

Executive Report

South Haven Area Water and Sewer
Authority

Water Operations
Financial Projection Report

November 29, 2021





November 29, 2021

William Hunter
Director of Public Works
City of South Haven
1199 8th 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) water 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 water utility's revenue requirements for 2022/2026
- 2) Project rate adjustments needed to meet or work toward revenue requirements

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

- 1) Rate adjustments that are based on the utilities ability to 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, 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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Utility Revenue Requirements

To determine revenue requirements, the revenues and expenses for Fiscal Year 2020, 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 Water Operation from 2022 – 2026 without any additional rate changes for the years 2023-2025. A 6.5% rate adjustment for fiscal year 2022 is currently in the forecast with rates effective July 1, 2021. The financial summary also includes a projected bond issue of \$9.3 million in 2023. Without the projected bond issue current cash would be negative starting in 2024. The operating income is projected at \$1.9 million for 2022, while the target is \$1.3 million. The operating income continues to decline throughout the period to \$1.5 million in 2026 without additional rate adjustments.

Table One – Financial Summary (without No Additional Rate Adjustments and with Bonds)

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Operating Cash Balance	Capital Improvements	Bond Issues	Debt Coverage Ratio
2022	6.5%	5,423,693	3,483,403	1,940,290	1,964,172	856,625	-	1.44
2023	0.0%	5,423,772	3,570,513	1,853,259	10,060,842	1,723,641	9,321,711	1.25
2024	0.0%	5,423,854	3,684,381	1,739,472	6,666,368	3,370,057	-	1.01
2025	0.0%	5,423,937	3,816,340	1,607,598	3,209,765	3,365,883	-	0.99
2026	0.0%	5,424,023	3,924,931	1,499,092	2,155,454	862,130	-	0.95
Target 2022				\$ 1,280,502	\$ 3,050,199			1.25/1.45
Target 2026				\$ 1,601,851	\$ 3,641,841			1.25/1.45

Financial Targets

Projected Cash Flow

Table Two is the projected cash flow for 2022 – 2026 without additional rate adjustments, 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.

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

Projected Cash Flows	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026
Add Net Income	\$ 1,173,438	\$ 920,930	\$ 685,803	\$ 603,412	\$ 547,246
Add Back Depreciation Expense	912,499	938,302	989,239	1,056,598	1,098,879
Subtract Debt Principal	1,218,153	1,299,883	1,638,710	1,689,980	1,777,556
SHAWSA Loan Principal	60,750	60,750	60,750	60,750	60,750
Add Bond Sale Proceeds	-	9,321,711	-	-	-
Cash Available from Operations	\$ 807,035	\$ 9,820,310	\$ (24,417)	\$ (90,720)	\$ (192,181)
Estimated Annual Capital Additions	856,625	1,723,641	3,370,057	3,365,883	862,130
Net Cash From Operations	\$ (49,590)	\$ 8,096,669	\$ (3,394,474)	\$ (3,456,603)	\$ (1,054,311)
Beginning Cash Balance	2,013,763	1,964,172	10,060,842	6,666,368	3,209,765
Ending Cash Balance	\$ 1,964,172	\$ 10,060,842	\$ 6,666,368	\$ 3,209,765	\$ 2,155,454
Total Cash Available	1,964,172	10,060,842	6,666,368	3,209,765	2,155,454
Targeted Minimum	3,050,199	3,575,626	3,601,882	3,661,439	3,641,841

Projected Cash Balances are below the targets throughout the projection period without the bond issue.

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 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 will 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, SHAWSA water operations should maintain a minimum of \$3.6 million in cash reserves.

