



Allendale Charter Township

Wastewater Cost of Service Study

December 8, 2025



Submitted Respectfully by:

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December 8, 2025

Mr. Chad Doornbos
Superintendent of Public Utilities
Allendale Charter Township
6676 Lake Michigan Drive
Allendale, MI 49401

Dear Mr. Doornbos,

We are pleased to present this executive summary report for a cost of service, financial projection and rate design study completed for the Allendale Charter Township Wastewater Department. 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 and rate study are:

- 1) Determine the water utility's revenue requirements for 2026
- 2) Project rate adjustments needed to meet targeted revenue requirements
- 3) Determine the cost to serve retail customers
- 4) Develop retail rates

This report includes results of the cost of service, financial projection, and identifies future rate adjustments for the wastewater operation. Specific findings included in this report are:

- 1) Rate adjustments that are based on the utility's ability to work toward three factors listed below:
 - Debt Coverage Ratio
 - Minimum Cash Reserves
 - Optimal Operating Income
- 2) Rate adjustments are designed to work toward cost of service results.
 - A comparison of current and proposed rates and the impact to rate payers if new rate design is proposed

This report is intended for information and use by management and the Board of Directors for the purpose 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

UTILITY REVENUE REQUIREMENTS FOR 2026-2030

To determine revenue requirements, the revenues and expenses for Fiscal Year 2024, and Budget 2026 were analyzed, with adjustments made to reflect projected operating characteristics. The table below summarizes the significant assumptions used in the projection. **The projected financial statements are for cost of service purposes only.**

	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030
Inflation Rate	2.90%	2.90%	2.90%	2.90%	2.90%
Growth	0.0%	0.0%	0.0%	0.0%	0.0%
Investment Income	2.0%	1.5%	1.5%	1.5%	1.5%

Table 2 is the projected financial statement for the wastewater operation from 2026-2030 without any rate changes; with 2026 being the test year. Adjusted operating income is projected at \$2.15 million in 2026 and declines to \$1.85 million in 2030. The cash balance is projected at \$2.5 million in 2026 and \$4.1 million in 2030 with the current capital improvement program. The debt coverage ratio does not meet the targeted minimums for financial planning purposes starting in 2027.

Table 2 – Financial Projection Summary (Without Rate Adjustments)

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Bond Issues	Debt Coverage Ratio
2026	0.0%	\$ 4,700,990	\$ 2,917,295	\$ 2,146,942	\$ 2,456,072	\$ 7,300,000	\$ -	1.65
2027	0.0%	4,700,990	3,041,524	2,022,713	2,922,889	340,000	-	1.36
2028	0.0%	4,700,990	3,096,639	1,967,597	3,445,228	250,000	-	1.35
2029	0.0%	4,700,990	3,152,283	1,911,954	3,927,923	250,000	-	1.33
2030	0.0%	4,700,990	3,211,894	1,852,343	4,109,496	500,000	-	1.31
Targeted in 2026				\$ 1,924,565				
Targeted in 2030				\$ 1,932,672				
Minimum Target 2026					\$ 2,643,235	1.25/1.45		
Minimum Target 2030					\$ 2,676,663	1.25/1.45		

PROJECTED CASH FLOW

Table 3 is the projected cash flow for 2026-2030, 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 increase throughout the projection period with the current capital improvement program, because it is lower than the depreciation. The utility should hold approximately a minimum of \$2.7 million in cash reserves.

Table 3 – Projected Cash Flows (Without Rate Adjustments)

