REVISED UTILITY COMMITTEE MEETING AGENDA

August 01, 2023 at 5:45 PM

Kronenwetter Municipal Center - 1582 Kronenwetter Drive Board Room (Lower Level)

1. **CALL MEETING TO ORDER**
   - **A.** Pledge of Allegiance
   - **B.** Roll Call
2. **PUBLIC COMMENT**

   Please be advised per State Statute Section 19.84(2), information will be received from the public. It is the policy of this Village that Public Comment will take no longer than 15 minutes with a three-minute time period, per person, with time extension per the Chief Presiding Officer's discretion. Be further advised that there may be limited discussion on the information received, however, no action will be taken under public comments.
3. **OLD BUSINESS**
   - **C.** Discussion/Possible Action: Water/Sewer Rate Study - Phase 1 - presented by Ehlers
   - **D.** Discussion/Possible Action: Lift Station and Sewer Capacity Study Project - presented by RPS
   - **E.** Discussion: Update on the Water Filtration Project - presented by Becher Hoppe
4. **REPORTS AND DISCUSSIONS**
   - **F.** Update of SCADA System Replacement
5. **APPROVAL OF MINUTES**
   - **G.** Approval of July 6, 2023 Minutes
6. **CONSIDERATION OF ITEMS FOR FUTURE AGENDA**
7. **NEXT MEETING: September 5, 2023**
8. **ADJOURNMENT**

WRITTEN COMMENTS: You can send comments on agenda items to kcoyle@kronenwetter.org

NOTE: Requests from persons with disabilities who need assistance to participate in this meeting or hearing should be made at least 24 hours in advance to the Village Clerk's office at (715) 693-4200 during business hours.

Posted: 07/28/2023 Kronenwetter Municipal Center and www.kronenwetter.org

Faxed: WAOW, WSAW, WSAU, and Mosinee Times | Emailed: Wausau Daily Herald

REPORT TO UC

ITEM NAME:	Ehlers – Water/Sewer Rate Study
MEETING DATE:	8/1/2023
PRESENTING COMMITTEE:	UC
COMMITTEE CONTACT:	
STAFF CONTACT:	Lisa Kerstner
PREPARED BY:	Lisa Kerstner

ISSUE:

OBJECTIVES: Present Phase 1 of Water/Sewer Rate Study.

ISSUE BACKGROUND/PREVIOUS ACTIONS:

PROPOSAL:

ADVANTAGES:

DISADVANTAGES:

ITEMIZE ALL ANTICIPATED COSTS (Direct or Indirect, Start-Up/One-Time, Capital, Ongoing & Annual, Debt Service, etc.)

RECOMMENDED ACTION: Proceed with Phase 2

OTHER OPTIONS CONSIDERED:

TIMING REQUIREMENTS/CONSTRAINTS:

FUNDING SOURCE(s) – Must include Account Number/Description/Budgeted Amt CFY/% Used CFY/$
Remaining CFY
Account Number:
Description:
Budgeted Amount:
Spent to Date:
Percentage Used:
Remaining:

ATTACHMENTS (describe briefly): Ehlers Documents and presentation

August 1, 2023

2023 WATER RATE STUDY:

Village of Kronenwetter, WI

Phase I: Long-Range Cash Flow Analysis

Prepared by:

Ehlers
N19W24400 Riverwood Drive,
Suite 100
Waukesha, WI 53188

Advisors:

Brian Roemer
Municipal Advisor
Greg Johnson
Senior Municipal Advisor

BUILDING COMMUNITIES. IT'S WHAT WE DO.

2023 Water Rate Study

Section 1 — Historical Analysis

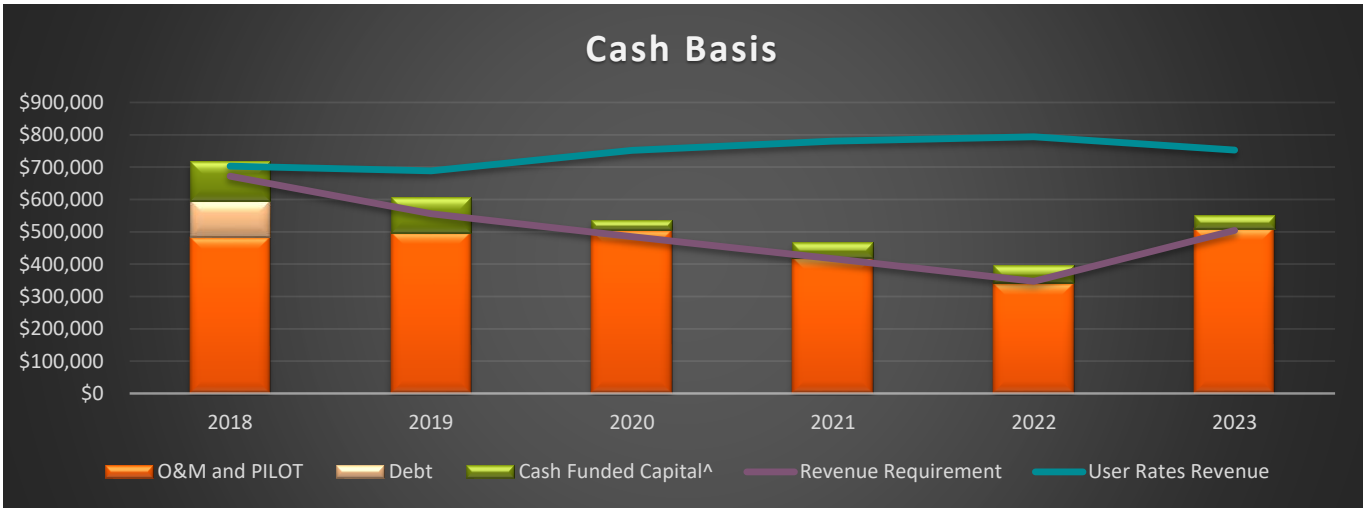
Village of Kronenwetter, WI

Table 1
Water Rate Performance
Village of Kronenwetter, WI

Component	Description	2018	2019	2020	2021	Est 2022	Budget 2023
	Shown with no increase						
	Revenue Requirement						
Cash Basis							
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%
Utility Basis (PSC)							
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



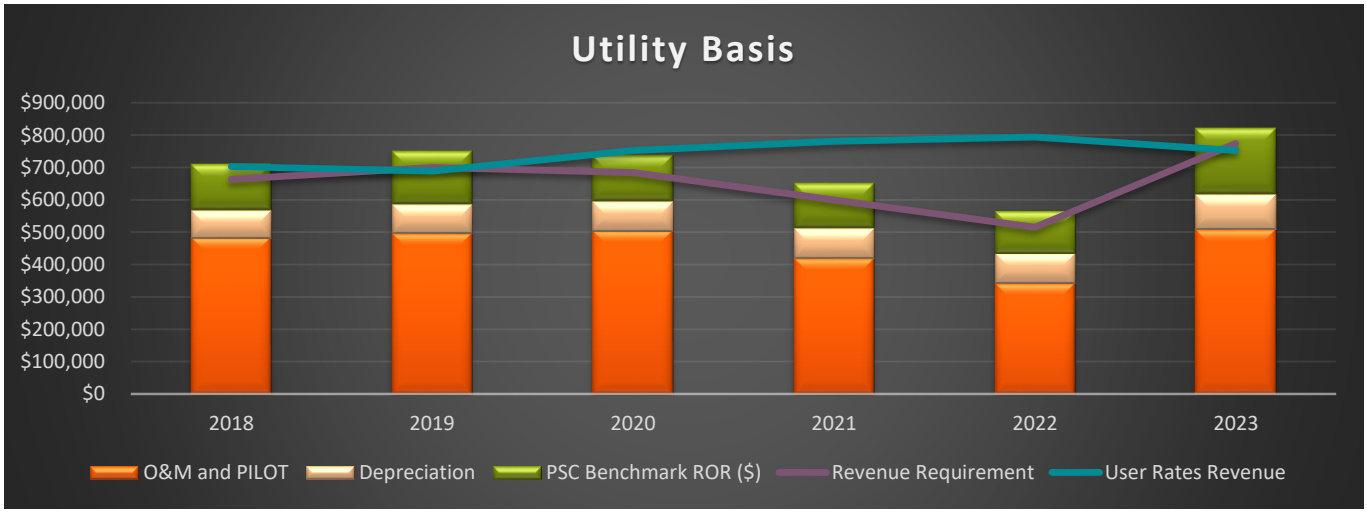


Table 3
Water Utility Cash Flow Analysis - Historical 2018-2022
Village of Kronenwetter, WI

	Actual				Estimated
	2018	2019	2020	2021	2022
Revenues					
Total Revenues from User Rates	$702,723	$688,576	$752,008	$780,577	$793,875
Percent Increase to User Rates	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
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
Total Revenues	$770,488	$753,854	$814,699	$842,637	$847,158
Less: Expenses					
Operating and Maintenance	$316,271	$337,528	$341,409	$263,423	$341,802
PILOT Payment	$167,216	$159,882	$163,782	$157,042	$0
Net Before Debt Service and Capital Expenditures	$287,001	$256,444	$309,508	$422,172	$505,356
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	
Net Annual Cash Flow	**$65,710**	**$157,244**	**$302,138**	**$363,181**	**$450,612**
Restricted and Unrestricted Cash Balance:					
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
Target minimum cash balance						
Target minimum working capital - Ehlers[1]	293,991	297,428	262,770	233,506	309,256	418,576
Actual Days Cash Available - PSC[2]	533	670	986	1,781	1,853	1,421
Actual Days Cash Available - Moody's[3]	534	670	986	1,781	1,853	1,421
Actual Days Cash Available - S&P[4]	534	670	986	1,781	1,853	1,421
Actual working capital-cash balance	462,476	619,720	921,858	1,285,039	1,735,651	1,987,169
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.

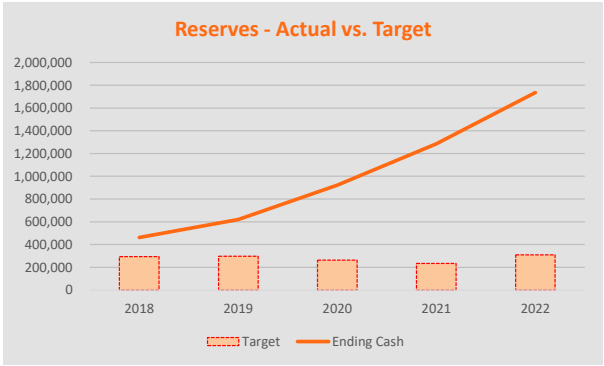
Condition of Assets:						
Accumulated Depreciation Expense	2,960,026	3,154,256	3,359,320	3,578,730	3,817,905	4,049,778
Total Net Assets	12,485,513	12,569,723	12,605,261	12,770,814	13,175,374	14,265,374
Asset Depreciation	23.71%	25.09%	26.65%	28.02%	28.98%	28.39%

Notes:

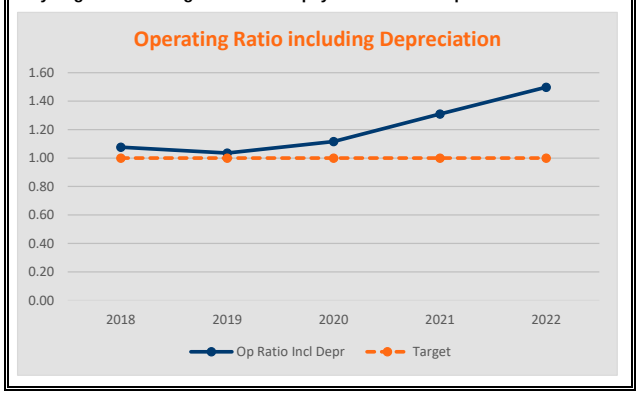
This indicator of infrastructure condition estimates the portion of the average expected life of the utility's physical assets that has already passed. As this ratio approaches 100%, the capital assets become fully depreciated, and infrastructure needs replacement or rehabilitation. The accuracy of this 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).

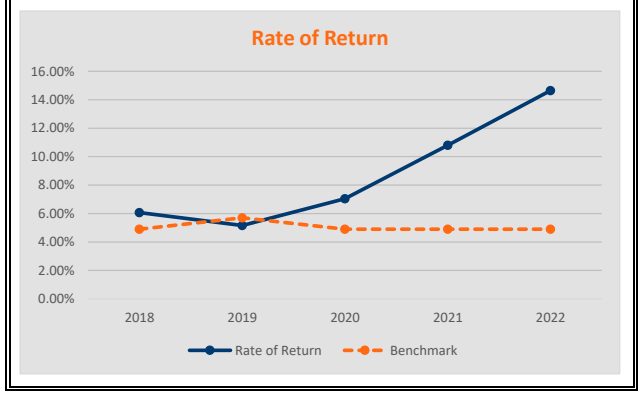
Table 5
Water Utility Financial Health Charts
Village of Kronenwetter, WI

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

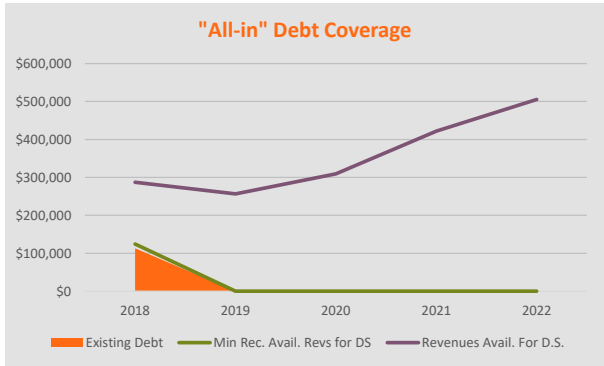


Did you generate enough revenues to pay for O&M and capital?

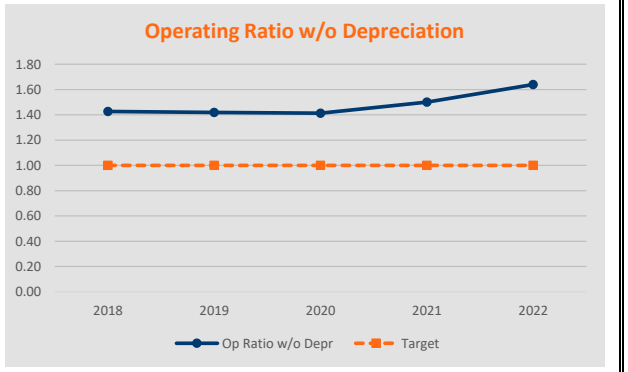




Do you generate revenues to pay for O&M and debt service?



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*
Actual CIP Costs		**1,090,000**	**2,615,000**	**140,000**	**50,000**	**50,000**	**50,000**	**100,000**	**50,000**	**50,000**	**4,050,000**	**8,245,000**

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*
Total	**1,090,000**	**2,615,000**	**140,000**	**50,000**	**50,000**	**50,000**	**100,000**	**50,000**	**50,000**	**4,050,000**	**8,245,000**

Notes:

Table 7
Capital Improvements Financing Plan
Village of Kronenwetter, WI

		2032 Revenue Bonds	Water Portion
		2032 Water Projects	
CIP Projects[1]		**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**
TOTAL TO BE FINANCED		**2,074,600**	**2,074,600**
Estimated Interest Earnings	4.00%	(18,000)	(18,000)
Assumed spend down (months)	3.00		
Rounding		3,400	3,400
NET BOND SIZE		**2,060,000**	**2,060,000**

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	$3,575,000				$2,060,000								
DATED	6/26/2024				6/1/2032								
MATURE	5/1				5/1								
Year	Principal	Est. Rate[2]	Interest	Total	Principal	Est. Rate[4]	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	Projected								
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Revenues										
Total Revenues from User Rates[1]	$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
Less: Expenses										
Operating and Maintenance[2]	$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
Debt Service										
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
Net Annual Cash Flow	**$251,518**	**$108,772**	**($69,955)**	**$38,614**	**$57,834**	**$77,727**	**$48,313**	**$119,613**	**$141,988**	**($1,736,090)**
Restricted and Unrestricted Cash Balance:										
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	Projected								
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Target minimum cash balance										
Target minimum working capital - Ehlers[1]	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[2]	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[3]	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[4]	1,421	1,484	1,420	1,433	1,459	1,497	1,515	1,580	1,658	382
Actual working capital-cash balance	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) Ehlers target	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) PSC target (90 days)	1,331	1,184	1,112	1,132	1,164	1,207	1,232	1,300	1,380	222
Over (Under) Moody's target (150 days)	1,271	1,334	1,270	1,283	1,309	1,347	1,365	1,430	1,508	232
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).

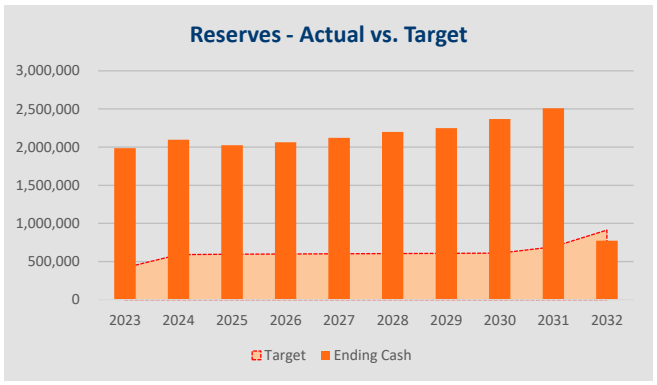
Table 11
Water Utility Statement of Projected Revenue Bond Coverage
Village of Kronenwetter, WI

Year	Total Operating Revenues	Less: Transfers In (Out)	Less: Total O&M Expense	Amount Available for Debt Service	Existing Rev Debt Total	Future Rev Debt (2023-2032) 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

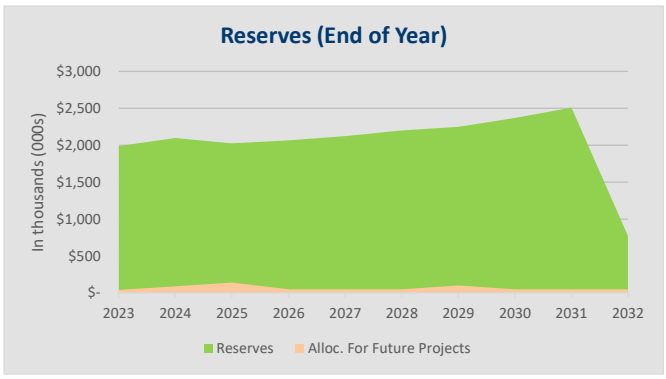
Notes:
1) Revenue Coverage determined from PROPOSED 2024 SDWF Loan.

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

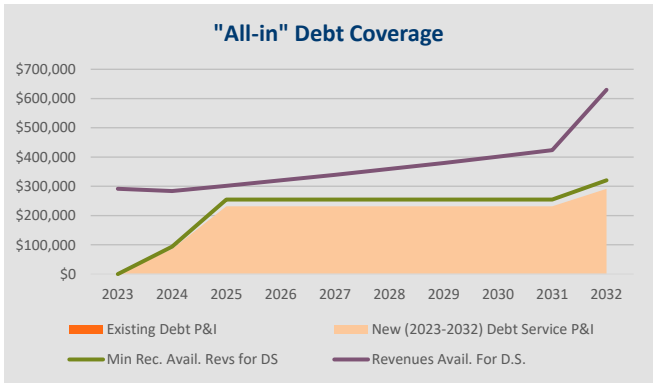
Are rates set to maintain adequate reserves?

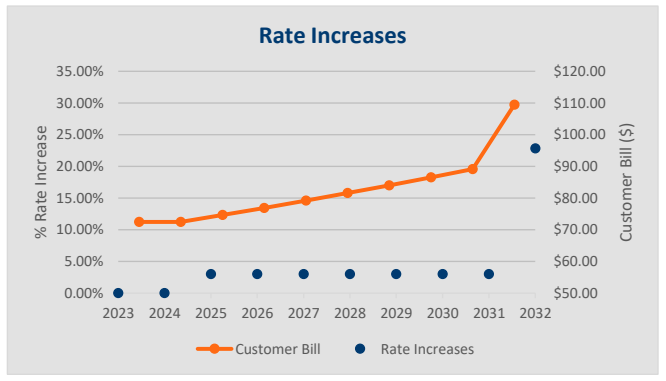


How much reserves are planned for future projects?



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

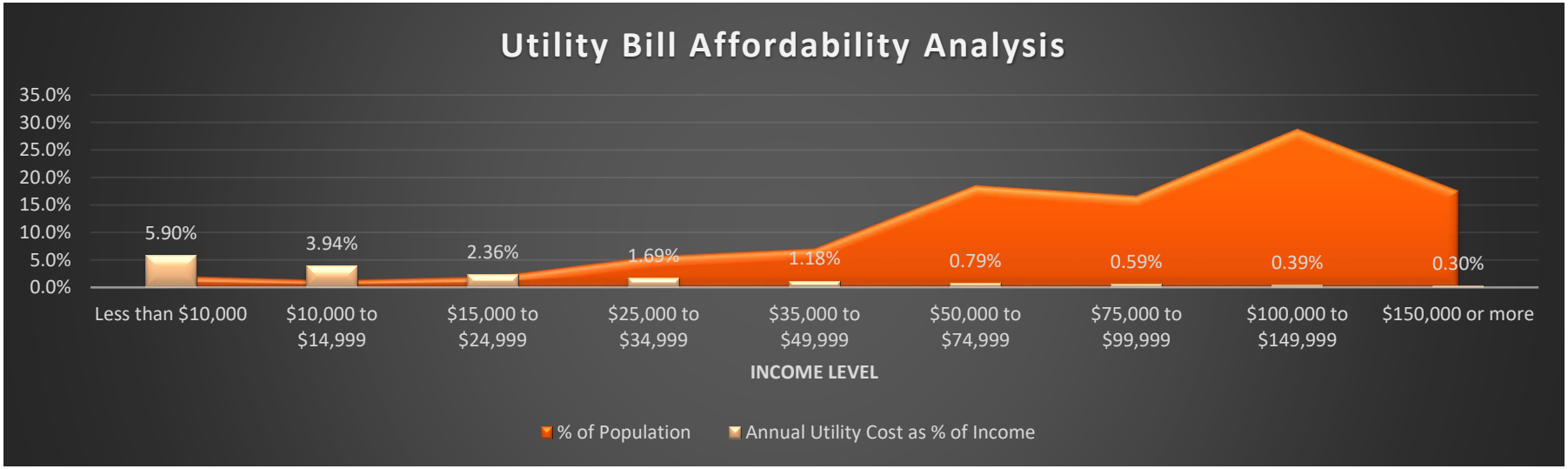
	Water					Sewer								
Year	Increase	Water Vol. Charge[1]	Water User Charge[2]	Utility Bill (Quarterly)	Change Over Prior Year	Increase	Sewer Vol. Charge[3]	Sewer User Charge[3]	Utility Bill (Quarterly)	Change Over Prior Year	Utility Bill (Annual)	Change Over Prior Year	% of MHI (84,435)	Year
		Tiered	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
Total Change over planning period					**$ 37.01**					**$ 39.05**		**$ 304.21**		

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.

EHLERS
PUBLIC FINANCE ADVISORS

Village of Kronenwetter, WI

2023 Water Rate Study

Phase 1: Long-Range Cash Flow Analysis

August 1, 2023 Utility Committee Meeting

Why are we here?

- Water Utility encountering increased capital investment
- Ehlers to identify fiscal sustainability
- Our Process
  - ✓ Historical Rate Performance
  - ✓ Future Projections
    - ➢ O&M and Depreciation
    - ➢ Funding Project(s): Debt vs. Cash
  - ✓ Rate Impact

Water Rates Historical Implementation

- Last Conventional Rate Case (CRC) completed December 20, 1999.
- Since then
  - ✓ UF Plant up (added capital) 184.7%
  - ✓ O&M up 40%; Depr. Up 62%
  - ✓ Usage & Cust. Count up 170%
  - ✓ 2022 PSC AR ROR = 14.64%
- No Simplified Rate Cases (SRC) completed since CRC.

Water: Historical Rate Performance

Shown with no increase

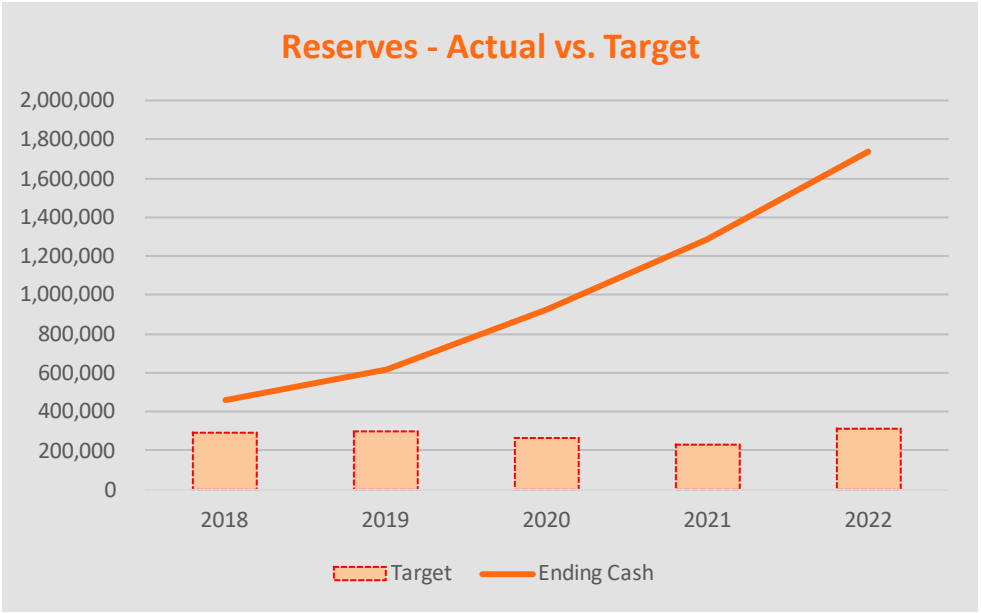
Component	Revenue Requirement Description	2018	2019	2020	2021	Est 2022	Budget 2023
Cash Basis							
1	O&M and PILOT	$483,487	$497,410	$505,191	$420,465	$341,802	$510,342
2	Debt	$113,015	$0	$0	$0	$0	$0
3	Cash Funded Capital^	$121,568	$108,975	$31,300	$46,378	$54,744	$40,000
	Less:						
	Other Revenue	$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%
Utility Basis (PSC)							
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

Rates performing on a cash basis; can add 248k D.S.

Let's investigate the history further....

Water: Historical Financial Indicators



- Reserves to fund deficits and capital (5 mo. O&M + Debt = Target)

What happens when we add capital…

Future Capital

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*
Actual CIP Costs		**1,090,000**	**2,615,000**	**140,000**	**50,000**	**50,000**	**50,000**	**100,000**	**50,000**	**50,000**	**4,050,000**	**8,245,000**

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*
Total	**1,090,000**	**2,615,000**	**140,000**	**50,000**	**50,000**	**50,000**	**100,000**	**50,000**	**50,000**	**4,050,000**	**8,245,000**

- Well 3 project offset by 2.2M cash as seen in Table 7

EHLERS
PUBLIC FINANCE ADVISORS

Water: Future Projection

	Budget	Projected								
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Revenues										
Total Revenues from User Rates[1]	$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
Less: Expenses										
Operating and Maintenance[2]	$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
Debt Service										
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
Net Annual Cash Flow	**$251,518**	**$108,772**	**($69,955)**	**$38,614**	**$57,834**	**$77,727**	**$48,313**	**$119,613**	**$141,988**	**($1,736,090)**
Restricted and Unrestricted Cash Balance:										
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

Water: Impact on Avg. Res. Bill

	Water					Sewer								
Year	Increase	Water Vol. Charge[1]	Water User Charge[2]	Utility Bill (Quarterly)	Change Over Prior Year	Increase	Sewer Vol. Charge[3]	Sewer User Charge[3]	Utility Bill (Quarterly)	Change Over Prior Year	Utility Bill (Annual)	Change Over Prior Year	% of MHI (84,435)	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
Total Change over planning period					**$ 37.01**					**$ 39.05**		**$ 304.21**		

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.