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%	\$ 316,221	\$ 323,762	\$ 331,502	\$ 339,448	\$ 347,604
Historical Rate Base	1%	462,924	480,160	513,861	547,520	556,141
Current Portion of Debt Service Reserve	100%	2,236,789	2,737,439	2,722,254	2,740,207	2,703,831
Five Year Capital Improvements - Net of bond proceeds	20%	34,265	34,265	34,265	34,265	34,265
Targeted Minimum Cash Reserve		\$ 3,050,199	\$ 3,575,626	\$ 3,601,882	\$ 3,661,439	\$ 3,641,841
Projected Cash Reserves		\$ 1,964,172	\$ 10,060,842	\$ 6,666,368	\$ 3,209,765	\$ 2,155,454

Debt Coverage Ratio

Table Four is the projected debt coverage ratios with capital additions as provided by SHAWSA. The current revenue bond requirement is a 1.25 ratio; however, we targeted a 1.45 ratio to help 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 Four – Debt Coverage Ratios (with No Additional Rate Adjustments and with Bonds)

Debt Coverage Ratio	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026
Add Net Income	\$ 1,173,438	\$ 920,930	\$ 685,803	\$ 603,412	\$ 547,246
Add Depreciation Expense	912,499	938,302	989,239	1,056,598	1,098,879
Add Interest Expense	771,676	936,906	1,098,729	1,032,273	962,651
Cash Available for Debt Service	\$ 2,857,614	\$ 2,796,138	\$ 2,773,772	\$ 2,692,284	\$ 2,608,776
Debt Principal and Interest	\$ 1,989,829	\$ 2,236,789	\$ 2,737,439	\$ 2,722,254	\$ 2,740,207
Projected Debt Coverage Ratio (Covenants)	1.44	1.25	1.01	0.99	0.95
Minimum Debt Coverage Ratio	1.45	1.45	1.45	1.45	1.45

The Debt Coverage Ratio does not meet targets 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 for 2022 is approximately \$1.3 million.

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
Effective Interest Expense	4.2%	\$ 771,676	\$ 936,906	\$ 1,098,729	\$ 1,032,273	\$ 962,651
Inflationary Increase on Assets	5.3%	508,826	129,161	338,784	544,574	639,201
Target Operating Income		\$ 1,280,502	\$ 1,066,068	\$ 1,437,513	\$ 1,576,847	\$ 1,601,851
Projected Adjusted Operating Income		\$ 1,940,290	\$ 1,853,259	\$ 1,739,472	\$ 1,607,598	\$ 1,499,092
Rate of Return in %		4.5%	3.7%	4.6%	4.7%	4.8%

Rate of Return falls below targeted minimum in 2025 without the bond issue.

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 an additional projected rate track of 6.5% in 2023 and 2.9% in 2024-2026. This financial projection also includes a bond issuance of \$9.3 million in 2023.

The rate track was developed to move toward the operating income targets. The rate track should be reviewed annually as changes in revenues, expenses and capital can impact the rate track and bonding requirements.

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

Fiscal Year	Projected Rate Adjustments	Projected Revenues	Projected Expenses	Adjusted Operating Income	Operating Cash Balance	Capital Improvements	Bond Issues	Debt Coverage Ratio
2022	6.5%	5,423,693	3,483,403	1,940,290	1,964,172	856,625	-	1.44
2023	6.5%	5,728,021	3,587,247	2,140,774	10,348,357	1,723,641	9,321,711	1.38
2024	2.9%	5,872,667	3,709,066	2,163,601	7,379,449	3,370,057	-	1.17
2025	2.9%	6,021,508	3,849,206	2,172,302	4,491,116	3,365,883	-	1.20
2026	2.9%	6,174,665	3,966,216	2,208,449	4,152,569	862,130	-	1.21
Target 2022				\$ 1,280,502	\$ 3,050,199			1.25/1.45
Target 2026				\$ 1,601,851	\$ 3,646,919			1.25/1.45

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 Water 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 \$2.0 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:

Fiscal Year	Projected Capital Improvement
2022	856,625
2023	1,723,641
2024	3,370,057
2025	3,365,883
2026	862,130

