





November 29, 2021

Mr. William Hunter  
Director of Public Works  
City of South Haven  
1199 8<sup>th</sup> Avenue  
South Haven, MI 49090

Dear Mr. Hunter,

We are pleased to present this executive summary report for a financial projection completed for South Haven Area Water and Sewer Authority (SHAWSA) sewer operations. 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 sewer utility's revenue requirements for 2022/2026
- 2) Project rate adjustments needed to meet targeted revenue requirements

This report includes results of the financial projection of the Sewer Operation. Specific findings included in this report are:

- 1) Rate adjustments that 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

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 that reads 'Dawn Lund'. The signature is fluid and cursive, with a long horizontal stroke at the end.

Utility Financial Solutions, LLC  
Dawn Lund  
Vice President

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## Utility Revenue Requirements

To determine revenue requirements, the revenues and expenses for Fiscal Year 2020, YTD 2021, and Budget 2022 were analyzed, with adjustments made to reflect projected operating characteristics. **The projected financial statements are for cost of service purposes only.**

Table One is the projected financial summary for the Sewer Operation from 2022-2026 without any additional rate changes for the years 2023-2026. A 9.9% rate adjustment for 2022 is currently in the forecast with rates effective July 1, 2021. The financial summary also includes a projected bond issue of \$5.0 million in 2023. Without the projected bond issue, projected cash balance goes negative in 2024. The operating income for 2022 is projected at \$411,322 and decreases to an operating loss in 2026 of (\$72,987). The cash generated from operations decreases throughout the period from \$1.4 million to (\$985,659) by 2026. The debt coverage ratio is also below the targeted revenue bond requirement of 1.25/1.45.

**Table One – Financial Summary (with No Additional Rate Adjustments and with Bond Issues)**

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Bond Issued	Debt Coverage Ratio
2022	9.9%	4,732,266	4,320,944	411,322	1,368,781	-	-	1.32
2023	0.0%	4,732,266	4,408,745	323,521	5,200,342	1,281,000	5,000,000	1.12
2024	0.0%	4,732,266	4,513,870	218,396	4,102,389	1,023,793	-	0.99
2025	0.0%	4,732,266	4,661,491	70,775	(67,995)	3,963,000	-	0.91
2026	0.0%	4,732,266	4,805,253	(72,987)	(985,659)	642,975	-	0.86
<b>Target in 2022</b>				<b>\$ 1,127,789</b>				
<b>Target in 2026</b>				<b>\$ 1,172,933</b>				
<b>Minimum Target 2022</b>					<b>\$ 2,318,852</b>	<b>1.25/1.45</b>		
<b>Minimum Target 2026</b>					<b>\$ 2,587,278</b>	<b>1.25/1.45</b>		

## Financial Targets

### Projected Cash Flow

Table Two is the projected cash flow for 2022-2026, including projections of capital improvements as provided by SHAWSA. Changes in the capital improvement plan can greatly affect the cash balance and targeted minimum cash reserve. The projection includes a bond issue of \$5.0 million in 2023. Cash balances decrease from \$1.4 million in 2022 to (\$985,659) by 2026.