EHLERS PUBLIC FINANCE ADVISORS

Rate Comparison – By County (2)

Utility Name	County	Utility Class	Min. Qtrly Bill (0.625 inch meter)	6000 GAL	12000 GAL	15000 GAL	18750 GAL	75000 GAL	Effective Date
Junction City Water Utility	Portage	D	$57.00	$129.60	$202.20	$238.50	$261.38	$594.50	6/27/2018
Maine Water Utility	Marathon	D	$57.06	$125.16	$193.26	$227.31	$269.87	$908.31	1/1/2022
Village of Dorchester Water Utility	Marathon	D	$54.00	$99.00	$144.00	$166.50	$194.63	$578.25	9/26/2013
Abbotsford Municipal Water Utility	Marathon	D	$30.90	$80.94	$130.98	$156.00	$187.28	$656.40	8/27/2015
Stratford Municipal Water and Electric Utility	Marathon	D	$33.00	$81.00	$129.00	$153.00	$183.00	$549.75	7/19/2017
Village of Amherst Water Utility	Portage	D	$38.19	$77.01	$115.83	$135.24	$159.50	$490.14	4/29/2022
Wausau Water Utility	Marathon	AB	$25.65	$70.29	$114.93	$137.25	$165.15	$583.65	7/1/2023
Spencer Municipal Water Utility	Marathon	D	$34.20	$69.90	$105.60	$123.45	$145.76	$450.20	1/1/2014
Mosinee Municipal Water And Sewer Utility	Marathon	C	$36.00	$69.36	$102.72	$119.40	$140.25	$427.80	4/1/2022
City of Colby Municipal Water Utility	Marathon	D	$35.52	$67.50	$99.48	$115.47	$135.46	$415.92	9/15/2022
Village of Water Marathon and Sewer Utility	Marathon	D	$34.50	$65.10	$95.70	$111.00	$130.13	$390.00	4/1/2016
Marshfield Utilities	Marathon	AB	$28.44	$59.80	$91.16	$106.84	$126.44	$420.44	7/1/2019
Kronenwetter Water Utility (PLAN 51%)	**Marathon**	**C**	**$24.47**	**$57.01**	**$89.55**	**$105.82**	**$125.24**	**$416.70**	**TBD**
Rothschild Municipal Water Utility	Marathon	C	$29.06	$57.80	$86.54	$100.91	$118.87	$388.31	10/1/2022
Athens Municipal Water Utility	Marathon	D	$23.67	$53.79	$83.91	$98.97	$117.80	$384.42	1/1/2022
Village of Hatley Water Utility	Marathon	D	$39.91	$45.23	$77.15	$93.11	$113.06	$329.96	1/1/2023
Schofield Municipal Water and Sewer Utility	Marathon	C	$27.40	$51.70	$76.00	$88.15	$103.34	$308.20	9/10/2022
Edgar Municipal Water Utility	Marathon	D	$24.12	$49.68	$75.24	$88.02	$104.00	$324.92	1/1/2021
Whiting Municipal Water And Sewer Utility	Portage	D	$18.90	$43.08	$67.26	$79.35	$94.46	$307.90	7/13/2013
Kronenwetter Water Utility (INITIAL 3%)	**Marathon**	**C**	**$16.69**	**$38.87**	**$61.06**	**$72.15**	**$85.40**	**$284.13**	**TBD**
Kronenwetter Water Utility CURRENT	**Marathon**	**C**	**$16.20**	**$37.74**	**$59.28**	**$70.05**	**$82.91**	**$275.85**	**12/20/1999**
Village of Plover Municipal Water Utility	Portage	AB	$18.00	$37.98	$57.96	$67.95	$80.44	$267.30	4/1/2022
Weston Water Utility	Marathon	AB	$25.08	$40.50	$57.46	$67.48	$80.01	$301.18	10/15/2022
Stevens Point Municipal Water Utility	Portage	AB	$29.66	$41.18	$52.70	$58.46	$65.66	$173.66	12/1/2021
Rib Mountain San Dist	Marathon	C	$34.99	$36.93	$48.57	$54.39	$61.67	$163.59	7/1/2023

- No PFP (charged different by utility)
- Sorted by 12 kgal consumption column

EHLERS
PUBLIC FINANCE ADVISORS

Recommendations

- Not eligible for SRC based on 2022 PSC AR results
- This plan identifies
  - ✓ max use of SRC where available then CRC
    - ➢ Projected eligibility upon release of 2024 PSC report (5/1/25)
  - ✓ 2032 projected solved for min. coverage; not PSC rate adjustment

TONIGHT's ACTION: Consensus on water rate approach

Questions?

August 1, 2023

2023 SEWER RATE STUDY:

Village of Kronenwetter, WI

Phase I: Long-Range Cash Flow Analysis

Prepared by:

Ehlers
N19W24400 Riverwood Drive,
Suite 100
Waukesha, WI 53188

Advisors:

Brian Roemer
Municipal Advisor
Greg Johnson
Senior Municipal Advisor

BUILDING COMMUNITIES. IT'S WHAT WE DO.

2023 Sewer Rate Study

Section 1 — Historical Analysis

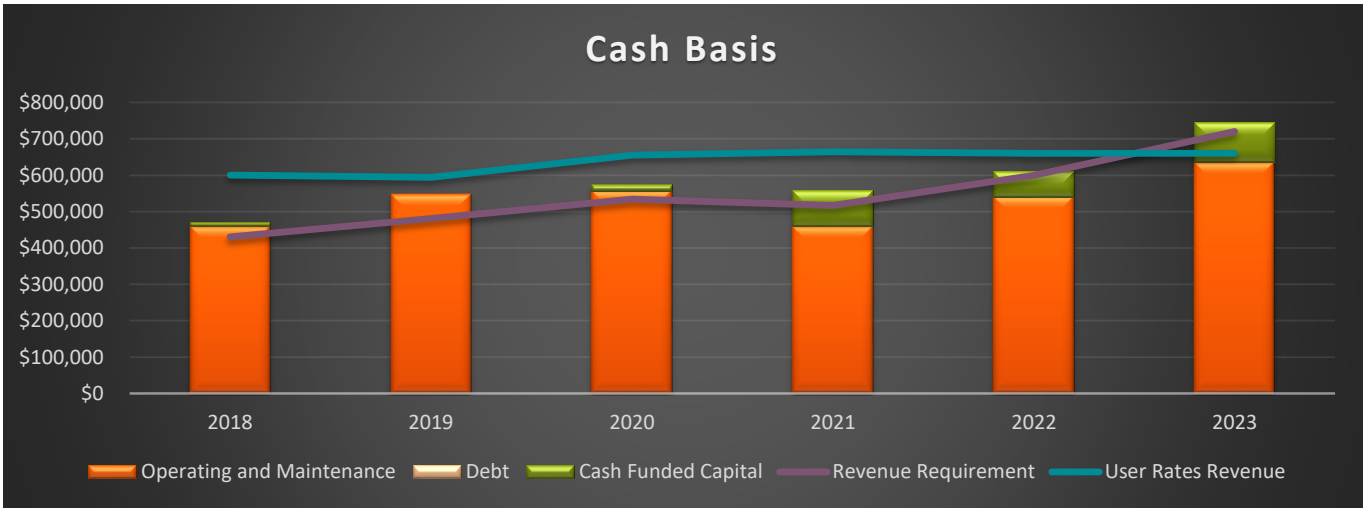
Village of Kronenwetter, WI

Table 1
Sewer Rate Performance
Village of Kronenwetter, WI

Component	Description	Shown with no increase 2018	2019	2020	2021	Est 2022	Est 2023
Cash Basis							
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%
Utility Basis (PSC)							
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



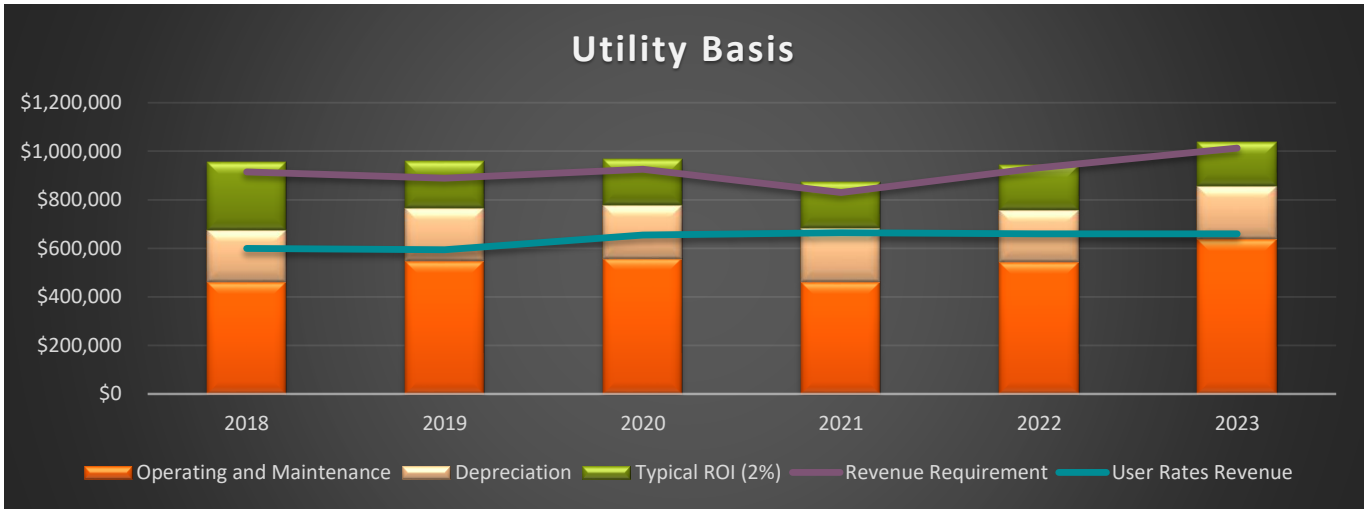


Table 3
Sewer Utility Cash Flow Analysis - Historical 2018-2022
Village of Kronenwetter, WI

	Actual				Estimated
	2018	2019	2020	2021	2022
Revenues					
Total Revenues from User Rates	$600,118	$594,179	$655,122	$664,497	$660,000
Percent Increase to User Rates	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
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
Less: Expenses					
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
Net Annual Cash Flow	**$129,915**	**$102,518**	**$89,104**	**$104,476**	**$55,227**
Restricted and Unrestricted Cash Balance:					
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
Target minimum cash balance						
Target minimum working capital - Ehlers[1]	319,250	323,866	284,355	316,204	356,954	366,118
Actual Days Cash Available - PSC[2]	825	761	807	1,061	940	762
Actual Days Cash Available - Moody's[3]	825	761	807	1,061	940	762
Actual Days Cash Available - S&P[4]	825	761	807	1,061	940	762
Actual working capital-cash balance	1,041,130	1,143,648	1,232,752	1,337,228	1,392,455	1,327,334
Over (Under) Ehlers target	721,880	819,782	948,397	1,021,024	1,035,500	961,215
Over (Under) PSC target (90 days)	735	671	717	971	850	672
Over (Under) Moody's target (150 days)	675	611	657	911	790	612
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

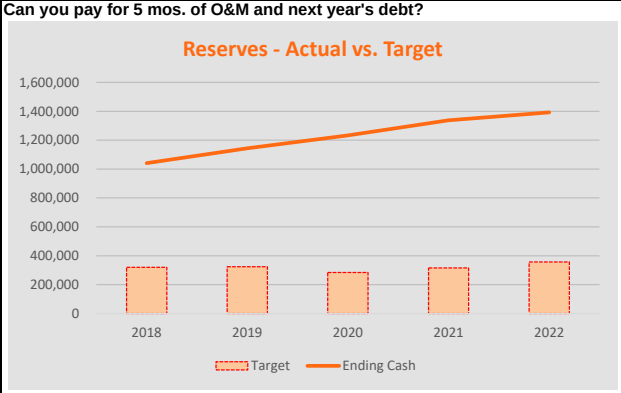
Notes:
This indicator measures the existing level of leveraging of assets, and is used by funders and bond rating agencies to evaluate the risk of providing additional loans to the utility. The ratio indicates the amount of long-term debt that exists for every $1 of assets (fund equity). A utility with 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%

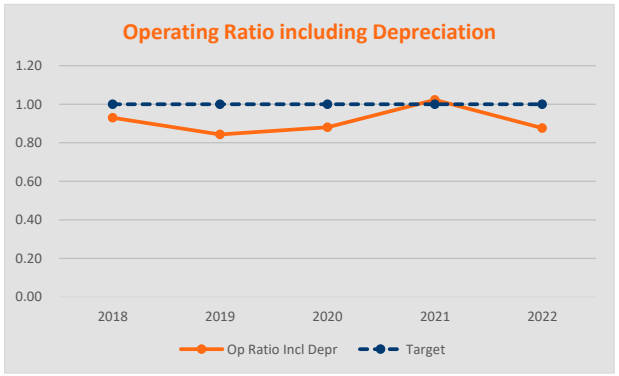
Notes:
This indicator of infrastructure condition estimates the portion of the average expected life of the utility's physical assets that has already passed. As this ratio approaches 100%, the capital assets become fully depreciated, and infrastructure needs replacement or rehabilitation. The accuracy 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).

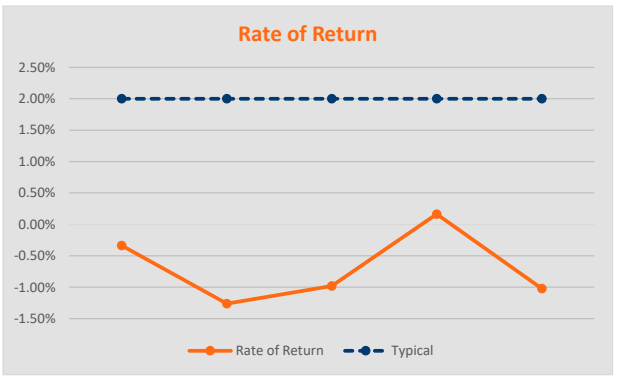
Table 5
Sewer Utility Financial Health Charts
Village of Kronenwetter, WI

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

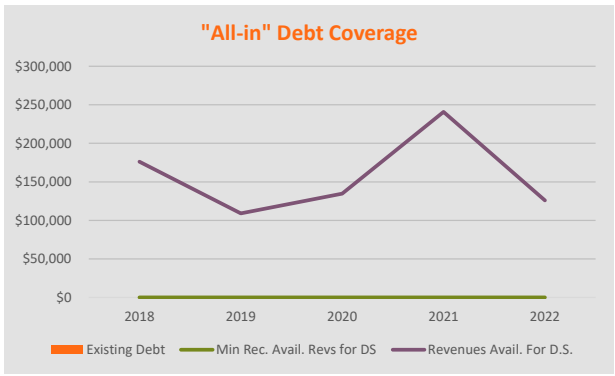


Did you generate enough revenues to pay for O&M and capital?

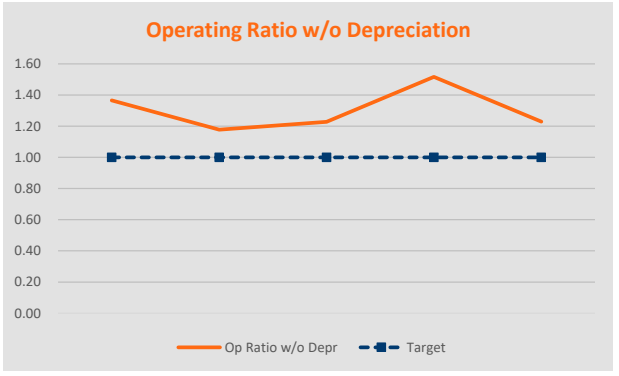




Do you generate revenues to pay for O&M and debt service?



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*
Actual CIP Costs		**110,000**	**530,000**	**510,000**	**610,000**	**110,000**	**110,000**	**1,110,000**	**110,000**	**110,000**	**110,000**	**3,420,000**

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*
Total	**110,000**	**530,000**	**510,000**	**610,000**	**110,000**	**110,000**	**1,110,000**	**110,000**	**110,000**	**110,000**	**3,420,000**

Notes:

Table 7
Capital Improvements Financing Plan
Village of Kronenwetter, WI

		2024			2029	
		Revenue Bonds	Sewer Portion		**Revenue Bonds**	Sewer Portion
		2024 Sewer Projects			2029 Sewer Projects	
CIP Projects[1]		**1,060,000**	**1,060,000**		**1,000,000**	**1,000,000**
Less Other Available Revenues						
Cash Available		(135,000)	(135,000)		(400,000)	(400,000)
ERF Funds		-	0		-	0
Net Borrowing Requirement		**925,000**	**925,000**		**600,000**	**600,000**
Debt Service Reserve						
Debt Service Reserve Funds On Hand		-	0		(95,000)	(95,000)
New Debt Service Reserve Requirement		95,000	95,000		170,000	170,000
Subtotal Reserve Fund Requirement		95,000	95,000		75,000	75,000
Estimated Issuance Expenses		**62,163**	**62,163**		**57,788**	**57,788**
TOTAL TO BE FINANCED		**1,082,163**	**1,082,163**		**732,788**	**732,788**
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
NET BOND SIZE		**1,065,000**	**1,065,000**		**715,000**	**715,000**

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	$1,065,000				$715,000								
DATED	6/1/2024				6/1/2029								
MATURE	5/1				5/1								
Year	Principal	Est. Rate[1]	Interest	Total	Principal	Est. Rate[2]	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
Revenues										
Total Revenues from User Rates[1]	$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
Less: Expenses										
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
Debt Service										
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
Net Annual Cash Flow	**($65,121)**	**$557,902**	**($463,762)**	**($549,247)**	**($17,768)**	**$15,521**	**($292,070)**	**($21,350)**	**$18,642**	**$41,376**
Restricted and Unrestricted Cash Balance:										
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
Target minimum cash balance										
Target minimum working capital - Ehlers[1]	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[2]	762	1,061	697	435	421	422	277	244	255	270
Actual Days Cash Available - Moody's[3]	762	1,008	732	421	363	364	208	193	199	215
Target minimum working capital - S&P[4]	762	1,008	732	421	363	364	208	193	199	215
Actual working capital-cash balance	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) Ehlers target	961,215	1,422,638	911,017	352,591	330,688	336,803	(79,221)	(84,182)	(67,148)	(26,936)
Over (Under) PSC target (90 days)	672	971	607	345	331	332	187	154	165	180
Over (Under) Moody's 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

Rate of Return										
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%									

Cost Recovery										
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.

Leverage										
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.

Condition of Assets:										
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).

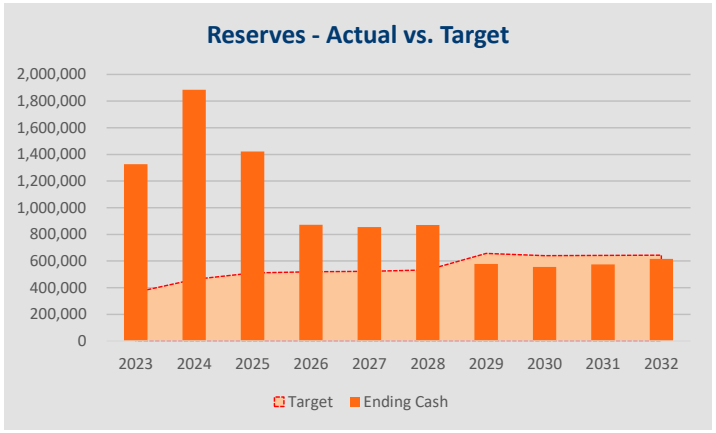
Table 11
Sewer Utility Statement of Projected Revenue Bond Coverage
Village of Kronenwetter, WI

Year	Total Operating Revenues	Less: Total O&M Expense	Amount Available for Debt Service	Existing Rev Debt Total	Future Rev Debt (2023-2032) 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

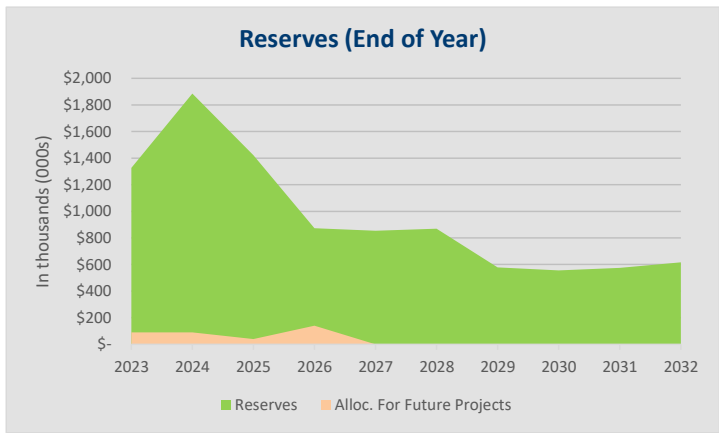
Notes:
1) Revenue Coverage determined from PROPOSED 2024 Revenue Bonds.

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

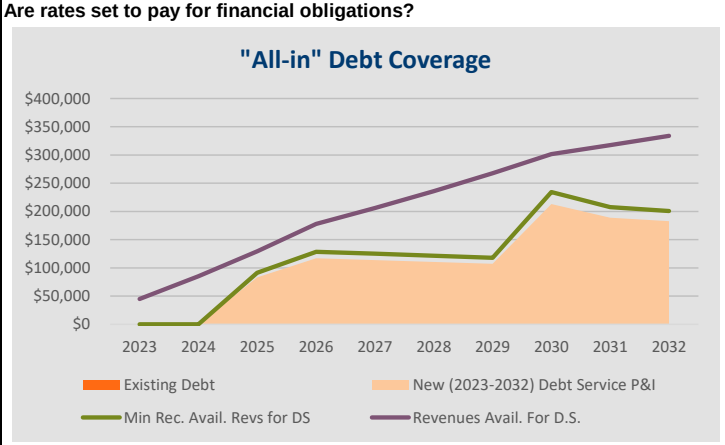
Are rates set to maintain adequate reserves?

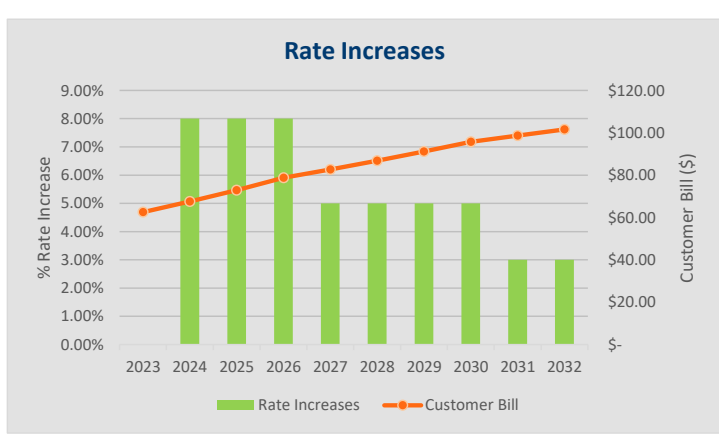


How much reserves are planned for future projects?



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

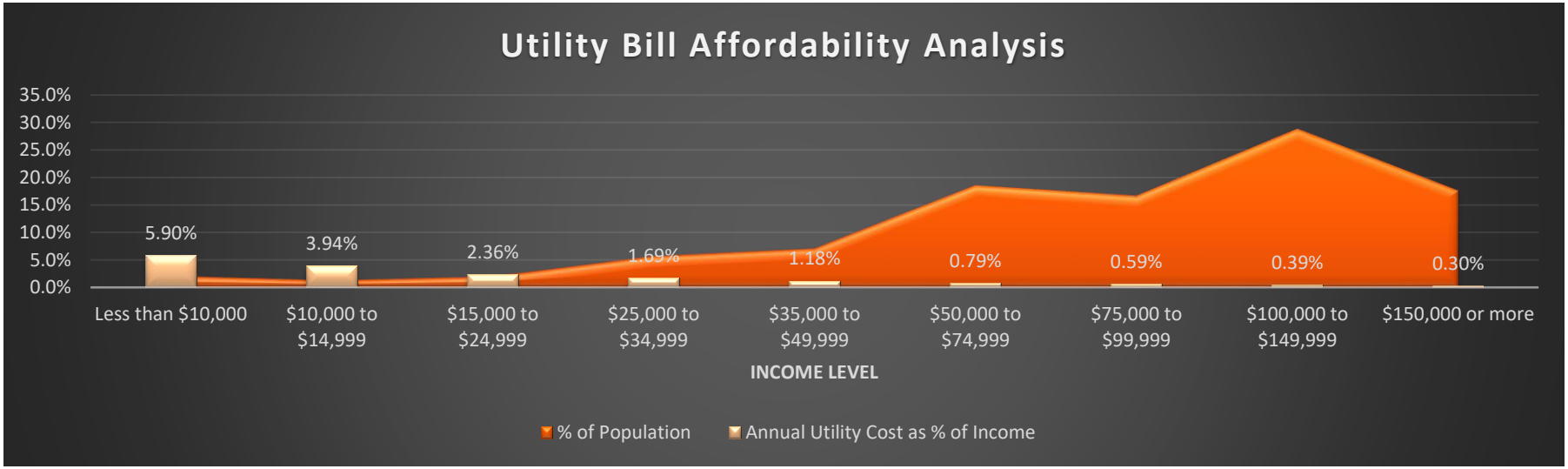
	Water					Sewer								
Year	Increase	Water Vol. Charge[1]	Water User Charge[2]	Utility Bill (Quarterly)	Change Over Prior Year	Increase	Sewer Vol. Charge[3]	Sewer User Charge[3]	Utility Bill (Quarterly)	Change Over Prior Year	Utility Bill (Annual)	Change Over Prior Year	% of MHI (84,435)	Year
		Tiered	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
Total Change over planning period					**$ 37.01**					**$ 39.05**		**$ 304.21**		

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.

EHLERS
PUBLIC FINANCE ADVISORS

Village of Kronenwetter, WI

2023 Sewer Rate Study

Phase 1: Long-Range Cash Flow Analysis

August 1, 2023 Utility Committee Meeting

Why are we here?

- Sewer Utility experiencing higher O&M expenses and planning for capital investment
- Ehlers to identify fiscal sustainability
- Our Process
  - ✓ Historical Rate Performance
  - ✓ Future Projections
    - ➢ O&M, Depreciation, and PILOT
    - ➢ Funding Project(s): Debt vs. Cash
  - ✓ Rate Impact

EHLERS
PUBLIC FINANCE ADVISORS

Sewer Rates Historical Implementation

- Last sewer rate increase went into effect on in three phases in 2015
- The increase was 15% increase in total to general service and volume:

- February 25, 2015
  - ✓ Base Rate- was $19.00 now $19.95
  - ✓ Consumption-was $2.95 now $3.09
- March 25, 2015
  - ✓ Base Rate-was $19.95 now $20.90
  - ✓ Consumption-was $3.09 now $3.24
- April 25, 2015
  - ✓ Base Rate- was $20.90 now $21.85
  - ✓ Consumption- was $3.24 now $3.39

Sewer: Historical Rate Performance

Shown with no increase

Revenue Requirement Component	Description	2018	2019	2020	2021	Est 2022	Est 2023
Cash Basis							
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%
Utility Basis (PSC)							
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%

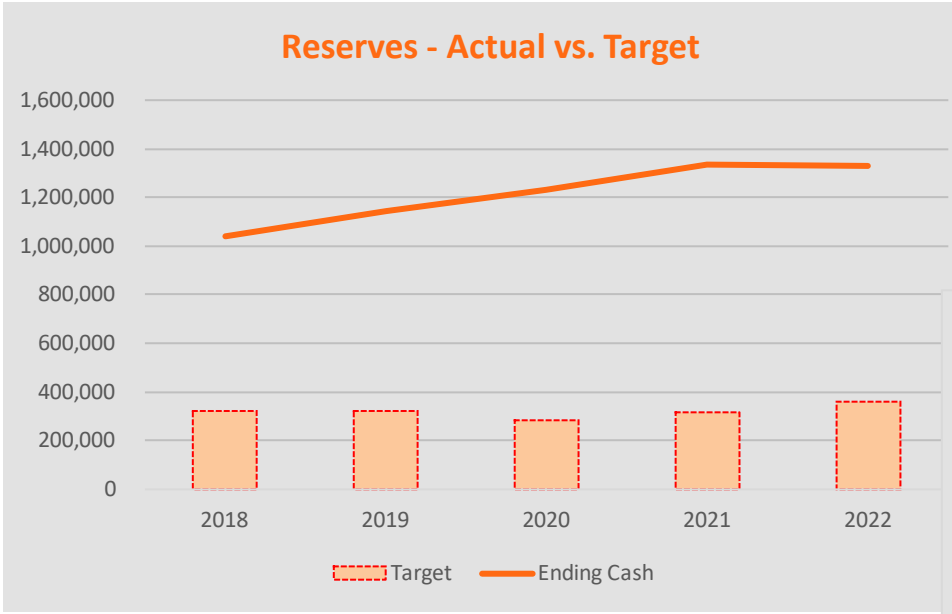
Notes:
^Includes recommended debt coverage at 1.1x annual debt payment

Increase in O&M puts pressure on rates

Remove ROR (0) and still not funding depreciation

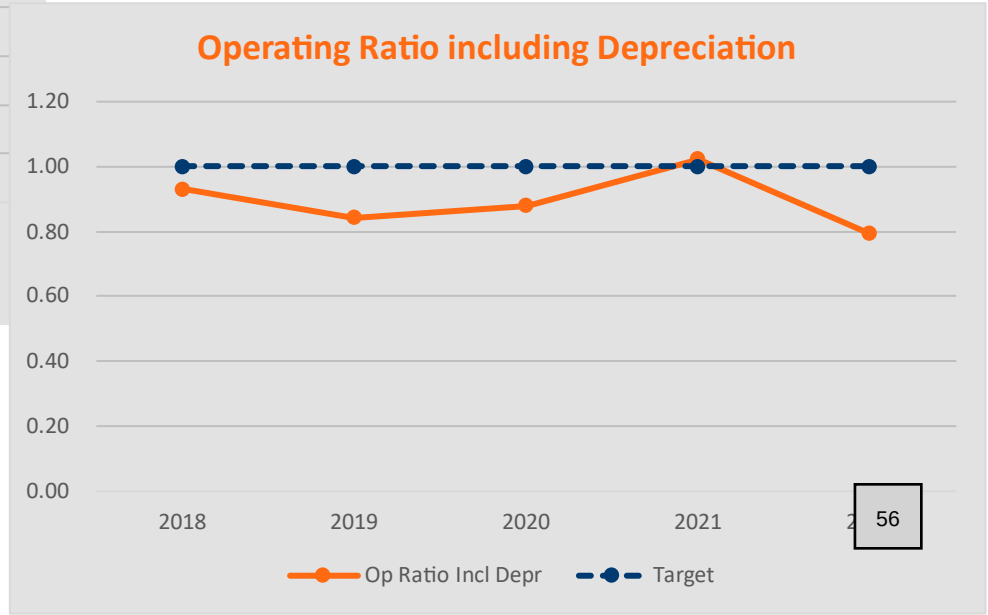
Let's investigate the history further....

