

Executive Report

Lewes Board of Public Works  
Water 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 Water 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 fiscal year 2022,
- 2) Project rate adjustments needed to work toward 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 future rate adjustments of the Water 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  
Water 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 Water Department from 2022 – 2026 without rate adjustments and with bond issues. The projected bond issues are \$6.0 million in 2022 and \$3.1 million in 2025 to cover current projected capital improvements.

Projected operating income for 2022 is \$368,124 and decreases to operating income of \$73,727 by 2026. Cash balances do not meet the minimum targets by the end of the projection period to support the long-term projected maintenance and capital improvement program. Debt coverage ratios do not meet the minimum targets starting in 2026.

**Table One – Projected Financial Summary (Without Rate Adjustments and With Bond Issues)**

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Operating Income	Projected Cash Balance	Cash (\$2.297 Million)		Capital Improvements	Bond Issues	Debt Coverage Ratio
						Restricted	Total Cash			
2022	3.5%	2,271,998	1,903,874	368,124	4,339,661	2,296,940	6,636,601	1,945,000	6,000,000	6.31
2023	0.0%	2,271,998	1,984,849	287,149	2,198,279	2,296,940	4,495,219	2,543,101	-	1.86
2024	0.0%	2,271,998	2,060,239	211,759	1,259,559	2,296,940	3,556,498	1,292,700	-	1.76
2025	0.0%	2,271,998	2,128,761	143,237	2,794,864	2,296,940	5,091,804	1,760,000	3,052,700	1.45
2026	0.0%	2,271,998	2,198,271	73,727	1,547,468	2,296,940	3,844,408	1,292,700	-	1.06
<b>Targeted in 2022</b>				<b>\$ 469,326</b>						
<b>Targeted in 2026</b>				<b>\$ 794,610</b>						
<b>MINIMUM/CRITICAL Reserves 2022</b>					<b>\$ 2,652,195</b>					<b>1.45</b>
<b>MINIMUM/CRITICAL Reserves 2026</b>					<b>\$ 2,974,222</b>					<b>1.45</b>

Projected Operating Income and cash balance do not meet the targeted minimums throughout the projection period.

## 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. The projected cash flow includes two projected bond issues of \$6.0 million in 2022 and \$3.1 million in 2026. The cash balance for 2022 is projected at \$4.3 million and decreases to \$1.5 million in 2026.

**Table Two – Projected Cash Flows (Without Rate Adjustments and With Bond Issues)**

Projected Cash Flows	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026
Add Net Income	\$ 318,848	\$ 124,629	\$ 47,198	\$ (85,650)	\$ (206,709)
Add Back Depreciation Expense	426,397	471,278	509,636	540,163	570,690
Subtract Debt Principal	2,874	194,188	202,854	211,908	318,676
Add Bond Sale Proceeds	6,000,000	-	-	3,052,700	-
<b>Cash Available from Operations</b>	<b>\$ 6,742,371</b>	<b>\$ 401,719</b>	<b>\$ 353,980</b>	<b>\$ 3,295,305</b>	<b>\$ 45,305</b>
Estimated Annual Capital Additions	1,945,000	2,543,101	1,292,700	1,760,000	1,292,700
<b>Net Cash From Operations</b>	<b>\$ 4,797,371</b>	<b>\$ (2,141,382)</b>	<b>\$ (938,720)</b>	<b>\$ 1,535,305</b>	<b>\$ (1,247,395)</b>
<b>Beginning Cash Balance</b>	(457,710)	4,339,661	2,198,279	1,259,559	2,794,864
<b>Ending Cash Balance</b>	<b>\$ 4,339,661</b>	<b>\$ 2,198,279</b>	<b>\$ 1,259,559</b>	<b>\$ 2,794,864</b>	<b>\$ 1,547,468</b>
<b>Total Cash Available</b>	<b>\$ 4,339,661</b>	<b>\$ 2,198,279</b>	<b>\$ 1,259,559</b>	<b>\$ 2,794,864</b>	<b>\$ 1,547,468</b>
<b>Targeted Minimum</b>	<b>\$ 2,652,195</b>	<b>\$ 2,682,065</b>	<b>\$ 2,768,233</b>	<b>\$ 2,956,500</b>	<b>\$ 2,974,222</b>