	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030
Projected Cash Flows					
Add Net Income	\$ 1,444,011	\$ 767,389	\$ 747,012	\$ 727,367	\$ 703,745
Add Back Depreciation Expense	1,268,028	1,344,428	1,350,328	1,355,328	1,362,828
Subtract Debt Principal	1,272,500	1,305,000	1,325,000	1,350,000	1,385,000
Add Bond Sale Proceeds	-	-	-	-	-
Cash Available from Operations	\$ 1,439,538	\$ 806,816	\$ 772,340	\$ 732,695	\$ 681,573
Estimated Annual Capital Additions	7,300,000	340,000	250,000	250,000	500,000
Net Cash From Operations	\$ (5,860,462)	\$ 466,816	\$ 522,340	\$ 482,695	\$ 181,573
Beginning Cash Balance	8,316,534	2,456,072	2,922,889	3,445,228	3,927,923
Ending Cash Balance	\$ 2,456,072	\$ 2,922,889	\$ 3,445,228	\$ 3,927,923	\$ 4,109,496
Total Cash Available	\$ 2,456,072	\$ 2,922,889	\$ 3,445,228	\$ 3,927,923	\$ 4,109,496
Targeted Minimum	\$ 2,643,235	\$ 2,648,649	\$ 2,655,621	\$ 2,667,476	\$ 2,676,663

DEVELOPMENT OF FINANCIAL TARGETS

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

1. Debt Coverage Ratio
2. Minimum Cash Reserves
3. Optimal Net Income

Each of these factors is discussed below:

Debt Coverage Ratio - Revenue bond requirements for debt coverage ratio are typically 1.25. The minimum targeted debt coverage ratio for prudent financial planning purposes is 1.45 for revenue bonds. Maintaining a 1.45 debt coverage ratio is good business practice and would help to achieve the following:

- Helps to ensure adequate funds are available to meet debt service payments in years when sales are low due to cold or wet summers or loss of a major customer(s).
- Obtain higher bond rating, if revenue bonds are sold in the future, to lower interest cost.

Table 4 is the projected debt coverage ratios. Projected debt coverage ratios do not meet minimum targets starting in 2027.

Table 4 - Current Debt Coverage Ratio (Without Rate Adjustments)

Debt Coverage Ratio	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030
Add Net Income	\$ 1,444,011	\$ 767,389	\$ 747,012	\$ 727,367	\$ 703,745
Add Depreciation Expense	1,268,028	1,344,428	1,350,328	1,355,328	1,362,828
Add Interest Expense	956,015	928,919	901,182	873,019	844,269
Cash Available for Debt Service	\$ 3,668,053	\$ 3,040,735	\$ 2,998,521	\$ 2,955,713	\$ 2,910,842
Debt Principal and Interest	\$ 2,228,515	\$ 2,233,919	\$ 2,226,182	\$ 2,223,019	\$ 2,229,269
Projected Debt Coverage Ratio (Covenants)	1.65	1.36	1.35	1.33	1.31
Minimum Debt Coverage Ratio	1.45	1.45	1.45	1.45	1.45

Debt Coverage Ratios do not meet the minimum targets starting in 2027.

Minimum Cash Reserve Target – Table 5 is the minimum level of cash reserves required to help ensure timely replacement of assets and to provide financial stability of the wastewater utility. The methodology used to establish this minimum is based on certain assumptions related to a percentage of operating expense, historical investment, capital improvements, and debt service to be kept in cash reserves. Minimum cash reserve attempts to quantify the minimum amount of cash the utility should keep in reserve and is considered at critical levels if cash approaches this minimum.

Actual cash reserves may vary substantially above the minimum and is dependent on the life cycle of assets that are currently in service. If a minimum cash reserve policy is established, and the utility’s cash balance falls below the established amount, it should require the Board to take action to rebuild cash. The typical action includes a rate increase or the consideration of a bond issuance. Based on these assumptions, the utility should maintain a minimum of \$2.7 million in cash reserves.

Table 5 – Minimum Cash Reserves

	Percent Allocated	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030
Operation & Maintenance Less Depreciation Expense	12.3%	\$ 202,860	\$ 208,743	\$ 214,796	\$ 221,025	\$ 227,435
Historical Rate Base	1%	977,816	981,216	983,716	986,216	991,216
Current Portion of Debt Service Reserve	50%	1,116,959	1,113,091	1,111,509	1,114,635	1,112,413
Five Year Capital Improvements - Net of bond proceeds	20%	345,600	345,600	345,600	345,600	345,600
Targeted Minimum Cash Reserve Levels		\$ 2,643,235	\$ 2,648,649	\$ 2,655,621	\$ 2,667,476	\$ 2,676,663
Projected Cash Reserves		\$ 2,456,072	\$ 2,922,889	\$ 3,445,228	\$ 3,927,923	\$ 4,109,496

Notes:

1. Rate base is historical investment in plant and equipment
2. Five-year capital includes budgeted capital improvements for the next five years and excludes capital improvements funded through debt issuances

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. The target established is about \$1.9 million over the projection period and equates to approximately a 2.5% rate of return.