Sewer: Historical Financial Benchmarking



- Target 5 mos. O&M incl. Depreciation and 100% of next year's debt payment
- Reserves can fund projected deficits but only for so long

- Concerns of aging system if rates not funding depreciation



EHLERS
PUBLIC FINANCE ADVISORS

Future Capital

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*
Actual CIP Costs		**110,000**	**530,000**	**510,000**	**610,000**	**110,000**	**110,000**	**1,110,000**	**110,000**	**110,000**	**110,000**	**3,420,000**

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*
Total	**110,000**	**530,000**	**510,000**	**610,000**	**110,000**	**110,000**	**1,110,000**	**110,000**	**110,000**	**110,000**	**3,420,000**

- Beyond Cash & Annual Surplus listed above proposed debt downsized with cash as depicted on Table 7

Sewer: Future Projection

	Budget	Projected							
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Revenues										
Total Revenues from User Rates[1]	$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
Less: Expenses										
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
Debt Service										
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
Net Annual Cash Flow	**($65,121)**	**$557,902**	**($463,762)**	**($549,247)**	**($17,768)**	**$15,521**	**($292,070)**	**($21,350)**	**$18,642**	**$41,376**
Restricted and Unrestricted Cash Balance:										
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.

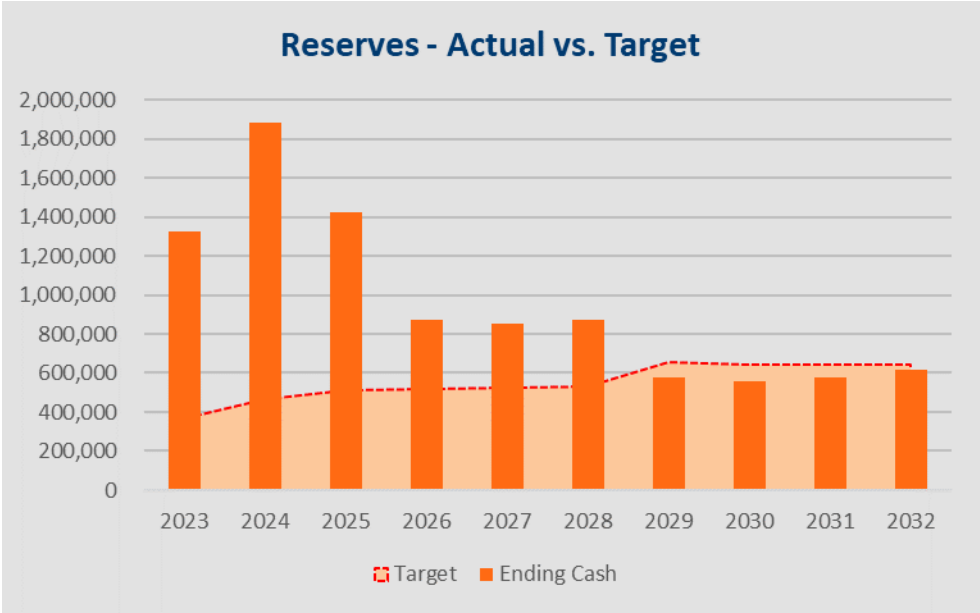
Legend:

Increase depicted to maintain with assumed O&M inflation

Increase needed above inflationary adjustment

Sewer: Future Projection

- Annual surpluses going away
  - ✓ RM Metro Treatment
  - ✓ Salaries
- To fund 3.2M Capital need mix of cash and debt
- Plan uses cash to benchmark adjusts revenues to meet financial obligations



EHLERS
PUBLIC FINANCE ADVISORS

Sewer: Impact on Avg. Res. Bill

	Water					Sewer							
Year	Increase	Water Vol. Charge[1]	Water User Charge[2]	Utility Bill (Quarterly)	Change Over Prior Year	Increase	Sewer Vol. Charge[3]	Sewer User Charge[3]	Utility Bill (Quarterly)	Change Over Prior Year	Utility Bill (Annual)	Change Over Prior Year	% of MHI (84,435)	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
Total Change over planning period					**$ 37.01**					**$ 39.05**		**$ 304.21**		

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.

EHLERS
PUBLIC FINANCE ADVISORS

Recommendations

- Determine timing for rate adjustment(s) (unregulated)
  - ✓ Analysis depicts 1/1/2024 implementation
- Determine customer engagement
- As applicable, move forward with Phase 2 to identify Sewer Rate adjustment by customer class developing fair and equitable rates
  - ✓ % across the board vs. COSS
  - ✓ Category B users
  - ✓ other ratemaking goals (if any)

EHLERS PUBLIC FINANCE ADVISORS

TONIGHT's ACTION: Consensus on Sewer rate approach

Questions?

EHLERS
PUBLIC FINANCE ADVISORS

Appendix B
Water Utility Rate Study

Scope of Service

Client has requested that Ehlers prepare a user rate study for its water utility. ("Project"). Ehlers proposes and agrees to provide the following scope of services:

Phase I – Information Request, Review, and Long-Range Cash Flow Analysis

- Under this phase we will assess the need for a Conventional Rate Case with the PSC using a long-range cash flow analysis. This analysis will make projections on future operation expenses, future capital funding, and identify future rate increases.
- Prepare a cash flow analysis for the next 10 years including the test year and beyond. The analysis will include:
  - Calculation of the return on net investment rate base (ROI) adequate to finance the appropriate share of debt service, equipment replacement and capital outlay expenses.
  - Benchmarking of key financial metrics that the PSC, rating agencies, and prospective lenders analyze.
  - Capital planning and debt schedules with corresponding coverage requirements.
- This phase includes a meeting at the Board or other designated meeting to present the outcome of the Long-Range Cash Flow Analysis before starting the Application.
- In order to complete this phase Ehlers will need to request and review the following:
  - Capital planning documents identifying estimated costs for future water projects through 2032
  - Annual audits for the past three years (we currently have this information).
  - 2022 Year to date Water Fund actual expenses and revenues.
  - 2023 Water Fund line-item budget.

Phase II – Information Request, Review, and Test Year 2023 PSC Conventional Application (as necessary)

- Under this phase we will complete the Test Year 2023 PSC Conventional Rate Case Application including all attachments of the application and supplementary information.
- To complete this phase Ehlers will need to request and review the following:

- PSC annual reports for the last three years (available on the PSC website).
- Current annual debt service schedules for existing utility debt (we currently have this information).
- For calendar years 2020, 2021, and 2022 detailed water billing records showing billed water consumption by customer class and rate block and number of customers by class and meter size.
    - Based on the time of filing the Application, we may request a similar report for the previous twelve months to the time of filing.
- Water billing records which list the 4 largest users in each customer class (i.e. residential, commercial, industrial, public authority) including the name of the customer, meter size, and total billed consumption for the largest quarter over the last 12-month period.
- A water tower repainting schedule showing when the last time the tower(s) were repainted, the cost for repainting and whether the utility is on a 15 or 20-year repainting schedule.
- Current number of un-metered customers within the utility, if any.
- Most current depreciation schedule for all water utility assets, showing current year depreciation expense, depreciation rates, and accumulated depreciation for all water utility financed assets.
- List of 4 largest users in each customer class (i.e. residential, commercial, industrial, public authority) including the name of the customer, meter size, and total billed consumption for the largest quarter over the last 12-month period.
- The current number of private fire protections by the size of connection, if any.
- For municipal financed utility plant in service and contributed plant in service, the estimated 2022 and 2023 asset additions, retirements and adjustments.
- The current percentage allocated to the sewer utility's portion of meter costs and assets. (Usually the depreciation of the meters is split 50/50 between water and sewer).
- Estimated materials and supplies inventory for 2022 and 2023, if any.
- For 2022 and 2023 (estimated) the number of feet of main and hydrants added and retired. Please classify additions and retirements as routine or major.
- If employees perform work for more than one function, please explain how costs are assigned to the water utility. For example, when an employee performs work for municipal parks, sewer, water, and private lead service lines, describe how the salary and wages dollars are assigned to the regulated water utility.

- Water utility credit card billing offering information (details to follow)

- This phase includes a meeting with the Board or other designated meeting to present the outcome of the Application before filing the Application.
- Ehlers will file the Application upon receiving desired recommendation to do so from the Client's desired governing body or staff.

Phase III –Test Year 2023 PSC Conventional Proceedings (as necessary)

- Assist utility with Data Request Portion of proceedings
- Review Revenue Requirement to check for PSC errors or omissions based on Application and Data Request(s) period. Provide disagreement correspondence as necessary
- Review PSC Cost of Service Study & Rate Design
- Represent the Utility at required PSC public hearing
    - Be present at the required telephonic public hearing and provide testimony in support of the proposed water rates for the test year on behalf of the Village.
- File Rate Implementation Letter

Phase IV – Final Report and Presentation (as necessary)

- Prepare and provide (via PDF or paper copy) a report containing a written summary of results of the PSC Rate Case and cash flow analysis along with all supporting worksheets.
- (Optional) If requested, this phase includes a meeting with the Board or other designated meeting to present the PSC final water rate structure for the test year and answer questions This should be requested on or before filing the PSC Rate Implementation Letter.

Compensation

In return for the services set forth in the "Scope of Service," Client agrees to compensate Ehlers as follows based on the following Scope of Service Events:

Phase	Scope of Service Event	Fee
I	LRCFA Delivered to Client	$ 3,000
II	CRC Application Filed with PSC*	$ 4,500
III	Completion of PSC Rate Implementation Letter*	$ 3,000
IV	Final Report Delivered to Client*	$ 500
IV	Final Report Presentation^	$ 500
	Total	**$ 11,500**

*As necessary. Phase I may indicate the remainder of the Study is not needed.

- To complete this phase Ehlers will need to request and review the following:
  - Current schedule of sewer rates.
  - Annual audits for the past five years. (We have this information on file).
  - Year to date actual expenses and revenues.
  - Latest line-item budget.
  - Current annual debt service schedules for existing utility debt. (We have this information on file).
  - Any available capital improvement plan documents.

Phase II – Report, Presentation(s), & Implementation

- Draft Report
  - Meet with Village staff virtually (phone or web-based service) to discuss initial findings
- Final Report and Presentation
  - Prepare a report including all project tables and a brief presentation describing the findings and recommendations of the LRCFA.
  - Review the report with staff and make any appropriate changes.
  - Prepare a final report and submit via PDF or paper copy
  - Prepare and be available for one (1) presentation of the report and findings to the Village Board or other designated governing body.
- Implementation
  - Assist utility in determining implementation date
  - Provide updated rate schedules for implementation
  - Discuss proper implementation process as it relates to the municipality's ordinance

Phase III – Utility Rate Study (as necessary)

- Under this phase we will complete the Sewer Rate Study. This analysis will include:
  - Development of Revenue Requirements
    - Based on the available budget, debt and asset detail, develop the revenue requirements for the utility under the cash based or utility-based method.
  - Cost of Service Study
    - Allocate the revenue requirements for the test year to the appropriate utility functions.
  - Rate Design

ROTH PROFESSIONAL SOLUTIONS

Robert J. Roth, P.E., *President*
315 DeWitt Street, Portage, WI 53901
(608) 571-3205
robert@rpsprofessionalsolutions.com
rpsprofessionalsolutions.com

PROGRESS REPORT

To: Village of Kronenwetter, Utility Committee

From: Robert J. Roth, PE

Re: Lift Station Assessment & Sewer Capacity Study

Date: July 26, 2023

The Village of Kronenwetter commissioned a Lift Station Assessment & Sewer Capacity Study in January/February 2023. Roth Professional Solutions (RPS) was awarded that work on March 7, 2023. The contract was later executed on March 14, 2023.

RPS coordinated with B&M Technical Services, whom the Village has worked extensively with in the past on its lift stations. Several of the Lift Station pumps have been provided by B&M. RPS initially met with Mark Mackey and Dan Hekrdle as a kick-off on April 4, 2023.

The Lift Stations were inspected by the above-referenced team on April 25, 2023. This formed the basis of the operation and condition assessment of the Village's eleven (11) lift stations. Attached with this memo are the eleven (11) lift station field evaluation reports. The evaluation of each station included a visual inspection as well as discussion on operation and maintenance. This identified key issues with each station, summarized in the table on the following page.

Issues of high or immediate importance are further summarized as follows:

- LS #3 High Maintenance Issues
- LS #6 Add-a-Phase Conversion System Replacement (Electrical)
- LS #7 Gas Issues
- LS #8 Electrical Issues, Pump Issues, Likely Capacity Issues
- LS #11 Vortexing, Debris Accumulation
- Long Term Need for 277-480V 3-Phase Power Wherever Possible
- Original Pumps in LS #5, 6, & 10

Lift Station Condition Assessment Summary – General Categories										
Lift Sta	Site Cond.	Structure Condition	Electrical	Valve Vault	Wet-Well	Generator	Controls	Pumps	Valves	Other
1	OK	Duplex Submersible IVV, Good	OK, but Prefer 480V 3Ph	OK	OK	Onsite	OK	25 HP, 625 GPM Shinmaywa OK	OK	High Importance, **Main LS**
2	OK	Duplex Submersible IVV Deep but OK	Ok, Needs 480V 3Ph	Clogged Drain, But OK Overall	OK	Portable	Upgrade	25 HP, 275 HP, Shinmaywa OK	OK	High Importance, Collector LS
3	OK	USEMCO Vacuum Prime LS Refurbished 2016	208V 3Ph Ok	Some Minor Issues but OK	OK	Portable	OK	3 HP, 80 GPM, Fairbanks Morse Centrifical	OK	Faulty Primer Valve, Doesn't Stay Primed, Maintenance Intensive
9	Ok	Duplex Submersible IVV, OK	208V 3Ph w/ VFD OK	OK	OK	Portable	OK	3.7 HP, 140 GPM, Barnes, Ebarra	OK	4" Pump Discharge Piping to 6" FM OK
10	Too Close to Road, Salt Issues	Submersible IVV, Concrete Condition Issues Throughout	OK with 1Ph Power, But Prefer 3Ph Power for Future	OK	OK	Portable	OK	2.8 HP, 80 GPM, Barnes	OK	Significant Importance for Future Areas, Currently Moderate Importance
4	OK	Duplex Submersible IVV, OK	208V 3 Ph, OK but Prefer 480V 3Ph	OK	OK	Portable	Older Panel, Painted but OK	10 HP, 175 GPM Shinmaywa	No Iso Valve	High Importance, Collector LS
5	OK	Duplex Submersible IVV, OK	208V 3 Ph, OK	OK	OK	Portable	Older Panel, Painted but OK	10 HP, 280 GPM Barnes	OK	Moderate Importance
6	OK	Duplex Submersible IVV, OK	Add-A-Phase Conversion System NG	OK	OK Some 3" Influent Pipe Corrosion	Portable	OK	15 HP, 155 GPM Barnes	OK	Moderate Importance Address Electric & Panel Issue
7	OK	Duplex Submersible IVV, Gas Issues Require Conc. Protection	208V 3 Ph, OK	OK	Gas Issues Require Concrete Treatment	Onsite	OK	15 HP 550 GPM Shinmaywa	OK	High Importance, **Main LS**, Gas Issues
8	OK	Duplex Submersible IVV, Deep But OK	Phase Faults, Power Loss Issues, Overheating Need 480V 3Ph, Panel Refurbish	Deep Some Water But OK	Likely Undersized	Portable	Adjust-ment Required	Shinmaywa 5 HP OK, Ebarra 5 HP Not Working, Replaced with 10HP Shinmaywa	OK	High Importance, Collector LS, Likely LS Capacity Issues, Possible FM Issues
11	Ok	Duplex Submersible IVV, OK	240V, 1Ph w/ VFD & Phase Conversion System	OK	Some Vortexing Excessive Debris Issues	Portable	OK	5 HP, 100 GPM, Barnes Chopper	OK	Traditionally has had Clogging Issues

The Lift Stations are also part of the Sewer Capacity Study, for the determination of basin size and flow capacity for both existing and future conditions. If a particular lift station requires maintenance now, and also requires for replacement or upsizing via the capacity study, then the planning of operation & maintenance costs versus capital costs can commence with all the information at hand.

Within the Sewer Capacity Study, other items to be studied include the following:

- Limiting Factors of Existing Sewer Infrastructure (interceptors, lift stations)
- Capacity Estimation of Existing Sewer Infrastructure
- Required Upgrades for Existing Conditions
- Sewer Serviceability of Future Planning Areas
- Impact on Existing Sewer Infrastructure from New Development

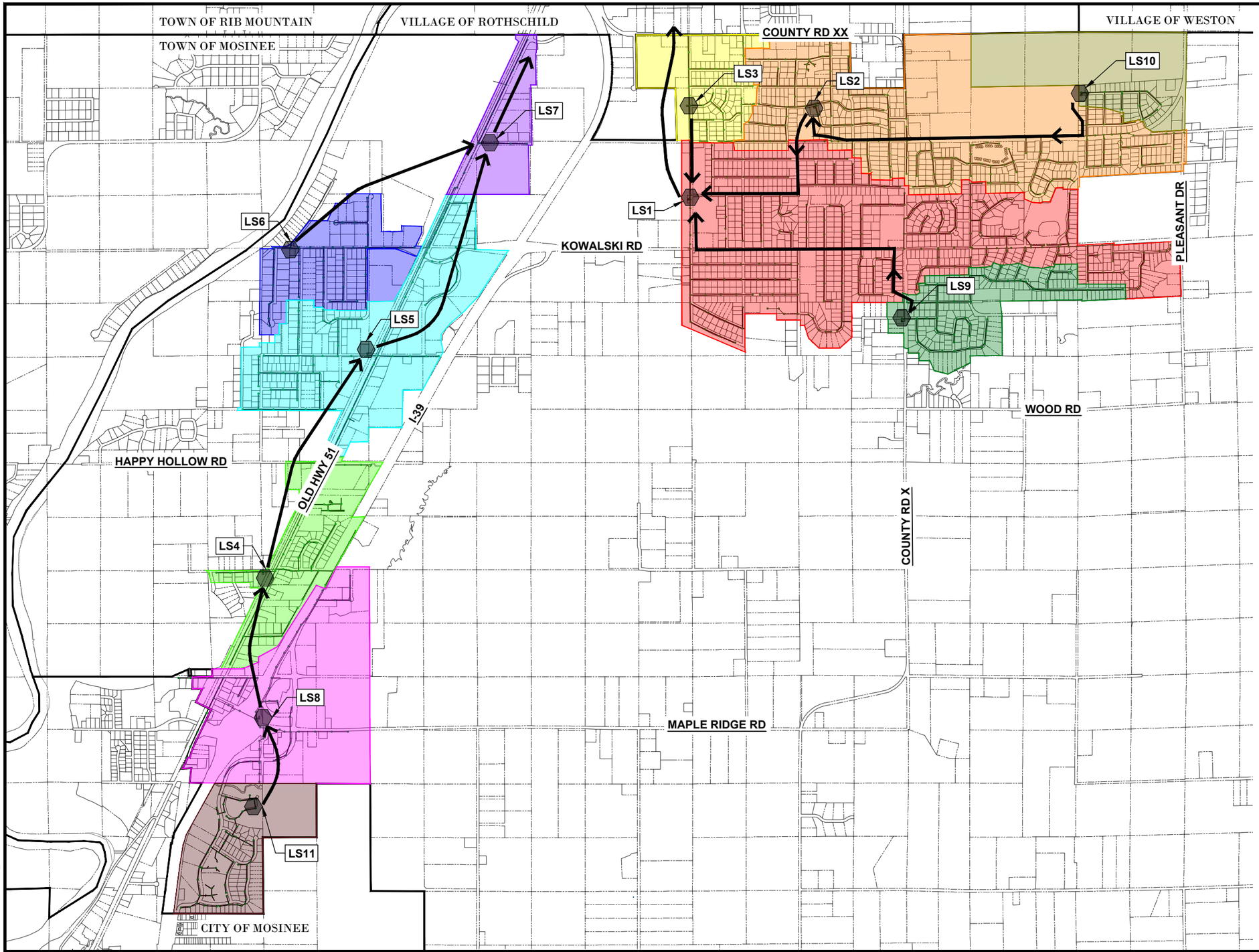
Together, a comprehensive look at the sewer infrastructure will be completed with active recommendations for immediate and future planning periods. The most immediate recommendations are for operation and maintenance items, such as electrical upgrades, pump replacements or concrete/structure maintenance.

We have recently obtained pump cut sheets, usage data, and as-built plan records from Village Staff and we have begun the process of evaluating that information. So far we have determined, unfortunately, that it is not feasible to eliminate Lift Station #3. This is based on a review of the as-built maps, depths, and relative distances. The lift station will remain a source of high maintenance given its configuration. Since this station was refurbished in 2016, we will likely not be recommending it for immediate replacement. However, we will still look at flow capacity and overall future development potential and if this station would require upsizing. If so, we would recommend it be refurbished to a duplex submersible with an above-ground valve vault where the existing wetwell can be retained and utilized.

Currently, we are focusing on Lift Station #8 which includes flow from Lift Station #11. We are starting our analysis with a look at wastewater flow and pumping records. We believe this station is undersized, including its 4" forcemain discharge, and will only be further undersized with its service of the TID 2 area in the future near Beranek and Maple Ridge Roads. If this station requires improvements and capital costs, perhaps it can be included within the TID 2 expenditures. We will continue to evaluate and make recommendations therefrom.

As for timing, we will be trying to catch up to the original schedule to continue efforts in supplying recommendations and costs for budgeting purposes in September, 2023.

****** END OF PROGRESS REPORT ******



LEGEND:

NORTHEAST BASIN:

- LIFT STATION 1 BASIN
- LIFT STATION 2 BASIN
- LIFT STATION 3 BASIN
- LIFT STATION 9 BASIN
- LIFT STATION 10 BASIN

I-39 BASIN:

- LIFT STATION 6 BASIN
- LIFT STATION 7 BASIN
- LIFT STATION 8 BASIN
- LIFT STATION 4 BASIN
- LIFT STATION 5 BASIN
- LIFT STATION 11 BASIN

LIFT STATION

FLOW ORDER:

NORTH EAST BASIN FLOW SEQUENCE:

LIFT 3 » LIFT 1 » ROTHSCHILD
LIFT 9 » LIFT 1 » ROTHSCHILD
LIFT 10 » LIFT 2 » LIFT 1 » ROTHSCHILD

I-39 BASIN FLOW SEQUENCE:

LIFT 11 » LIFT 8 » LIFT 4 » LIFT 5 » LIFT 7 » ROTHSCHILD
LIFT 6 » LIFT 7 » ROTHSCHILD

NOTE:
ARROWS REPRESENT GENERAL FLOWAGE

RPS ROTH PROFESSIONAL SOLUTIONS

OVERALL EXISTING UTILITY PLAN

KRONENWETTER LIFT STATION ASSESSMENT

LIFT STATION ASSESSMENT

VILLAGE OF KRONENWETTER, WI

SUBMITTED TO:
CLIENT
07/25/2023

N W E S

0 1250 2500
SCALE: 1" = 2500FEET
(PRINTED AT 11"x 17")

DATE:	07/25/2023
DESIGNED BY:	RJR
DRAWN BY:	BRH
PROJECT NO:	2023-XXX
SHEET:	70

LS # 1

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Assessment Date: 25 April 2023

Location: 1929 Kimberly Rd, Mosinee, WI Municipality: Village of Kronenwetter LS Type: Duplex Submersible

Engineer: Roth Professional Solutions Technical & Equipment Assistance: B&M Technical Services

House Keeping: ☒ Good ☐ N/A ☐ Poor Lighting ☐ Tripping Hazards Present ☐ No Fall Protection ☐ Exposure to Raw Wastewater in Dry Well
☐ Sump Pump Inoperable ☐ Electric Space Heater Inoperable ☐ Potential for Shock or Electrocution ☐ Other

Health and Safety Issues:

Other Observations:

Asset Class	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Field Observations/Comments
Site Improvement (SIM)					
* **Access Driveway**	X				
* **Parking**	X				
* **Gate and Fencing**	☐				
* **Site Drainage**	X				
* **Grounding System**	X				
* **Site Lighting**	☐				
* **Site Alarm Horn and Strobe Lighting**	X				

General Site Electrical Observations

Access Driveway Details: ☐ Gravel or aggregate basecourse only ☐ Concrete Pavement ☒ Bituminous Pavement

Parking Details: ☐ None ☐ Gravel ☒ Paved

Fence Details: ☐ Chain Link ☐ Other Fencing Height (ft): Fencing Length (ft): None

Gate Type: ☐ Single ☐ Double N/A

Traffic: ☐ Other ☐ Site too Close to Traffic

Grounding System Details : ☒ Present ☐ Grounding Rings ☒ Grounding Rods

If applicable, approximate parking area:

If applicable, approximate site area:

Other Notes:

LS # 1

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Structure and Wetwell (PST)							
* **Building**	N/A	☐					
* **Odor Control**		☑					
* **Crane/Hoist**		☑					Portable Off-Site
* **Bar Screen or Com minuter**	N/A	☐					
* **Flow Meter**	N/A	☐					
* **Wet Well**		☑					

Building Structures: ■ None ☐ Concrete Walls ☐ Concrete Floor ☐ Doors Total Floor Area: Plan Floor Area:

Field Observations: ☐ Good ☐ N/A ☐ Roof Degraded ☐ Doors and Security Failing ☐ Needs Paint ☐ Cracks on the Wall ☐ Cracks on the Floor ☐ Other

Odor Details: ■ Vent Pipe ☐ Other ☐ Details

Field Observations: ■ Operational and in use ☐ On site, but not required ☐ Does not operate, needs repair ☐ Other

Crane Details: Manufacturer: Model: Serial Number:

Field Observations: ☐ Good operating condition ☐ Does not operate, requires repair ☐ Mounting Hardware intact ☐ Other

System Description: ☐ No Bar Screen ☐ Manually Raked Bar Screen ☐ Mechanically Raked Bar Screen ☐ Screen Bypass Provided?

