

**Executive Report**

**Lewes Board of Public Works  
Wastewater Department  
Financial Projection Report**

**July 14, 2021**



**Specializing in Cost of Service,  
Rate Design, and Financial Analysis**

*Rate Design and Financial Analysis*



July 14, 2021

Mr. Darrin Edward Gordon  
General Manager  
Lewes Board of Public Works

Dear Mr. Gordon,

We are pleased to present this executive summary report for a financial projection completed for the Lewes Board of Public Works 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 wastewater utility's revenue requirements for fiscal year 2022,
- 2) Project rate adjustments needed to meet targeted revenue requirements,
- 3) Develop retail rates to be implemented in 2023 (after board approval)

This report includes results of the financial projection and identifies the future rate adjustments of the Wastewater Department. Specific findings included in this report are:

- 1) Proposed rate adjustments are based on the utilities ability to meet or work toward three factors listed below:
  - a. Debt Coverage Ratio
  - b. Minimum Cash Reserves
  - c. Optimal Net Income
- 2) Rate adjustments are designed to work toward the cost of service study results performed in 2016.

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,

A handwritten signature in black ink, appearing to read "Dawn Lund", is written over a light blue horizontal line.

Utility Financial Solutions, LLC  
Dawn Lund  
Vice President

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**Lewes Board of Public Works  
Wastewater Department**

## Utility Revenue Requirements

To determine revenue requirements, the revenues and expenses for Fiscal Year 2020 and Budget 2021 were analyzed, with adjustments made to reflect projected operating characteristics.

Table One is the projected financial summary for the Wastewater Department from 2022-2026 without rate adjustments. Operating income for 2022 is projected at \$508,972 and decreases to \$382,880 in 2026. The cash generated from operations is not sufficient to support the long-term projected maintenance and capital improvement program. Debt coverage ratios meet the minimum targets throughout the projection period.

**Table One – Projected Financial Summary (Without Rate Adjustments)**

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Cash (\$1.904 Million Restricted)	Total Cash	Capital Improvements	Bond Issues	Debt Coverage Ratio
2022	0.00%	3,301,551	2,792,579	508,972	1,608,217	1,903,698	3,511,915	1,431,467	-	1.73
2023	0.00%	3,301,551	2,803,750	497,801	2,302,783	1,903,698	4,206,481	54,310	-	1.73
2024	0.00%	3,301,551	2,801,354	500,197	2,514,715	1,903,698	4,418,413	555,526	-	1.75
2025	0.00%	3,301,551	2,855,486	446,065	2,741,115	1,903,698	4,644,813	505,116	-	1.72
2026	0.00%	3,301,551	2,918,671	382,880	2,348,149	1,903,698	4,251,847	1,087,694	-	1.68
<b>Targeted in 2022</b>				<b>\$ 901,145</b>						
<b>Targeted in 2026</b>				<b>\$ 844,631</b>						
<b>MINIMUM/CRITICAL Reserves 2022</b>					<b>\$ 3,224,806</b>					<b>1.45</b>
<b>MINIMUM/CRITICAL Reserves 2026</b>					<b>\$ 3,383,020</b>					<b>1.45</b>

## Projected Cash Flow

Table Two is the projected cash flow for 2022-2026, 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 for 2022 are projected at \$1.6 million and \$2.3 million by 2026. Cash balances decrease with the current capital improvement program, but work toward minimums with the rate track by the end of the projection period.