**Table Two – Projected Cash Flows (with No Additional Rate Adjustments and with Bonds)**

<u>Projected Cash Flows</u>	<b>Projected 2022</b>	<b>Projected 2023</b>	<b>Projected 2024</b>	<b>Projected 2025</b>	<b>Projected 2026</b>
Add Net Income	\$ (455,535)	\$ (653,590)	\$ (773,608)	\$ (940,447)	\$ (1,051,180)
Add Back Depreciation Expense	1,540,038	1,559,447	1,594,368	1,669,926	1,739,713
Subtract Debt Principal	672,824	732,547	834,170	876,112	902,472
SHAWSA Loan Principal	60,750	60,750	60,750	60,750	60,750
Add Bond Sale Proceeds	-	5,000,000	-	-	-
<b>Cash Available from Operations</b>	<b>\$ 350,929</b>	<b>\$ 5,112,561</b>	<b>\$ (74,160)</b>	<b>\$ (207,384)</b>	<b>\$ (274,689)</b>
Estimated Annual Capital Additions	-	1,281,000	1,023,793	3,963,000	642,975
<b>Net Cash From Operations</b>	<b>\$ 350,929</b>	<b>\$ 3,831,561</b>	<b>\$ (1,097,953)</b>	<b>\$ (4,170,384)</b>	<b>\$ (917,664)</b>
<b>Beginning Cash Balance</b>	<b>1,017,852</b>	<b>1,368,781</b>	<b>5,200,342</b>	<b>4,102,389</b>	<b>(67,995)</b>
<b>Ending Cash Balance</b>	<b>\$ 1,368,781</b>	<b>\$ 5,200,342</b>	<b>\$ 4,102,389</b>	<b>\$ (67,995)</b>	<b>\$ (985,659)</b>
<b>Total Cash Available</b>	<b>\$ 1,368,781</b>	<b>\$ 5,200,342</b>	<b>\$ 4,102,389</b>	<b>\$ (67,995)</b>	<b>\$ (985,659)</b>
<b>Targeted Minimum</b>	<b>\$ 2,318,852</b>	<b>\$ 2,503,614</b>	<b>\$ 2,535,291</b>	<b>\$ 2,579,470</b>	<b>\$ 2,587,278</b>

### 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 sewer 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 sewer utility should maintain a minimum of \$2.5 million in cash reserves based on the methodology below.

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

	Percent Allocated	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026
Operation & Maintenance Less Depreciation Expense	12.3%	\$ 342,051	\$ 350,464	\$ 359,099	\$ 367,963	\$ 377,061
Historical Rate Base	1%	493,868	506,678	516,916	556,546	562,976
Current Portion of Debt Service Reserve	100%	1,406,502	1,570,041	1,582,846	1,578,531	1,570,810
Five Year Capital Improvements - Net of bond proceeds	20%	76,431	76,431	76,431	76,431	76,431
<b>Targeted Minimum Cash Reserve Levels</b>		<b>\$ 2,318,852</b>	<b>\$ 2,503,614</b>	<b>\$ 2,535,291</b>	<b>\$ 2,579,470</b>	<b>\$ 2,587,278</b>
<b>Projected Cash Reserves</b>		<b>\$ 1,368,781</b>	<b>\$ 5,200,342</b>	<b>\$ 4,102,389</b>	<b>\$ (67,995)</b>	<b>\$ (985,659)</b>

**Debt Coverage Ratio**

The minimum targeted debt coverage ratio for prudent financial planning purposes is 1.45 for any outstanding revenue bonds on the sewer system. Although most of the debt is through purchased treatment costs, maintaining a 1.45 debt coverage ratio is good business practice and helps to achieve the following:

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

Table Four below contains projected debt coverage ratios from 2022-2026.

**Table Four - Debt Coverage Ratio – (with No Additional Rate Adjustments and with Bonds)**

<u>Debt Coverage Ratio</u>	<b>Projected 2022</b>	<b>Projected 2023</b>	<b>Projected 2024</b>	<b>Projected 2025</b>	<b>Projected 2026</b>
Add Net Income	\$ (455,535)	\$ (653,590)	\$ (773,608)	\$ (940,447)	\$ (1,051,180)
Add Depreciation Expense	1,540,038	1,559,447	1,594,368	1,669,926	1,739,713
Add Interest Expense	609,811	673,955	735,872	706,733	676,059
Cash Available for Debt Service	<u>\$ 1,694,314</u>	<u>\$ 1,579,812</u>	<u>\$ 1,556,632</u>	<u>\$ 1,436,212</u>	<u>\$ 1,364,592</u>
Debt Principal and Interest	\$ 1,282,635	\$ 1,406,502	\$ 1,570,041	\$ 1,582,846	\$ 1,578,531
Projected Debt Coverage Ratio (Covenants)	1.32	1.12	0.99	0.91	0.86
<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 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.