Mechanical Bar Screens: ☐ Manufacturer: Model: Serial Number: Power Requirements (hp):

Odor Details: ☐ N/A ☐ Screens need frequent cleaning ☐ Short repsonse time ☐ Odor fly nuisance ☐ Screens not in use ☐ Other

Type: ☐ N/A Type: Manufacturer: Model: Serial Number:

Flow Meter Field Observations: ☐ Operational ☐ Location ☐ Other

Walls: ■ Concrete ☐ Steel ☐ Fiberglass

Slab/Cover: ■ Reinforced Concrete ☐ Steel ☐ Pumps, motors and electric panel are mounted on cover/slab directly over wet well

Pump Control System: ☐ Floats ☐ Bubbler System ☐ Ultrasonic & Transducer

Measurement (PPM):

Wet Well Field Observations: ■ Good ☐ PN/A ☐ Hatch Damaged or Difficult to Open ☐ Wet Structure Spalling or Cracked ☐ Evidence of Concrete Corrosion ☐ Wet Well Needs Cleaning - Solids/Grease ☐ Other

Hatch Field Observations: ■ Good ☐ Fair: Minor Corrosion to Hatches, Hinges, or Latches ☐ Poor:Corroded or Broken Hatches, Hinges, or Latches ☐ Other

Wet Well Ladder Observations: ☐ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other

Wet Well Wall Observations: ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other

Slab/Cover Observations: ■ Good ☐ Fair: Concrete or Aluminum Grate Slightly Corroded But Safe ☐ Poor: Concrete Aggregate Missing/Exposed; Grate Corroded or Warped; Debris Over Platform ☐ Other

LS # 1

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments

Influent Pipe Observations: ☒ Good ☐ Fair: Slight Corrosion; Pipe Intact ☐ Poor: Severe Pipe Corrosion ☐ Other

Alarm Float Observations: ☐ Good ☐ Fair: Some Grease But Operating Properly ☐ Poor: Covered in Grease or Broken ☐ Other

Pump Vent Line Observations: ☐ Good ☐ Fair: Slight Corrosion But Operates Properly; Needs Sealant Around Opening ☐ Poor: Any One Vent Does Not Operate; Corroded or Broken Off at Wall ☒ Other Transducer w/Float Back Up

* **Dry Well**	N/A	☐					

Location Type: ☐ None ☐ Underground pump vault with access tube and ladder ☐ Located below grade inside building

Lighting: ☐ Yes ☐ No

Cathodic Protection ☐ Not Required ☐ None ☐ Yes

Access Tube and Ladder Field Observations: ☐ N/A ☒ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other

Underground Vault Observations: ☐ N/A ☒ Good ☐ Fair: Surface Corrosion ☐ Poor: Corrosion ☐ Other

Building Floor Slabs: ☐ N/A ☒ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other

Staircases/Stairwells: ☒ N/A ☐ Good ☐ Fair: Concrete Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other

Building Walls: ☒ N/A ☐ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other

Sump Pump: ☐ No ☐ Yes Type Model: Power (hp): TDH: Serial:

Field Observations: ☐ Not Operational ☐ Poor Floor Drainage ☐ Other

* **Cathodic Protection**	N/A	☐					

Field Observations: ☐ Disconnected ☐ Other

HVAC (HVA)

* **Dry Well HVAC**	N/A	☐					

Asset Size:

Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Ventilation Duct Work Corroded ☐ Belts Loose or Torn ☐ Louvers ☐ Roof Vents ☐ Other

* **Wet Well HVAC**		☐					

Asset Size:

Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Belts Loose or Torn ☐ Ventilation Duct Work Corroded ☐ Louvers ☐ Roof Vents ☐ Other

Electrical Systems (ELE)

* **Control Panel**		☑					

Asset Size (Volts) 208 VAC ☐ Single phase ☒ Three Phase VFD

Manufacturer: Emergencies Model: Serial Number:

Power Supply Manufacturer: US Filter Model: Duplex Type: A.C.

LS # 1

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Shop Drawings Available ☐ UL Listed ☐ Uncovered Holes ☐ Surge Protection ☐ Grounded ☐ Wiring Labelled ☐ Panel Labelled ☐ Other

* **Lighting Panel**		✔					

Asset Size (Volts) 208 VAC

Manufacturer: WPS Model: Serial Number:

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Bus and.or lugs corroded ☐ Spare Spaces Available ☐ Breakers Labelled ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Main Switch**		✔					

Asset Size (Volts) 208 VAC

Manufacturer: Kohler Model: Serial Number: 378828

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Transfer Switch**		✔					

Asset Size (Volts 208 VAC Manual

Manufacturer: Kohler Model: 35RZF2 Serial Number: 378828

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Motor Control Center**	N/A	☐					

Asset Size (Volts)

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Labelled ☐ Other

* **Junction Box**		✔					

Asset Size (Volts)

Manufacturer: Model: Serial Number:

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Miscellaneous Panel 1**	N/A	☐					

Asset Size

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

LS # _____

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Generator (GEN)							
* **Emergency Generator**		☐					
* **Emer. Gen. Connector**		☐					
Asset Size: Manufacturer: Model: Serial: Generator Type:							
Field Observations: ☐ Good ☐ N/A ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Engine Fluids Low ☐ Poor Housekeeping ☐ Poor Accessibility ☐ Panel Grounded ☐ Panel Labelled ☐ Diesel Containment ☐ Other							
Instrumentation (INS)							
* **Auto Dialer**		☑					
Manufacturer: Model: Phone Number:							
Alarms: ■ High Level ■ Low Level ■ Generator Running ■ Power Fail ■ Other Phase Fail Transducer Pump 1/2							
* **Float Controls**		☐					
* **Bubbler Controls**		☐					
Manufacturer: Model:							
* **Ultrasonic Controls**		☐					
Field Observations: ☐ Good ☐ N/A ☐ Bubbler Compressor Failing ☐ Air Lines Clogged / Full of Moisture ☐ Drain Condensate Traps in Air System ☐ Floats Tangled ☐ Controls Obsolete ☐ Other							
SCADA (SCA)							
Field Observations: ☐ Good ☐ N/A ☐ Obsolete ☐ Other							
Variable Frequency Drive							
* **Control Panel - VFD**	N/A	☐					
* **Harmonic Filter**	N/A	☐					
* **Output Filter**	N/A	☐					
Asset Size: Manufacturer: Model: Observed RPM:							
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Obsolete ☐ Panel Corroded / Dusty / Leaky ☐ Other							
Motors (MTR)							
* **Motor 1**	N/A	☐					
Asset Size (HP) Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other							
* **Motor 2**	N/A	☐					
Asset Size (HP): Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other							

LS # 1

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Hor/Vert Centrifugal Pumps							
* **Pump 1**	N/A	☐					
Manufacturer:		Model:		Serial Number:			
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Priming Pump ☐	Manufacturer:		Model:		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
* **Pump 2**	N/A	☐					
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Priming Pump ☐	Manufacturer:		Model:		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
Submersible Pumps (SUB)							
* **Pump 1**		☑					SCADA Pack 32 & Telemetry
Manufacturer:		Model:		Serial:			
Discharge Size (in) 8"		Suction Diameter (in)		Pump Size (GPM)		TDH 25 HP	
Field Observations: ■ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
* **Pump 2**		☑					
Manufacturer:		Model:		Serial:			
Discharge Size (in) 8"		Suction Diameter (in)		Pump Size (GPM)		TDH	
Field Observations: ■ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
Check Valves							
* **Pump 1**		☑					
Size (in): 8"	Manufacturer:		Model:		Serial No:		
Field Observations: ■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ■ Other Operation Visible							
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations: ☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Other ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain							

LS # 1 _____

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Piping and Valves Suction Isolation Valves							
* **Pump 1**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
Discharge Isolation Valves							
* **Pump 1**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						

LS # 2

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Assessment Date: 25 April 2023

Location: 2201 Tower Road, Kronenwetter, WI Municipality: Village of Kronenwetter LS Type: Duplex Submersible

Engineer: Roth Professional Solutions Technical & Equipment Assistance: B&M Technical Services

House Keeping: ☐ Good ☐ N/A ☐ Poor Lighting ☐ Tripping Hazards Present ☐ No Fall Protection ☐ Exposure to Raw Wastewater in Dry Well ☐ Sump Pump Inoperable ☐ Electric Space Heater Inoperable ☐ Potential for Shock or Electrocution ☐ Other

Health and Safety Issues: Extremely Deep Valve Vault

Other Observations: Water in valve vault; clogged drain needs 3 phase up grade

Asset Class	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Field Observations/Comments
Site Improvement (SIM)					
* **Access Driveway**	☑				
* **Parking**	☑				
* **Gate and Fencing**	☐				N/A
* **Site Drainage**	☑				
* **Grounding System**	☑				
* **Site Lighting**	☐				N/A
* **Site Alarm Horn and Strobe Lighting**	☑				

General Site Electrical Observations

Access Driveway Details: ☐ Gravel or aggregate basecourse only ☐ Concrete Pavement ☐ Bituminous Pavement

Parking Details: ☐ None ☐ Gravel ■ Paved

Fence Details: ☐ Chain Link ☐ Other Fencing Height (ft): Fencing Length (ft): NONE

Gate Type: ☐ Single ☐ Double N/A

Traffic: ☐ Other ☐ Site too Close to Traffic N/A

Grounding System Details : ■ Present ☐ Grounding Rings ☐ Grounding Rods

If applicable, approximate parking area: 2-3 Vehicles

If applicable, approximate site area:

Other Notes:

1 Phase, 250 AMP

LS # 2

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Structure and Wetwell (PST)							
* **Building**		☐					N/A
Building Structures: ☐ None ☐ Concrete Walls ☐ Concrete Floor ☐ Doors Total Floor Area: Plan Floor Area:							
Field Observations: ☐ Good ☐ N/A ☐ Roof Degraded ☐ Doors and Security Failing ☐ Needs Paint ☐ Cracks on the Wall ☐ Cracks on the Floor ☐ Other							
* **Odor Control**		☑					
Odor Details: ■ Vent Pipe ☐ Other ☐ Details							
Field Observations: ■ Operational and in use ☐ On site, but not required ☐ Does not operate, needs repair ■ Other Loose Vent Pipe							
* **Crane/Hoist**		☑					Mounting Avail Hoist off-site-ok
Crane Details: Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good operating condition ☐ Does not operate, requires repair ☐ Mounting Hardware intact ☐ Other							
* **Bar Screen or Com minuter**		☐					N/A
System Description: ☐ No Bar Screen ☐ Manually Raked Bar Screen ☐ Mechanically Raked Bar Screen ☐ Screen Bypass Provided?							
Mechanical Bar Screens: ☐ Manufacturer: Model: Serial Number: Power Requirements (hp):							
Odor Details: ☐ N/A ☐ Screens need frequent cleaning ☐ Short repsonse time ☐ Odor fly nuisance ☐ Screens not in use ☐ Other							
* **Flow Meter**		☐					N/A
Type: ☐ N/A Type: Manufacturer: Model: Serial Number:							
Flow Meter Field Observations: ☐ Operational ☐ Location ☐ Other							
* **Wet Well**		☑					N/A
Walls: ■ Concrete ☐ Steel ☐ Fiberglass							
Slab/Cover: ■ Reinforced Concrete ☐ Steel ☐ Pumps, motors and electric panel are mounted on cover/slab directly over wet well							
Pump Control System: ■ Floats ■ Transducer ☐ Transducer with High/Low Floats							
Measurement (PPM):							
Wet Well Field Observations: ■ Good ☐ PN/A ☐ Hatch Damaged or Difficult to Open ☐ Wet Structure Spalling or Cracked ☐ Evidence of Concrete Corrosion ☐ Wet Well Needs Cleaning - Solids/Grease ☐ Other							
Hatch Field Observations: ■ Good ☐ Fair: Minor Corrosion to Hatches, Hinges, or Latches ☐ Poor:Corroded or Broken Hatches, Hinges, or Latches ☐ Other							
Wet Well Ladder Observations: ☐ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ■ Other N/A							
Wet Well Wall Observations: ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Slab/Cover Observations: ■ Good ☐ Fair: Concrete or Aluminum Grate Slightly Corroded But Safe ☐ Poor: Concrete Aggregate Missing/Exposed; Grate Corroded or Warped; Debris Over Platform ☐ Other							

LS # 2

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Influent Pipe Observations: ☐ Good ☐ Fair: Slight Corrosion; Pipe Intact ☐ Poor: Severe Pipe Corrosion ☐ Other Not Visible							
Alarm Float Observations: ■ Good ☐ Fair: Some Grease But Operating Properly ☐ Poor: Covered in Grease or Broken ☐ Other							
Pump Vent Line Observations: ☐ Good ☐ Fair: Slight Corrosion But Operates Properly; Needs Sealant Around Opening ☐ Poor: Any One Vent Does Not Operate; Corroded or Broken Off at Wall ☐ Other N/A							
* **Dry Well**		☐					N/A
Location Type: ☐ None ☐ Underground pump vault with access tube and ladder ☐ Located below grade inside building							
Lighting: ☐ Yes ☐ No							
Cathodic Protection ☐ Not Required ☐ None ☐ Yes							
Access Tube and Ladder Field Observations: ☐ N/A ☐ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other							
Underground Vault Observations: ☐ N/A ☐ Good ☐ Fair: Surface Corrosion ☐ Poor: Corrosion ☐ Other							
Building Floor Slabs: ☐ N/A ☐ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Staircases/Stairwells: ☐ N/A ☐ Good ☐ Fair: Concrete Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Building Walls: ☐ N/A ☐ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Sump Pump: ☐ No ☐ Yes Type Model: Power (hp): TDH: Serial:							
Field Observations: ☐ Not Operational ☐ Poor Floor Drainage ☐ Other							
* **Cathodic Protection**		☐					N/A
Field Observations: ☐ Disconnected ☐ Other							
HVAC (HVA)							
* **Dry Well HVAC**		☐					N/A
Asset Size:							
Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Ventilation Duct Work Corroded ☐ Belts Loose or Torn ☐ Louvers ☐ Roof Vents ☐ Other							
* **Wet Well HVAC**		☐					
Asset Size:							
Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Belts Loose or Torn ☐ Ventilation Duct Work Corroded ☐ Louvers ☐ Roof Vents ☐ Other							
Electrical Systems (ELE)							
* **Control Panel**		☑					
Asset Size (Volts) ■ Single phase ☐ Three Phase							
Manufacturer: Model: Serial Number:							
Power Supply Manufacturer: Model: Type:							

LS # 2

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Shop Drawings Available ☐ UL Listed ☐ Uncovered Holes ☐ Surge Protection ■ Grounded ■ Wiring Labelled ■ Panel Labelled ☐ Other							
* **Lighting Panel**		☐					N/A
Asset Size (Volts) Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Bus and.or lugs corroded ☐ Spare Spaces Available ☐ Breakers Labelled ☐ Panel Grounded ☐ Panel Labelled ☐ Other							
* **Main Switch**		☐					
Asset Size (Volts) 240v, Single Phase 250 AMP Breaker Manufacturer: Model: Serial Number:							
Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other							
* **Transfer Switch**		☑					
Asset Size (Volts 240v, 3 Phase 125 AMP Breaker Manufacturer: Model: Serial Number:							
Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ■ Panel Grounded ■ Panel Labelled ☐ Other							
* **Motor Control Center**	N/A	☐					
Asset Size (Volts) Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Labelled ☐ Other							
* **Junction Box**		☑					TYPE: 3R 304 SS
Asset Size (Volts) 60X60X14 Manufacturer: SAGINOW Model: Q.C. Serial Number: 2083							
Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ■ Panel Grounded ■ Panel Labelled ☐ Other							
* **Miscellaneous Panel 1**	N/A	☐					
Asset Size Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other							

LS # 2

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Generator (GEN)							
* **Emergency Generator**	Portable	☑					Stored off-site
* **Emer. Gen. Connector**		☑					

Asset Size: Manufacturer: Model: Serial: Generator Type:

Field Observations: ☐ Good ☐ N/A ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Engine Fluids Low ☐ Poor Housekeeping ☐ Poor Accessibility ☐ Panel Grounded ☐ Panel Labelled ☐ Diesel Containment ☐ Other

Instrumentation (INS)							
* **Auto Dialer**		☐					

Manufacturer: SENSAPHONE Model: 800 Phone Number: 715359

Alarms: ☑ High Level ☑ Low Level ☐ Generator Running ☑ Power Fail ☐ Other

* **Float Controls**	BACK-UP	☑	2 FLOAT				

Manufacturer: Model:

* **Transducer**	Submersible	☐	Transducer				0-5 PSI

Field Observations: ☑ Good ☐ N/A ☐ Bubbler Compressor Failing ☐ Air Lines Clogged / Full of Moisture ☐ Drain Condensate Traps in Air System ☐ Floats Tangled ☐ Controls Obsolete ☐ Other

SCADA (SCA)

Field Observations: ☐ Good ☐ N/A ☐ Obsolete ☐ Other

Variable Frequency Drive							
* **Control Panel - VFD**	POWER FLEX	☑	753				
* **Harmonic Filter**	N/A	☐					
* **Output Filter**	N/A	☐					

Asset Size: Manufacturer: ALLEN BRADLEY Model: POWER FLEX Observed RPM: 1750

Field Observations: ☑ Good ☐ N/A ☐ Makes Noise ☐ Obsolete ☐ Panel Corroded / Dusty / Leaky ☐ Other

Motors (MTR)

* **Motor 1**	Replaced 2022	☑					

Asset Size (HP) 20

Manufacturer: SHINMAYWA Model: 4CNX418T2E1 Serial Number: 1885-069

Field Observations: ☑ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other

* **Motor 2**	Replaced 2022	☑					

Asset Size (HP): 20 Manufacturer: SHINMAYWA Model: 4CNX418T2E1 Serial Number: 1885-070

Field Observations: ☑ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other

LS # 2 _____

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Hor/Vert Centrifugal Pumps							
* **Pump 1**		☐					N/A
Manufacturer:		Model:		Serial Number:			
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Priming Pump ☐	Manufacturer:		Model:		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
* **Pump 2**		☐					N/A
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Priming Pump ☐	Manufacturer:		Model:		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
Submersible Pumps (SUB)							
* **Pump 1**		☑					
Manufacturer:		Model:		Serial:			
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Field Observations: ☐ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
* **Pump 2**		☑					
Manufacturer:		Model:		Serial:			
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Field Observations: ☐ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
Check Valves							
* **Pump 1**		☑					
Size (in):		Manufacturer:		Model:		Serial No:	
Field Observations: ■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other							
* **Pump 2**		☑					
Size (in):		Manufacturer:		Model:		Serial No:	
Field Observations: ■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Other ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain							

LS # 2

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Piping and Valves Suction Isolation Valves							
* **Pump 1**		☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**		☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
Discharge Isolation Valves							
* **Pump 1**		☑					
Size (in): 4"	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**		☑					
Size (in): 4"	Manufacturer:		Model:		Serial No:		
Field Observations:	■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ■ Other 4" OUT W/ ISO VALVE						

LS # 3

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Assessment Date: 25 April 2023

Location: 2361 Tower Rd, Kronenwetter, WI

Municipality: Village of Kronenwetter

LS Type: Dry Pit Vacuum Prime Duplex

Engineer: Roth Proffessional Solutions

Technical & Equipment Assistance: B&M Technical Services

House Keeping: ■ Good ☐ N/A ☐ Poor Lighting ☐ Tripping Hazards Present ☐ No Fall Protection ☐ Exposure to Raw Wastewater in Dry Well ☐ Sump Pump Inoperable ☐ Electric Space Heater Inoperable ☐ Potential for Shock or Electrocution ☐ Other

Health and Safety Issues: None

Other Observations: USEMCO ORIGINAL / LWALLEN 2016 refurbished

Asset Class	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Field Observations/Comments
Site Improvement (SIM)					
* **Access Driveway**	X				
* **Parking**	X				
* **Gate and Fencing**	☐				
* **Site Drainage**	X				
* **Grounding System**	☐				
* **Site Lighting**	☐				
* **Site Alarm Horn and Strobe Lighting**	X				on building

General Site Electrical Observations

Access Driveway Details: ☐ Gravel or aggregate basecourse only ☐ Concrete Pavement ■ Bituminous Pavement

Parking Details: ☐ None ☐ Gravel ■ Paved

Fence Details: ☐ Chain Link ☐ Other Fencing Height (ft): Fencing Length (ft):

Gate Type: ☐ Single ☐ Double N/A

Traffic: ☐ Other ☐ Site too Close to Traffic N/A

Grounding System Details : ☐ Present ☐ Grounding Rings ☐ Grounding Rods N/A

If applicable, approximate parking area: N/A

If applicable, approximate site area: N/A

Other Notes:

Pin Valve Issues on Vacuum Doesn't stay primed; 3 Phase 208

LS # 3

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Structure and Wetwell (PST)							
* **Building**		☐	*				*Sampling Bldg onsite w/generator hooku

Building Structures: ☒ None ☐ Concrete Walls ☐ Concrete Floor ☐ Doors Total Floor Area: Plan Floor Area:

Field Observations: ☐ Good ☐ N/A ☐ Roof Degraded ☐ Doors and Security Failing ☒ Needs Paint ☐ Cracks on the Wall ☐ Cracks on the Floor ☐ Other

* **Odor Control**		☑					NONE

Odor Details: ☒ Vent Pipe ☐ Other ☐ Details

Field Observations: ☒ Operational and in use ☐ On site, but not required ☐ Does not operate, needs repair ☐ Other

* **Crane/Hoist**		☑	*				*Lift Chain/Roller

Crane Details: Manufacturer: Model: Serial Number:

Field Observations: ☐ Good operating condition ☐ Does not operate, requires repair ☐ Mounting Hardware intact ☒ Other *Requires Lift Truck or Portable Lift

* **Bar Screen or Com minuter**	N/A	☐					

System Description: ☐ No Bar Screen ☐ Manually Raked Bar Screen ☐ Mechanically Raked Bar Screen ☐ Screen Bypass Provided?

Mechanical Bar Screens: ☐ Manufacturer: Model: Serial Number: Power Requirements (hp):

Odor Details: ☒ N/A ☐ Screens need frequent cleaning ☐ Short repsonse time ☐ Odor fly nuisance ☐ Screens not in use ☐ Other

* **Flow Meter**	N/A	☐					

Type: ☐ N/A Type: Manufacturer: Model: Serial Number:

Flow Meter Field Observations: ☐ Operational ☐ Location ☐ Other

* **Wet Well**		☑					Lower Wet Well is Concrete

Walls: ☒ Concrete ☒ Steel ☐ Fiberglass

Slab/Cover: ☐ Reinforced Concrete ☒ Steel ☐ Pumps, motors and electric panel are mounted on cover/slab directly over wet well

Pump Control System: ☒ Floats ☐ Bubbler System ☐ Ultrasonic & Transducer

Measurement (PPM):

Wet Well Field Observations: ☒ Good ☐ PN/A ☐ Hatch Damaged or Difficult to Open ☐ Wet Structure Spalling or Cracked ☐ Evidence of Concrete Corrosion ☐ Wet Well Needs Cleaning - Solids/Grease ☐ Other

Hatch Field Observations: ☐ Good ☐ Fair: Minor Corrosion to Hatches, Hinges, or Latches ☐ Poor:Corroded or Broken Hatches, Hinges, or Latches ☐ Other

Wet Well Ladder Observations: ☐ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☒ Other N/A

Wet Well Wall Observations: ☐ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface Painted Concrete Lower Wet Well Okay ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☒ Other Painted Metal Upper Losing Paint w/Corro

Slab/Cover Observations: ☒ Good ☐ Fair: Concrete or Aluminum Grate Slightly Corroded But Safe ☐ Poor: Concrete Aggregate Missing/Exposed; Grate Corroded or Warped; Debris Over Platform ☐ Other

LS # 3

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments

Influent Pipe Observations: ☐ Good ☐ Fair: Slight Corrosion; Pipe Intact ☐ Poor: Severe Pipe Corrosion ☐ Other

Alarm Float Observations: ☐ Good ☒ Fair: Some Grease But Operating Properly ☐ Poor: Covered in Grease or Broken ☒ Other Grease

Pump Vent Line Observations: ☒ Good ☐ Fair: Slight Corrosion But Operates Properly; Needs Sealant Around Opening ☐ Poor: Any One Vent Does Not Operate; Corroded or Broken Off at Wall ☐ Other

* **Dry Well**		☑					

Location Type: ☐ None ☒ Underground pump vault with access tube and ladder ☐ Located below grade inside building

Lighting: ☒ Yes ☐ No

Cathodic Protection ☐ Not Required ☐ None ☐ Yes

Access Tube and Ladder Field Observations: ☐ N/A ☒ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other

Underground Vault Observations: ☐ N/A ☒ Good ☐ Fair: Surface Corrosion ☐ Poor: Corrosion ☒ Other Floor Cooroded but OK

Building Floor Slabs: ☒ N/A ☐ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other

Staircases/Stairwells: ☒ N/A ☐ Good ☐ Fair: Concrete Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other

Building Walls: ☐ N/A ☐ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☒ Other N/A

Sump Pump: ☐ No ☒ Yes Type Model: Power (hp): TDH: Serial:

Field Observations: ☐ Not Operational ☐ Poor Floor Drainage ☒ Other OK-No Apparent Issues

* **Cathodic Protection**		☐					Assumed Yes (not visible)

Field Observations: ☐ Disconnected ☐ Other

HVAC (HVA)

* **Dry Well HVAC**		☑					HTR Electrical

Asset Size:

Field Observations: ☒ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Ventilation Duct Work Corroded ☐ Belts Loose or Torn ☐ Louvers ☐ Roof Vents ☐ Other

* **Wet Well HVAC**		☐					None

Asset Size:

Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Belts Loose or Torn ☐ Ventilation Duct Work Corroded ☐ Louvers ☐ Roof Vents ☐ Other

Electrical Systems (ELE)

* **Control Panel**		☑					

Asset Size (Volts) 208 (Volts) ☐ Single phase ☒ Three Phase

Manufacturer: Model: Serial Number:

Power Supply Manufacturer: Model: Type:

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Shop Drawings Available ☐ UL Listed ☐ Uncovered Holes ☐ Surge Protection ☐ Grounded ☐ Wiring Labelled ☐ Panel Labelled ☐ Other

* **Lighting Panel**		☑					

Asset Size (Volts)

Manufacturer: Interanal Model: Square D Serial Number: N/A

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Bus and.or lugs corroded ☐ Spare Spaces Available ☐ Breakers Labelled ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Main Switch**		☑					

Asset Size (Volts)

Manufacturer: Square D Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Transfer Switch**	Manual	☑					

Asset Size (Volts 208 VAC 3 Phase

Manufacturer: OE Model: N/A Serial Number: N/A

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Motor Control Center**	N/A	☐					

Asset Size (Volts)

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Labelled ☐ Other

* **Junction Box**		☐					

Asset Size (Volts) 24x36x8 208 VAC

Manufacturer: Square D Model: Duplex Serial Number: 5776

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Miscellaneous Panel 1**	N/A	☐					

Asset Size

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

LS # 3

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Generator (GEN)							
* **Emergency Generator**	N/A	☐					
* **Emer. Gen. Connector**		☑					
Asset Size:	Manufacturer:		Model:		Serial:		Generator Type:
Field Observations: ☐ Good ☐ N/A ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Engine Fluids Low ☐ Poor Housekeeping ☐ Poor Accessibility ☐ Panel Grounded ☐ Panel Labelled ☐ Diesel Containment ☐ Other							
Instrumentation (INS)							
* **Auto Dialer**		☐					
Manufacturer:		Model:			Phone Number:		
Alarms: ☐ High Level ☐ Low Level ☐ Generator Running ☐ Power Fail ☐ Other							
* **Float Controls**	back up	☐	2 float				
* **Bubbler Controls**		☐					
Manufacturer: Mercoid		Model: MPC Junior					
* **Ultrasonic Controls**	Primary	☐					
Field Observations: ☐ Good ☐ N/A ☐ Bubbler Compressor Failing ☐ Air Lines Clogged / Full of Moisture ☐ Drain Condensate Traps in Air System ☐ Floats Tangled ☐ Controls Obsolete ☐ Other							
SCADA (SCA)							
Field Observations: ☐ Good ☑ N/A ☐ Obsolete ☐ Other 1400 Allen Bradley PLC MDS Radio 4710 SD4							
Variable Frequency Drive							
* **Control Panel - VFD**		☐					
* **Harmonic Filter**		☐					
* **Output Filter**		☐					
Asset Size:	Manufacturer:		Model:				Observed RPM:
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Obsolete ☐ Panel Corroded / Dusty / Leaky ☐ Other							
Motors (MTR)							
* **Motor 1**		☐					
Asset Size (HP) 3							
Manufacturer: Marathon Electric		Model: RVB			Serial Number: N/A		
Field Observations: ☑ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other							
* **Motor 2**		☐					
Asset Size (HP): 3	Manufacturer: Marathon Electric		Model: Same				Serial Number: N/A
Field Observations: ☑ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other							

LS # 3

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Hor/Vert Centrifugal Pumps							
* **Pump 1**		✔					
Manufacturer: Fairbanks		Model: 2016		Serial Number:			
Discharge Size (in) 4"		Suction Diameter (in)		Pump Size (GPM)		TDH	
Priming Pump ■	Manufacturer:		Model:		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ■ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
* **Pump 2**	4"	✔					
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Priming Pump ■	Manufacturer:		Model: 2016		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
Submersible Pumps (SUB)							
* **Pump 1**	N/A	☐					
Manufacturer:		Model:		Serial:			
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Field Observations: ☐ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
* **Pump 2**	N/A	☐					
Manufacturer:		Model:		Serial:			
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Field Observations: ☐ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
Check Valves							
* **Pump 1**		✔					
Size (in): 4"		Manufacturer:		Model:		Serial No:	
Field Observations: ■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other							
* **Pump 2**		☐					
Size (in): 4"		Manufacturer:		Model:		Serial No:	
Field Observations: ■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Other ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain							

LS # 3

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Piping and Valves Suction Isolation Valves							
* **Pump 1**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
Discharge Isolation Valves							
* **Pump 1**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						

LS # 4

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Assessment Date: 25 April 2023

Location: 899 Nelson Rd, Mosinee, WI Municipality: Village of Kronenwetter LS Type: Duplex Submersible