**Table Two – Projected Cash Flows (without Rate Adjustments)**

<b>Projected Cash Flows</b>	<b>Projected 2022</b>	<b>Projected 2023</b>	<b>Projected 2024</b>	<b>Projected 2025</b>	<b>Projected 2026</b>
Add Net Income	\$ 409,147	\$ 411,646	\$ 442,034	\$ 411,588	\$ 372,766
Add Back Depreciation Expense	1,171,566	1,194,078	1,203,318	1,219,388	1,243,522
Subtract Debt Principal	836,307	856,847	877,895	899,461	921,560
Add Bond Sale Proceeds	-	-	-	-	-
<b>Cash Available from Operations</b>	<b>\$ 744,406</b>	<b>\$ 748,876</b>	<b>\$ 767,458</b>	<b>\$ 731,515</b>	<b>\$ 694,728</b>
Estimated Annual Capital Additions	1,431,467	54,310	555,526	505,116	1,087,694
<b>Net Cash From Operations</b>	<b>\$ (687,061)</b>	<b>\$ 694,566</b>	<b>\$ 211,932</b>	<b>\$ 226,399</b>	<b>\$ (392,966)</b>
<b>Beginning Cash Balance</b>	2,295,278	1,608,217	2,302,783	2,514,715	2,741,115
<b>Ending Cash Balance</b>	<b>1,608,217</b>	<b>2,302,783</b>	<b>2,514,715</b>	<b>2,741,115</b>	<b>2,348,149</b>
<b>Total Cash Available</b>	<b>\$ 1,608,217</b>	<b>\$ 2,302,783</b>	<b>\$ 2,514,715</b>	<b>\$ 2,741,115</b>	<b>\$ 2,348,149</b>
<b>Targeted Minimum</b>	<b>\$ 3,224,806</b>	<b>\$ 3,016,592</b>	<b>\$ 3,101,087</b>	<b>\$ 3,114,154</b>	<b>\$ 3,383,020</b>

Projected Cash Balance do not meet targeted minimums throughout the projection period.

## Minimum Cash Reserve

Table Three 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 in this study 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. The wastewater utility should maintain a minimum of \$3.2 million in cash reserves based on the adopted methodology.

**Table Three – Minimum Cash Reserves for 2022 – 2026**

	Percent Allocated	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026
Working Capital Lag	25%	\$ 405,253	\$ 402,418	\$ 399,509	\$ 409,025	\$ 418,787
Risk Management - Historical Assets	2%	1,035,316	1,036,511	1,048,732	1,059,845	1,231,562
Current Years Capital Improvements	15%	214,720	8,147	83,329	75,767	163,154
Five Year Capital Improvements	15%	545,117	545,117	545,117	545,117	545,117
Self Insured	100%	1,024,400	1,024,400	1,024,400	1,024,400	1,024,400
<b>Targeted Minimum Cash Reserve Levels</b>		<b>\$ 3,224,806</b>	<b>\$ 3,016,592</b>	<b>\$ 3,101,087</b>	<b>\$ 3,114,154</b>	<b>\$ 3,383,020</b>
<b>Projected Cash Reserves</b>		<b>\$ 1,608,217</b>	<b>\$ 2,302,783</b>	<b>\$ 2,514,715</b>	<b>\$ 2,741,115</b>	<b>\$ 2,348,149</b>

Projected Cash Balance do not meet targeted minimums throughout the projection period.

### Debt Coverage Ratio

The minimum targeted debt coverage ratio for prudent financial planning purposes is 1.45 for the outstanding revenue bonds on the wastewater system. Maintaining a 1.45 debt coverage ratio is good business practice and helps to achieve the following:

- a. Helps to ensure debt coverage ratios are met in years when sales are low due to cold or wet summers or loss of a major customer(s).
- b. Obtain higher bond rating, if revenue bonds are sold in the future, to lower interest cost.

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

<b>Debt Coverage Ratio</b>	<b>Projected 2022</b>	<b>Projected 2023</b>	<b>Projected 2024</b>	<b>Projected 2025</b>	<b>Projected 2026</b>
Add Net Income	\$ 409,147	\$ 411,646	\$ 442,034	\$ 411,588	\$ 372,766
Add Depreciation Expense	1,171,566	1,194,078	1,203,318	1,219,388	1,243,522
Add Interest Expense	182,699	162,159	141,111	119,545	97,446
Cash Available for Debt Service	<b>\$ 1,763,412</b>	<b>\$ 1,767,882</b>	<b>\$ 1,786,464</b>	<b>\$ 1,750,521</b>	<b>\$ 1,713,734</b>
Debt Principal and Interest	<b>\$ 1,019,006</b>	<b>\$ 1,019,006</b>	<b>\$ 1,019,006</b>	<b>\$ 1,019,006</b>	<b>\$ 1,019,006</b>
Projected Debt Coverage Ratio (Covenants)	1.73	1.73	1.75	1.72	1.68
<b>Minimum Debt Coverage Ratio</b>	<b>1.45</b>	<b>1.45</b>	<b>1.45</b>	<b>1.45</b>	<b>1.45</b>

**Debt Coverage Ratios meet targeted minimums throughout the projection period.**



## Rate of Return

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.

The target established for 2022 is \$901,145 and is \$844,631 in 2026. This equates to approximately a 3.1% rate of return.

