Northport/Leelanau Township Utilities Authority (NLTUA)

Wastewater Financial Projection Study

October 23, 2023

UTILITY FINANCIAL SOLUTIONS, LLC

Submitted Respectfully by:

Dawn Lund, Vice President
Utility Financial Solutions, LLC
dlund@ufsweb.com
(231) 218-9664

October 23, 2023

Northport/Leelanau Township Utilities Authority
116 W Nagonaba St
Northport MI 49670

Dear Board Members,

We are pleased to present this executive summary report for a long-term financial projection in the Wastewater Department completed for the Northport/Leelanau Township Utilities Authority (NLTUA). This report was prepared to provide the utility with a comprehensive examination of its existing financials by an outside party.

The specific purposes of this long-term financial projection study are:

1) Determine the Wastewater utility's revenue requirements for fiscal year 2025.
2) Project rate adjustments needed to meet or work toward targeted revenue requirements 2026-2032.

This report includes results of the long-term financial projection. The projection was based on the best information known today. Inflation and capital costs are increasing at unprecedented rates and the projection should be updated every year with the budget process to ensure the findings in this report are on track.

This report is intended for information and use by management and the Board of Directors for purposes stated above and is not intended to be used by anyone except the specified parties.

Sincerely,

Dawn Lund

Utility Financial Solutions, LLC
Dawn Lund, Vice-President
dlund@ufsweb.com
231-218-9664

UTILITY FINANCIAL SOLUTIONS, LLC

Table of Contents

Executive Summary	Page
Introduction	1
Utility Revenue Requirements	2
Projected Cash Flow	3
Development of Financial Targets	4 – 6
Proposed Rate Track	7 – 9
Significant Assumptions	10
Proposed Rate Design and Impacts	11

UTILITY FINANCIAL SOLUTIONS, LLC

NLTUA Wastewater Report

INTRODUCTION

This report was prepared to provide NLTUA wastewater utility with a long-term financial projection and rate track. The specific purposes of the financial plan are identified below:

1. ***Determine the Wastewater Utility's revenue requirements for fiscal year 2025 and projected 2026-2032***. The Wastewater Utility's revenue requirements were projected for the period from FY 2025 – 2032 and included adjustments for the following:
    a. Anticipated operating cost changes.
    b. Capital improvements currently underway and scheduled over the next eight years. The capital improvement plan was provided by Jacobs through the NLTUA.
2. ***Proposed rate adjustments needed to meet targeted revenue requirements.*** The primary purpose of this study is to identify appropriate revenue requirements and the rate adjustments needed to help meet or work toward targeted revenue requirements. This report includes a long-term rate track for NLTUA to help ensure the financial stability of the utility in future years.

3. ***Ability to meet key financial targets.*** Projected rate tracks are based on the utilities ability to meet or work toward three key financial targets listed below:
    a. Debt Coverage Ratio
    a. Minimum Cash Reserves
    b. Operating Income

NLTUA retained Utility Financial Solutions, LLC to review the above items and make suggestions on the appropriate course of action. This report includes the results of the long-term financial projection.

UTILITY REVENUE REQUIREMENTS

Revenue requirements for NLTUA were projected for FY 2025 based on FY 2023 actual expenses and Budget 2024. Revenues and expenses were analyzed with adjustments made to actual expenses to reflect projected operating characteristics. The table below summarizes the significant assumptions used in the projection:

	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032
Inflation Rate	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Investment Income	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Sewer Inflation Increases	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%

Table Two below is a summary of the financial projection for the period FY 2025-2032 without future rate adjustments. The projected adjusted operating income in 2025 is $97,024 and turns to a loss of ($66,058) in 2032. Projected cash balances drop throughout the period and go negative starting in 2025. The debt coverage ratio decreases throughout the projection period.