Water Operations Findings

- 1) For SHAWSA to maintain long-term financial targets of the water utility, rate increases should be considered. Below is a summary of the five-year financial projection with proposed additional rate increases of 6.5% in 2023 and 2.9% in 2024-2026. This financial projection also includes a bond issue of \$9.3 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	Operating Cash Balance	Capital Improvements	Bond Issues	Debt Coverage Ratio
2022	6.5%	5,423,693	3,483,403	1,940,290	1,964,172	856,625	-	1.44
2023	6.5%	5,728,021	3,587,247	2,140,774	10,348,357	1,723,641	9,321,711	1.38
2024	2.9%	5,872,667	3,709,066	2,163,601	7,379,449	3,370,057	-	1.17
2025	2.9%	6,021,508	3,849,206	2,172,302	4,491,116	3,365,883	-	1.20
2026	2.9%	6,174,665	3,966,216	2,208,449	4,152,569	862,130	-	1.21
Target 2022				\$ 1,280,502	\$ 3,050,199			1.25/1.45
Target 2026				\$ 1,601,851	\$ 3,646,919			1.25/1.45

- 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 the 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
Target 2022					\$ 2,408,291	\$ 5,369,051			1.25/1.45
Target 2026					\$ 2,774,784	\$ 6,241,061			1.25/1.45

- The rate tracks were set to stabilize operating income and cash balances, the utility currently combines water and sewer financial statements and jointly, the rate tracks allow the utility to maintain close to minimum levels. 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 – Grant Scenario Summary

Grant Scenario Summary

The table below represents the water operations projected financial summary if the City were to receive a \$2 million ARPA grant in 2022. The rate track did not change however, it puts the utility in a better position for debt coverage ratio due to a smaller projected bond. This puts the utility in a better position to borrow in the future. 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	Operating Cash Balance	Capital Improvements	Bond Issues	Debt Coverage Ratio
2022	6.5%	5,423,693	3,483,403	1,940,290	3,964,172	856,625	-	2.44
2023	6.5%	5,728,021	3,587,247	2,180,774	9,600,134	1,723,641	6,500,000	1.42
2024	2.9%	5,872,667	3,709,066	2,203,601	6,844,408	3,370,057	-	1.27
2025	2.9%	6,021,508	3,849,206	2,212,302	4,170,322	3,365,883	-	1.30
2026	2.9%	6,174,665	3,966,216	2,248,449	4,047,093	862,130	-	1.32
Target 2022				\$ 1,227,876	\$ 3,099,579			1.25/1.45
Target 2026				\$ 1,565,214	\$ 3,542,866			1.25/1.45

APPENDIX 3 – Proposed Rate Design and Impacts

SHAWSA, MI
Water Department



Forecasted 2023 with 6.5% Proposed Rate Increase

		Current Rates	COS Rates	Proposed 2023
Commodity Rate Inside				
	Rate - 1st 25 CCF	\$2.730	\$3.717	\$3.050
	Rate - 26 to 249 CCF	\$2.730	\$3.717	\$3.050
	Rate - Over 250 CCF	\$2.730	\$3.717	\$3.050
Commodity Rate Outside				
	Rate - 1st 25 CCF	\$2.730	\$3.717	\$3.050
	Rate - 26 to 249 CCF	\$2.730	\$3.717	\$3.050
	Rate - Over 250 CCF	\$2.730	\$3.717	\$3.050
Inside City				
	5/8"	\$ 42.25	\$ 23.46	\$ 43.94
	3/4"	42.25	23.46	43.94
	1"	60.00	39.09	62.40
	1.5"	109.00	78.19	113.36
	2"	156.50	125.10	162.76
	3"	260.00	234.57	270.40
	4"	390.00	390.95	405.60
	6"	600.00	781.90	648.00
	8"	900.00	1,251.04	972.00
Outside City				
	5/8"	\$ 38.00	\$ 23.46	\$ 39.52
	3/4"	38.00	23.46	39.52
	1"	54.00	39.09	56.16
	1.5"	98.00	78.19	101.92
	2"	141.00	125.10	146.64
	3"	234.00	234.57	243.36
	4"	350.00	390.95	378.00
	6"	540.00	781.90	583.20
	8"	810.00	1,251.04	874.80
Overall Increase				6.5%