Engineer: Roth Professional Solutions Technical & Equipment Assistance: B&M Technical Services

House Keeping: ☒ Good ☐ N/A ☐ Poor Lighting ☐ Tripping Hazards Present ☐ No Fall Protection ☐ Exposure to Raw Wastewater in Dry Well
☐ Sump Pump Inoperable ☐ Electric Space Heater Inoperable ☐ Potential for Shock or Electrocution ☐ Other

Health and Safety Issues:

Other Observations:

Asset Class	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Field Observations/Comments
Site Improvement (SIM)					
* **Access Driveway**	X				
* **Parking**	X				
* **Gate and Fencing**	☐				
* **Site Drainage**	X				
* **Grounding System**	X				Grounding Rods
* **Site Lighting**	☐				
* **Site Alarm Horn and Strobe Lighting**	X				

General Site Electrical Observations

Access Driveway Details: ☐ Gravel or aggregate basecourse only ☐ Concrete Pavement ☒ Bituminous Pavement

Parking Details: ☐ None ☐ Gravel ☒ Paved

Fence Details: ☐ Chain Link ☐ Other Fencing Height (ft): Fencing Length (ft):

Gate Type: ☐ Single ☐ Double

Traffic: ☐ Other ☐ Site too Close to Traffic Okay

Grounding System Details : ☒ Present ☐ Grounding Rings ☒ Grounding Rods

If applicable, approximate parking area:

If applicable, approximate site area:

Other Notes:

No ISO Valve due to Clog/Removal; Need pump tags & Manuals in Panel

Hinge Repair need in w/Well Hatch; Painted Cabinet-OK

LS # 4

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Structure and Wetwell (PST)							
* **Building**	N/A	☐					
Building Structures: ☐ None ☐ Concrete Walls ☐ Concrete Floor ☐ Doors Total Floor Area: Plan Floor Area:							
Field Observations: ☐ Good ☐ N/A ☐ Roof Degraded ☐ Doors and Security Failing ☐ Needs Paint ☐ Cracks on the Wall ☐ Cracks on the Floor ☐ Other							
* **Odor Control**		☑					
Odor Details: ■ Vent Pipe ☐ Other ☐ Details							
Field Observations: ■ Operational and in use ☐ On site, but not required ☐ Does not operate, needs repair ☐ Other							
* **Crane/Hoist**		☐					Portable / Off site
Crane Details: Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good operating condition ☐ Does not operate, requires repair ☐ Mounting Hardware intact ☐ Other							
* **Bar Screen or Com minuter**	N/A	☐					
System Description: ☐ No Bar Screen ☐ Manually Raked Bar Screen ☐ Mechanically Raked Bar Screen ☐ Screen Bypass Provided?							
Mechanical Bar Screens: ☐ Manufacturer: Model: Serial Number: Power Requirements (hp):							
Odor Details: ☐ N/A ☐ Screens need frequent cleaning ☐ Short repsonse time ☐ Odor fly nuisance ☐ Screens not in use ☐ Other							
* **Flow Meter**	N/A	☐					
Type: ☐ N/A Type: Manufacturer: Model: Serial Number:							
Flow Meter Field Observations: ☐ Operational ☐ Location ☐ Other							
* **Wet Well**		☑					
Walls: ■ Concrete ☐ Steel ☐ Fiberglass							
Slab/Cover: ■ Reinforced Concrete ☐ Steel ☐ Pumps, motors and electric panel are mounted on cover/slab directly over wet well							
Pump Control System: ■ Floats ☐ Bubbler System ☐ Ultrasonic & Transducer							
Measurement (PPM):							
Wet Well Field Observations: ■ Good ☐ PN/A ☐ Hatch Damaged or Difficult to Open ☐ Wet Structure Spalling or Cracked ☐ Evidence of Concrete Corrosion ☐ Wet Well Needs Cleaning - Solids/Grease ☐ Other							
Hatch Field Observations: ☐ Good ☐ Fair: Minor Corrosion to Hatches, Hinges, or Latches ☐ Poor:Corroded or Broken Hatches, Hinges, or Latches ■ Other New Hinge on Access Hatch							
Wet Well Ladder Observations: ☐ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ■ Other N/A							
Wet Well Wall Observations: ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Slab/Cover Observations: ■ Good ☐ Fair: Concrete or Aluminum Grate Slightly Corroded But Safe ☐ Poor: Concrete Aggregate Missing/Exposed; Grate Corroded or Warped; Debris Over Platform ☐ Other							

LS # 4

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Influent Pipe Observations: ■ Good ☐ Fair: Slight Corrosion; Pipe Intact ☐ Poor: Severe Pipe Corrosion ☐ Other							
Alarm Float Observations: ■ Good ☐ Fair: Some Grease But Operating Properly ☐ Poor: Covered in Grease or Broken ☐ Other							
Pump Vent Line Observations: ☐ Good ☐ Fair: Slight Corrosion But Operates Properly; Needs Sealant Around Opening ☐ Poor: Any One Vent Does Not Operate; Corroded or Broken Off at Wall ■ Other N/A							
* **Dry Well**		☑					Valve Vault
Location Type: ☐ None ■ Underground pump vault with access tube and ladder ☐ Located below grade inside building Lighting: ☐ Yes ■ No Cathodic Protection ■ Not Required ☐ None ☐ Yes							
Access Tube and Ladder Field Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other							
Underground Vault Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion ☐ Poor: Corrosion ☐ Other							
Building Floor Slabs: ■ N/A ☐ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Staircases/Stairwells: ■ N/A ☐ Good ☐ Fair: Concrete Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Building Walls: ■ N/A ☐ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Sump Pump: ☐ No ☐ Yes Type Model: Power (hp): TDH: Serial: Field Observations: ☐ Not Operational ☐ Poor Floor Drainage ■ Other N/A							
* **Cathodic Protection**	N/A	☐					
Field Observations: ☐ Disconnected ☐ Other							
HVAC (HVA)							
* **Dry Well HVAC**	N/A	☐					
Asset Size: Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Ventilation Duct Work Corroded ☐ Belts Loose or Torn ☐ Louvers ☐ Roof Vents ☐ Other							
* **Wet Well HVAC**	N/A	☐					
Asset Size: Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Belts Loose or Torn ☐ Ventilation Duct Work Corroded ☐ Louvers ☐ Roof Vents ☐ Other							
Electrical Systems (ELE)							
* **Control Panel**		☑					Need Pump Tags & Manuals in Panel
Asset Size (Volts) 208 VAC ☐ Single phase ■ Three Phase Manufacturer: Hoffman Model: Type 3R Serial Number: Power Supply Manufacturer: Model: Type: 48"x36"x12" Painted							

LS # 4

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Shop Drawings Available ☐ UL Listed ☐ Uncovered Holes ☐ Surge Protection ☑ Grounded ☐ Wiring Labelled ☐ Panel Labelled ☑ Other Pump Tags

* **Lighting Panel**	N/A	☐					

Asset Size (Volts)

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Bus and.or lugs corroded ☐ Spare Spaces Available ☐ Breakers Labelled ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Main Switch**		☑					

Asset Size (Volts) 208 VAC

Manufacturer: GE Model: TEB 1321 Serial Number:

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Transfer Switch**		☑					Manual Portable Generator

Asset Size (Volts Manual Portable Genera

Manufacturer: Model: Serial Number:

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Motor Control Center**	N/A	☐					

Asset Size (Volts)

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Labelled ☑ Other

* **Junction Box**		☑					

Asset Size (Volts) 48x36x12 Mounted

Manufacturer: Hoffman Model: Type 3R Serial Number:

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Miscellaneous Panel 1**		☑					Replace Back-up Controllers; 1-2x a yr; 11 STA

Asset Size

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☑ Other Motor Starters replaced 2020

LS # 4

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Generator (GEN)							
* **Emergency Generator**		☐					
* **Emer. Gen. Connector**		☐					
Asset Size:	Manufacturer:		Model:		Serial:		Generator Type:
Field Observations: ☐ Good ☐ N/A ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Engine Fluids Low ☐ Poor Housekeeping ☐ Poor Accessibility ☐ Panel Grounded ☐ Panel Labelled ☐ Diesel Containment ☐ Other							
Instrumentation (INS)							
* **Auto Dialer**		☑					
Manufacturer: SensaPhone	Model: 800		Phone Number: 715-693-7721				
Alarms: ☐ High Level ☐ Low Level ☐ Generator Running ☐ Power Fail ☐ Other							
* **Float Controls**	2 Float	☑	Back up				
* **Bubbler Controls**		☐					
Manufacturer:			Model:				
* **Submersible Level Controls**		☑					0-5 PSI
Field Observations: ☐ Good ☐ N/A ☐ Bubbler Compressor Failing ☐ Air Lines Clogged / Full of Moisture ☐ Drain Condensate Traps in Air System ☐ Floats Tangled ☐ Controls Obsolete ☐ Other							
SCADA (SCA)							
Field Observations: ☐ Good ☐ N/A ☐ Obsolete ☐ Other							
Variable Frequency Drive							
* **Control Panel - VFD**	N/A	☐					
* **Harmonic Filter**	N/A	☐					
* **Output Filter**	N/A	☐					
Asset Size:	Manufacturer:		Model:				Observed RPM:
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Obsolete ☐ Panel Corroded / Dusty / Leaky ☐ Other							
Motors (MTR)							
* **Motor 1**		☑					
Asset Size (HP) 10							
Manufacturer: Shinmaywa Pumps	Model: 4CNX		Serial Number:				
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other							
* **Motor 2**		☑					
Asset Size (HP): 10	Manufacturer: Shinmaywa		Model: 4CNX				Serial Number:
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other							

LS # 4

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Hor/Vert Centrifugal Pumps							
* **Pump 1**	N/A	☐					

Manufacturer: Model: Serial Number:

Discharge Size (in) Suction Diameter (in) Pump Size (GPM) TDH

Priming Pump ☐ Manufacturer: Model: Serial No.: Size (hp):

Pressure Gauge ☐ Manufacturer: Pressure Range: PressureReading:

Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other

* **Pump 2**	N/A	☐					

Discharge Size (in) Suction Diameter (in) Pump Size (GPM) TDH

Priming Pump ☐ Manufacturer: Model: Serial No.: Size (hp):

Pressure Gauge ☐ Manufacturer: Pressure Range: PressureReading:

Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other

Submersible Pumps (SUB)							
* **Pump 1**		☑					

Manufacturer: Shinmaywa Model: 4CNX Serial:

Discharge Size (in) 4" Suction Diameter (in) Pump Size (GPM) 175 TDH 10 HP

Field Observations: ☒ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☒ Other Seal Fail / Relay Addressed 2020

* **Pump 2**		☑					

Manufacturer: Shinmaywa Model: 4CNX Serial:

Discharge Size (in) 4" Suction Diameter (in) Pump Size (GPM) TDH

Field Observations: ☒ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☒ Other Seal Fail / Relay Addressed 2020

Check Valves							
* **Pump 1**		☑					

Size (in): 4" Manufacturer: Model: Serial No:

Field Observations: ☒ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other

* **Pump 2**		☑					

Size (in): 4" Manufacturer: Model: Serial No:

Field Observations: ☒ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Other ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain

LS # 4

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Piping and Valves Suction Isolation Valves							
* **Pump 1**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
Discharge Isolation Valves							
* **Pump 1**		☑					ISO Valve Removed Due to Clogging
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						

LS # 5

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Assessment Date: 25 April 2023

Location: 1100 Cedar Rd Municipality: Village of Kronenwetter LS Type: Duplex Submersible

Engineer: Roth Professional Solutions Technical & Equipment Assistance: B&M Technical Services

House Keeping: ☒ Good ☐ N/A ☐ Poor Lighting ☐ Tripping Hazards Present ☐ No Fall Protection ☐ Exposure to Raw Wastewater in Dry Well ☐ Sump Pump Inoperable ☐ Electric Space Heater Inoperable ☐ Potential for Shock or Electrocution ☐ Other

Health and Safety Issues:

Other Observations: Painted Cabinet, has been replaced

Asset Class	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Field Observations/Comments
Site Improvement (SIM)					
* **Access Driveway**	X				
* **Parking**	X				One driveway
* **Gate and Fencing**					N/A
* **Site Drainage**	X				Okay
* **Grounding System**	X				
* **Site Lighting**					N/A
* **Site Alarm Horn and Strobe Lighting**	X				

General Site Electrical Observations

Access Driveway Details: ☐ Gravel or aggregate basecourse only ☒ Concrete Pavement ☐ Bituminous Pavement

Parking Details: ☐ None ☐ Gravel ☒ Paved

Fence Details: ☐ Chain Link ☐ Other Fencing Height (ft): Fencing Length (ft):

Gate Type: ☐ Single ☐ Double N/A

Traffic: ☐ Other ☐ Site too Close to Traffic

Grounding System Details : ☐ Present ☐ Grounding Rings ☒ Grounding Rods

If applicable, approximate parking area:

If applicable, approximate site area:

Other Notes:

Submersible, 10HP, 30Amp, 2018, 30, Barnes 1999

LS # 5

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Structure and Wetwell (PST)							
* **Building**	N/A	☐					
Building Structures: ☐ None ☐ Concrete Walls ☐ Concrete Floor ☐ Doors Total Floor Area: Plan Floor Area:							
Field Observations: ☐ Good ☐ N/A ☐ Roof Degraded ☐ Doors and Security Failing ☐ Needs Paint ☐ Cracks on the Wall ☐ Cracks on the Floor ☐ Other							
* **Odor Control**		☑					Okay
Odor Details: ■ Vent Pipe ☐ Other ☐ Details							
Field Observations: ■ Operational and in use ☐ On site, but not required ☐ Does not operate, needs repair ☐ Other							
* **Crane/Hoist**		☑					Portable Offsite
Crane Details: Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good operating condition ☐ Does not operate, requires repair ☐ Mounting Hardware intact ☐ Other							
* **Bar Screen or Com minuter**	N/A	☐					
System Description: ☐ No Bar Screen ☐ Manually Raked Bar Screen ☐ Mechanically Raked Bar Screen ☐ Screen Bypass Provided?							
Mechanical Bar Screens: ☐ Manufacturer: Model: Serial Number: Power Requirements (hp):							
Odor Details: ☐ N/A ☐ Screens need frequent cleaning ☐ Short repsonse time ☐ Odor fly nuisance ☐ Screens not in use ☐ Other							
* **Flow Meter**	N/A	☐					
Type: ☐ N/A Type: Manufacturer: Model: Serial Number:							
Flow Meter Field Observations: ☐ Operational ☐ Location ☐ Other							
* **Wet Well**		☑					6' Dia; 150 valve okay; 10GPM +/- Field Comp Pumping
Walls: ■ Concrete ☐ Steel ☐ Fiberglass							
Slab/Cover: ■ Reinforced Concrete ☐ Steel ☐ Pumps, motors and electric panel are mounted on cover/slab directly over wet well							
Pump Control System: ■ Floats ☐ Bubbler System ☐ Ultrasonic & Tansducer							
Measurement (PPM):							
Wet Well Field Observations: ■ Good ☐ PN/A ☐ Hatch Damaged or Difficult to Open ☐ Wet Structure Spalling or Cracked ☐ Evidence of Concrete Corrosion ☐ Wet Well Needs Cleaning - Solids/Grease ☐ Other							
Hatch Field Observations: ■ Good ☐ Fair: Minor Corrosion to Hatches, Hinges, or Latches ■ Poor:Corroded or Broken Hatches, Hinges, or Latches ☐ Other							
Wet Well Ladder Observations: ☐ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ■ Other N/A							
Wet Well Wall Observations: ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Slab/Cover Observations: ■ Good ☐ Fair: Concrete or Aluminum Grate Slightly Corroded But Safe ☐ Poor: Concrete Aggregate Missing/Exposed; Grate Corroded or Warped; Debris Over Platform ■ Other Surface Valve Port Covered by LS Panel							

LS # 5

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Influent Pipe Observations: ■ Good ☐ Fair: Slight Corrosion; Pipe Intact ☐ Poor: Severe Pipe Corrosion ☐ Other							
Alarm Float Observations: ☐ Good ■ Fair: Some Grease But Operating Properly ☐ Poor: Covered in Grease or Broken ☐ Other Grease							
Pump Vent Line Observations: ☐ Good ☐ Fair: Slight Corrosion But Operates Properly; Needs Sealant Around Opening ☐ Poor: Any One Vent Does Not Operate; Corroded or Broken Off at Wall ☐ Other							
* **Dry Well**		☑					Valve Vault
Location Type: ☐ None ☐ Underground pump vault with access tube and ladder ■ Located below grade							
Lighting: ☐ Yes ■ No							
Cathodic Protection ■ Not Required ☐ None ☐ Yes							
Access Tube and Ladder Field Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other							
Underground Vault Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion ☐ Poor: Corrosion ☐ Other							
Building Floor Slabs: ☐ N/A ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Staircases/Stairwells: ☐ N/A ☐ Good ☐ Fair: Concrete Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ■ Other N/A							
Building Walls: ☐ N/A ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Sump Pump: ■ No ☐ Yes Type Model: Power (hp): TDH: Serial:							
Field Observations: ☐ Not Operational ☐ Poor Floor Drainage ☐ Other							
* **Cathodic Protection**	N/A	☐					
Field Observations: ☐ Disconnected ☐ Other							
HVAC (HVA)							
* **Dry Well HVAC**	N/A	☐					
Asset Size:							
Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Ventilation Duct Work Corroded ☐ Belts Loose or Torn ☐ Louvers ☐ Roof Vents ☐ Other							
* **Wet Well HVAC**	N/A	☐					
Asset Size:							
Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Belts Loose or Torn ☐ Ventilation Duct Work Corroded ☐ Louvers ☐ Roof Vents ☐ Other							
Electrical Systems (ELE)							
* **Control Panel**		☑					100 AMP
Asset Size (Volts) 208 (VAC) ☐ Single phase ■ Three Phase Manufacturer: Model: Serial Number: Power Supply Manufacturer: GE Model: Type:							

LS # 5

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Shop Drawings Available ☐ UL Listed ☐ Uncovered Holes
☐ Surge Protection ■ Grounded ☐ Wiring Labelled ☐ Panel Labelled ☐ Other

* **Lighting Panel** | N/A | ☐

Asset Size (Volts)
Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Bus and.or lugs corroded ☐ Spare Spaces Available
☐ Breakers Labelled ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Main Switch** | | ☑

Asset Size (Volts) 208 VAC
Manufacturer: GE Model: 10HP Serial Number: 500224-F

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded
☐ Panel Labelled ☐ Other

* **Transfer Switch** | Manual | ☑

Asset Size (Volts
Manufacturer: Model: 31 Serial Number: 50002214-F

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded
☐ Panel Labelled ☐ Other

* **Motor Control Center** | N/A | ☐

Asset Size (Volts)
Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Labelled
☐ Other

* **Junction Box** | N/A | ☐

Asset Size (Volts)
Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded
☐ Panel Labelled ☐ Other

* **Miscellaneous Panel 1** | N/A | ☐

Asset Size
Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded
☐ Panel Labelled ☐ Other

LS # 5

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Generator (GEN)							
* **Emergency Generator**		☐					
* **Emer. Gen. Connector**		☑					Manual Hook-up

Asset Size: 10 HP Manufacturer: Model: Serial: Generator Type:

Field Observations: ■ Good ☐ N/A ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Engine Fluids Low ☐ Poor Housekeeping ☐ Poor Accessibility ☐ Panel Grounded ☐ Panel Labelled ☐ Diesel Containment ☐ Other

Instrumentation (INS)							
* **Auto Dialer**		☑					Sensaphone 400

Manufacturer: Model: Phone Number:

Alarms: ■ High Level ■ Low Level ☐ Generator Running ■ Power Fail ☐ Other

* **Float Controls**		☑					
* **Bubbler Controls**		☐					

Manufacturer: Model:

* **Ultrasonic Controls**		☐					Transducer 0-5 PSI Recent Adjustment to 3.5'

Field Observations: ■ Good ☐ N/A ☐ Bubbler Compressor Failing ☐ Air Lines Clogged / Full of Moisture ☐ Drain Condensate Traps in Air System ☐ Floats Tangled ☐ Controls Obsolete ☐ Other

SCADA (SCA)

Field Observations: ☐ Good ■ N/A ☐ Obsolete ☐ Other

Variable Frequency Drive							
* **Control Panel - VFD**	N/A	☐					
* **Harmonic Filter**	N/A	☐					
* **Output Filter**	N/A	☐					

Asset Size: Manufacturer: Model: Observed RPM:

Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Obsolete ☐ Panel Corroded / Dusty / Leaky ☐ Other

Motors (MTR)

* **Motor 1**		☑					

Asset Size (HP) 10

Manufacturer: Barnes Model: Serial Number:

Field Observations: ■ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other

* **Motor 2**		☑					

Asset Size (HP): 10 Manufacturer: Barnes Model: Serial Number:

Field Observations: ■ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other

LS # 5

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Hor/Vert Centrifugal Pumps							
* **Pump 1**		✔					
Manufacturer: Barnes	Model:		Serial Number:				
Discharge Size (in) 6"	Suction Diameter (in)		Pump Size (GPM)		TDH		
Priming Pump ☐	Manufacturer:		Model:		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ■ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
* **Pump 2**		✔					
Discharge Size (in) 6"	Suction Diameter (in)		Pump Size (GPM) 210		TDH		
Priming Pump ☐	Manufacturer:		Model:		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ■ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
Submersible Pumps (SUB)							
* **Pump 1**		✔					
Manufacturer: Barnes	Model:		Serial:				
Discharge Size (in) 6"	Suction Diameter (in)		Pump Size (GPM) 210		TDH		
Field Observations: ■ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
* **Pump 2**		✔					
Manufacturer: Barnes	Model:		Serial:				
Discharge Size (in) 6"	Suction Diameter (in)		Pump Size (GPM) 210		TDH		
Field Observations: ■ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
Check Valves							
* **Pump 1**		✔					
Size (in): 6"	Manufacturer:		Model:		Serial No:		
Field Observations: ■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other							
* **Pump 2**		✔					
Size (in): 6"	Manufacturer:		Model:		Serial No:		
Field Observations: ■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Other ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain							

LS # 5

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Piping and Valves Suction Isolation Valves							
* **Pump 1**		☑					
Size (in): 6"	Manufacturer:		Model:			Serial No:	
Field Observations:	■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**		☑					
Size (in): 6"	Manufacturer:		Model:			Serial No:	
Field Observations:	■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
Discharge Isolation Valves							
* **Pump 1**		☑					
Size (in): 6"	Manufacturer:		Model:			Serial No:	
Field Observations:	■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:			Serial No:	
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						

LS # 6

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Assessment Date: 25 April 2023

Location: 2100 River Forest Ln Municipality: Village of Kronenwetter LS Type: Duplex Submersible

Engineer: Roth Professional Solutions Technical & Equipment Assistance: B&M Technical Services

House Keeping: ■ Good ☐ N/A ☐ Poor Lighting ☐ Tripping Hazards Present ☐ No Fall Protection ☐ Exposure to Raw Wastewater in Dry Well
☐ Sump Pump Inoperable ☐ Electric Space Heater Inoperable ☐ Potential for Shock or Electrocution ☐ Other

Health and Safety Issues:

Other Observations: 15 HP Barnes Ea / Add-A-Phase Power System (3 Phase Converter System)

Asset Class	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Field Observations/Comments
Site Improvement (SIM)					
* **Access Driveway**	X				
* **Parking**	X				
* **Gate and Fencing**	☐				
* **Site Drainage**	X				
* **Grounding System**	X				
* **Site Lighting**	☐				
* **Site Alarm Horn and Strobe Lighting**	X				

General Site Electrical Observations

Access Driveway Details: ■ Gravel or aggregate basecourse only ☐ Concrete Pavement ☐ Bituminous Pavement

Parking Details: ☐ None ■ Gravel ☐ Paved

Fence Details: ☐ Chain Link ☐ Other Fencing Height (ft): Fencing Length (ft):

Gate Type: ☐ Single ☐ Double N/A

Traffic: ☐ Other ☐ Site too Close to Traffic

Grounding System Details : ■ Present ☐ Grounding Rings ☐ Grounding Rods

If applicable, approximate parking area:

If applicable, approximate site area:

Other Notes:

Panel Labeling Not Current; 3" Influent FM, Turned Down, is Showing Corrosion

Pump 2 Replaced 2018; Pump 1 Original 1999

LS # 6

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Structure and Wetwell (PST)							
* **Building**		✔					Duplex Submersible
* **Odor Control**		✔					
* **Crane/Hoist**		✔					Portable / Off Site
* **Bar Screen or Com minuter**	N/A						
* **Flow Meter**	N/A						
* **Wet Well**		✔					

Building Structures: ☐ None ■ Concrete Walls ☐ Concrete Floor ☐ Doors Total Floor Area: Plan Floor Area:

Field Observations: ■ Good ☐ N/A ☐ Roof Degraded ☐ Doors and Security Failing ☐ Needs Paint ☐ Cracks on the Wall ☐ Cracks on the Floor ☐ Other

Odor Details: ■ Vent Pipe ☐ Other ☐ Details

Field Observations: ■ Operational and in use ☐ On site, but not required ☐ Does not operate, needs repair ☐ Other

Crane Details: Manufacturer: Model: Serial Number:

Field Observations: ☐ Good operating condition ☐ Does not operate, requires repair ☐ Mounting Hardware intact ☐ Other

System Description: ☐ No Bar Screen ☐ Manually Raked Bar Screen ☐ Mechanically Raked Bar Screen ☐ Screen Bypass Provided?