Table Two– Projected Financial Summary – (without Rate Adjustments)

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Loans	Debt Coverage Ratio
2024	45.5%	627,631	509,824	117,807	48,897	326,990	190,000	5.08
2025	0.0%	627,631	530,607	97,024	(19,858)	122,097	-	1.68
2026	0.0%	627,631	549,153	78,478	(133,740)	152,597	-	1.49
2027	0.0%	627,631	568,858	58,773	(280,924)	171,097	-	1.30
2028	0.0%	627,631	590,705	36,926	(537,838)	265,597	-	1.11
2029	0.0%	627,631	615,506	12,125	(803,240)	336,954	-	N/A
2030	0.0%	627,631	640,344	(12,713)	(985,839)	238,023	-	N/A
2031	0.0%	627,631	663,997	(36,367)	(1,174,894)	227,886	-	N/A
2032	0.0%	627,631	693,689	(66,058)	(1,757,922)	604,783	-	N/A
Targeted Minimum in 2025				**$ 24,219**				
Targeted Minimum in 2032				**$ 88,121**				
MINIMUM/CRITICAL Reserves 2025					**$ 379,969**			**1.45**
MINIMUM/CRITICAL Reserves 2033					**$ 436,709**			**1.45**

1. The capital improvement plan was provided by Jacobs through the NLTUA.
2. Financial projections should be updated during the budgeting process each year as expenses and capital expenditures change from projections.

PROJECTED CASH FLOW

Table Three is the projected cash flow for 2025-2032, including projections of capital improvements as provided by the Utility. Changes in the capital improvement plan can greatly affect the cash balance and minimum cash reserve target. Cash balances fall below targeted minimums throughout the projection period with the current capital improvement program.

Table Three – Projected Cash Flows (Without Rate Adjustments)

	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032
Add Net Income	$ 91,287	$ 73,948	$ 55,723	$ 35,386	$ 12,125	$ (12,713)	$ (36,367)	$ (66,058)
Add Back Depreciation Expense	34,614	38,776	43,680	50,297	59,426	68,138	75,197	87,814
Subtract Debt Principal	72,559	74,010	75,490	77,000	-	-	-	-
Contingency for Debt	-	-	-	-	-	-	-	-
Additional Loan from Village	-	-	-	-	-	-	-	-
135,000 Loan from Village								
Cash Available from Operations	**$ 53,342**	**$ 38,714**	**$ 23,913**	**$ 8,683**	**$ 71,551**	**$ 55,425**	**$ 38,831**	**$ 21,756**
Estimated Annual Capital Additions	122,097	152,597	171,097	265,597	336,954	238,023	227,886	604,783
Net Cash From Operations	**$ (68,754)**	**$ (113,883)**	**$ (147,184)**	**$ (256,914)**	**$ (265,403)**	**$ (182,598)**	**$ (189,055)**	**$ (583,027)**
Beginning Cash Balance	48,897	(19,858)	(133,740)	(280,924)	(537,838)	(803,240)	(985,839)	(1,174,894)
Ending Cash Balance	**(19,858)**	**(133,740)**	**(280,924)**	**(537,838)**	**(803,240)**	**(985,839)**	**(1,174,894)**	**(1,757,922)**
Total Cash Available	**$ (19,858)**	**$ (133,740)**	**$ (280,924)**	**$ (537,838)**	**$ (803,240)**	**$ (985,839)**	**$ (1,174,894)**	**$ (1,757,922)**
Targeted Minimum	**$ 379,969**	**$ 398,322**	**$ 488,591**	**$ 414,580**	**$ 419,877**	**$ 424,241**	**$ 428,561**	**$ 436,709**

DEVELOPMENT OF FINANCIAL TARGETS

When evaluating rates to charge customers, three key factors must be considered:

1. Debt Coverage Ratio
2. Minimum Cash Reserves
3. Operating Income

Each of these factors is discussed below:

1) Debt Coverage Ratio - Debt coverage ratios are mandated by covenants established in the bond ordinance and must be maintained to ensure the utility maintains its bond rating and has the capacity to issue revenue bonds. Typical revenue bond coverage ratios require that cash generated from operations exceed 1.25 times the debt. Due to fluctuations in sales, mainly the result of weather or the economy, a safety factor should help ensure coverage ratios requirements are met during low sales years. We have established a target of 1.45 for financial projection purposes. This becomes the minimum target and rates should be established to meet or work toward the debt coverage target.

Table Four below contains projected debt coverage ratios from 2025-2032.