**Table Five - Rate of Return Calculation – (without Rate Adjustments)**

	Percent Allocated	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026
Outstanding Principal on Debt	0.0%	182,699	162,159	141,111	119,545	97,446
System Equity	3.4%	718,446	709,392	716,756	722,682	747,185
<b>Target Operating Income</b>		<b>\$ 901,145</b>	<b>\$ 871,551</b>	<b>\$ 857,867</b>	<b>\$ 842,226</b>	<b>\$ 844,631</b>
<b>Projected Adjusted Operating Income</b>		<b>\$ 508,972</b>	<b>\$ 497,801</b>	<b>\$ 500,197</b>	<b>\$ 446,065</b>	<b>\$ 382,880</b>
<b>Rate of Return in %</b>		<b>3.0%</b>	<b>3.0%</b>	<b>3.1%</b>	<b>3.1%</b>	<b>3.1%</b>

**Rate of Return meets minimum targets throughout the projection period.**

## SUMMARY OF FINANCIAL POSITION

### Proposed Rate Track

Increasing rates requires balancing the financial health of the utility with the financial impact on customers. Table Six below is the five-year financial projection with projected rate increases of 2.9% in 2023 – 2026.

The rate track was developed to work toward healthy financial targets. The rate track should be reviewed with the budget process as changes in expenses and capital can impact the rate track.

**Table Six – Projected Financial Summary (With Proposed Rate Adjustments)**

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Cash (\$1.904 Million Restricted)	Total Cash	Capital Improvements	Bond Issues	Debt Coverage Ratio
2022	0.00%	3,301,551	2,792,579	508,972	1,608,217	1,903,698	3,511,915	1,431,467	-	1.73
2023	2.90%	3,379,345	2,807,640	571,705	2,376,687	1,903,698	4,280,385	54,310	-	1.81
2024	2.90%	3,459,394	2,809,246	650,148	2,739,309	1,903,698	4,643,007	555,526	-	1.90
2025	2.90%	3,541,765	2,867,497	674,268	3,196,157	1,903,698	5,099,855	505,116	-	1.94
2026	2.90%	3,626,524	2,934,920	691,605	3,116,466	1,903,698	5,020,164	1,087,694	-	1.99
<b>Targeted in 2022</b>				<b>\$ 901,145</b>						
<b>Targeted in 2026</b>				<b>\$ 844,631</b>						
<b>MINIMUM/CRITICAL Reserves 2022</b>					<b>\$ 3,224,806</b>					<b>1.45</b>
<b>MINIMUM/CRITICAL Reserves 2026</b>					<b>\$ 3,387,082</b>					<b>1.45</b>

**SIGNIFICANT ASSUMPTIONS**

This section outlines the procedures used to develop the financial projection study and the related significant assumptions.

**Forecasted Operating Expenses**

Forecasted expenses were based on actual 2020 and 2021 Budget and adjusted for inflation.

**Inflation**

Inflation was assumed at 2.6% annually.

**Growth**

Growth on sales was projected at 0.0%.

**Interest Income**

Interest income was forecasted based on projected cash balances and an interest rate of 0.5%.

**Capital Improvements**

The capital improvement projections were provided by the Utility. Projections for 2022 – 2026 are listed below:

<b>Fiscal Year</b>	<b>Capital Improvements</b>
2022	1,431,467
2023	54,310
2024	555,526
2025	505,116
2026	1,087,694

## Wastewater Department Findings

1. For the Lewes Board of Public Works to maintain long-term financial targets of the wastewater utility, rate increases should be considered. Below is a summary of the financial projection with proposed rate increases of 2.9% in 2023-2026. The rate track was developed to move toward minimum targets. Operating income and cash balances stabilized throughout the projection period. The debt coverage ratio meets the minimum targets throughout the projection period. The rate track should be reviewed annually as changes in revenues, expenses and capital can affect the rate track and bonding requirements. The rate track should improve targeted operating income, debt coverage ratio and stabilize cash balances on hand to support the capital improvement program.