APPENDIX 3 – Proposed Rate Design and Impacts

5/8"				5/8"							
Current Rates	COS Charge	Proposed Rates		Current Rates	COS Charge	Proposed Rates					
Customer Service Charge	\$ 42.25	\$ 23.46	\$ 43.94	Customer Service Charge	\$ 38.00	\$ 23.46	\$ 39.52				
Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change	Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change
6	\$ 58.63	\$ 45.76	\$ 62.24	\$ 3.61	6.16%	6	\$ 54.38	\$ 45.76	\$ 57.82	\$ 3.44	6.33%
7	\$ 61.36	\$ 49.48	\$ 65.29	3.93	6.40%	7	\$ 57.11	\$ 49.48	\$ 60.87	3.76	6.58%
9	\$ 66.82	\$ 56.91	\$ 71.39	4.57	6.84%	9	\$ 62.57	\$ 56.91	\$ 66.97	4.40	7.03%
12	\$ 75.01	\$ 68.06	\$ 80.54	5.53	7.37%	12	\$ 70.76	\$ 68.06	\$ 76.12	5.36	7.57%
15	\$ 83.20	\$ 79.21	\$ 89.69	6.49	7.80%	15	\$ 78.95	\$ 79.21	\$ 85.27	6.32	8.01%
3/4"				3/4"							
Current Rates	COS Charge	Proposed Rates		Current Rates	COS Charge	Proposed Rates					
Customer Service Charge	\$ 42.25	\$ 23.46	\$ 43.94	Customer Service Charge	\$ 38.00	\$ 23.46	\$ 39.52				
Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change	Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change
6	\$ 58.63	\$ 45.76	\$ 62.24	\$ 3.61	6.16%	6	\$ 54.38	\$ 45.76	\$ 57.82	\$ 3.44	6.33%
7	\$ 61.36	\$ 49.48	\$ 65.29	3.93	6.40%	7	\$ 57.11	\$ 49.48	\$ 60.87	3.76	6.58%
9	\$ 66.82	\$ 56.91	\$ 71.39	4.57	6.84%	9	\$ 62.57	\$ 56.91	\$ 66.97	4.40	7.03%
12	\$ 75.01	\$ 68.06	\$ 80.54	5.53	7.37%	12	\$ 70.76	\$ 68.06	\$ 76.12	5.36	7.57%
15	\$ 83.20	\$ 79.21	\$ 89.69	6.49	7.80%	15	\$ 78.95	\$ 79.21	\$ 85.27	6.32	8.01%
1"				1"							
Current Rates	COS Charge	Proposed Rates		Current Rates	COS Charge	Proposed Rates					
Customer Service Charge	\$ 60.00	\$ 39.09	\$ 62.40	Customer Service Charge	\$ 54.00	\$ 39.09	\$ 56.16				
Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change	Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change
10	\$ 87.30	\$ 76.26	\$ 92.90	\$ 5.60	6.41%	10	\$ 81.30	\$ 76.26	\$ 86.66	\$ 5.36	6.59%
15	\$ 100.95	\$ 94.85	\$ 108.15	7.20	7.13%	15	\$ 94.95	\$ 94.85	\$ 101.91	6.96	6.58%