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 \$1.1 million with a projected operating income of \$411,322 in 2022. Operating income decreases throughout the period to an operating loss of (\$72,987) in 2026.

**Table Five - Rate of Return Calculation – (with No Additional Rate Adjustments and with Bonds)**

	Percent Allocated	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026
Outstanding Principal on Debt	3.4%	609,811	673,955	735,872	706,733	676,059
System Equity	5.9%	517,978	261,235	288,992	484,426	496,874
<b>Target Operating Income</b>		<b>\$ 1,127,789</b>	<b>\$ 935,190</b>	<b>\$ 1,024,864</b>	<b>\$ 1,191,159</b>	<b>\$ 1,172,933</b>
<b>Projected Adjusted Operating Income</b>		<b>\$ 411,322</b>	<b>\$ 323,521</b>	<b>\$ 218,396</b>	<b>\$ 70,775</b>	<b>\$ (72,987)</b>
<b>Rate of Return in %</b>		<b>4.2%</b>	<b>3.5%</b>	<b>3.9%</b>	<b>4.2%</b>	<b>4.3%</b>

Target Operating Income is not being met 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 and cost of service results. Table Six below is the financial projection with an additional projected rate track of 9.9% in 2023-2024 and 2.9% in 2025-2026. The rate track was developed to move toward minimum targets. Cash balances stabilize and are maintained throughout the projection period and operating income stabilizes. The debt coverage ratio meets targets starting in 2024. The rate track should be reviewed annually as changes in revenues, expenses and capital can impact the rate track.

**Table Six – Financial Summary (with Proposed Rate Adjustments and with Bonds)**

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Projected Cash Balances	Capital Improvements	Bond Issued	Debt Coverage Ratio
2022	9.9%	4,732,266	4,320,944	411,322	1,368,781	-	-	1.32
2023	9.9%	5,156,550	4,428,554	727,995	5,604,816	1,281,000	5,000,000	1.41
2024	9.9%	5,622,838	4,555,450	1,067,388	5,357,877	1,023,793	-	1.53
2025	2.9%	5,772,950	4,710,081	1,062,869	2,185,865	3,963,000	-	1.54
2026	2.9%	5,927,415	4,861,054	1,066,361	2,418,478	642,975	-	1.59
<b>Target in 2022</b>				<b>\$ 1,127,789</b>				
<b>Target in 2026</b>				<b>\$ 1,172,933</b>				
<b>Minimum Target 2022</b>					<b>\$ 2,318,852</b>			<b>1.25/1.45</b>
<b>Minimum Target 2026</b>					<b>\$ 2,594,142</b>			<b>1.25/1.45</b>

- The rate tracks were set to stabilize operating income and cash will need to be monitored as capital improvements materialize.

## **COST OF SERVICE COMPLETED IN 2020**

A cost of service study was completed in 2020. The actual rate design will depend on the effect to customers by meter size based on average usage. The rate design should work towards cost of service, while designed to avoid significant rate impact.

## **SIGNIFICANT ASSUMPTIONS**

This section outlines the procedures used to develop the financial projection study and rate design for SHAWSA’s Sewer Utility and the related significant assumptions.

### **Forecasted Operating Expenses**

Forecasted expenses were based on 2020 actual, YTD 2021, and Budget 2022 and adjusted for inflation.

### **Projection Cash Balance**

The 2021 projection cash balance was approximately \$1.0 million.

### **Growth**

Growth on sales was projected at 0.0%.

### **Inflation**

Inflation was assumed at 2.65% annually following SHAWSA’s historical trends.