Projected Cash Balance include bonds issues of \$6.0 million in 2022 and \$3.1 in 2025

### 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 water 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. 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 water utility should maintain a minimum of \$2.8 million 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	12%	\$ 181,730	\$ 186,169	\$ 190,724	\$ 195,398	\$ 200,193
Risk Management - Historical Assets	1%	213,358	238,789	251,716	269,316	282,243
Five Year Capital Improvements	20%	1,766,700	1,766,700	1,766,700	1,766,700	1,766,700
Self Insured	100%	24,400	24,400	24,400	24,400	24,400
<b>Minimum Cash Reserve Levels</b>		<b>\$ 2,652,195</b>	<b>\$ 2,682,065</b>	<b>\$ 2,768,233</b>	<b>\$ 2,956,500</b>	<b>\$ 2,974,222</b>
<b>Projected Cash Reserves</b>		<b>\$ 4,339,661</b>	<b>\$ 2,198,279</b>	<b>\$ 1,259,559</b>	<b>\$ 2,794,864</b>	<b>\$ 1,547,468</b>

Projected cash balances do not meet minimum targets in all years and need bonding to help fund the capital plan.

### Debt Coverage Ratio

Table Four is the projected debt coverage ratios with capital additions as provided by the Utility. The minimum targeted debt coverage ratio for prudent financial planning purposes is 1.45; assuming a minimum bond covenant requirement of 1.25. Maintaining a 1.45 debt coverage ratio is good business practice and helps to achieve the following:

- 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).
- Obtain higher bond rating, if revenue bonds are sold in the future, to lower interest cost.

**Table Four – Projected Debt Coverage Ratio – (Without Rate Adjustments and With Bond Issues)**

<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	\$ 318,848	\$ 124,629	\$ 47,198	\$ (85,650)	\$ (206,709)
Add Depreciation Expense	426,397	471,278	509,636	540,163	570,690
Add Interest Expense	136,876	271,818	263,153	322,785	382,010
Cash Available for Debt Service	\$ 882,121	\$ 867,725	\$ 819,986	\$ 777,297	\$ 745,991
Debt Principal and Interest	\$ 139,750	\$ 466,007	\$ 466,007	\$ 534,692	\$ 700,686
Projected Debt Coverage Ratio (Covenants)	6.31	1.86	1.76	1.45	1.06
<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 are below targeted minimums starting in 2026.



**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.

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 for the projection period is approximately \$667,000. Rate of return falls below the targeted minimum throughout the projection period.

**Table Five - Rate of Return Calculation – (Without Rate Adjustments and With Bond Issues)**

	Percent Allocated	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026
Outstanding Principal on Debt	2.2%	\$ 136,876	\$ 271,818	\$ 263,153	\$ 322,785	\$ 382,010
System Equity	3.0%	332,450	400,430	430,008	381,379	412,600
<b>Target Operating Income</b>		<b>\$ 469,326</b>	<b>\$ 672,248</b>	<b>\$ 693,160</b>	<b>\$ 704,164</b>	<b>\$ 794,610</b>
<b>Projected Operating Income</b>		<b>\$ 368,124</b>	<b>\$ 287,149</b>	<b>\$ 211,759</b>	<b>\$ 143,237</b>	<b>\$ 73,727</b>
<b>Rate of Return in %</b>		<b>2.7%</b>	<b>3.5%</b>	<b>3.5%</b>	<b>3.3%</b>	<b>3.6%</b>

Rate of Return does not meet targeted minimum 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 proposed rate increases of 6.9% in 2023 – 2026.

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

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

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Operating Income	Projected Cash Balance	Cash (\$2.297 Million)		Capital Improvements	Bond Issues	Debt Coverage Ratio
						Restricted)	Total Cash			
2022	3.5%	2,271,998	1,903,874	368,124	4,339,661	2,296,940	6,636,601	1,945,000	6,000,000	6.31
2023	6.9%	2,395,167	1,991,007	404,160	2,315,290	2,296,940	4,612,229	2,543,101	-	2.11
2024	6.9%	2,526,835	2,072,981	453,854	1,619,249	2,296,940	3,916,189	1,292,700	-	2.28
2025	6.9%	2,667,587	2,148,541	519,046	3,532,162	2,296,940	5,829,102	1,760,000	3,052,700	2.16
2026	6.9%	2,818,052	2,225,574	592,478	2,807,204	2,296,940	5,104,144	1,292,700	-	1.81
<b>Targeted in 2022</b>				<b>\$ 469,326</b>						
<b>Targeted in 2026</b>				<b>\$ 794,610</b>						
<b>MINIMUM/CRITICAL Reserves 2022</b>					<b>\$ 2,652,195</b>					<b>1.45</b>
<b>MINIMUM/CRITICAL Reserves 2026</b>					<b>\$ 2,977,580</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 Budget 2021 adjusted for inflation.