20	\$ 114.60	\$ 113.43	\$ 123.40	8.80	7.68%	20	\$ 108.60	\$ 113.43	\$ 117.16	8.56	7.88%
25	\$ 128.25	\$ 132.02	\$ 138.65	10.40	8.11%	25	\$ 122.25	\$ 132.02	\$ 132.41	10.16	8.31%
30	\$ 141.90	\$ 150.60	\$ 153.90	12.00	8.46%	30	\$ 135.90	\$ 150.60	\$ 147.66	11.76	8.65%
1.5"				1.5"							
Current Rates	COS Charge	Proposed Rates		Current Rates	COS Charge	Proposed Rates					
Customer Service Charge	\$ 109.00	\$ 78.19	\$ 113.36	Customer Service Charge	\$ 98.00	\$ 78.19	\$ 101.92				
Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change	Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change
30	\$ 190.90	\$ 189.70	\$ 204.86	\$ 13.96	7.31%	30	\$ 179.90	\$ 189.70	\$ 193.42	\$ 13.52	7.52%
35	\$ 204.55	\$ 208.28	\$ 220.11	15.56	7.61%	35	\$ 193.55	\$ 208.28	\$ 208.67	15.12	7.81%
40	\$ 218.20	\$ 226.87	\$ 235.36	17.16	7.86%	40	\$ 207.20	\$ 226.87	\$ 223.92	16.72	8.07%
45	\$ 231.85	\$ 245.45	\$ 250.61	18.76	8.09%	45	\$ 220.85	\$ 245.45	\$ 239.17	18.32	8.30%
50	\$ 245.50	\$ 264.04	\$ 265.86	20.36	8.29%	50	\$ 234.50	\$ 264.04	\$ 254.42	19.92	8.49%
2"				2"							
Current Rates	COS Charge	Proposed Rates		Current Rates	COS Charge	Proposed Rates					
Customer Service Charge	\$ 156.50	\$ 125.10	\$ 162.76	Customer Service Charge	\$ 141.00	\$ 125.10	\$ 146.64				
Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050	Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050				
Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change	Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change
50	\$ 293.00	\$ 310.95	\$ 315.26	\$ 22.26	7.60%	50	\$ 277.50	\$ 310.95	\$ 299.14	\$ 21.64	7.80%
60	\$ 320.30	\$ 348.12	\$ 345.76	25.46	7.95%	60	\$ 304.80	\$ 348.12	\$ 329.64	24.84	8.15%
70	\$ 347.60	\$ 385.29	\$ 376.26	28.66	8.25%	70	\$ 332.10	\$ 385.29	\$ 360.14	28.04	8.44%
80	\$ 374.90	\$ 422.46	\$ 406.76	31.86	8.50%	80	\$ 359.40	\$ 422.46	\$ 390.64	31.24	8.69%
90	\$ 402.20	\$ 459.63	\$ 437.26	35.06	8.72%	90	\$ 386.70	\$ 459.63	\$ 421.14	34.44	8.91%