### **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 SHAWSA. Projections for 2022-2026 are listed below:

Year	Projected Capital Improvement
2022	-
2023	1,281,000
2024	1,023,793
2025	3,963,000
2026	642,975

## Sewer Operation Findings

- 1) For SHAWSA to maintain long-term financial targets of the sewer utility, rate increases should be considered. Below is a summary of the five-year financial projection with additional proposed rate increases of 9.9% in 2023-2024 and 2.9% in 2025-2026. The projection also includes a bond issue of \$5.0 million in 2023. 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 Issued	Debt Coverage Ratio
2022	9.9%	4,732,266	4,320,944	411,322	1,368,781	-	-	1.32
2023	9.9%	5,156,550	4,428,554	727,995	5,604,816	1,281,000	5,000,000	1.41
2024	9.9%	5,622,838	4,555,450	1,067,388	5,357,877	1,023,793	-	1.53
2025	2.9%	5,772,950	4,710,081	1,062,869	2,185,865	3,963,000	-	1.54
2026	2.9%	5,927,415	4,861,054	1,066,361	2,418,478	642,975	-	1.59
<b>Target in 2022</b>				<b>\$ 1,127,789</b>				
<b>Target in 2026</b>				<b>\$ 1,172,933</b>				
<b>Minimum Target 2022</b>					<b>\$ 2,318,852</b>	<b>1.25/1.45</b>		
<b>Minimum Target 2026</b>					<b>\$ 2,594,142</b>	<b>1.25/1.45</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. Any changes in revenues, expenses and capital improvements can greatly affect the rate track and bonding requirements.

## APPENDIX 1 – Combined Financial Summary


### Combined Financial Summary

The table below represents the combined projected financial summary for the water and sewer operations for SHAWSA. 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 (Water)	Projected Rate Adjustments (Wastewater)	Projected Revenues	Projected Expenses	Adjusted Operating Income	Operating Cash Balance	Capital Improvements	Bond Issues	Debt Coverage Ratio
2022	6.5%	9.9%	10,155,959	7,804,348	2,351,611	3,332,954	856,625	-	1.39
2023	6.5%	9.9%	10,884,571	8,015,801	2,868,770	15,953,173	3,004,641	14,321,711	1.39
2024	2.9%	9.9%	11,495,505	8,264,516	3,230,989	12,737,326	4,393,850	-	1.30
2025	2.9%	2.9%	11,794,458	8,559,287	3,235,171	6,676,982	7,328,883	-	1.32
2026	2.9%	2.9%	12,102,080	8,827,270	3,274,810	6,571,047	1,505,105	-	1.35
<b>Target 2022</b>					<b>\$ 2,408,291</b>	<b>\$ 5,369,051</b>			<b>1.25/1.45</b>
<b>Target 2026</b>					<b>\$ 2,774,784</b>	<b>\$ 6,241,061</b>			<b>1.25/1.45</b>

- The rate tracks were set to stabilize operating income, cash balances and debt coverage ratio. In addition, \$14.3 million in bonds may be needed around 2023 to help fund the water and sewer capital improvement program. Cash will need to be monitored as capital improvements materialize.

## Appendix 2 – Proposed Rate Design and Impacts

<b>SHAWSA, MI</b>				
<b>Sewer Department</b>				
<b>Forecasted 2023 with 9.9% Proposed Rate Increase</b>				
		<b>Current Rates</b>	<b>COS Rates</b>	<b>Proposed 2023</b>
<i>Commodity Rate</i>		<b>\$5.000</b>	<b>\$5.243</b>	<b>\$5.500</b>
<b>Inside City - Customer Charge</b>				
5/8"		\$ 38.85	\$ 37.55	\$ 42.50
3/4"		38.85	38.99	42.50
1"		52.00	38.99	56.00
1.25"		75.00	77.99	76.00
1.5"		105.00	124.78	110.00
2"		155.00	233.96	166.50
3"		240.00	389.94	252.00
4"		385.00	779.88	428.00
6"		600.00	1,247.81	662.50
<b>Outside City - Customer Charge</b>				
5/8"		\$ 28.85	\$ 38.99	\$ 32.60
3/4"		28.85	38.99	32.60
1"		38.50	38.99	42.50
1.25"		55.50	-	57.50
1.5"		78.00	124.78	83.00
2"		115.00	233.96	126.00
3"		178.00	389.94	191.00
4"		285.00	779.88	324.00
6"		445.00	1,247.81	500.75
<b>Overall Increase</b>				<b>9.9%</b>

