	231,515	1.64	72,347
2030	948,229	0	(547,156)	401,073	-	231,459	231,459	1.73	89,399
2031	976,018	0	(552,627)	423,390	-	231,402	231,402	1.83	107,310
2032	1,188,091	0	(558,154)	629,937	-	291,427	291,427	2.16	212,523

**Notes:**

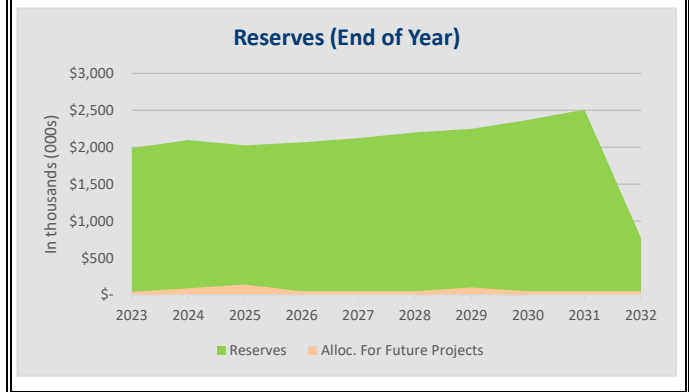
1) Revenue Coverage determined from PROPOSED 2024 SDWF Loan.

**Table 12**  
**Water Utility Long-Range Planning Analysis**  
*Village of Kronenwetter, WI*

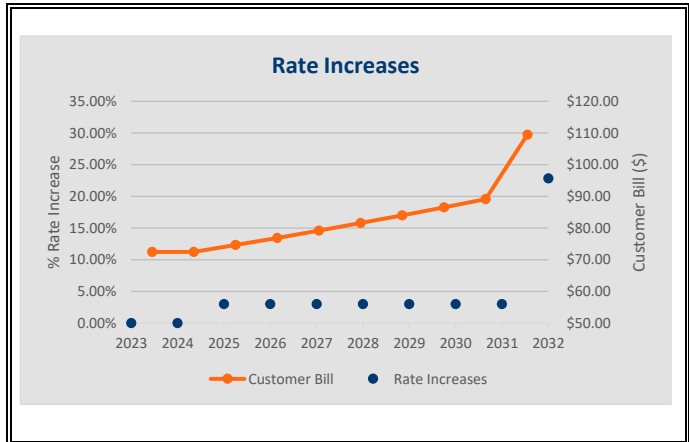
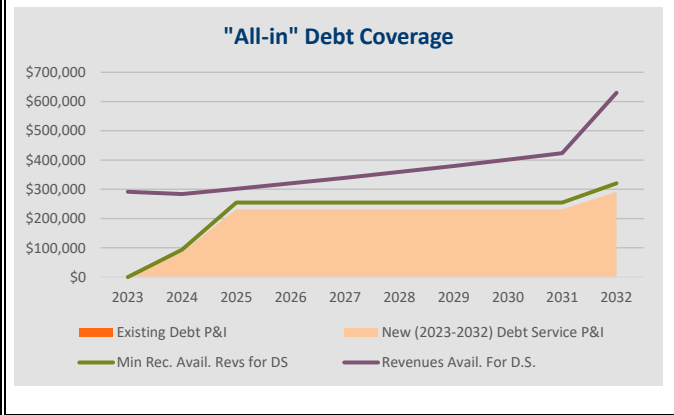
Are rates set to maintain adequate reserves?



How much reserves are planned for future projects?



Are rates set to pay for financial obligations?







## 2023 Water 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				
		Tiered	Serv. + PFP				1,000 Gal	Gen Service						
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>			

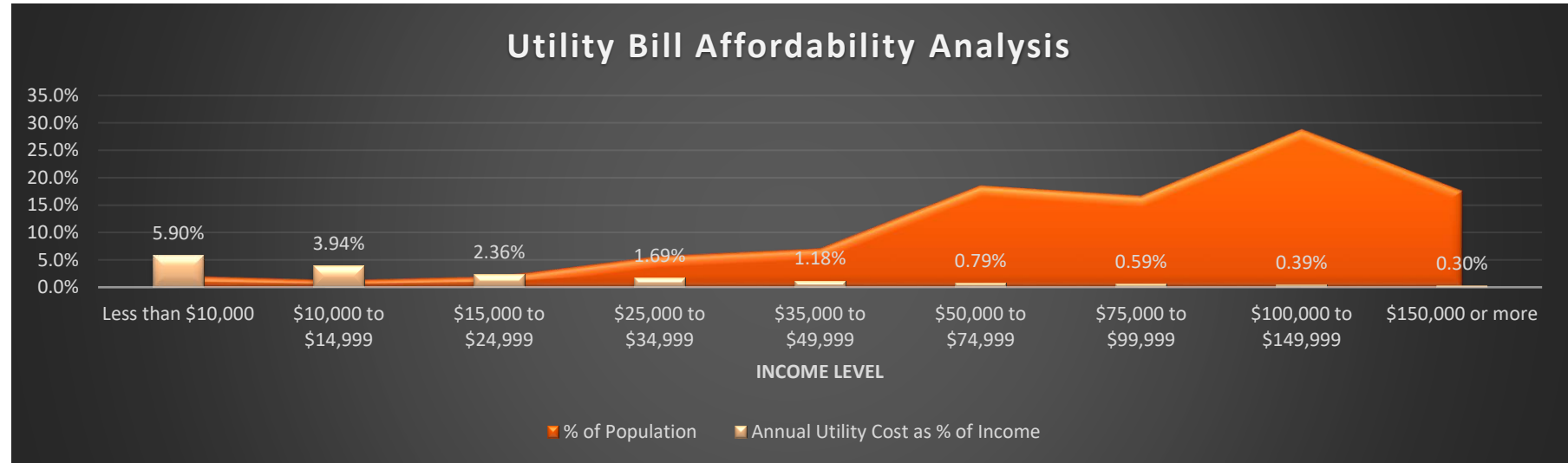
**Notes:**

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.