Table 6 - Optimal Operating Income Targets Compared to Projected

	Percent Allocated	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030
Outstanding Principal on Debt	2.0%	956,015	928,919	901,182	873,019	844,269
Contributed Capital Estimated	2.0%	244,844	248,818	252,973	257,265	261,506
System Equity	3.9%	723,705	747,390	768,947	792,040	826,897
Target Operating Income		\$ 1,924,565	\$ 1,925,127	\$ 1,923,102	\$ 1,922,324	\$ 1,932,672
Projected Adjusted Operating Income		\$ 2,146,942	\$ 2,022,713	\$ 1,967,597	\$ 1,911,954	\$ 1,852,343
Rate of Return in %		2.4%	2.4%	2.5%	2.5%	2.5%

Projected Operating Income does not meet minimum targets starting in 2029.

REVENUE FORECAST

Sales were projected and adjusted for known or anticipated changes in customer usage and a growth for the projection period. Table 7 and 8 below projects the billed units and number of customers in 2026.

TABLE 7 – PROJECTED BILLED UNITS

Meter Size	Projected 2026
All Usage	395,167
Total	395,167

TABLE 8 – PROJECTED NUMBER OF CUSTOMERS

Meter Size	Projected 2026
5/8"	1,071
3/4"	1,501
1"	311
1.5"	198
2"	95
3"	18
4"	8
6"	5
8"	1
Total	3,208

SUMMARY OF FINANCIAL POSITION

PROJECTED RATE TRACK

Increasing rates requires balancing the financial health of the utility with the financial impact on customers and cost of service results. Table 9 below shows proposed increases of 1.5% in 2029-2030 to help maintain a financially healthy utility. The rate track should be reviewed annually to ensure it is sufficient as changes in revenues, expenses and capital can impact the rate track.

Table 9 – Financial Projection Summary (With Proposed Rate Adjustments)

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Bond Issues	Bond Principal Forgiveness	Debt Coverage Ratio
2026	0.0%	\$ 4,700,990	\$ 2,917,295	\$ 2,146,942	\$ 2,456,072	\$ 7,300,000	\$ -		1.65
2027	1.5%	4,763,050	3,041,524	2,084,773	2,984,948	340,000	-		1.39
2028	1.5%	4,826,040	3,096,639	2,092,648	3,633,269	250,000	-		1.40
2029	1.5%	4,889,976	3,152,283	2,100,940	4,307,770	250,000	-		1.42
2030	1.5%	4,954,870	3,211,894	2,106,223	4,748,921	500,000	-		1.42
Targeted in 2026				\$ 1,924,565					
Targeted in 2030				\$ 1,932,672					
Minimum Target 2026					\$ 2,643,235				1.25/1.45
Minimum Target 2030					\$ 2,676,663				1.25/1.45

Adjusted Operating Income and Cash Balances meet targeted levels throughout the projection period.

COST OF SERVICE RESULTS

The purpose of a cost of service study is to allocate costs between flow (Commodity Costs) and customer service costs (Customer Costs). The cost of service study was based on recognized procedures from the American Public Works Association.

Commodity Costs are costs that tend to vary with the quantity of wastewater treated, as well as costs associated with the collection system.

Customer Costs are costs associated with serving customers regardless of their usage or demand characteristics. Customer costs include the operation and maintenance expenses related to meters and services, meter reading costs, billing and collection costs. The customer costs were allocated based on the relative size of water meters and services and the number of customers.

Table 10 compares Utility’s current monthly customer charge and current commodity rate with results of the cost of service analysis. The table shows that future rate increases should be placed on the fixed monthly customer charge and balance increases with the commodity rate, while monitoring impacts to customers.