## Appendix 2 – Proposed Rate Design and Impacts

INSIDE CITY						OUTSIDE CITY					
<b>5/8"</b>						<b>5/8"</b>					
	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>				<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>		
Customer Service Charge	\$ 38.85	\$ 37.55	\$ 42.50				\$ 28.85	\$ 38.99	\$ 32.60		
Commodity Rate	\$ 5.000	\$ 5.243	\$ 5.500				\$ 5.000	\$ 5.243	\$ 5.500		
<b>Monthly Usage Level in CCF</b>	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>	<b>Monthly Usage Level in CCF</b>	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>
5	\$ 63.85	\$ 63.77	\$ 70.00	\$ 6.15	9.63%	5	\$ 53.85	\$ 65.21	\$ 60.10	\$ 6.25	11.61%
7	\$ 73.85	\$ 74.25	\$ 81.00	7.15	9.68%	7	\$ 63.85	\$ 75.69	\$ 71.10	7.25	11.35%
9	\$ 83.85	\$ 84.74	\$ 92.00	8.15	9.72%	9	\$ 73.85	\$ 86.18	\$ 82.10	8.25	11.17%
12	\$ 98.85	\$ 100.47	\$ 108.50	9.65	9.76%	12	\$ 88.85	\$ 101.91	\$ 98.60	9.75	10.97%
15	\$ 113.85	\$ 116.20	\$ 125.00	11.15	9.79%	15	\$ 103.85	\$ 117.64	\$ 115.10	11.25	10.83%
<b>3/4"</b>						<b>3/4"</b>					
	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>				<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>		
Customer Service Charge	\$ 38.85	\$ 38.99	\$ 42.50				\$ 28.85	\$ 38.99	\$ 32.60		
Commodity Rate	\$ 5.000	\$ 5.243	\$ 5.500				\$ 5.000	\$ 5.243	\$ 5.500		
<b>Monthly Usage Level in CCF</b>	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>	<b>Monthly Usage Level in CCF</b>	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>
5	\$ 63.85	\$ 65.21	\$ 70.00	\$ 6.15	9.63%	5	\$ 53.85	\$ 65.21	\$ 60.10	\$ 6.25	11.61%
7	\$ 73.85	\$ 75.69	\$ 81.00	7.15	9.68%	7	\$ 63.85	\$ 75.69	\$ 71.10	7.25	11.35%
9	\$ 83.85	\$ 86.18	\$ 92.00	8.15	9.72%	9	\$ 73.85	\$ 86.18	\$ 82.10	8.25	11.17%
12	\$ 98.85	\$ 101.91	\$ 108.50	9.65	9.76%	12	\$ 88.85	\$ 101.91	\$ 98.60	9.75	10.97%
15	\$ 113.85	\$ 117.64	\$ 125.00	11.15	9.79%	15	\$ 103.85	\$ 117.64	\$ 115.10	11.25	10.83%
<b>1"</b>						<b>1"</b>					
	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>				<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>		
Customer Service Charge	\$ 52.00	\$ 38.99	\$ 56.00				\$ 38.50	\$ 38.99	\$ 42.50		
Commodity Rate	\$ 5.000	\$ 5.243	\$ 5.500				\$ 5.000	\$ 5.243	\$ 5.500		
<b>Monthly Usage Level in CCF</b>	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>	<b>Monthly Usage Level in CCF</b>	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>