Mechanical Bar Screens: ☐ Manufacturer: Model: Serial Number: Power Requirements (hp):

Odor Details: ☐ N/A ☐ Screens need frequent cleaning ☐ Short repsonse time ☐ Odor fly nuisance ☐ Screens not in use ☐ Other

Type: ☐ N/A Type: Manufacturer: Model: Serial Number:

Flow Meter Field Observations: ☐ Operational ☐ Location ☐ Other

Walls: ■ Concrete ☐ Steel ☐ Fiberglass

Slab/Cover: ■ Reinforced Concrete ☐ Steel ☐ Pumps, motors and electric panel are mounted on cover/slab directly over wet well

Pump Control System: ■ Floats ☐ Bubbler System ☐ Ultrasonic 2 Float High/Low w/ Transducer

Measurement (PPM): 0-5 PSI MPC 0-5 PSI

Wet Well Field Observations: ■ Good ☐ PN/A ☐ Hatch Damaged or Difficult to Open ☐ Wet Structure Spalling or Cracked ☐ Evidence of Concrete Corrosion ☐ Wet Well Needs Cleaning - Solids/Grease ☐ Other

Hatch Field Observations: ■ Good ☐ Fair: Minor Corrosion to Hatches, Hinges, or Latches ☐ Poor:Corroded or Broken Hatches, Hinges, or Latches ☐ Other

Wet Well Ladder Observations: ☐ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other

Wet Well Wall Observations: ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other

Slab/Cover Observations: ■ Good ☐ Fair: Concrete or Aluminum Grate Slightly Corroded But Safe ☐ Poor: Concrete Aggregate Missing/Exposed; Grate Corroded or Warped; Debris Over Platform ☐ Other

LS # 6

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Influent Pipe Observations: ■ Good ☐ Fair: Slight Corrosion; Pipe Intact ☐ Poor: Severe Pipe Corrosion ■ Other 3" Influent DI Low Pressure FM							
Alarm Float Observations: ☐ Good ☐ Fair: Some Grease But Operating Properly ☐ Poor: Covered in Grease or Broken ☐ Other							
Pump Vent Line Observations: ☐ Good ☐ Fair: Slight Corrosion But Operates Properly; Needs Sealant Around Opening ☐ Poor: Any One Vent Does Not Operate; Corroded or Broken Off at Wall ☐ Other							
* **Dry Well**		☑					Valve Vault Drain Clogged
Location Type: ☐ None ☐ Underground pump vault with access tube and ladder ■ Located below grade inside building Lighting: ☐ Yes ■ No Cathodic Protection ■ Not Required ☐ None ☐ Yes							
Access Tube and Ladder Field Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other							
Underground Vault Observations: ☐ N/A ☐ Good ■ Fair: Surface Corrosion ☐ Poor: Corrosion ■ Other Piping							
Building Floor Slabs: ☐ N/A ☐ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ■ Other Standing Water; No Drainage							
Staircases/Stairwells: ☐ N/A ■ Good ☐ Fair: Concrete Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Building Walls: ☐ N/A ☐ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Sump Pump: ☐ No ☐ Yes Type Model: Power (hp): TDH: Serial: Field Observations: ☐ Not Operational ☐ Poor Floor Drainage ☐ Other							
* **Cathodic Protection**	N/A	☐					
Field Observations: ☐ Disconnected ☐ Other							
HVAC (HVA)							
* **Dry Well HVAC**	N/A	☐					
Asset Size: Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Ventilation Duct Work Corroded ☐ Belts Loose or Torn ☐ Louvers ☐ Roof Vents ☐ Other							
* **Wet Well HVAC**	N/A	☐					
Asset Size: Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Belts Loose or Torn ☐ Ventilation Duct Work Corroded ☐ Louvers ☐ Roof Vents ☐ Other							
Electrical Systems (ELE)							
* **Control Panel**		☑					Max 30 HP
Asset Size (Volts) 240/10In, 208/30 Out ■ Single phase ☐ Three Phase Add-A-Phase Converter Manufacturer: Model: Serial Number: Power Supply Manufacturer: Model: Type: ADDA PHASE UNIT RONK							

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Shop Drawings Available ☐ UL Listed ☐ Uncovered Holes
☐ Surge Protection ■ Grounded ☐ Wiring Labelled ☐ Panel Labelled ☐ Other

* **Lighting Panel**		☐					

Asset Size (Volts)
Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Bus and.or lugs corroded ☐ Spare Spaces Available
☐ Breakers Labelled ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Main Switch**		☑					

Asset Size (Volts) 208 3 Phase
Manufacturer: Hoffman Model: 96 Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded
☐ Panel Labelled ■ Other Phase Converter Inefficient

* **Transfer Switch**		☑					Manual

Asset Size (Volts 30 HP
Manufacturer: SMEDE Breaker Model: Serial Number:

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded
☐ Panel Labelled ☐ Other

* **Motor Control Center**	N/A	☐					

Asset Size (Volts)
Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Labelled
☐ Other

* **Junction Box**		☑					

Asset Size (Volts) 208 3 Phase
Manufacturer: Hoffman Model: 96 Serial Number:

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded
☐ Panel Labelled ■ Other Phase Converter Inefficient

* **Miscellaneous Panel 1**	N/A	☐					

Asset Size
Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked
☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded
☐ Panel Labelled ☐ Other

LS # 6

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Generator (GEN)							
* **Emergency Generator**		☐					
* **Emer. Gen. Connector**		☑					Portable Off-Site
Asset Size: 30 HP Manufacturer: SMEDE Breaker Model: Serial: Generator Type:							
Field Observations: ☒ Good ☐ N/A ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Engine Fluids Low ☐ Poor Housekeeping ☐ Poor Accessibility ☒ Panel Grounded ☐ Panel Labelled ☐ Diesel Containment ☐ Other							
Instrumentation (INS)							
* **Auto Dialer**		☑					
Manufacturer: Sensaphone Model: 96 Phone Number:							
Alarms: ☒ High Level ☒ Low Level ☐ Generator Running ☒ Power Fail ☐ Other							
* **Float Controls**	back up	☐	2 float				
* **Bubbler Controls**	primary	☐					0-5 PSI
Manufacturer: Mercoid Model:							
* **Ultrasonic Controls**		☐					
Field Observations: ☒ Good ☐ N/A ☐ Bubbler Compressor Failing ☐ Air Lines Clogged / Full of Moisture ☐ Drain Condensate Traps in Air System ☐ Floats Tangled ☐ Controls Obsolete ☐ Other							
SCADA (SCA)							
Field Observations: ☐ Good ☐ N/A ☐ Obsolete ☐ Other							
Variable Frequency Drive							
* **Control Panel - VFD**	N/A	☐					
* **Harmonic Filter**	N/A	☐					
* **Output Filter**	N/A	☐					
Asset Size: Manufacturer: Model: Observed RPM:							
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Obsolete ☐ Panel Corroded / Dusty / Leaky ☐ Other							
Motors (MTR)							
* **Motor 1**	N/A	☐					
Asset Size (HP) Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other							
* **Motor 2**	N/A	☐					
Asset Size (HP): Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other							

LS # 6

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Hor/Vert Centrifugal Pumps							
* **Pump 1**	N/A	☐					
Manufacturer:		Model:		Serial Number:			
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Priming Pump ☐	Manufacturer:		Model:		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
* **Pump 2**	N/A	☐					
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Priming Pump ☐	Manufacturer:		Model:		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
Submersible Pumps (SUB)							
* **Pump 1**		☑					
Manufacturer: Barnes		Model: 48.3 FIA		Serial:			
Discharge Size (in) 4"		Suction Diameter (in)		Pump Size (GPM) 155		TDH 15 HP	
Field Observations: ■ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
* **Pump 2**		☑					
Manufacturer: Barnes		Model:		Serial:			
Discharge Size (in) 4"		Suction Diameter (in)		Pump Size (GPM) 155		TDH 15 HP	
Field Observations: ■ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
Check Valves							
* **Pump 1**		☑					
Size (in): 4"	Manufacturer:		Model:		Serial No:		
Field Observations: ☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other							
* **Pump 2**		☑					
Size (in): 4"	Manufacturer:		Model:		Serial No:		
Field Observations: ☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Other ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain							

LS # 6

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Piping and Valves Suction Isolation Valves							
* **Pump 1**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
Discharge Isolation Valves							
* **Pump 1**		☑					
Size (in): 4"	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ■ Other Valve Vault Piping Corrosion						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						

LS # 7

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Assessment Date: 25 April 2023

Location: 2302 Old Hwy 51, Kronenwetter, WI Municipality: Village of Kronenwetter LS Type: Duplex Submersible

Engineer: Roth Professional Solutions Technical & Equipment Assistance: B&M Technical Services

House Keeping: ☒ Good ☐ N/A ☐ Poor Lighting ☐ Tripping Hazards Present ☐ No Fall Protection ☐ Exposure to Raw Wastewater in Dry Well
☐ Sump Pump Inoperable ☐ Electric Space Heater Inoperable ☐ Potential for Shock or Electrocution ☐ Other

Health and Safety Issues:

Other Observations: Wastewater Process Timing / Hydrogen Sulfide Issues

Asset Class	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Field Observations/Comments
Site Improvement (SIM)					
* **Access Driveway**	X				
* **Parking**	X				
* **Gate and Fencing**					
* **Site Drainage**	X				
* **Grounding System**	X				
* **Site Lighting**	X				
* **Site Alarm Horn and Strobe Lighting**	X				

General Site Electrical Observations

Access Driveway Details: ☒ Gravel or aggregate basecourse only ☐ Concrete Pavement ☐ Bituminous Pavement

Parking Details: ☐ None ☒ Gravel ☐ Paved

Fence Details: ☐ Chain Link ☐ Other Fencing Height (ft): Fencing Length (ft):

Gate Type: ☐ Single ☐ Double

Traffic: ☐ Other ☐ Site too Close to Traffic

Grounding System Details : ☒ Present ☐ Grounding Rings ☐ Grounding Rods

If applicable, approximate parking area:

If applicable, approximate site area:

Other Notes:

15 HP Shinmaywa Pumps, No Screen; Pumps Replaced 2023

Some Moisture Corrosion Forming in Dry Valve Vault

LS # 7

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Structure and Wetwell (PST)							
* **Building**		☑					(2 Structures: LS & Generator Bldg)
* **Odor Control**		☑					
* **Crane/Hoist**		☑					Portable / Off-Site
* **Bar Screen or Com minuter**	N/A	☐					
* **Flow Meter**		☑					Altronex Control
* **Wet Well**		☑					

Building Structures: ☐ None ☑ Concrete Walls ☐ Concrete Floor ☐ Doors Total Floor Area: Plan Floor Area:

Field Observations: ☑ Good ☐ N/A ☐ Roof Degraded ☐ Doors and Security Failing ☐ Needs Paint ☐ Cracks on the Wall ☐ Cracks on the Floor ☑ Other Hydrogen-Sulfide Corrosion Portection

Odor Details: ☑ Vent Pipe ☐ Other ☐ Details

Field Observations: ☑ Operational and in use ☐ On site, but not required ☐ Does not operate, needs repair ☐ Other

Crane Details: Manufacturer: Model: Serial Number:

Field Observations: ☐ Good operating condition ☐ Does not operate, requires repair ☐ Mounting Hardware intact ☐ Other

System Description: ☐ No Bar Screen ☐ Manually Raked Bar Screen ☐ Mechanically Raked Bar Screen ☐ Screen Bypass Provided?

Mechanical Bar Screens: ☐ Manufacturer: Model: Serial Number: Power Requirements (hp):

Odor Details: ☐ N/A ☐ Screens need frequent cleaning ☐ Short repsonse time ☐ Odor fly nuisance ☐ Screens not in use ☐ Other

Type: ☐ N/A Type: MAG 5000 Manufacturer: Siemens Model: Sitrans Serial Number: N1M6150031

Flow Meter Field Observations: ☑ Operational ☐ Location ☐ Other

Walls: ☑ Concrete ☐ Steel ☐ Fiberglass

Slab/Cover: ☑ Reinforced Concrete ☐ Steel ☐ Pumps, motors and electric panel are mounted on cover/slab directly over wet well

Pump Control System: ☑ Floats ☐ Bubbler System ☐ Ultrasonic & Transducer

Measurement (PPM): MPC 0-5 PSI

Wet Well Field Observations: ☑ Good ☐ PN/A ☐ Hatch Damaged or Difficult to Open ☐ Wet Structure Spalling or Cracked ☐ Evidence of Concrete Corrosion ☐ Wet Well Needs Cleaning - Solids/Grease ☐ Other

Hatch Field Observations: ☑ Good ☐ Fair: Minor Corrosion to Hatches, Hinges, or Latches ☐ Poor:Corroded or Broken Hatches, Hinges, or Latches ☐ Other

Wet Well Ladder Observations: ☐ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other

Wet Well Wall Observations: ☑ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☑ Other Corrosion Protection needs to be reapplied

Slab/Cover Observations: ☑ Good ☐ Fair: Concrete or Aluminum Grate Slightly Corroded But Safe ☐ Poor: Concrete Aggregate Missing/Exposed; Grate Corroded or Warped; Debris Over Platform ☐ Other

LS # 7

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Influent Pipe Observations: ■ Good ☐ Fair: Slight Corrosion; Pipe Intact ☐ Poor: Severe Pipe Corrosion ☐ Other							
Alarm Float Observations: ■ Good ☐ Fair: Some Grease But Operating Properly ☐ Poor: Covered in Grease or Broken ☐ Other							
Pump Vent Line Observations: ☐ Good ☐ Fair: Slight Corrosion But Operates Properly; Needs Sealant Around Opening ☐ Poor: Any One Vent Does Not Operate; Corroded or Broken Off at Wall ☐ Other							
* **Dry Well**		☑					Valve Vault
Location Type: ☐ None ☐ Underground pump vault with access tube and ladder ■ Located below grade inside Lift Station building Lighting: ☐ Yes ■ No Cathodic Protection ■ Not Required ☐ None ☐ Yes							
Access Tube and Ladder Field Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other							
Underground Vault Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion ☐ Poor: Corrosion ☐ Other							
Building Floor Slabs: ☐ N/A ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Staircases/Stairwells: ☐ N/A ☐ Good ☐ Fair: Concrete Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Building Walls: ☐ N/A ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Sump Pump: ☐ No ☐ Yes Type Model: Power (hp): TDH: Serial: Field Observations: ☐ Not Operational ☐ Poor Floor Drainage ☐ Other							
* **Cathodic Protection**	N/A	☐					
Field Observations: ☐ Disconnected ☐ Other							
HVAC (HVA)							
* **Dry Well HVAC**	N/A	☐					
Asset Size: Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Ventilation Duct Work Corroded ☐ Belts Loose or Torn ☐ Louvers ☐ Roof Vents ☐ Other							
* **Wet Well HVAC**	N/A	☐					
Asset Size: Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Belts Loose or Torn ☐ Ventilation Duct Work Corroded ☐ Louvers ☐ Roof Vents ☐ Other							
Electrical Systems (ELE)							
* **Control Panel**		☑					
Asset Size (Volts) 208 VAC ☐ Single phase ■ Three Phase Manufacturer: Hoffman Model: 48x36x12 Serial Number: 500224-K Power Supply Manufacturer: Model: Type: 3R							

LS # 7

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Shop Drawings Available ☐ UL Listed ☐ Uncovered Holes ☐ Surge Protection ☑ Grounded ☐ Wiring Labelled ☐ Panel Labelled ☐ Other

* **Lighting Panel**	N/A	☐					

Asset Size (Volts)

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Bus and.or lugs corroded ☐ Spare Spaces Available ☐ Breakers Labelled ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Main Switch**		☑					

Asset Size (Volts) 208 VAC

Manufacturer: Hoffman Model: Type 3R Serial Number: 500224-K

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☑ Panel Labelled ☐ Other

* **Transfer Switch**		☑					

Asset Size (Volts

Manufacturer: ONAN Model: OTB-3385605 Serial Number:

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☑ Panel Labelled ☐ Other

* **Motor Control Center**	N/A	☐					

Asset Size (Volts)

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Labelled ☐ Other

* **Junction Box**		☑					15 HP

Asset Size (Volts) 208 VAC 30

Manufacturer: Hoffman Model: Type 3R Serial Number: 500224-K

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☑ Panel Grounded ☑ Panel Labelled ☐ Other

* **Miscellaneous Panel 1**	N/A	☐					

Asset Size

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

LS # 7

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Generator (GEN)							
* **Emergency Generator**		☑					Onan Cummings; A000048227
* **Emer. Gen. Connector**		☐					

Asset Size: 65 KW Manufacturer: ONAN Model: FORD Serial: 15911-1-04-98 Generator Type:

Field Observations: ■ Good ☐ N/A ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Engine Fluids Low ☐ Poor Housekeeping ☐ Poor Accessibility ■ Panel Grounded ■ Panel Labelled ☐ Diesel Containment ☐ Other

Instrumentation (INS)	SCADA		SD-4				Radio for Kronenwetter
* **Auto Dialer**		☑	4710				Radio for RMSD

Manufacturer: Model: Phone Number:

Alarms: ☐ High Level ☐ Low Level ☐ Generator Running ☐ Power Fail ☐ Other

* **Float Controls**	back up	☐	2 float				
* **Bubbler Controls**	primary	☐					0-5 PSI

Manufacturer: Mercoid Model:

* **Ultrasonic Controls**		☐					

Field Observations: ☐ Good ☐ N/A ☐ Bubbler Compressor Failing ☐ Air Lines Clogged / Full of Moisture ☐ Drain Condensate Traps in Air System ☐ Floats Tangled ☐ Controls Obsolete ☐ Other

SCADA (SCA)

Field Observations: ■ Good ☐ N/A ☐ Obsolete ☐ Other 1400 Allen Bradley Telemetry SD4 Radio for Kronenwetter; 4710 Radio for RMMSD

Variable Frequency Drive							
* **Control Panel - VFD**		☐					
* **Harmonic Filter**		☐					
* **Output Filter**		☐					

Asset Size: Manufacturer: Model: Observed RPM:

Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Obsolete ☐ Panel Corroded / Dusty / Leaky ☐ Other

Motors (MTR)

* **Motor 1**		☑					

Asset Size (HP) 15

Manufacturer: Shinmaywa Model: Serial Number: 4CNXH411T2E2

Field Observations: ■ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other

* **Motor 2**		☑					

Asset Size (HP): 15 Manufacturer: Shinmaywa Model: Serial Number: 11

Field Observations: ■ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other

LS # 7

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Hor/Vert Centrifugal Pumps							
* **Pump 1**	N/A	☐					

Manufacturer: Model: Serial Number:

Discharge Size (in) Suction Diameter (in) Pump Size (GPM) TDH

Priming Pump ☐ Manufacturer: Model: Serial No.: Size (hp):

Pressure Gauge ☐ Manufacturer: Pressure Range: PressureReading:

Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other

* **Pump 2**	N/A	☐					

Discharge Size (in) Suction Diameter (in) Pump Size (GPM) TDH

Priming Pump ☐ Manufacturer: Model: Serial No.: Size (hp):

Pressure Gauge ☐ Manufacturer: Pressure Range: PressureReading:

Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other

Submersible Pumps (SUB)							
* **Pump 1**		☑					

Manufacturer: Shinmaywa Model: Serial: 11

Discharge Size (in) 8" Suction Diameter (in) Pump Size (GPM) 550 TDH 15 HP

Field Observations: ☒ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other

* **Pump 2**		☑					

Manufacturer: Shinmaywa Model: Serial: 11

Discharge Size (in) 8" Suction Diameter (in) Pump Size (GPM) 550 TDH 15 HP

Field Observations: ☒ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other

Check Valves							
* **Pump 1**		☑					

Size (in): 8" Manufacturer: Model: Serial No:

Field Observations: ☒ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other

* **Pump 2**		☑					

Size (in): 8" Manufacturer: Model: Serial No:

Field Observations: ☒ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Other ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain

LS # 7

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Piping and Valves Suction Isolation Valves							
* **Pump 1**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
Discharge Isolation Valves							
* **Pump 1**		☑					
Size (in): 8	Manufacturer:		Model:		Serial No:		
Field Observations:	■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**		☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						

LS # 8

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Assessment Date: 25 April 2023

Location: 1210 Kronenwetter Dr, Mosinee, WI Municipality: Village of Kronenwetter LS Type: Duplex Submersible

Engineer: Roth Professional Solutions Technical & Equipment Assistance: B&M Technical Services

House Keeping: ■ Good ☐ N/A ☐ Poor Lighting ☐ Tripping Hazards Present ☐ No Fall Protection ☐ Exposure to Raw Wastewater in Dry Well
☐ Sump Pump Inoperable ☐ Electric Space Heater Inoperable ☐ Potential for Shock or Electrocution ☐ Other

Health and Safety Issues:

Other Observations: Influent Lines into Wet Well were Full / Possible Sedimentation; Flow Study Required
#2 Set to Lead Only per Field Setting; Ebara Pump not working, minimal, if any, performance

Asset Class	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Field Observations/Comments
Site Improvement (SIM)					
* **Access Driveway**	X				
* **Parking**	X				
* **Gate and Fencing**	☐				
* **Site Drainage**	X				
* **Grounding System**	X				
* **Site Lighting**	☐				
* **Site Alarm Horn and Strobe Lighting**	X				

General Site Electrical Observations

Access Driveway Details: ■ Gravel or aggregate basecourse only ☐ Concrete Pavement ■ Bituminous Pavement Seal Coat

Parking Details: ☐ None ☐ Gravel ■ Paved

Fence Details: ☐ Chain Link ☐ Other Fencing Height (ft): Fencing Length (ft):

Gate Type: ☐ Single ☐ Double

Traffic: ☐ Other ☐ Site too Close to Traffic Okay

Grounding System Details : ■ Present ☐ Grounding Rings ■ Grounding Rods

If applicable, approximate parking area:

If applicable, approximate site area:

Other Notes:

Deep Valve Vault, some, infiltration; Long Run Times (Likely Explained in above notes); Random Power Fails

4" Gate Valve Operable, but Ticked

LS # 8

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Structure and Wetwell (PST)							
* **Building**		☑					Valve Vault

Building Structures: ☐ None ☒ Concrete Walls ☒ Concrete Floor ☐ Doors Total Floor Area: Plan Floor Area:

Field Observations: ☒ Good ☐ N/A ☐ Roof Degraded ☐ Doors and Security Failing ☐ Needs Paint ☐ Cracks on the Wall ☐ Cracks on the Floor ☒ Other Deep, Some Water on Floor

* **Odor Control**		☑					

Odor Details: ☒ Vent Pipe ☐ Other ☐ Details

Field Observations: ☒ Operational and in use ☐ On site, but not required ☐ Does not operate, needs repair ☐ Other

* **Crane/Hoist**		☑					On Site

Crane Details: Manufacturer: Model: Serial Number:

Field Observations: ☒ Good operating condition ☐ Does not operate, requires repair ☐ Mounting Hardware intact ☐ Other

* **Bar Screen or Com minuter**	N/A	☐					

System Description: ☐ No Bar Screen ☐ Manually Raked Bar Screen ☐ Mechanically Raked Bar Screen ☐ Screen Bypass Provided?

Mechanical Bar Screens: ☐ Manufacturer: Model: Serial Number: Power Requirements (hp):

Odor Details: ☐ N/A ☐ Screens need frequent cleaning ☐ Short repsonse time ☐ Odor fly nuisance ☐ Screens not in use ☐ Other

* **Flow Meter**	N/A	☐					

Type: ☐ N/A Type: Manufacturer: Model: Serial Number:

Flow Meter Field Observations: ☐ Operational ☐ Location ☐ Other

* **Wet Well**		☑					

Walls: ☒ Concrete ☐ Steel ☐ Fiberglass

Slab/Cover: ☒ Reinforced Concrete ☐ Steel ☒ Pumps, motors and electric panel are mounted on cover/slab directly over wet well

Pump Control System: ☒ Floats ☐ Bubbler System ☐ Ultrasonic & Transducer

Measurement (PPM): 0-5 PSI MPC

Wet Well Field Observations: ☒ Good ☐ PN/A ☐ Hatch Damaged or Difficult to Open ☐ Wet Structure Spalling or Cracked ☐ Evidence of Concrete Corrosion ☐ Wet Well Needs Cleaning - Solids/Grease ☐ Other

Hatch Field Observations: ☒ Good ☐ Fair: Minor Corrosion to Hatches, Hinges, or Latches ☐ Poor:Corroded or Broken Hatches, Hinges, or Latches ☐ Other

Wet Well Ladder Observations: ☐ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other

Wet Well Wall Observations: ☒ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other

Slab/Cover Observations: ☐ Good ☒ Fair: Concrete or Aluminum Grate Slightly Corroded But Safe ☐ Poor: Concrete Aggregate Missing/Exposed; Grate Corroded or Warped; Debris Over Platform ☒ Other Not a Concern

LS # 8

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Influent Pipe Observations: ☐ Good ☐ Fair: Slight Corrosion; Pipe Intact ☐ Poor: Severe Pipe Corrosion ■ Other High Level Tailwater							
Alarm Float Observations: ■ Good ☐ Fair: Some Grease But Operating Properly ☐ Poor: Covered in Grease or Broken ☐ Other							
Pump Vent Line Observations: ☐ Good ☐ Fair: Slight Corrosion But Operates Properly; Needs Sealant Around Opening ☐ Poor: Any One Vent Does Not Operate; Corroded or Broken Off at Wall ☐ Other							
* **Dry Well**		☑					Valve Vault
Location Type: ☐ None ☐ Underground pump vault with access tube and ladder ■ Located below grade inside building Lighting: ☐ Yes ■ No Cathodic Protection ■ Not Required ☐ None ☐ Yes							
Access Tube and Ladder Field Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other							
Underground Vault Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion ☐ Poor: Corrosion ☐ Other							
Building Floor Slabs: ☐ N/A ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Staircases/Stairwells: ☐ N/A ☐ Good ☐ Fair: Concrete Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Building Walls: ☐ N/A ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Sump Pump: ☐ No ☐ Yes Type Model: Power (hp): TDH: Serial: Field Observations: ☐ Not Operational ☐ Poor Floor Drainage ☐ Other							
* **Cathodic Protection**	N/A	☐					
Field Observations: ☐ Disconnected ☐ Other							
HVAC (HVA)							
* **Dry Well HVAC**	N/A	☐					
Asset Size: Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Ventilation Duct Work Corroded ☐ Belts Loose or Torn ☐ Louvers ☐ Roof Vents ☐ Other							
* **Wet Well HVAC**	N/A	☐					
Asset Size: Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Belts Loose or Torn ☐ Ventilation Duct Work Corroded ☐ Louvers ☐ Roof Vents ☐ Other							
Electrical Systems (ELE)							
* **Control Panel**		☑					Need Pump Tags & Manuals in Panel

Asset Size (Volts) 208 ☐ Single phase ■ Three Phase

Manufacturer: US Filter Model: FPI Serial Number: 307257

Power Supply Manufacturer: Model: Type:

LS # 8

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Shop Drawings Available ☐ UL Listed ☐ Uncovered Holes ☐ Surge Protection ☐ Grounded ☐ Wiring Labelled ☐ Panel Labelled ☐ Other

* **Lighting Panel**	N/A	☐					

Asset Size (Volts)

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Bus and.or lugs corroded ☐ Spare Spaces Available ☐ Breakers Labelled ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Main Switch**		☑					

Asset Size (Volts) 208 VAC

Manufacturer: GE Model: TEB 1321 Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Transfer Switch**		☑					Manual

Asset Size (Volts Manual Portable Generator 208

Manufacturer: Model: Serial Number:

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ■ Panel Grounded ■ Panel Labelled ☐ Other

* **Motor Control Center**	N/A	☐					

Asset Size (Volts)

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Labelled ■ Other

* **Junction Box**		☑					

Asset Size (Volts) 48x36x12 Mounted, US Filter

Manufacturer: Hoffman Model: Type 3R Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ■ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ■ Panel Grounded ■ Panel Labelled ☐ Other

* **Miscellaneous Panel 1**		☑					Replace Back-up Controllers; 1-2x a yr; 11 STA

Asset Size

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ■ Other Motor Starters replaced 2020

LS # 8

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Generator (GEN)							
* **Emergency Generator**		☐					
* **Emer. Gen. Connector**		☑					Portable Off-Site

Asset Size: Manufacturer: Model: Serial: Generator Type:

Field Observations: ☐ Good ☐ N/A ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Engine Fluids Low ☐ Poor Housekeeping ☐ Poor Accessibility ☐ Panel Grounded ☐ Panel Labelled ☐ Diesel Containment ☐ Other

Instrumentation (INS)							
* **Auto Dialer**		☑					

Manufacturer: SensaPhone Model: 800 Phone Number: 715-693-8244

Alarms: ☒ High Level ☒ Low Level ☐ Generator Running ☐ Power Fail ☒ Other Transducer 0-5 PSI

* **Float Controls**	2 Float	☐	Back up				
* **Bubbler Controls**		☐					

Manufacturer: Model:

* **Submersible Level Controls**		☐					0-5 PSI

Field Observations: ☒ Good ☐ N/A ☐ Bubbler Compressor Failing ☐ Air Lines Clogged / Full of Moisture ☐ Drain Condensate Traps in Air System ☐ Floats Tangled ☐ Controls Obsolete ☐ Other

SCADA (SCA)

Field Observations: ☐ Good ☒ N/A ☐ Obsolete ☐ Other

Variable Frequency Drive							
* **Control Panel - VFD**	N/A	☐					
* **Harmonic Filter**	N/A	☐					
* **Output Filter**	N/A	☐					

Asset Size: Manufacturer: Model: Observed RPM:

Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Obsolete ☐ Panel Corroded / Dusty / Leaky ☐ Other

Motors (MTR)

* **Motor 1**		☑					

Asset Size (HP) 10

Manufacturer: Shinmayway Pumps Model: 4CNX Serial Number:

Field Observations: ☒ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other

* **Motor 2**	N/A	☐					

Asset Size (HP): Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other

LS # 8

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Hor/Vert Centrifugal Pumps							
* **Pump 1**	N/A	☐					

Manufacturer: Model: Serial Number:

Discharge Size (in) Suction Diameter (in) Pump Size (GPM) TDH

Priming Pump ☐ Manufacturer: Model: Serial No.: Size (hp):

Pressure Gauge ☐ Manufacturer: Pressure Range: PressureReading:

Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other

* **Pump 2**	N/A	☐					

Discharge Size (in) Suction Diameter (in) Pump Size (GPM) TDH

Priming Pump ☐ Manufacturer: Model: Serial No.: Size (hp):

Pressure Gauge ☐ Manufacturer: Pressure Range: PressureReading:

Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other

Submersible Pumps (SUB)							
* **Pump 1**		☑					

Manufacturer: EBARRA Model: Serial:

Discharge Size (in) 4" Suction Diameter (in) Pump Size (GPM) 110 TDH 7.5 HP

Field Observations: ☐ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☒ Other Not Performing in Drawndown Test

* **Pump 2**		☑					

Manufacturer: Shinmaywa Model: Serial: 2020

Discharge Size (in) 4" Suction Diameter (in) Pump Size (GPM) TDH 5 HP

Field Observations: ☒ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other

Check Valves							
* **Pump 1**		☑					

Size (in): 4" Manufacturer: Model: Serial No:

Field Observations: ☒ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other

* **Pump 2**		☑					

Size (in): 4" Manufacturer: Model: Serial No:

Field Observations: ☒ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Other ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain

LS # 8

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Piping and Valves Suction Isolation Valves							
* **Pump 1**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
Discharge Isolation Valves							
* **Pump 1**		☑					
Size (in): 4"	Manufacturer:		Model:		Serial No:		
Field Observations:	■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						

LS # 9

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Assessment Date: 25 April 2023

Location: Parcel # 14527071210988, W Road, Mosinee, Municipality: Village of Kronenwetter LS Type: Duplex Submersible

Engineer: Roth Professional Solutions Technical & Equipment Assistance: B&M Technical Services

House Keeping: ☐ Good ☐ N/A ☐ Poor Lighting ☐ Tripping Hazards Present ☐ No Fall Protection ☐ Exposure to Raw Wastewater in Dry Well ☐ Sump Pump Inoperable ☐ Electric Space Heater Inoperable ☐ Potential for Shock or Electrocution ☐ Other

Health and Safety Issues:

Other Observations: 30' D / '03 / Barnes / Ebaro

Asset Class	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Field Observations/Comments
Site Improvement (SIM)					
* **Access Driveway**	X				
* **Parking**	X				
* **Gate and Fencing**	☐				
* **Site Drainage**	X				
* **Grounding System**	X				
* **Site Lighting**	☐				
* **Site Alarm Horn and Strobe Lighting**	X				

General Site Electrical Observations

Access Driveway Details: ☐ Gravel or aggregate basecourse only ☐ Concrete Pavement ■ Bituminous Pavement

Parking Details: ☐ None ☐ Gravel ■ Paved

Fence Details: ☐ Chain Link ☐ Other Fencing Height (ft): Fencing Length (ft):

Gate Type: ☐ Single ☐ Double

Traffic: ☐ Other ☐ Site too Close to Traffic

Grounding System Details : ■ Present ☐ Grounding Rings ■ Grounding Rods

If applicable, approximate parking area:

If applicable, approximate site area:

Other Notes:

MidRail Brackets OK; Valve Vault Elbow Box Floor Drain Plugged 6" Out w/ 4" Valves

Gauge Turned; Valve Vault Electrical Corner Junction Cover Off Seal Conduit Runs

LS # 9

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Structure and Wetwell (PST)							
* **Building**		☑					

Building Structures: ☐ None ☐ Concrete Walls ☐ Concrete Floor ☐ Doors Total Floor Area: Plan Floor Area:

Field Observations: ☐ Good ☐ N/A ☐ Roof Degraded ☐ Doors and Security Failing ☐ Needs Paint ☐ Cracks on the Wall ☐ Cracks on the Floor ☐ Other

* **Odor Control**		☑					

Odor Details: ☐ Vent Pipe ☐ Other ☐ Details

Field Observations: ☐ Operational and in use ☐ On site, but not required ☐ Does not operate, needs repair ☐ Other

* **Crane/Hoist**		☑					Portable Off-Site

Crane Details: Manufacturer: Model: Serial Number:

Field Observations: ☐ Good operating condition ☐ Does not operate, requires repair ☐ Mounting Hardware intact ☐ Other

* **Bar Screen or Com minuter**	N/A	☐					

System Description: ☐ No Bar Screen ☐ Manually Raked Bar Screen ☐ Mechanically Raked Bar Screen ☐ Screen Bypass Provided?