Table 10 – Comparison of Current Charges with Cost of Service Charges

Meter Size	Current Charges (Quarterly)	Cost of Service Quarterly Charges
5/8"	\$ 62.50	\$ 49.26
3/4"	\$ 86.50	\$ 73.89
1"	\$ 146.00	\$ 123.16
1.5"	\$ 264.00	\$ 246.31
2"	\$ 346.00	\$ 394.10
3"	\$ 620.00	\$ 738.94
4"	\$ 1,009.00	\$ 1,231.56
6"	\$ 1,728.00	\$ 2,463.12
8"	\$ 1,873.00	\$ 3,940.99

Meter size	Current Average Cost 1000 Gallons	Cost of Service Average Cost 1000 Gallons
All	\$ 6.800	\$ 6.564

SIGNIFICANT ASSUMPTIONS

This section outlines the procedures used to develop the cost of service and rate design for the Wastewater Utility and the related significant assumptions.

Forecasted Operating Expenses

Forecasted expenses were based on 2024 actual, and Budget 2026 and adjusted for inflation.

Inflation

Inflation was assumed at 2.9% in 2026-2030.

Interest Income

Interest income was forecasted based on projected cash balances and an interest rate of 2.0% in 2026 and 1.5% 2027-2030.

Capital Improvements

The capital improvement projections were provided by the Utility. Projections for 2026-2030 are listed below:

Year	Projected Capital Improvement
2026	\$ 7,300,000
2027	340,000
2028	250,000
2029	250,000
2030	500,000

WASTEWATER OPERATION FINDINGS

- Increasing rates requires balancing the financial health of the utility with the financial impact on customers and cost of service results. Projections include proposed 1.5% rate increases in 2027-2030 to help the utility maintain financial targets. The rate track should be reviewed annually as changes in revenues, expenses and capital can affect the rate track and bonding requirements.

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Bond Issues	Bond Principal Forgiveness	Debt Coverage Ratio
2026	0.0%	\$ 4,700,990	\$ 2,917,295	\$ 2,146,942	\$ 2,456,072	\$ 7,300,000	\$ -		1.65
2027	1.5%	4,763,050	3,041,524	2,004,773	2,984,948	340,000	-		1.39
2028	1.5%	4,826,040	3,096,639	2,092,648	3,633,269	250,000	-		1.40
2029	1.5%	4,889,976	3,152,203	2,100,940	4,307,770	250,000	-		1.42
2030	1.5%	4,954,870	3,211,894	2,106,223	4,748,921	500,000	-		1.42
Targeted in 2026				\$ 1,924,565					
Targeted in 2030				\$ 1,932,672					
Minimum Target 2026					\$ 2,643,235				1.25/1.45
Minimum Target 2030					\$ 2,676,663				1.25/1.45

- The financial projection revenue, expenses and cash flow should be updated annually with the budget process to determine if the rate track is on target. Any changes in revenues, expenses and capital improvements can greatly affect the rate track and bonding requirements.

Proposed Rate Design and Impacts

Allendale Charter Township			
Forecasted 2027 with 1.5% Proposed Rate Increase			
Wastewater Department			
		Total Current Customer Charge	Total Proposed Customer Charge
	Meter Size		
	5/8"	\$ 62.50	\$ 63.50
	3/4"	86.50	87.50
	1"	146.00	148.50
	1.5"	264.00	268.00
	2"	346.00	352.00
	3"	620.00	630.00
	4"	1,009.00	1,025.00
	6"	1,728.00	1,750.00
	8"	1,873.00	1,900.00
	Sewer Only	115.18	117.00
	Sewer Only	102.38	104.00
	Commodity Rate	6.80	\$ 6.90
	Overall Revenue Increase		1.5%

<u>5/8"</u>	Current Rates	Proposed Rates		
Customer Service Charge	\$ 62.50	\$ 63.50		
Commodity Rate (/1000 Gallons)	6.80	6.90		
Quarterly Usage Level in 1000 Gallons	Current Rates	Proposed Rates	Dollar Impact	Percent Change
15	\$ 164.50	\$ 167.03	\$ 2.53	1.54%
18	184.90	187.74	2.84	1.53%
24	225.70	229.15	3.45	1.53%
30	266.50	270.56	4.06	1.52%
36	307.30	311.97	4.67	1.52%