Table Four - Current Debt Coverage Ratio – (without Rate Adjustments)

Debt Coverage Ratio	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032
Add Net Income	$ 91,287	$ 73,948	$ 55,723	$ 35,386	$ 12,125	$ (12,713)	$ (36,367)	$ (66,058)
Add Depreciation Expense	34,614	38,776	43,680	50,297	59,426	68,138	75,197	87,814
Add Interest Expense	5,981	4,530	3,050	1,540	-	-	-	-
Cash Available for Debt Service	$ 131,882	$ 117,254	$ 102,453	$ 87,223	$ 71,551	$ 55,425	$ 38,831	$ 21,756
Debt Principal and Interest	$ 78,540	$ 78,540	$ 78,540	$ 78,540	$ -	$ -	$ -	$ -
Projected Debt Coverage Ratio	1.68	1.49	1.30	1.11	N/A	N/A	N/A	N/A
Minimum Debt Coverage Ratio	**1.45**	**1.45**	**1.45**	**1.45**	**1.45**	**1.45**	**1.45**	**1.45**

Debt Ratios meet the targeted 1.45 minimum throughout the projection period.

2) **Minimum Cash Reserve Target** - To help ensure timely completion of capital improvements and enable the utility to meet requirements for large unexpected expenditures, a minimum cash reserve policy should be established. Minimum cash reserve attempts to quantify the minimum amount of cash the utility should keep in reserve; actual cash reserves may vary substantially above the minimum and is dependent on the life cycle of assets that are currently in service. The methodology used in this report is based on certain assumptions related to percent of operation and maintenance, rate base, capital improvements, and debt service. The establishment of minimum cash reserves should consider a number factors including:

- **Working Capital Lag** - Timing differences between when expenses are incurred, and revenues received from customers. Establishing a minimum cash reserve helps to ensure cash exists to pay expenses in a timely manner.
- **Investment in assets** – Catastrophic events may occur that require substantial amounts of cash reserves to replace damaged assets. Some examples of catastrophic events include collection or interceptor breaks, floods, heavy rains, equipment failure. Many of these catastrophic events may allow the utility to recover the cost of damages from FEMA; however, FEMA reimbursements can take between 6 months to 2 years to recover. The utility should ensure adequate cash reserves exist to replace the assets in a timely fashion. The minimum reserve levels are often combined with emergency funding from banks or bonding agencies.
- **Annual debt service** – Debt service payments do not occur evenly throughout the year and often occurs at periodic times typically every six months. The utility should ensure adequate cash reserves exist to fund the debt service payment when the payment is due.
- **Capital improvement program** – Some capital improvements are funded through bond issuances and some through cash reserves. The establishment of a minimum cash reserve level helps to ensure timely replacement or construction of assets.

The minimum targeted cash reserve is approximately $425,000. For 2025, the projected cash reserve is $48,897 and decreases to ($1.7) million in 2032 without rate adjustments. Table Five below provides the minimum cash reserve calculation.

Table Five – Minimum Cash Reserves – 2025-2032 (without Rate Adjustments)

	Percent Allocated	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032
Operation & Maintenance Less Depreciation Expense	12.3%	$ 59,288	$ 61,007	$ 62,776	$ 64,597	$ 66,470	$ 68,398	$ 70,381	$ 72,422	$ 74,523
Historical Rate Base	1%	6,347	7,568	9,094	10,805	13,461	16,831	19,211	21,490	27,538
Current Portion of Debt Service Reserve	100%	78,540	78,540	78,540	78,540	-	-	-	-	-
Five Year Capital Improvements - Net of bond proceeds	20%	209,668	232,853	247,911	334,648	334,648	334,648	334,648	334,648	334,648
Targeted Minimum Cash Reserve Levels		**$ 353,843**	**$ 379,969**	**$ 398,322**	**$ 488,591**	**$ 414,580**	**$ 419,877**	**$ 424,241**	**$ 428,561**	**$ 436,709**
Projected Cash Reserves		**$ 48,897**	**$ (19,858)**	**$ (133,740)**	**$ (280,924)**	**$ (537,838)**	**$ (803,240)**	**$ (985,839)**	**$(1,174,894)**	**$(1,757,922)**
Recommended Days Cash on Hand		**253**	**261**	**265**	**313**	**256**	**249**	**242**	**236**	**230**

Notes:

1. Operation and maintenance expenses exclude depreciation expense.
2. Rate base is historical investment in plant and equipment.
3. Five-year capital is budgeted capital improvements for the next five years and excludes capital improvements funded through debt issuances.