### **Growth**

Growth projections of 0.0% was used for 2022-2026.

### **Inflation**

Inflation was assumed at 2.6% annually.

### **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	1,945,000
2023	2,543,101
2024	1,292,700
2025	1,760,000
2026	1,292,700

## Water Department Findings

- For the Lewes Board of Public Works to maintain long-term financial targets of the water utility, rate increases should be considered. Below is a summary of the financial projection with proposed rate increases of 6.9% in 2023-2026. This rate track will improve targeted operating income and targeted minimum cash balances; and 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	Operating Income	Projected Cash Balance	Cash (\$2.297 Million)			Capital Improvements	Bond Issues	Debt Coverage Ratio
						Restricted)	Total Cash				
2022	3.5%	2,271,998	1,903,874	368,124	4,339,661	2,296,940	6,636,601	1,945,000	6,000,000	6.31	
2023	6.9%	2,395,167	1,991,007	404,160	2,315,290	2,296,940	4,612,229	2,543,101	-	2.11	
2024	6.9%	2,526,835	2,072,981	453,854	1,619,249	2,296,940	3,916,189	1,292,700	-	2.28	
2025	6.9%	2,667,587	2,148,541	519,046	3,532,162	2,296,940	5,829,102	1,760,000	3,052,700	2.16	
2026	6.9%	2,818,052	2,225,574	592,478	2,807,204	2,296,940	5,104,144	1,292,700	-	1.81	
<b>Targeted in 2022</b>				<b>\$ 469,326</b>							
<b>Targeted in 2026</b>				<b>\$ 794,610</b>							
<b>MINIMUM/CRITICAL Reserves 2022</b>					<b>\$ 2,652,195</b>					<b>1.45</b>	
<b>MINIMUM/CRITICAL Reserves 2026</b>					<b>\$ 2,977,580</b>					<b>1.45</b>	

- 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. The 2022 rate design is on the following page. 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 AND IMPACTS

## Proposed 6.9% Rate Design

Customer Meter Size	Current Rates	2022 Proposed Rate
<b>Inside City</b>		
5/8"	\$ 16.00	\$ 17.75
1"	20.25	22.75
1.25"	24.50	27.50
1.5"	27.50	30.80
2"	44.50	49.85
3"	160.00	179.20
4"	200.00	224.00
6"	310.00	347.20
8"	425.00	476.00
Irrigation Meters		
5/8"	4.00	4.50
1"	4.75	5.00
Other	11.00	11.75
Unmetered - All	-	-
<b>Outside City</b>		
5/8"	23.20	25.74
1"	29.36	32.99
1.25"	35.53	39.88
1.5"	39.88	44.66
2"	64.53	72.28
3"	232.00	259.84
4"	290.00	324.80
6"	449.50	503.44
8"	616.25	690.20
Irrigation Meters		
5/8"	5.80	6.53
1"	6.89	7.25

COMMODITY RATE COMPARISON	City - Rate /1,000 gallons	
	Current Rates	2022 Proposed Rate
<b>Inside City</b>		
<i>Consumption Charge per 1000 Gallons (0-4500)</i>	\$ 1.35	\$ 1.40
<i>Consumption Charge per 1000 Gallons (4501-9000)</i>	2.12	2.20
<i>Consumption Charge per 1000 Gallons (Over 9000)</i>	2.72	2.82
<b>Outside City</b>		
<i>Consumption Charge per 1000 Gallons (0-4500)</i>	\$ 1.96	\$ 2.03
<i>Consumption Charge per 1000 Gallons (4501-9000)</i>	3.09	3.19
<i>Consumption Charge per 1000 Gallons (Over 9000)</i>	3.92	4.09