5	\$ 77.00	\$ 65.21	\$ 83.50	\$ 6.50	8.44%	5	\$ 63.50	\$ 65.21	\$ 70.00	\$ 6.50	10.24%
10	\$ 102.00	\$ 91.42	\$ 111.00	9.00	8.82%	10	\$ 88.50	\$ 91.42	\$ 97.50	9.00	10.17%
15	\$ 127.00	\$ 117.64	\$ 138.50	11.50	9.06%	15	\$ 113.50	\$ 117.64	\$ 125.00	11.50	10.13%
20	\$ 152.00	\$ 143.85	\$ 166.00	14.00	9.21%	20	\$ 138.50	\$ 143.85	\$ 152.50	14.00	10.11%
25	\$ 177.00	\$ 170.07	\$ 193.50	16.50	9.32%	25	\$ 163.50	\$ 170.07	\$ 180.00	16.50	10.09%
<b>1.5"</b>						<b>1.5"</b>					
	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>				<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>		
Customer Service Charge	\$ 105.00	\$ 124.78	\$ 110.00				\$ 78.00	\$ 124.78	\$ 83.00		
Commodity Rate	\$ 5.000	\$ 5.243	\$ 5.500				\$ 5.000	\$ 5.243	\$ 5.500		
<b>Monthly Usage Level in CCF</b>	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>	<b>Monthly Usage Level in CCF</b>	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>
50	\$ 355.00	\$ 386.93	\$ 385.00	\$ 30.00	8.45%	50	\$ 328.00	\$ 386.93	\$ 358.00	\$ 30.00	9.15%
60	\$ 405.00	\$ 439.36	\$ 440.00	35.00	8.64%	60	\$ 378.00	\$ 439.36	\$ 413.00	35.00	9.26%
70	\$ 455.00	\$ 491.79	\$ 495.00	40.00	8.79%	70	\$ 428.00	\$ 491.79	\$ 468.00	40.00	9.35%
80	\$ 505.00	\$ 544.22	\$ 550.00	45.00	8.91%	80	\$ 478.00	\$ 544.22	\$ 523.00	45.00	9.41%
90	\$ 555.00	\$ 596.65	\$ 605.00	50.00	9.01%	90	\$ 528.00	\$ 596.65	\$ 578.00	50.00	9.47%
<b>2"</b>						<b>2"</b>					
	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>				<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>		
Customer Service Charge	\$ 155.00	\$ 233.96	\$ 166.50				\$ 115.00	\$ 233.96	\$ 126.00		
Commodity Rate	\$ 5.000	\$ 5.243	\$ 5.500				\$ 5.000	\$ 5.243	\$ 5.500		
<b>Monthly Usage Level in CCF</b>	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>	<b>Monthly Usage Level in CCF</b>	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>
60	\$ 455.00	\$ 548.54	\$ 496.50	\$ 41.50	9.12%	60	\$ 415.00	\$ 548.54	\$ 456.00	\$ 41.00	9.88%
70	\$ 505.00	\$ 600.97	\$ 551.50	46.50	9.21%	70	\$ 465.00	\$ 600.97	\$ 511.00	46.00	9.89%
80	\$ 555.00	\$ 653.40	\$ 606.50	51.50	9.28%	80	\$ 515.00	\$ 653.40	\$ 566.00	51.00	9.90%
90	\$ 605.00	\$ 705.83	\$ 661.50	56.50	9.34%	90	\$ 565.00	\$ 705.83	\$ 621.00	56.00	9.91%
100	\$ 655.00	\$ 758.26	\$ 716.50	61.50	9.39%	100	\$ 615.00	\$ 758.26	\$ 676.00	61.00	9.92%