3) **Optimal operating income targets** - The optimal target for setting rates is the establishment of a target operating income to help ensure the following:

1. Funding of Interest Expense on the outstanding principal on debt. Interest expense is below the operating income line and needs to be recouped through the operating income balance.
2. Funding of the inflationary increase on the assets invested in the system. The inflation on the replacement of assets invested in the utility should be recouped through the Operating Income
3. Adequate rate of return on investment to help ensure current customers are paying their fair share of the use of the infrastructure and not deferring the charge to future generations.

As improvements are made to the system, the optimal operating income target will increase unless annual depreciation expense is greater than yearly capital improvements. For NLTUA, the critical financial target is the cash balance. The operating income target was used only as a tool for analysis. Once the system is more financially cash stable, the operating income target can be better analyzed and used as a guide for setting rates.

Table Six - Optimal Operating Income Targets Compared to Projected

	Percent Allocated	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032
Inflationary Increase on Invested Assets	4.2%	20,312	24,219	29,102	34,577	43,076	53,859	61,475	68,768	88,121
Target Operating Income		$ 20,312	$ 24,219	$ 29,102	$ 34,577	$ 43,076	$ 53,859	$ 61,475	$ 68,768	$ 88,121
Projected Adjusted Operating Income		$ 117,807	$ 97,024	$ 78,478	$ 58,773	$ 36,926	$ 12,125	$ (12,713)	$ (36,367)	$ (66,058)
Rate of Return in %		4.2%	4.2%	4.2%	4.3%	4.2%	4.1%	4.2%	4.2%	4.1%

PROPOSED RATE TRACK

Increasing rates requires balancing the financial health of the utility with the financial impact on customers. The rate track was developed to work toward healthy financial targets. Cash will need to be monitored as the capital improvement program materializes to confirm the rate track. The rate track should be reviewed with the budget process as changes in revenues, expenses and capital can greatly impact the projection.

Three scenarios were evaluated as part of the financial projection review. The scenarios provide base cases, and it is assumed the system will implement inflationary increases as costs change. In addition, the rate track can be changed to help work toward the Board's desired cash target. The current debt for the system will be paid off in 2028, which leaves a financial opportunity for the Board to consider. The equivalent debt payment could still be collected for operating and maintenance revenue since the system is facing critical infrastructure needs as well as a possible plant rehab of $1.6 million in 2038.

The three scenarios considered are as follows:

1. **Scenario One** captures the Capital Plan as provided by NLTUA; a loan from the Village of $190,00; 8% rate increases 2025-2028; and 100% debt continuation for both the Village and the Township ($85) as an O&M charge.
2. **Scenario Two** the Capital Plan reduced to $50,000 per year ($600,000 of $2.5 million will be accomplished by 2032); no loan from the Village; no rate increases; no debt continuation from either the Village or the Township as an O&M charge.
3. **Scenario Three** the Capital Plan reduced to $50,000 through 2028 and $250,000 thereafter ($1.4 of $2.5 million will be accomplished by 2032); no loan from the Village; no rate increases; 100% debt continuation for both the Village and the Township ($85) as an O&M charge.

Table Seven A (Scenario One) - Projected Financial Summary 2025-2032 (with Rate Adjustments)

This scenario captures the Capital Plan as provided by NLTUA; a loan from the Village of $190,00; 8% rate increases 2025-2028; and 100% debt continuation for both the Village and the Township ($85) as an O&M charge.

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Loans	Debt Coverage Ratio
2024	45.5%	627,631	509,824	117,807	48,897	326,990	190,000	5.08
2025	8.0%	677,684	530,607	147,077	30,195	122,097	-	2.32
2026	8.0%	731,741	549,153	182,589	20,574	152,597	-	2.82
2027	8.0%	790,123	568,858	221,265	35,986	171,097	-	3.37
2028	8.0%	853,176	590,705	262,471	4,797	265,597	-	3.98
2029	0.0%	1,060,227	615,506	444,721	172,014	336,954	-	N/A
2030	0.0%	1,060,227	640,344	419,883	422,872	238,023	-	N/A
2031	0.0%	1,060,227	663,997	396,229	668,528	227,886	-	N/A
2032	0.0%	1,060,227	693,689	366,538	521,439	604,783	-	N/A
Targeted Minimum in 2025				**$ 24,219**				
Targeted Minimum in 2032				**$ 88,121**				
MINIMUM/CRITICAL Reserves 2025					**$ 379,969**			**1.45**
MINIMUM/CRITICAL Reserves 2033					**$ 436,709**			**1.45**

Table Seven *B* (Scenario Two) - Projected Financial Summary 2025-2032 (with Rate Adjustments)

The Capital Plan reduced to $50,000 per year ($600,000 of $2.5 million will be accomplished by 2032); no loan from the Village; no rate increases; no debt continuation from either the Village or the Township as an O&M charge.