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Cash (\$1.904 Million Restricted)	Total Cash	Capital Improvements	Bond Issues	Debt Coverage Ratio
2022	0.00%	3,301,551	2,792,579	508,972	1,608,217	1,903,698	3,511,915	1,431,467	-	1.73
2023	2.90%	3,379,345	2,807,640	571,705	2,376,687	1,903,698	4,280,385	54,310	-	1.81
2024	2.90%	3,459,394	2,809,246	650,148	2,739,309	1,903,698	4,643,007	555,526	-	1.90
2025	2.90%	3,541,765	2,867,497	674,268	3,196,157	1,903,698	5,099,855	505,116	-	1.94
2026	2.90%	3,626,524	2,934,920	691,605	3,116,466	1,903,698	5,020,164	1,087,694	-	1.99
<b>Targeted in 2022</b>				<b>\$ 901,145</b>						
<b>Targeted in 2026</b>				<b>\$ 844,631</b>						
<b>MINIMUM/CRITICAL Reserves 2022</b>					<b>\$ 3,224,806</b>					<b>1.45</b>
<b>MINIMUM/CRITICAL Reserves 2026</b>					<b>\$ 3,387,082</b>					<b>1.45</b>

2. 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. The rate track was set at a minimum and any changes in capital or expenses can affect the future rate track. UFS should help develop future rate designs as they incur to ensure the utility is moving customer and commodity charges according to cost of service and toward needed revenue requirements.

# PROPOSED RATE DESIGN 2.9% AND IMPACTS

		Meter Size	Current Rates	2022 Proposed Rate
<b>COMMODITY RATE COMPARISON</b>				
		<b>Rate /100 gallons</b>		
Residential	In City		\$ 0.572	\$ 0.602
	Outside City		\$ 0.865	\$ 0.903
Commercial	In City		\$ 0.629	\$ 0.660
	Outside City		\$ 0.951	\$ 0.991
Industrial	In City		\$ 0.629	\$ 0.660
	Outside City		\$ 0.951	\$ 0.991
<b>Residential</b>				
In City		5/8"	\$ 50.00	\$ 51.00
		1"	\$ 63.65	\$ 65.00
		1.25"	\$ 72.70	\$ 75.00
		1.5"	\$ 81.80	\$ 85.00
		2"	\$ 131.80	\$ 135.00
		3"	\$ 500.00	\$ 510.00
		4"	\$ 613.60	\$ 626.00
		6"	\$ 954.55	\$ 974.00
		8"	\$ 1,318.20	\$ 1,350.00
Outside City		5/8"	\$ 75.50	\$ 76.50
		1"	\$ 96.11	\$ 97.50
		1.25"	\$ 109.78	\$ 112.50
		1.5"	\$ 123.52	\$ 127.50
		2"	\$ 199.02	\$ 202.50
		3"	\$ 755.00	\$ 765.00
		4"	\$ 926.54	\$ 939.00
		6"	\$ 1,441.37	\$ 1,461.00
		8"	\$ 1,990.48	\$ 2,025.00
<b>Commercial</b>				
In City		5/8"	\$ 50.00	\$ 51.00
		1"	\$ 63.65	\$ 65.00
		1.25"	\$ 72.70	\$ 75.00
		1.5"	\$ 81.80	\$ 85.00
		2"	\$ 131.80	\$ 135.00
		3"	\$ 500.00	\$ 510.00
		4"	\$ 613.60	\$ 626.00
		6"	\$ 954.55	\$ 974.00
		8"	\$ 1,318.20	\$ 1,350.00
Outside City		5/8"	\$ 75.50	\$ 76.50
		1"	\$ 96.11	\$ 97.50
		1.25"	\$ 109.78	\$ 112.50
		1.5"	\$ 123.52	\$ 127.50
		2"	\$ 199.02	\$ 202.50
		3"	\$ 755.00	\$ 765.00
		4"	\$ 926.54	\$ 939.00
		6"	\$ 1,441.37	\$ 1,461.00
		8"	\$ 1,990.48	\$ 2,025.00
<b>Industrial</b>				
In City		5/8"	\$ 50.00	\$ 51.00
		1"	\$ 63.65	\$ 65.00
		1.25"	\$ 72.70	\$ 75.00
		1.5"	\$ 81.80	\$ 85.00
		2"	\$ 131.80	\$ 135.00
		3"	\$ 500.00	\$ 510.00
		4"	\$ 613.60	\$ 626.00
		6"	\$ 954.55	\$ 974.00
		8"	\$ 1,318.20	\$ 1,350.00
Outside City		5/8"	\$ 75.50	\$ 76.50
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		2"	\$ 199.02	\$ 202.50
		3"	\$ 755.00	\$ 765.00
		4"	\$ 926.54	\$ 939.00
		6"	\$ 1,441.37	\$ 1,461.00
		8"	\$ 1,990.48	\$ 2,025.00