## Appendix 2 – Proposed Rate Design and Impacts

<b>3"</b>						<b>3"</b>					
	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>				<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>		
Customer Service Charge	\$ 240.00	\$ 389.94	\$ 252.00				\$ 178.00	\$ 389.94	\$ 191.00		
Commodity Rate	\$ 5.000	\$ 5.243	\$ 5.500				\$ 5.000	\$ 5.243	\$ 5.500		
<b>Monthly Usage Level in CCF</b>						<b>Monthly Usage Level in CCF</b>					
	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>		<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>
70	\$ 590.00	\$ 756.95	\$ 637.00	\$ 47.00	7.97%	70	\$ 528.00	\$ 756.95	\$ 576.00	\$ 48.00	9.09%
80	\$ 640.00	\$ 809.38	\$ 692.00	52.00	8.13%	80	\$ 578.00	\$ 809.38	\$ 631.00	53.00	9.17%
90	\$ 690.00	\$ 861.81	\$ 747.00	57.00	8.26%	90	\$ 628.00	\$ 861.81	\$ 686.00	58.00	9.24%
100	\$ 740.00	\$ 914.24	\$ 802.00	62.00	8.38%	100	\$ 678.00	\$ 914.24	\$ 741.00	63.00	9.29%
110	\$ 790.00	\$ 966.67	\$ 857.00	67.00	8.48%	110	\$ 728.00	\$ 966.67	\$ 796.00	68.00	9.34%
<b>4"</b>						<b>4"</b>					
	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>				<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>		
Customer Service Charge	\$ 385.00	\$ 779.88	\$ 428.00				\$ 285.00	\$ 779.88	\$ 324.00		
Commodity Rate	\$ 5.000	\$ 5.243	\$ 5.500				\$ 5.000	\$ 5.243	\$ 5.500		
<b>Monthly Usage Level in CCF</b>						<b>Monthly Usage Level in CCF</b>					
	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>		<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>
80	\$ 785.00	\$ 1,199.32	\$ 868.00	\$ 83.00	10.57%	80	\$ 685.00	\$ 1,199.32	\$ 764.00	\$ 79.00	11.53%
90	\$ 835.00	\$ 1,251.75	\$ 923.00	88.00	10.54%	90	\$ 735.00	\$ 1,251.75	\$ 819.00	84.00	11.43%
100	\$ 885.00	\$ 1,304.18	\$ 978.00	93.00	10.51%	100	\$ 785.00	\$ 1,304.18	\$ 874.00	89.00	11.34%
110	\$ 935.00	\$ 1,356.61	\$ 1,033.00	98.00	10.48%	110	\$ 835.00	\$ 1,356.61	\$ 929.00	94.00	11.26%
120	\$ 985.00	\$ 1,409.04	\$ 1,088.00	103.00	10.46%	120	\$ 885.00	\$ 1,409.04	\$ 984.00	99.00	11.19%
<b>6"</b>						<b>6"</b>					
	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>				<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>		
Customer Service Charge	\$ 600.00	\$ 1,247.81	\$ 662.50				\$ 445.00	\$ 1,247.81	\$ 500.75		
Commodity Rate	\$ 5.000	\$ 5.243	\$ 5.500				\$ 5.000	\$ 5.243	\$ 5.500		
<b>Monthly Usage Level in CCF</b>						<b>Monthly Usage Level in CCF</b>					
	<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>		<b>Current Rates</b>	<b>COS Charge</b>	<b>Proposed Rates</b>	<b>Dollar Impact</b>	<b>Percent Change</b>
90	\$ 1,050.00	\$ 1,719.68	\$ 1,157.50	\$ 107.50	10.24%	90	\$ 895.00	\$ 1,719.68	\$ 995.75	\$ 100.75	11.26%
100	\$ 1,100.00	\$ 1,772.11	\$ 1,212.50	112.50	10.23%	100	\$ 945.00	\$ 1,772.11	\$ 1,050.75	105.75	11.19%
110	\$ 1,150.00	\$ 1,824.54	\$ 1,267.50	117.50	10.22%	110	\$ 995.00	\$ 1,824.54	\$ 1,105.75	110.75	11.13%
120	\$ 1,200.00	\$ 1,876.97	\$ 1,322.50	122.50	10.21%	120	\$ 1,045.00	\$ 1,876.97	\$ 1,160.75	115.75	11.08%
130	\$ 1,250.00	\$ 1,929.40	\$ 1,377.50	127.50	10.20%	130	\$ 1,095.00	\$ 1,929.40	\$ 1,215.75	120.75	11.03%