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Loans	Debt Coverage Ratio
2024	45.5%	627,631	507,673	119,958	887	185,000	-	5.08
2025	0.0%	627,631	525,212	102,419	53,888	50,000	-	4.60
2026	0.0%	627,631	541,111	86,520	92,770	50,000	-	4.10
2027	0.0%	627,631	557,427	70,204	117,045	50,000	-	3.59
2028	0.0%	627,631	574,172	53,459	126,212	50,000	-	3.07
2029	0.0%	627,631	591,359	36,272	148,394	50,000	-	N/A
2030	0.0%	627,631	609,000	18,630	154,561	50,000	-	N/A
2031	0.0%	627,631	627,110	521	144,164	50,000	-	N/A
2032	0.0%	627,631	645,700	(18,069)	116,640	50,000	-	N/A
Targeted Minimum in 2025				**$ 17,368**				
Targeted Minimum in 2032				**$ 28,568**				
MINIMUM/CRITICAL Reserves 2025					**$ 145,076**			**1.45**
MINIMUM/CRITICAL Reserves 2033					**$ 133,450**			**1.45**

Table Seven C (Scenario Three) Projected Financial Summary 2025-2032 (with Rate Adjustments)

The Capital Plan reduced to $50,000 through 2028 and $250,000 thereafter ($1.4 of $2.5 million will be accomplished by 2032); no loan from the Village; no rate increases; 100% debt continuation for both the Village and the Township ($85) as an O&M charge.

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Loans	Debt Coverage Ratio
2024	45.5%	627,631	507,673	119,958	887	185,000	-	5.08
2025	0.0%	627,631	525,212	102,419	53,888	50,000	-	4.60
2026	0.0%	627,631	541,111	86,520	92,770	50,000	-	4.10
2027	0.0%	627,631	557,427	70,204	117,045	50,000	-	3.59
2028	0.0%	627,631	574,172	53,459	126,212	50,000	-	3.07
2029	0.0%	834,682	594,389	240,293	155,445	250,000	-	N/A
2030	0.0%	834,682	618,091	216,591	168,698	250,000	-	N/A
2031	0.0%	834,682	642,261	192,421	165,424	250,000	-	N/A
2032	0.0%	834,682	666,912	167,770	145,058	250,000	-	N/A
Targeted Minimum in 2025				**$ 17,368**				
Targeted Minimum in 2032				**$ 54,168**				
MINIMUM/CRITICAL Reserves 2025					**$ 225,076**			**1.45**
MINIMUM/CRITICAL Reserves 2033					**$ 301,450**			**1.45**

SIGNIFICANT ASSUMPTIONS

This section outlines the significant assumptions for the study.

Forecasted Operating Expenses

Forecasted expenses were based on actual Fiscal Year End 2023 and Budget 2024 adjusted for known cost changes and inflation.

Sales Forecast

A forecast of 0% growth rate was provided used throughout the projection period.

Revenue Forecast

The revenue forecast was based on 2023 usages adjusted for growth rate assumptions.

Capital Improvement Program

The original capital improvement program (scenario one) was provided by Jacobs through NLTUA and is listed below. Any changes from the numbers provided can greatly affect the cash balance.

Year	Capital Improvements
2024	326,990
2025	122,097
2026	152,597
2027	171,097
2028	265,597
2029	336,954
2030	238,023
2031	227,886
2032	604,783

Proposed Rate Design and Impacts at 8%

	O&M Charge	Quarterly $ Increase	% Increase
Current	$ 256.00		
2025	276.48	$ 20.48	8.0%
2026	298.60	22.12	8.0%
2027	322.49	23.89	8.0%
2028	348.29	25.80	8.0%

Report Conclusion

The NLTUA system is currently cash critical and this report provides three options for the Board to consider for the system to move toward financial improvement. The projection was based on the best information known today. Inflation and capital costs are increasing at unprecedented rates and the projection should be updated every year with the budget process to ensure the findings in this report are on track.