APPENDIX 3 – Proposed Rate Design and Impacts

3"						3"					
	Current Rates	COS Charge	Proposed Rates				Current Rates	COS Charge	Proposed Rates		
Customer Service Charge	\$ 260.00	\$ 234.57	\$ 270.40			Customer Service Charge	\$ 234.00	\$ 234.57	\$ 243.36		
Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050			Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050		
Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050			Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050		
Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050			Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050		
Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change	Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change
90	\$ 505.70	\$ 569.10	\$ 544.90	\$ 39.20	7.75%	90	\$ 479.70	\$ 569.10	\$ 517.86	\$ 38.16	7.95%
120	\$ 587.60	\$ 680.61	\$ 636.40	48.80	8.30%	120	\$ 561.60	\$ 680.61	\$ 609.36	47.76	8.50%
140	\$ 642.20	\$ 754.95	\$ 697.40	55.20	8.60%	140	\$ 616.20	\$ 754.95	\$ 670.36	54.16	8.79%
160	\$ 696.80	\$ 829.29	\$ 758.40	61.60	8.84%	160	\$ 670.80	\$ 829.29	\$ 731.36	60.56	9.03%
180	\$ 751.40	\$ 903.63	\$ 819.40	68.00	9.05%	180	\$ 725.40	\$ 903.63	\$ 792.36	66.96	9.23%
4"						4"					
	Current Rates	COS Charge	Proposed Rates				Current Rates	COS Charge	Proposed Rates		
Customer Service Charge	\$ 390.00	\$ 390.95	\$ 405.60			Customer Service Charge	\$ 350.00	\$ 390.95	\$ 378.00		
Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050			Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050		
Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050			Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050		
Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050			Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050		
Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change	Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change
180	\$ 881.40	\$ 1,060.01	\$ 954.60	\$ 73.20	8.30%	180	\$ 841.40	\$ 1,060.01	\$ 927.00	\$ 85.60	10.17%
200	\$ 936.00	\$ 1,134.35	\$ 1,015.60	79.60	8.50%	200	\$ 896.00	\$ 1,134.35	\$ 988.00	92.00	10.27%
220	\$ 990.60	\$ 1,208.69	\$ 1,076.60	86.00	8.68%	220	\$ 950.60	\$ 1,208.69	\$ 1,049.00	98.40	10.35%
240	\$ 1,045.20	\$ 1,283.03	\$ 1,137.60	92.40	8.84%	240	\$ 1,005.20	\$ 1,283.03	\$ 1,110.00	104.80	10.43%
260	\$ 1,099.80	\$ 1,357.37	\$ 1,198.60	98.80	8.98%	260	\$ 1,059.80	\$ 1,357.37	\$ 1,171.00	111.20	10.49%
6"						6"					
	Current Rates	COS Charge	Proposed Rates				Current Rates	COS Charge	Proposed Rates		
Customer Service Charge	\$ 600.00	\$ 781.90	\$ 648.00			Customer Service Charge	\$ 540.00	\$ 781.90	\$ 583.20		
Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050			Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050		
Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050			Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050		
Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050			Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050		
Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change	Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change
200	\$ 1,146.00	\$ 1,525.30	\$ 1,258.00	\$ 112.00	9.77%	200	\$ 1,086.00	\$ 1,525.30	\$ 1,193.20	\$ 107.20	9.87%
220	\$ 1,200.60	\$ 1,599.64	\$ 1,319.00	118.40	9.86%	220	\$ 1,140.60	\$ 1,599.64	\$ 1,254.20	113.60	9.96%
240	\$ 1,255.20	\$ 1,673.98	\$ 1,380.00	124.80	9.94%	240	\$ 1,195.20	\$ 1,673.98	\$ 1,315.20	120.00	10.04%
260	\$ 1,309.80	\$ 1,748.32	\$ 1,441.00	131.20	10.02%	260	\$ 1,249.80	\$ 1,748.32	\$ 1,376.20	126.40	10.11%
280	\$ 1,364.40	\$ 1,822.66	\$ 1,502.00	137.60	10.09%	280	\$ 1,304.40	\$ 1,822.66	\$ 1,437.20	132.80	10.18%
8"						8"					
	Current Rates	COS Charge	Proposed Rates				Current Rates	COS Charge	Proposed Rates		
Customer Service Charge	\$ 900.00	\$ 1,251.04	\$ 972.00			Customer Service Charge	\$ 810.00	\$ 1,251.04	\$ 874.80		
Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050			Rate - 1st 25 CCF	\$ 2.730	\$ 3.717	\$ 3.050		
Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050			Rate - 26 to 249 CCF	\$ 2.730	\$ 3.717	\$ 3.050		
Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050			Rate - Over 250 CCF	\$ 2.730	\$ 3.717	\$ 3.050		
Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change	Monthly Usage Level in CCF	Current Rates	COS Charge	Proposed Rates	Dollar Impact	Percent Change
300	\$ 1,719.00	\$ 2,366.14	\$ 1,887.00	\$ 168.00	9.77%	300	\$ 1,629.00	\$ 2,366.14	\$ 1,789.80	\$ 160.80	9.87%
400	\$ 1,992.00	\$ 2,737.84	\$ 2,192.00	200.00	10.04%	400	\$ 1,902.00	\$ 2,737.84	\$ 2,094.80	192.80	10.14%
500	\$ 2,265.00	\$ 3,109.54	\$ 2,497.00	232.00	10.24%	500	\$ 2,175.00	\$ 3,109.54	\$ 2,399.80	224.80	10.34%
1000	\$ 3,630.00	\$ 4,968.04	\$ 4,022.00	392.00	10.80%	1000	\$ 3,540.00	\$ 4,968.04	\$ 3,924.80	384.80	10.87%
2100	\$ 6,633.00	\$ 9,056.74	\$ 7,377.00	744.00	11.22%	2100	\$ 6,543.00	\$ 9,056.74	\$ 7,279.80	736.80	11.26%