Proposed Rate Design and Impacts

Allendale Charter Township			
Forecasted 2028 with 1.5% Proposed Rate Increase			
Wastewater Department			
		Total Current Customer Charge	Total Proposed Customer Charge
	Meter Size		
	5/8"	\$ 63.50	\$ 65.00
	3/4"	87.50	89.00
	1"	148.50	151.00
	1.5"	268.00	272.00
	2"	352.00	358.00
	3"	630.00	640.00
	4"	1,025.00	1,040.00
	6"	1,750.00	1,777.00
	8"	1,900.00	1,930.00
	Sewer Only	117.00	119.00
	Sewer Only	104.00	106.00
	Commodity Rate	6.90	\$ 7.00
	Overall Revenue Increase		1.5%

<u>5/8"</u>	Current Rates	Proposed Rates		
Customer Service Charge	\$ 63.50	\$ 65.00		
Commodity Rate (/1000 Gallons)	6.90	7.00		
Quarterly Usage Level in 1000 Gallons	Current Rates	Proposed Rates	Dollar Impact	Percent Change
15	\$ 167.03	\$ 170.00	\$ 2.97	1.78%
18	187.74	191.00	3.26	1.74%
24	229.15	233.00	3.85	1.68%
30	270.56	275.00	4.44	1.64%
36	311.97	317.00	5.03	1.61%

Proposed Rate Design and Impacts

Allendale Charter Township			
Forecasted 2029 with 1.5% Proposed Rate Increase			
Wastewater Department			
		Total Current Customer Charge	Total Proposed Customer Charge
	Meter Size		
	5/8"	\$ 65.00	\$ 66.00
	3/4"	89.00	90.50
	1"	151.00	153.50
	1.5"	272.00	276.00
	2"	358.00	364.00
	3"	640.00	650.00
	4"	1,040.00	1,056.00
	6"	1,777.00	1,805.00
	8"	1,930.00	1,960.00
	Sewer Only	119.00	121.00
	Sewer Only	106.00	108.00
	Commodity Rate	7.00	\$ 7.11

<u>5/8"</u>	Current Rates	Proposed Rates		
Customer Service Charge	\$ 65.00	\$ 66.00		
Commodity Rate (/1000 Gallons)	7.00	7.11		
Quarterly Usage Level in 1000 Gallons	Current Rates	Proposed Rates	Dollar Impact	Percent Change
15	\$ 170.00	\$ 172.58	\$ 2.57	1.51%
18	191.00	193.89	2.89	1.51%
24	233.00	236.52	3.52	1.51%
30	275.00	279.15	4.15	1.51%
36	317.00	321.78	4.78	1.51%

Proposed Rate Design and Impacts

Allendale Charter Township			
Forecasted 2030 with 1.5% Proposed Rate Increase			
Wastewater Department			
		Total Current Customer Charge	Total Proposed Customer Charge
	Meter Size		
	5/8"	\$ 66.00	\$ 67.00
	3/4"	90.50	92.00
	1"	153.50	156.00
	1.5"	276.00	280.00
	2"	364.00	370.00
	3"	650.00	660.00
	4"	1,056.00	1,072.00
	6"	1,805.00	1,833.00
	8"	1,960.00	1,990.00
	Sewer Only	121.00	123.00
	Sewer Only	108.00	110.00
	Commodity Rate	7.11	\$ 7.21
	Overall Revenue Increase		1.5%

<u>5/8"</u>	Current Rates	Proposed Rates		
Customer Service Charge	\$ 66.00	\$ 67.00		
Commodity Rate (/1000 Gallons)	7.11	7.21		
Quarterly Usage Level in 1000 Gallons	Current Rates	Proposed Rates	Dollar Impact	Percent Change
15	\$ 172.58	\$ 175.17	\$ 2.60	1.51%
18	193.89	196.81	2.92	1.51%
24	236.52	240.08	3.56	1.50%
30	279.15	283.35	4.20	1.50%
36	321.78	326.62	4.84	1.50%