Mechanical Bar Screens: ☐ Manufacturer: Model: Serial Number: Power Requirements (hp):

Odor Details: ☐ N/A ☐ Screens need frequent cleaning ☐ Short repsonse time ☐ Odor fly nuisance ☐ Screens not in use ☐ Other

* **Flow Meter**	N/A	☐					

Type: ☐ N/A Type: Manufacturer: Model: Serial Number:

Flow Meter Field Observations: ☐ Operational ☐ Location ☐ Other

* **Wet Well**		☑					

Walls: ☐ Concrete ☐ Steel ☐ Fiberglass

Slab/Cover: ☐ Reinforced Concrete ☐ Steel ☐ Pumps, motors and electric panel are mounted on cover/slab directly over wet well

Pump Control System: ☐ Floats ☐ Bubbler System ☐ Ultrasonic ☐ Transducer w/Floats

Measurement (PPM): 0-5 PSI

Wet Well Field Observations: ☐ Good ☐ PN/A ☐ Hatch Damaged or Difficult to Open ☐ Wet Structure Spalling or Cracked ☐ Evidence of Concrete Corrosion ☐ Wet Well Needs Cleaning - Solids/Grease ☐ Other

Hatch Field Observations: ☐ Good ☐ Fair: Minor Corrosion to Hatches, Hinges, or Latches ☐ Poor:Corroded or Broken Hatches, Hinges, or Latches ☐ Other Some Spalling

Wet Well Ladder Observations: ☐ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other

Wet Well Wall Observations: ☐ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other

Slab/Cover Observations: ☐ Good ☐ Fair: Concrete or Aluminum Grate Slightly Corroded But Safe ☐ Poor: Concrete Aggregate Missing/Exposed; Grate Corroded or Warped; Debris Over Platform ☐ Other

LS # 9

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Influent Pipe Observations: ■ Good ☐ Fair: Slight Corrosion; Pipe Intact ☐ Poor: Severe Pipe Corrosion ☐ Other							
Alarm Float Observations: ■ Good ☐ Fair: Some Grease But Operating Properly ☐ Poor: Covered in Grease or Broken ☐ Other							
Pump Vent Line Observations: ☐ Good ☐ Fair: Slight Corrosion But Operates Properly; Needs Sealant Around Opening ☐ Poor: Any One Vent Does Not Operate; Corroded or Broken Off at Wall ☐ Other							
* **Dry Well**		☑					Valve Vault
Location Type: ☐ None ☐ Underground pump vault with access tube and ladder ■ Located below grade inside building							
Lighting: ☐ Yes ■ No							
Cathodic Protection ■ Not Required ☐ None ☐ Yes							
Access Tube and Ladder Field Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other							
Underground Vault Observations: ☐ N/A ☐ Good ☐ Fair: Surface Corrosion ☐ Poor: Corrosion ☐ Other							
Building Floor Slabs: ☐ N/A ☐ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Staircases/Stairwells: ☐ N/A ☐ Good ☐ Fair: Concrete Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Building Walls: ☐ N/A ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Sump Pump: ☐ No ☐ Yes Type Model: Power (hp): TDH: Serial:							
Field Observations: ☐ Not Operational ☐ Poor Floor Drainage ☐ Other							
* **Cathodic Protection**	N/A	☐					
Field Observations: ☐ Disconnected ☐ Other							
HVAC (HVA)							
* **Dry Well HVAC**	N/A	☐					
Asset Size:							
Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Ventilation Duct Work Corroded ☐ Belts Loose or Torn ☐ Louvers ☐ Roof Vents ☐ Other							
* **Wet Well HVAC**	N/A	☐					
Asset Size:							
Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Belts Loose or Torn ☐ Ventilation Duct Work Corroded ☐ Louvers ☐ Roof Vents ☐ Other							
Electrical Systems (ELE)							
* **Control Panel**		☑					
Asset Size (Volts) 240 VAC ■ Single phase ☐ Three Phase							
Manufacturer: US Filter Model: Siemens Sentron Serial Number:							
Power Supply Manufacturer: Model: Type:							

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Shop Drawings Available ☐ UL Listed ☐ Uncovered Holes ☐ Surge Protection ■ Grounded ☐ Wiring Labelled ■ Panel Labelled ☐ Other

* **Lighting Panel**	N/A	☐					

Asset Size (Volts)

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Bus and.or lugs corroded ☐ Spare Spaces Available ☐ Breakers Labelled ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Main Switch**		☑					

Asset Size (Volts) 240 VAC 10

Manufacturer: Siemens Model: Sentron Serial Number: N/A

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ■ Panel Grounded ■ Panel Labelled ☐ Other

* **Transfer Switch**		☑					Manual

Asset Size (Volts 240 Manual Gen Rec

Manufacturer: Model: Serial Number:

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Motor Control Center**		☑					

Asset Size (Volts) 36x48x12

Manufacturer: Hoffman Model: FP1 Serial Number: 400019

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Labelled ☐ Other

* **Junction Box**		☑					

Asset Size (Volts) 36x48x12

Manufacturer: Model: Serial Number:

Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Miscellaneous Panel 1**	N/A	☐					

Asset Size

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

LS # 9

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Generator (GEN)							
* **Emergency Generator**		☐					
* **Emer. Gen. Connector**		☑	Portable				

Asset Size: Manufacturer: Model: Serial: Generator Type:

Field Observations: ☒ Good ☐ N/A ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Engine Fluids Low ☐ Poor Housekeeping ☐ Poor Accessibility ☐ Panel Grounded ☐ Panel Labelled ☐ Diesel Containment ☐ Other

Instrumentation (INS)							
* **Auto Dialer**		☑					

Manufacturer: Dialog Elite Model: Antx Phone Number: 715-359-5503

Alarms: ☐ High Level ☐ Low Level ☐ Generator Running ☐ Power Fail ☐ Other

* **Float Controls**	Back Up	☑	2 Floats				
* **Bubbler Controls**		☑					

Manufacturer: Mercoid Model: MPC Junior 0-5 PSI

* **Submersible Level Control**		☑					

Field Observations: ☒ Good ☐ N/A ☐ Bubbler Compressor Failing ☐ Air Lines Clogged / Full of Moisture ☐ Drain Condensate Traps in Air System ☐ Floats Tangled ☐ Controls Obsolete ☐ Other

SCADA (SCA)

Field Observations: ☒ Good ☐ N/A ☐ Obsolete ☐ Other

Variable Frequency Drive							
* **Control Panel - VFD**	N/A	☐					
* **Harmonic Filter**	N/A	☐					
* **Output Filter**	N/A	☐					

Asset Size: Manufacturer: Model: Observed RPM:

Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Obsolete ☐ Panel Corroded / Dusty / Leaky ☐ Other

Motors (MTR)

* **Motor 1**		☑					

Asset Size (HP) 5

Manufacturer: Barnes Model: Sub Serial Number:

Field Observations: ☒ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other

* **Motor 2**		☑					

Asset Size (HP): 5 Manufacturer: EBARA Model: Serial Number:

Field Observations: ☒ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other

LS # 9

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Hor/Vert Centrifugal Pumps							
* **Pump 1**	N/A	☐					
Manufacturer:		Model:		Serial Number:			
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Priming Pump ☐	Manufacturer:		Model:		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
* **Pump 2**	N/A	☐					
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Priming Pump ☐	Manufacturer:		Model:		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
Submersible Pumps (SUB)							
* **Pump 1**		☑					
Manufacturer:		Model:		Serial:			
Discharge Size (in) 6"		Suction Diameter (in)		Pump Size (GPM) 135 +/-		TDH 3-5 HP	
Field Observations: ■ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
* **Pump 2**		☑					
Manufacturer:		Model:		Serial:			
Discharge Size (in) 6"		Suction Diameter (in)		Pump Size (GPM)		TDH	
Field Observations: ■ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
Check Valves							
* **Pump 1**		☑					
Size (in): 4"		Manufacturer:		Model:		Serial No:	
Field Observations: ■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other							
* **Pump 2**		☑					
Size (in): 4"		Manufacturer:		Model:		Serial No:	
Field Observations: ■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Other ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain							

LS # 9

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Piping and Valves Suction Isolation Valves							
* **Pump 1**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
Discharge Isolation Valves							
* **Pump 1**		☑					
Size (in): 4"	Manufacturer:		Model:		Serial No:		
Field Observations:	■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						

LS # 10

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Assessment Date: 25 April 2023

Location: 2371 Mystic Meadow Dr, Mosinee, Wi Municipality: Village of Kronenwetter LS Type: Duplex Submersible

Engineer: Roth Professional Solutions Technical & Equipment Assistance: B&M Technical Services

House Keeping: ■ Good ☐ N/A ☐ Poor Lighting ☐ Tripping Hazards Present ☐ No Fall Protection ☐ Exposure to Raw Wastewater in Dry Well
☐ Sump Pump Inoperable ☐ Electric Space Heater Inoperable ☐ Potential for Shock or Electrocution ☐ Other

Health and Safety Issues:

Other Observations: 2004/2005, Small Rags, Single Phase Barnes 3 HP, 4" Discharge, 4" Valves

Asset Class	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Field Observations/Comments
Site Improvement (SIM)					
* **Access Driveway**	☐				C-D-S
* **Parking**	☐				C-D-S
* **Gate and Fencing**	X				
* **Site Drainage**	☐				Issues Possible
* **Grounding System**	☐				
* **Site Lighting**	X				
* **Site Alarm Horn and Strobe Lighting**	X				

General Site Electrical Observations

Access Driveway Details: ☐ Gravel or aggregate basecourse only ☐ Concrete Pavement ■ Bituminous Pavement

Parking Details: ☐ None ☐ Gravel ■ Paved

Fence Details: ☐ Chain Link ☐ Other Fencing Height (ft): Fencing Length (ft):

Gate Type: ☐ Single ☐ Double

Traffic: ☐ Other ■ Site too Close to Traffic But No Issues Except for Salt Degradation on Concrete

Grounding System Details : ■ Present ☐ Grounding Rings ■ Grounding Rods

If applicable, approximate parking area:

If applicable, approximate site area:

Other Notes:

Valve Vault Infiltration; Slab Concrete Issues, Epoxy Sealer

Cable Organization; Floor Drain in Valve Vault

LS # 10

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Structure and Wetwell (PST)							
* **Building**		☑					Valve Vault

Building Structures: ☐ None ☒ Concrete Walls ☒ Concrete Floor ☐ Doors Total Floor Area: Plan Floor Area:

Field Observations: ☒ Good ☐ N/A ☐ Roof Degraded ☐ Doors and Security Failing ☐ Needs Paint ☐ Cracks on the Wall ☐ Cracks on the Floor ☒ Other Infiltration

* **Odor Control**		☑					

Odor Details: ☒ Vent Pipe ☐ Other ☐ Details

Field Observations: ☒ Operational and in use ☐ On site, but not required ☐ Does not operate, needs repair ☐ Other

* **Crane/Hoist**		☑					Portable Off-Site

Crane Details: Manufacturer: Model: Serial Number:

Field Observations: ☐ Good operating condition ☐ Does not operate, requires repair ☐ Mounting Hardware intact ☐ Other

* **Bar Screen or Com minuter**	N/A	☐					

System Description: ☐ No Bar Screen ☐ Manually Raked Bar Screen ☐ Mechanically Raked Bar Screen ☐ Screen Bypass Provided?

Mechanical Bar Screens: ☐ Manufacturer: Model: Serial Number: Power Requirements (hp):

Odor Details: ☐ N/A ☐ Screens need frequent cleaning ☐ Short repsonse time ☐ Odor fly nuisance ☐ Screens not in use ☐ Other

* **Flow Meter**	N/A	☐					

Type: ☐ N/A Type: Manufacturer: Model: Serial Number:

Flow Meter Field Observations: ☐ Operational ☐ Location ☐ Other

* **Wet Well**		☑					

Walls: ☒ Concrete ☐ Steel ☐ Fiberglass

Slab/Cover: ☒ Reinforced Concrete ☐ Steel ☐ Pumps, motors and electric panel are mounted on cover/slab directly over wet well

Pump Control System: ☒ Floats ☐ Bubbler System ☐ Ultrasonic ☒ Transducer w/Floats

Measurement (PPM): 0-5 PSI MPC

Wet Well Field Observations: ☒ Good ☐ PN/A ☐ Hatch Damaged or Difficult to Open ☐ Wet Structure Spalling or Cracked ☐ Evidence of Concrete Corrosion ☐ Wet Well Needs Cleaning - Solids/Grease ☐ Other

Hatch Field Observations: ☒ Good ☐ Fair: Minor Corrosion to Hatches, Hinges, or Latches ☐ Poor:Corroded or Broken Hatches, Hinges, or Latches ☐ Other

Wet Well Ladder Observations: ☒ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other

Wet Well Wall Observations: ☒ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other

Slab/Cover Observations: ☒ Good ☐ Fair: Concrete or Aluminum Grate Slightly Corroded But Safe ☐ Poor: Concrete Aggregate Missing/Exposed; Grate Corroded or Warped; Debris Over Platform ☐ Other

LS # 10

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Influent Pipe Observations: ■ Good ☐ Fair: Slight Corrosion; Pipe Intact ☐ Poor: Severe Pipe Corrosion ☐ Other							
Alarm Float Observations: ■ Good ☐ Fair: Some Grease But Operating Properly ☐ Poor: Covered in Grease or Broken ☐ Other							
Pump Vent Line Observations: ☐ Good ☐ Fair: Slight Corrosion But Operates Properly; Needs Sealant Around Opening ☐ Poor: Any One Vent Does Not Operate; Corroded or Broken Off at Wall ☐ Other							
* **Dry Well**	N/A	☑					Valve Vault
Location Type: ☐ None ☐ Underground pump vault with access tube and ladder ■ Located below grade inside building							
Lighting: ☐ Yes ■ No							
Cathodic Protection ■ Not Required ☐ None ☐ Yes							
Access Tube and Ladder Field Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other							
Underground Vault Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion ☐ Poor: Corrosion ☐ Other							
Building Floor Slabs: ☐ N/A ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Staircases/Stairwells: ☐ N/A ☐ Good ☐ Fair: Concrete Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Building Walls: ☐ N/A ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Sump Pump: ☐ No ☐ Yes Type Model: Power (hp): TDH: Serial:							
Field Observations: ☐ Not Operational ☐ Poor Floor Drainage ☐ Other							
* **Cathodic Protection**	N/A	☐					
Field Observations: ☐ Disconnected ☐ Other							
HVAC (HVA)							
* **Dry Well HVAC**	N/A	☐					
Asset Size:							
Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Ventilation Duct Work Corroded ☐ Belts Loose or Torn ☐ Louvers ☐ Roof Vents ☐ Other							
* **Wet Well HVAC**	N/A	☐					
Asset Size:							
Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Belts Loose or Torn ☐ Ventilation Duct Work Corroded ☐ Louvers ☐ Roof Vents ☐ Other							
Electrical Systems (ELE)							
* **Control Panel**		☑					
Asset Size (Volts) 240 VAC ■ Single phase ☐ Three Phase							
Manufacturer: Cutler Hammer Model: Serial Number: E192893							
Power Supply Manufacturer: Model: Type:							

LS # 10

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Shop Drawings Available ☐ UL Listed ☐ Uncovered Holes ☐ Surge Protection ☐ Grounded ☐ Wiring Labelled ☐ Panel Labelled ☐ Other

* **Lighting Panel**	N/A	☐					

Asset Size (Volts)

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Bus and.or lugs corroded ☐ Spare Spaces Available ☐ Breakers Labelled ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Main Switch**		☑					

Asset Size (Volts) 240 VAC

Manufacturer: Cutler Hammer Model: Serial Number: E192893

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Transfer Switch**		☑					Manual

Asset Size (Volts 240 VAC Single Phase

Manufacturer: Model: Serial Number: N/A

Field Observations: ☑ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Motor Control Center**	N/A	☑					

Asset Size (Volts) 36x48x12 304SS

Manufacturer: Hoffman Model: 304SS Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Labelled ☐ Other

* **Junction Box**	N/A	☐					

Asset Size (Volts)

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

* **Miscellaneous Panel 1**	N/A	☐					

Asset Size

Manufacturer: Model: Serial Number:

Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other

LS # 10

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Generator (GEN)							
* **Emergency Generator**	N/A	☐					
* **Emer. Gen. Connector**		☑					Portable Off-Site
Asset Size:	Manufacturer:		Model:		Serial:		Generator Type:
Field Observations: ☐ Good ☐ N/A ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Engine Fluids Low ☐ Poor Housekeeping ☐ Poor Accessibility ☐ Panel Grounded ☐ Panel Labelled ☐ Diesel Containment ☐ Other							
Instrumentation (INS)							
* **Auto Dialer**	Sensaphone	☑					
Manufacturer: Sensaphone	Model: 1104		Phone Number: 715-355-1588				
Alarms: ■ High Level ■ Low Level ☐ Generator Running ■ Power Fail ☐ Other							
* **Float Controls**	2F	☑					2 Float Back up
* **Bubbler Controls**		☐					
Manufacturer:	Model:						
* **Submersible**	Level X ducer	☑					0-5 PSI E & H
Field Observations: ☐ Good ☐ N/A ☐ Bubbler Compressor Failing ☐ Air Lines Clogged / Full of Moisture ☐ Drain Condensate Traps in Air System ☐ Floats Tangled ☐ Controls Obsolete ☐ Other							
SCADA (SCA)							
Field Observations: ☐ Good ☐ N/A ☐ Obsolete ☐ Other							
Variable Frequency Drive							
* **Control Panel - VFD**	N/A	☐					
* **Harmonic Filter**	N/A	☐					
* **Output Filter**	N/A	☐					
Asset Size:	Manufacturer:		Model:				Observed RPM:
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Obsolete ☐ Panel Corroded / Dusty / Leaky ☐ Other							
Motors (MTR)							
* **Motor 1**		☑					
Asset Size (HP) 3							
Manufacturer: Barnes	Model: Sub		Serial Number:				
Field Observations: ■ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other							
* **Motor 2**		☑					
Asset Size (HP): 3	Manufacturer: Barnes		Model: Sub				Serial Number:
Field Observations: ■ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ☐ Other							

LS # 10

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Hor/Vert Centrifugal Pumps							
* **Pump 1**	N/A	☐					
Manufacturer:		Model:		Serial Number:			
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Priming Pump ☐	Manufacturer:		Model:		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
* **Pump 2**	N/A	☐					
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Priming Pump ☐	Manufacturer:		Model:		Serial No.:		Size (hp):
Pressure Gauge ☐	Manufacturer:		Pressure Range:		PressureReading:		
Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other							
Submersible Pumps (SUB)							
* **Pump 1**	N/A	☐					
Manufacturer:		Model:		Serial:			
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Field Observations: ☐ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
* **Pump 2**	N/A	☐					
Manufacturer:		Model:		Serial:			
Discharge Size (in)		Suction Diameter (in)		Pump Size (GPM)		TDH	
Field Observations: ☐ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other							
Check Valves							
* **Pump 1**	N/A	☐					
Size (in):		Manufacturer:		Model:		Serial No:	
Field Observations: ☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other							
* **Pump 2**	N/A	☐					
Size (in):		Manufacturer:		Model:		Serial No:	
Field Observations: ☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Other ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain							

LS # 10

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Piping and Valves Suction Isolation Valves							
* **Pump 1**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
Discharge Isolation Valves							
* **Pump 1**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						

LS # 11

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Assessment Date: 25 April 2023

Location: Parcel #:14527072140096, Glade Ct Municipality: Village of Kronenwetter LS Type: Duplex Submersible

Engineer: Roth Professional Solutions Technical & Equipment Assistance: B&M Technical Services

House Keeping: ☒ Good ☐ N/A ☐ Poor Lighting ☐ Tripping Hazards Present ☐ No Fall Protection ☐ Exposure to Raw Wastewater in Dry Well
☐ Sump Pump Inoperable ☐ Electric Space Heater Inoperable ☐ Potential for Shock or Electrocution ☐ Other

Health and Safety Issues:

Other Observations: Rags Issues, PH Conversion

Asset Class	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Field Observations/Comments
Site Improvement (SIM)					
* **Access Driveway**	X				
* **Parking**	X				
* **Gate and Fencing**					
* **Site Drainage**	X				Paved Drainage Okay
* **Grounding System**	x				
* **Site Lighting**					
* **Site Alarm Horn and Strobe Lighting**	X				

General Site Electrical Observations

Access Driveway Details: ☐ Gravel or aggregate basecourse only ☐ Concrete Pavement ☒ Bituminous Pavement

Parking Details: ☐ None ☐ Gravel ☒ Paved

Fence Details: ☐ Chain Link ☐ Other Fencing Height (ft): Fencing Length (ft): N/A

Gate Type: ☐ Single ☐ Double N/A

Traffic: ☐ Other ☐ Site too Close to Traffic N/A

Grounding System Details : ☒ Present ☐ Grounding Rings ☒ Grounding Rods

If applicable, approximate parking area:

If applicable, approximate site area:

Other Notes:

Vortexing From Influent

LS # 11

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Structure and Wetwell (PST)							
* **Building**		☑					Valve Vault

Building Structures: ☐ None ☐ Concrete Walls ☐ Concrete Floor ☐ Doors Total Floor Area: Plan Floor Area:

Field Observations: ☐ Good ☐ N/A ☐ Roof Degraded ☐ Doors and Security Failing ☐ Needs Paint ☐ Cracks on the Wall ☐ Cracks on the Floor ☐ Other

* **Odor Control**		☑					

Odor Details: ☐ Vent Pipe ☐ Other ☐ Details

Field Observations: ☐ Operational and in use ☐ On site, but not required ☐ Does not operate, needs repair ☐ Other

* **Crane/Hoist**		☑					Portable Off-Site

Crane Details: Manufacturer: Model: Serial Number:

Field Observations: ☐ Good operating condition ☐ Does not operate, requires repair ☐ Mounting Hardware intact ☐ Other

* **Bar Screen or Com minuter**	N/A	☐					

System Description: ☐ No Bar Screen ☐ Manually Raked Bar Screen ☐ Mechanically Raked Bar Screen ☐ Screen Bypass Provided?

Mechanical Bar Screens: ☐ Manufacturer: Model: Serial Number: Power Requirements (hp):

Odor Details: ☐ N/A ☐ Screens need frequent cleaning ☐ Short repsonse time ☐ Odor fly nuisance ☐ Screens not in use ☐ Other

* **Flow Meter**	N/A	☐					

Type: ☐ N/A Type: Manufacturer: Model: Serial Number:

Flow Meter Field Observations: ☐ Operational ☐ Location ☐ Other

* **Wet Well**		☑					

Walls: ☐ Concrete ☐ Steel ☐ Fiberglass

Slab/Cover: ☐ Reinforced Concrete ☐ Steel ☐ Pumps, motors and electric panel are mounted on cover/slab directly over wet well

Pump Control System: ☐ Floats ☐ Bubbler System ☐ Ultrasonic ☐ Transducer 0-5 PSI

Measurement (PPM): MPC

Wet Well Field Observations: ☐ Good ☐ PN/A ☐ Hatch Damaged or Difficult to Open ☐ Wet Structure Spalling or Cracked ☐ Evidence of Concrete Corrosion ☐ Wet Well Needs Cleaning - Solids/Grease ☐ Other

Hatch Field Observations: ☐ Good ☐ Fair: Minor Corrosion to Hatches, Hinges, or Latches ☐ Poor:Corroded or Broken Hatches, Hinges, or Latches ☐ Other

Wet Well Ladder Observations: ☐ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other

Wet Well Wall Observations: ☐ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other

Slab/Cover Observations: ☐ Good ☐ Fair: Concrete or Aluminum Grate Slightly Corroded But Safe ☐ Poor: Concrete Aggregate Missing/Exposed; Grate Corroded or Warped; Debris Over Platform ☐ Other

LS # 11

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Influent Pipe Observations: ■ Good ☐ Fair: Slight Corrosion; Pipe Intact ☐ Poor: Severe Pipe Corrosion ■ Other Some Vortexing							
Alarm Float Observations: ■ Good ☐ Fair: Some Grease But Operating Properly ☐ Poor: Covered in Grease or Broken ☐ Other							
Pump Vent Line Observations: ☐ Good ☐ Fair: Slight Corrosion But Operates Properly; Needs Sealant Around Opening ☐ Poor: Any One Vent Does Not Operate; Corroded or Broken Off at Wall ☐ Other							
* **Dry Well**		☑					Valve Vault
Location Type: ☐ None ☐ Underground pump vault with access tube and ladder ■ Located below grade inside building Lighting: ☐ Yes ■ No Cathodic Protection ■ Not Required ☐ None ☐ Yes							
Access Tube and Ladder Field Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion; Steps Intact and Solid; Minor Anchor Bolt Corrosion ☐ Poor: Corroded or Broken Steps; Corroded or Broken Wall Anchors ☐ Other							
Underground Vault Observations: ☐ N/A ■ Good ☐ Fair: Surface Corrosion ☐ Poor: Corrosion ☐ Other							
Building Floor Slabs: ☐ N/A ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Staircases/Stairwells: ☐ N/A ☐ Good ☐ Fair: Concrete Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Building Walls: ☐ N/A ■ Good ☐ Fair: Concrete Sealant Peeled or Cracked; Concrete Soft at Surface ☐ Poor: Exposed/Missing Aggregate; Exposed/Missing Re-bar ☐ Other							
Sump Pump: ☐ No ☐ Yes Type Model: Power (hp): TDH: Serial: Field Observations: ☐ Not Operational ☐ Poor Floor Drainage ☐ Other							
* **Cathodic Protection**	N/A	☐					
Field Observations: ☐ Disconnected ☐ Other							
HVAC (HVA)							
* **Dry Well HVAC**	N/A	☐					
Asset Size: Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Ventilation Duct Work Corroded ☐ Belts Loose or Torn ☐ Louvers ☐ Roof Vents ☐ Other							
* **Wet Well HVAC**	N/A	☐					
Asset Size: Field Observations: ☐ Good ☐ N/A ☐ Old ☐ Ventilation Inoperable ☐ Makes Noise ☐ Fans Vibrate ☐ Belts Loose or Torn ☐ Ventilation Duct Work Corroded ☐ Louvers ☐ Roof Vents ☐ Other							
Electrical Systems (ELE)							
* **Control Panel**		☑					Phase Conversion System
Asset Size (Volts) 240 ■ Single phase ☐ Three Phase Manufacturer: Rockwell Automation Model: VFDs PowerFlex40 Serial Number: Power Supply Manufacturer: Model: Type:							

LS # 11

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Shop Drawings Available ☐ UL Listed ☐ Uncovered Holes ☐ Surge Protection ■ Grounded ☐ Wiring Labelled ■ Panel Labelled ☐ Other							
* **Lighting Panel**	N/A	☐					
Asset Size (Volts) Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Bus and.or lugs corroded ☐ Spare Spaces Available ☐ Breakers Labelled ☐ Panel Grounded ☐ Panel Labelled ☐ Other							
* **Main Switch**	N/A	☐					
Asset Size (Volts) Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other							
* **Transfer Switch**		☑					Generator Manual Transfer
Asset Size (Volts) 240 VAC 90 AMP Single Phase Manufacturer: Model: Serial Number:							
Field Observations: ■ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other							
* **Motor Control Center**	N/A	☐					
Asset Size (Volts) Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Labelled ☐ Other							
* **Junction Box**	N/A	☐					
Asset Size (Volts) Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other							
* **Miscellaneous Panel 1**	N/A	☐					
Asset Size Manufacturer: Model: Serial Number:							
Field Observations: ☐ Good ☐ Panel Corroded ☐ Old / Outdated / Obsolete ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Dust Inside Panel ☐ Exposed Wires ☐ Switch Gear Worn ☐ Lugs Corroded ☐ Panel Grounded ☐ Panel Labelled ☐ Other							

LS # 11

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Generator (GEN)							
* **Emergency Generator**		☐					
* **Emer. Gen. Connector**		☑					Portable Off-Site
Asset Size:	Manufacturer:		Model:		Serial:		Generator Type:
Field Observations: ☐ Good ☐ N/A ☐ Contacts Loose ☐ Cables Fatigued Checked ☐ Engine Fluids Low ☐ Poor Housekeeping ☐ Poor Accessibility ☐ Panel Grounded ☐ Panel Labelled ☐ Diesel Containment ☐ Other							
Instrumentation (INS)							
* **Auto Dialer**		☑					Sensaphone 1104
Manufacturer:		Model:		Phone Number:			
Alarms: ☐ High Level ☐ Low Level ☐ Generator Running ☐ Power Fail ☐ Other							
* **Float Controls**	Back up	☑	2 Float				
* **Bubbler Controls**		☐					
Manufacturer:		Model:					
* **Submersible Level Controls**		☑					SCADAPack Controller 0-5 PSI
Field Observations: ☐ Good ☐ N/A ☐ Bubbler Compressor Failing ☐ Air Lines Clogged / Full of Moisture ☐ Drain Condensate Traps in Air System ☐ Floats Tangled ☐ Controls Obsolete ☐ Other							
SCADA (SCA)							
Field Observations: ☐ Good ■ N/A ☐ Obsolete ☐ Other							
Variable Frequency Drive							
* **Control Panel - VFD**	N/A	☐					
* **Harmonic Filter**	N/A	☐					
* **Output Filter**	N/A	☐					
Asset Size:	Manufacturer:		Model:				Observed RPM:
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Obsolete ☐ Panel Corroded / Dusty / Leaky ☐ Other							
Motors (MTR)							
* **Motor 1**		☑					Sithe Chopper Pumps
Asset Size (HP) 5							
Manufacturer: Barnes		Model:		Serial Number:			
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ■ Other Rags, Other Blockages							
* **Motor 2**		☑					Sithe Chopper Pumps
Asset Size (HP): 5	Manufacturer: Barnes		Model:				Serial Number:
Field Observations: ☐ Good ☐ N/A ☐ Makes Noise ☐ Vibrates ☐ Shaft Bearing Noise ☐ Opposite End Bearing Noise ☐ Overheating ☐ Needs Lubrication ☐ Over Lubricated ☐ Mount Failing ☐ Leaking ☐ Emergency Stop Button in Dry Well Inoperable ■ Other Rags, Other Blockages							

LS # 11

Roth Professional Solutions

LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Hor/Vert Centrifugal Pumps							
* **Pump 1**	N/A	☐					

Manufacturer: Model: Serial Number:

Discharge Size (in) Suction Diameter (in) Pump Size (GPM) TDH

Priming Pump ☐ Manufacturer: Model: Serial No.: Size (hp):

Pressure Gauge ☐ Manufacturer: Pressure Range: PressureReading:

Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other

* **Pump 2**	N/A	☐					

Discharge Size (in) Suction Diameter (in) Pump Size (GPM) TDH

Priming Pump ☐ Manufacturer: Model: Serial No.: Size (hp):

Pressure Gauge ☐ Manufacturer: Pressure Range: PressureReading:

Field Observations: ☐ Good ☐ N/A ☐ Seals Leaking ☐ Vibrating ☐ Shaft Deflection ☐ Cavitating ☐ Belts Loose ☐ Bearing Noise ☐ Mount Failing ☐ Evidence of Pipe Strain ☐ Other

Submersible Pumps (SUB)							
* **Pump 1**		☑					

Manufacturer: Barnes Model: Site Chopper Serial:

Discharge Size (in) 4" Suction Diameter (in) Pump Size (GPM) 100 TDH 5 HP

Field Observations: ☐ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other

* **Pump 2**		☑					

Manufacturer: Barnes Model: Site Chopper Serial:

Discharge Size (in) 4" Suction Diameter (in) Pump Size (GPM) 100 TDH 5 HP

Field Observations: ☐ Good ☐ N/A ☐ Rail System Corroded ☐ Does Not Seat Well ☐ Cables Corroded or Failing ☐ Other

Check Valves							
* **Pump 1**		☑					

Size (in): 4" Manufacturer: Model: Serial No:

Field Observations: ■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other

* **Pump 2**		☑					

Size (in): 4" Manufacturer: Model: Serial No:

Field Observations: ■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Other ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain

LS # 11

Roth Professional Solutions

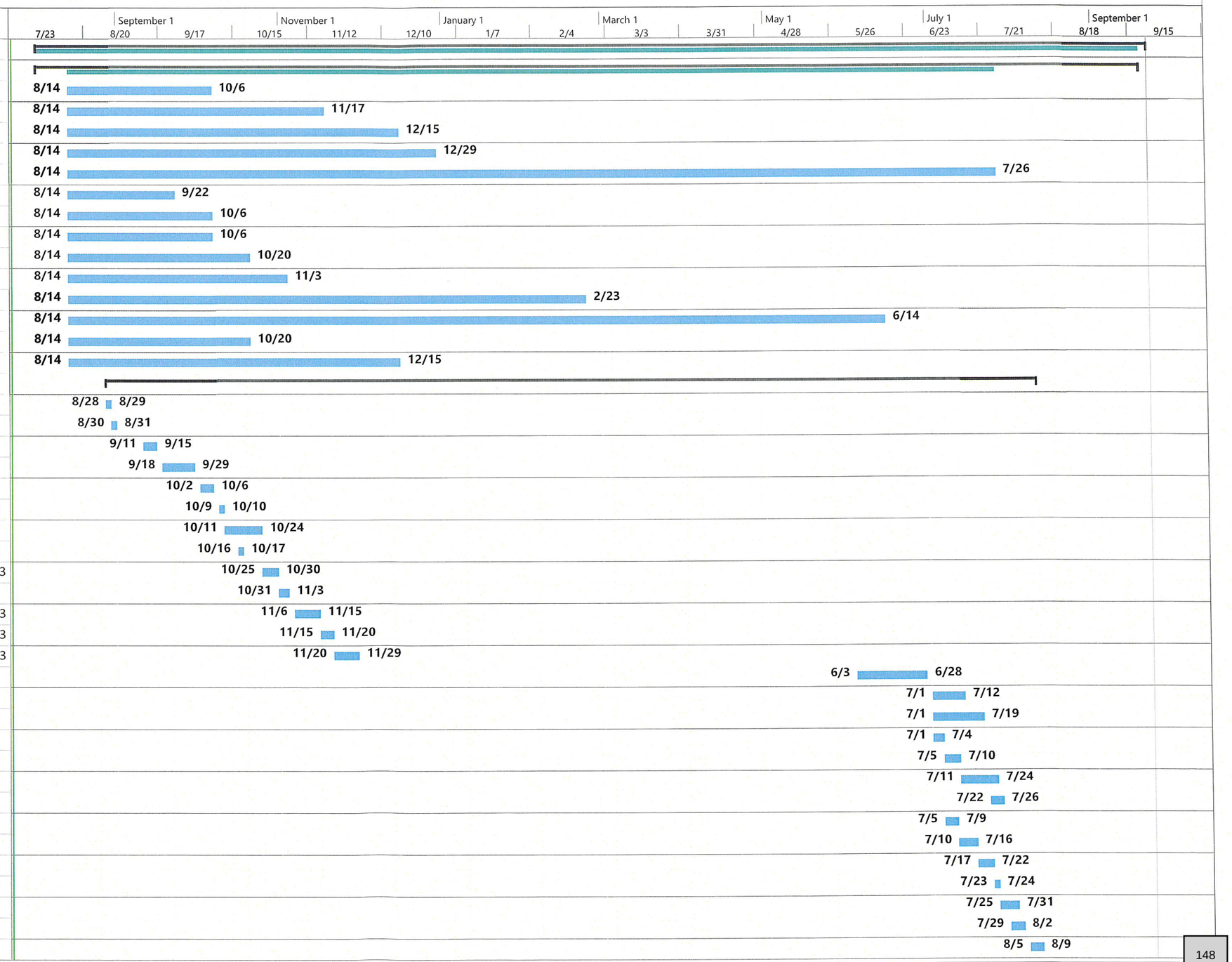
LIFT STATION CONDITION ASSESSMENT FORM

Asset Class	CMMS Code	Asset Present	Year Installed	Cond. Rank	Perf. Rank	Utiliz. (%)	Field Observations/Comments
Piping and Valves Suction Isolation Valves							
* **Pump 1**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
Discharge Isolation Valves							
* **Pump 1**		☑					
Size (in): 4"	Manufacturer:		Model:		Serial No:		
Field Observations:	■ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						
* **Pump 2**	N/A	☐					
Size (in):	Manufacturer:		Model:		Serial No:		
Field Observations:	☐ Good ☐ N/A ☐ Valve Operator Stuck ☐ Valve Seat Leaking ☐ Flanges Leaking ☐ Check Valve Not Seating ☐ Check Valve Not Operating ☐ Evidence of Pipe Strain ☐ Other						

Kronenwetter Well No. 2

Preliminary Overall Schedule: 7/18/23

ID	Task Name	Duration	Start	Finish
1	**Kronenwetter Well No. 2**	**298 days?**	**Wed 8/2/23**	**Sun 9/22/24**
2	**Long Lead Time Items**	**296 days?**	**Wed 8/2/23**	**Wed 9/18/24**
3	Light Fixtures	8 wks	Mon 8/14/23	Fri 10/6/23
4	Control Panels	14 wks	Mon 8/14/23	Fri 11/17/23
5	ATS	18 wks	Mon 8/14/23	Fri 12/15/23
6	Panels, Transformers	20 wks	Mon 8/14/23	Fri 12/29/23
7	Generator	50 wks	Mon 8/14/23	Fri 7/26/24
8	Manholes and Associated Materi	6 wks	Mon 8/14/23	Fri 9/22/23
9	HVAC	8 wks	Mon 8/14/23	Fri 10/6/23
10	Equalization Tanks	8 wks	Mon 8/14/23	Fri 10/6/23
11	Well Pump and Motor	10 wks	Mon 8/14/23	Fri 10/20/23
12	Chemical Equipment	12 wks	Mon 8/14/23	Fri 11/3/23
13	Valves	28 wks	Mon 8/14/23	Fri 2/23/24
14	Filter System Equipment	44 wks	Mon 8/14/23	Fri 6/14/24
15	Door Hardware	10 wks	Mon 8/14/23	Fri 10/20/23
16	FRP Doors and Frames	18 wks	Mon 8/14/23	Fri 12/15/23
17	**Building Construction**	**250 days**	**Mon 8/28/23**	**Fri 8/9/24**
18	Site Stripping/Rough Grading	2 days	Mon 8/28/23	Tue 8/29/23
19	Excavate Foundations	2 days	Wed 8/30/23	Thu 8/31/23
20	Site Utilities	1 wk	Mon 9/11/23	Fri 9/15/23
21	Footings/Foundations	2 wks	Mon 9/18/23	Fri 9/29/23
22	Underground R.I.	5 days	Mon 10/2/23	Fri 10/6/23
23	Backfill Foundations	2 days	Mon 10/9/23	Tue 10/10/23
24	Masonry	2 wks	Wed 10/11/23	Tue 10/24/23
25	Structural Steel	2 days	Mon 10/16/23	Tue 10/17/23
26	Interior Slab on Grade	4 days	Wed 10/25/23	Mon 10/30/23
27	Trusses	4 days	Tue 10/31/23	Fri 11/3/23
28	Roofing/Siding	1.5 wks	Mon 11/6/23	Wed 11/15/23
29	Insulation	3 days	Wed 11/15/23	Mon 11/20/23
30	FRP Panels	1.5 wks	Mon 11/20/23	Wed 11/29/23
31	MEP Rough In/Process Piping	4 wks	Mon 6/3/24	Fri 6/28/24
32	Painting/Coating	2 wks	Mon 7/1/24	Fri 7/12/24
33	MEP Finishes	3 wks	Mon 7/1/24	Fri 7/19/24
34	Knock Out Panel Masonry	4 days	Mon 7/1/24	Thu 7/4/24
35	Doors/Hardware	4 days	Fri 7/5/24	Wed 7/10/24
36	Test & Balance	2 wks	Thu 7/11/24	Wed 7/24/24
37	Misc. Specialties	1 wk	Mon 7/22/24	Fri 7/26/24
38	Rough Grading	3 days	Fri 7/5/24	Tue 7/9/24
39	Concrete Paving	1 wk	Wed 7/10/24	Tue 7/16/24
40	Asphalt Paving	4 days	Wed 7/17/24	Mon 7/22/24
41	Finish Grading	2 days	Tue 7/23/24	Wed 7/24/24
42	Landscaping	5 days	Thu 7/25/24	Wed 7/31/24
43	Generator	1 wk	Mon 7/29/24	Fri 8/2/24
44	Punchlist	1 wk	Mon 8/5/24	Fri 8/9/24



PJ Kortens & Company, Inc.
Phone: (920) 730-9023
Fax: (920) 730 - 8931
1985 W Packard Street
Appleton, WI 54914

Quote No.: 230178
Date: **07/12/2023**

Kronenwetter Water Utility, Village of
1582 Kronenwetter Drive
Kronenwetter, WI 54455 USA

Prepared for: Mark Mackey
Phone: (715) 693-5732

Scada Computer Replacement

Scope:

P.J. Kortens & Co respectfully submits this quotation to replace the SCADA Computer. The following will be provided as part of this quote:

- A new Dell computer with Windows 10 and upgrades of the following software's:
  - -Wonderware SCADA software,
  - - XL reporter software upgrade
  - -Win-911 alarm software. See note below!!
- Grandstream modem
- Installation and startup of SCADA computer

Labor includes upgrading software for the above listed applications

Note: The Win-911 software is currently on support. At this time the Win-911 software upgrade would be covered under this support.

Quantity	Part Number	Description
1	Misc. Materials	Dell computer, monitor, mouse , key board
1	UCM6202 IP	GRANDSTREAM IP PBX 2 FXS PORTS 2 FXO PORTS WIN -911 Modem (Interactive)
1	Misc. Materials	Wonderware software upgrade
1	Misc. Materials	XL Reporter software upgrade
1.00	Labor - Programming	Programming Labor
225	Mileage Expenses	Mileage

Your Price: **$18,650.00**

Total: **$18,650.00**

Prices are firm until 8/9/2023 Terms: Net 15

Prepared by: Mark Hoff, mark.hoff@pjkco.com **Date:** _____

Accepted by: Tom Mackey, Administrator **Date:** 7/12/2023

Disclaimer

Terms and Conditions

1. All prices quoted are valid for 30 days. Please fax signed quote to 920-730-8931or email to info@pjkco.com so that your order can be placed. Any sales tax due will be invoiced in addition to the quoted price.

2. PJKortens & Company, Inc. (hereafter named as "Seller") agrees to perform the deliveries and services as stated in the 'Scope of Work' attached to this agreement.

Unless otherwise specified in Seller's quotation, the Purchaser shall pay the purchase price (including the price of goods and fees for services) in full within thirty (30) days after the services are rendered or the goods are shipped, unless otherwise stated in the proposal. Hardware invoiced FOB shipping from factory, with verification of receipt for assembly or installation.

3. All invoices from the Seller unpaid after the due date shall bear interest at the rate of one and one-half percent per month. The Seller may, at their option, cease to perform services or deliver goods for the Purchaser upon the Purchaser's failure to make timely payment. In the event collection of any amounts due hereunder is referred to an attorney by the Seller, Purchaser shall bear all costs of collection including, but not limited to, Seller's reasonable attorney's fees.

4. Warranty Period: Seller will warrant errors and omissions in the performance of the Scope of Work for twelve (12) months after acceptance of the work. For the purpose of start of the Warranty Period, acceptance of the work shall occur on the earliest of the following events:

(a) The date of first use by the Purchaser or first use for the benefit of the Purchaser, whether such use is partial or complete;

(b) The date of completion of the start-up or commissioning;

(c) Thirty (30) days after the Seller has delivered to the Purchaser the products under contract, or three (3) months after Seller has been caused to stop work for any reason beyond Seller's control.

In the event Purchaser believes Seller owes a warranty obligation applicable to the Scope of Work, or has otherwise failed to comply with any other contract obligation, it must notify Seller in writing within 20 days of its discovery of such obligation and in no event later than 90 days after completion of the applicable services or deliverables. If Seller owes a warranty obligation, it will promptly commence to remedy and cure such default upon receipt of such notice from Purchaser at Seller's own cost and expense or, at Seller's option, will refund to Purchaser the portion of the compensation paid for any defective services or deliverables. Such performance by Seller is Purchaser's sole and exclusive remedy in the event of a warranty obligation of Seller or any other failure of Seller to comply with its contract obligations. SELLER MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ANY OTHER WARRANTIES (INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY, TITLE/AGAINST INFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE) ARE EXPRESSLY DISCLAIMED BY SELLER TO THE FULLEST EXTENT PERMITTED BY LAW. All parts or products not manufactured by Seller will be covered only by the express warranty provided by the manufacturer. No warranty applies to the extent of damage or wear caused by misuse, normal wear and tear, negligence, accident, corrosion, modification by Purchaser, faulty installation, loss of product, or tampering in a manner to impair normal operation of the equipment.

5. With respect to products supplied by Seller that are covered by a manufacturer's warranty, Seller's sole responsibility shall be to replace, or at Seller's option repair, any equipment or parts thereof which are found to be defective in material or workmanship to the extent Seller is able to obtain such repair or replacement parts from the manufacturer. Seller shall provide such replacement parts FOB at manufacture's shipping point, in keeping with the manufacturer's warranty policy, and Seller is not responsible for the cost of labor or expenses associated with the replacement or repair of any such parts. Under no circumstances will Seller extend or modify a manufacturer's warranty terms and/or conditions, or accept responsibility for consequential or speculative damages as a result of the products or services supplied by this agreement.

6. Intellectual Property: Seller retains all rights, title and interest in its services and deliverables, including patents and copyrights; however, upon payment of the agreed compensation to Seller, Purchaser will be deemed to have been granted a non-exclusive, non-transferable, royalty-free, perpetual license to use the services and deliverables for the purposes contemplated in the proposal, except that third-party "shrink-wrapped" software or "off-the-shelf" hardware provided through Seller will be subject to Purchaser's compliance, at its own costs, with all applicable manufacturer licensing requirements. Purchaser may not sell, sublicense, assign or transfer its license to the services and deliverables provided by Seller without the prior written consent of Seller, nor may Purchaser reverse engineer or make derivative works from the services or deliverables.

7. If Purchaser is the "end user" of the work, subject to the other terms and conditions set forth herein the Seller grants to Purchaser a non-transferable, non-exclusive, license to use the software for Purchaser's internal purpose only. The Purchaser shall not sell, license, disclose, give away, assign or transfer the software or any interest therein to anyone. The Purchaser, however, may engage other persons or firms to modify or add to the Systems Integrator's Software, in which case such other persons or firms may modify or add to the software for no purpose other than for Purchaser's internal benefit and, shall first execute and deliver to the Seller a confidentiality agreement indicating they shall not otherwise use, disclose, give away or transfer any interest in the software to anyone. If the Purchaser makes additions or modifications to the Software, Purchaser will own such additions and modifications, including all intellectual property rights in the additions and modifications.

8. Purchaser agrees that it will not, either while work is being performed by Seller pursuant to these terms and conditions, or within two (2) years thereafter; (a) hire any employee of Seller: (b) solicit or encourage any employee to leave the employ of Seller; or (c) hire any person who has left the employ of Seller within two (2) years after the termination of such person's employment with Seller. Seller offers the option to hire any current or previous Seller's employee from the date of this contract up to 24 months after the project or assignment is complete for a fee of 50% of that staff member's total pay, wages, and/or salary with Purchaser (however described by Purchaser) for a period of (5) five years, per employee, which fee the parties agree to as liquidated damages and as a reasonable estimate of the economic harm Seller will suffer from the loss of its employees. This fee represents the cost of replacement of the Seller employee. In addition, Purchaser shall give Seller fifteen (15) business days prior written notice of intent to hire any Seller employee.

9. Limit of Liability: In no event shall Seller be liable for more than the cost of the products sold contract or services provided. In no event shall Seller be liable for any damages resulting from loss of data, loss of profits, cost of cover or other special, incidental, consequential or indirect damages arising in any way out of the agreement.

?

10. Termination: If Purchaser fails to comply with its obligations under the proposal or these Terms and Conditions (including without limitation the full and timely payment to Seller), Seller may provide written notice of such default to Purchaser and may thereafter suspend further performance until such default is cured by Purchaser. When such default is cured by Purchaser, the amount to be paid for the Scope of Work will be equitably increased to account for Seller's damages arising from such suspension (including without limitation demobilization and remobilization expenses and increased costs of performance) and Seller the time for Seller to complete the Scope of Work will be equitably extended to account for such suspension. If Purchaser fails to cure such default within 30 days of its receipt of such notice from Seller, Seller may terminate its agreement with Purchaser by providing written notice to Purchaser and in such an event, Purchaser will pay Seller for all portions of the Scope of Work performed (in whole or in part) through the date of such termination, Seller's demobilization expenses and other reasonable termination costs, the amount of expected overhead and profit Seller would have earned on the cancelled portions of the Scope of Work if not for Purchaser's default, and any collection costs incurred by Seller in obtaining payment for its services and deliverables from Purchaser.
11. Safety items may exist that are not identified or corrected. It is the Purchaser's responsibility to do a thorough safety assessment of their facilities.
12. During the course of the project, either Purchaser or Seller may request changes to the Scope of the Work. Such changes will be effective if the other party agrees to the change in writing. If the agreed change results in greater or lesser cost, Seller's compensation for the work will be adjusted accordingly.
13. Purchaser acknowledges that the services and deliverables may be subject to export and use restrictions under applicable law, include Export Administration Regulations maintained by the United States Department of Commerce. Purchaser agrees to comply with all such requirements and to hold Seller harmless from any violations of such requirements.
14. In the event that performance of the services and/or delivery to Purchaser of the deliverables is delayed by circumstances beyond the reasonable control of Seller (including without limitation changes to the scope of work, delays by Purchaser in providing information to Seller, fire, natural disasters, civil disturbances, acts of governmental authorities, labor disputes, unavailability of materials or shipping delays), Seller will promptly notify Purchaser of such circumstances in writing and Seller will be granted an equitable extension of the time to meet its obligations under the agreement.
15. Seller is an independent contractor and will have sole charge over, and be solely responsible for, (a) the payment of its employees and subcontractors and (b) the means, methods, techniques and sequences used in the performance of the services and the creation of its deliverables. Both Seller and Purchaser assume that the industrial exemption applies to all services under this agreement, and Purchaser acknowledges that individuals not licensed as professional engineers may execute some or all of the services and create some or all of the deliverables.
16. In the event Seller and Purchaser cannot resolve any claim or dispute between them arising out of or related to the proposal or the scope of work through direct negotiations, such dispute shall be subject to arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association. Such arbitration proceedings will be held in Wisconsin before a single arbitrator with experience in resolving disputes arising from information technology services. The prevailing party (as determined by the arbitrator) will be entitled to recover from the other party all costs incurred in resolving the dispute, including reasonable attorneys' and expert fees and the costs of arbitration. The arbitrator's award shall be final and may be entered as a judgment in any court with jurisdiction.
17. The agreement and these Terms and Conditions will be governed by the laws of Wisconsin and of the United States of America (including the Federal Arbitration Act, 9 U.S.C. § 1, et seq. with respect to the parties' agreement to arbitrate any dispute arising out of or related to the proposal or the scope of work), without regard to rules governing choice or conflict of laws. Purchaser and Seller agree that the agreement is predominately for the performance of services, not for the sale of goods, and further agree that the United Nations Convention on Contracts for the International Sale of Goods will not apply to their agreement.
18. Neither Purchaser nor Seller may assign its respective rights and obligations under their agreement without the written consent of the other party. However, Seller may subcontract or delegate its work obligations to other persons or entities, but will nonetheless be responsible to Purchaser for the performance of the work as required by the proposal. Both Purchaser and Seller agree that there are no third-party beneficiaries to their agreement.
19. If any term of the agreement or these Terms and Conditions is found to be unenforceable, the remaining terms will remain in effect. The failure of either Seller or Purchaser to exercise any rights under their agreement will not be deemed a waiver of such right except as agreed in writing or as otherwise set forth in these Terms and Conditions.
20. These Terms and Conditions, along with the attached Services Agreement and Scope of Work, constitute the entire integrated agreement between Seller and Purchaser for the services, deliverables and project. These terms supersede all previous and contemporaneous agreements, proposals and representations, written or oral, concerning such matters. Any additional, conflicting or inconsistent Purchaser terms (whether set forth in a request for proposals, purchase order or acknowledgement or in any other document) are expressly rejected by Seller and are not a part of this agreement.

UTILITY COMMITTEE MEETING MINUTES

July 06, 2023 at 5:45 PM

Kronenwetter Municipal Center - 1582 Kronenwetter Drive Board Room (Lower Level)

1. CALL MEETING TO ORDER @ 5:45pm

A. Pledge of Allegiance

B. Roll Call PRESENT
Craig Mortensen
Vice-Chair Jim Buck
Sean Dumais
Chair Alex Vedvik-Appeared via phone then in person @ 7PM

2. PUBLIC COMMENT

No public comment.

3. APPROVAL OF MINUTES

C. Discussion and Approval: 2023 05 02 UC Minutes
Approved with Modification - Motion made by Mortensen, Seconded by Vice-Chair Buck. Voting Yea: Mortensen, Vice-Chair Buck, Dumais, Chair Vedvik

D. Discussion and Approval: 2023 06 06 UC Minutes
Approved with Modifications - Motion made by Mortensen, Seconded by Vice-Chair Buck. Voting Yea: Mortensen, Vice-Chair Buck, Dumais, Chair Vedvik

4. REPORTS AND DISCUSSIONS

E. Treasurer's Report-
Presented by Lisa Kerstner

5. OLD BUSINESS

F. Discussion: Lift Station Update
Lift Station Update given by Pete Wegner. Staff met with Robert Roth on information needed to complete the study. Robert Roth will be in person at the Aug 1 UC meeting.

G. Discussion: Update on Water/Sewer Rate Study
Presented by Lisa Kerstner. Brian from Ehlers on the phone to give an overview of Phase 1 and will present the Phase 1 analysis at the Aug 1st UC meeting.

H. Discussion: Update on Water Filtration
Update presented by Ken Ligman of Becher and Hoppe in person.

I. Discussion: Update Safe Drinking Water Loan Program
Given by Ken Ligman Becher Hoppe. Village needs to decide what the final loan amount will be. Joint meeting with UC, APC and VB, with a possible date of July 24, 2023.

J. Discussion & Possible Approval: Short-Term Financing for Water Filtration Project
Given by Lisa Kerstner. Also, Brian from Ehlers via phone.

6. NEW BUSINESS

K. Discussion and Action: Recommendation to Appoint Two Members of Utility Committee to the Ad Hoc Committee Regarding Committee Structure
Craig Mortensen volunteered. Sean Dumais and Alex Vedvik also volunteered; one will be the alternate. Motion made by Mortensen, Seconded by Vice-Chair Buck. Voting Yea: Mortensen, Vice-Chair Buck, Dumais, Chair Vedvik

7. CONSIDERATION OF ITEMS FOR FUTURE AGENDA

-Safe Drinking Water Loan Program
-Short-Term Financing.

8. NEXT MEETING: August 01, 2023

9. ADJOURNMENT

At 7:17pm, Motion made by Chair Vedvik, Seconded by Dumais.
Voting Yea: Mortensen, Vice-Chair Buck, Dumais, Chair Vedvik