

**CITY OF LA VISTA**  
**MAYOR & CITY COUNCIL**  
**MAY 21, 2019 AGENDA**

<b>Subject:</b>	<b>Type:</b>	<b>Submitted By:</b>
SEWER RATE STUDY – FY20-FY24	◆ RESOLUTION ORDINANCE RECEIVE/FILE	JOHN KOTTMANN CITY ENGINEER

#### **SYNOPSIS**

A resolution has been prepared to accept the Sewer Rate Study prepared by Burns & McDonnell and accepting the recommended sewer rates. The actual implementation of the rates will occur with the annual modifications to the Master Fee Ordinance as part of the budget process in September of each year.

#### **FISCAL IMPACT**

The proposed rate increases are expected to provide adequate funding of the operation and maintenance of the City's sewer system, pay for treatment of sewage, system rehabilitation and achieve an acceptable level of reserves. The City's sewer fund is an enterprise fund and as such all expenses associated with operating and maintaining the City's sewer system are supported by user fees – no property tax or sales tax dollars are used to support the sewer system.

#### **RECOMMENDATION**

Approval

#### **BACKGROUND**

The current sewer rate study covers the period ending with FY19, therefore, new rates need to be established for the Master Fee Ordinance update in September of this year. Continuing the present rates without increase will not be adequate.

The City solicited proposals from consulting firms and received five submittals. Three firms were interviewed after which Burns & McDonnell was selected with an agreement approved at the August 21, 2018 City Council meeting. Since then, staff has met and discussed with Burns & McDonnell personnel multiple times to prepare this study. Representatives from Burns & McDonnell will be present and make a presentation to the City Council on the process and recommendations in the Rate Study. They will be available for questions.

**RESOLUTION NO. \_\_\_\_**

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF LA VISTA, NEBRASKA, ACCEPTING THE SEWER RATE STUDY DATED MAY 8, 2019 AND APPROVING IMPLEMENTATION OF RECOMMENDED RATES AND FEES.

WHEREAS, the Mayor and City Council of the City of La Vista, Nebraska, previously authorized the evaluation of future costs associated with operating and maintaining the sewer system; and

WHEREAS, the Mayor and City Council adopted the waste water agreement with the City of Omaha on April 7, 2009; and

WHEREAS, the sewer rate study was prepared by Burns & McDonnell; and

WHEREAS, the City Administrator, City Engineer, Finance Director and Director of Public Works have recommended acceptance of the proposed rates and fees over the next five (5) fiscal years, subject to annual evaluation and review of revenues and expenses as projected in the study;

NOW THEREFORE, BE IT RESOLVED, by the Mayor and City Council of the City of La Vista, Nebraska that the Sewer Rate Study dated May 8, 2019 prepared by Burns & McDonnell and the implementation of the recommended rates and fees over the next five (5) fiscal years has been reviewed by the Mayor and City Council of the City of La Vista and the same hereby is, accepted and approved.

PASSED AND APPROVED THIS 21ST DAY OF MAY 2019.

CITY OF LA VISTA

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Douglas Kindig, Mayor

ATTEST:

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Pamela A. Buethe, CMC  
City Clerk



# Sewer Rate Study



**City of La Vista, Nebraska**

**Project No. 111085**

**Final Report  
5/8/2019**



# **Sewer Rate Study**

**prepared for**

**City of La Vista, Nebraska**

**Project No. 111085**

**Final Report**  
**5/8/2019**

**prepared by**

**Burns & McDonnell Engineering Company, Inc.**  
**Kansas City, Missouri**

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## LIST OF ABBREVIATIONS

<u>Abbreviation</u>	<u>Term/Phrase/Name</u>
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
BLS	Bureau of Labor Statistics
CIP	Capital Improvement Program
CPI-U	Consumer Price Index for all Urban Consumers
Ccf	Hundred Cubic Feet
FY	Fiscal Year
MUD	Metropolitan Utilities District
O&M	Operation and Maintenance
The City	The City of La Vista, Nebraska
The Study	Cost of Service and Rate Analysis

## 1.0 INTRODUCTION

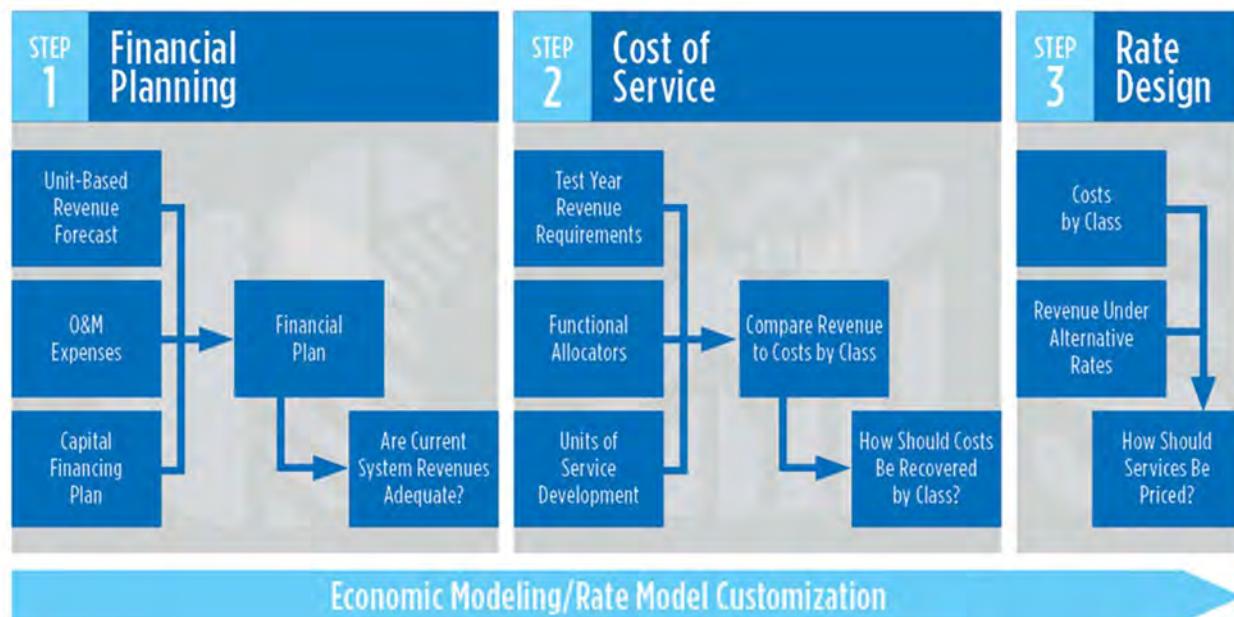
### 1.1 Study Background

The City of La Vista, Nebraska (the City) retained Burns & McDonnell to perform a financial planning, cost of service and rate analysis (the Sewer Rate Study or Study) for the City's sewer system. The Study provides a five-year financial plan that evaluates the sufficiency of revenues under existing rates to meet future operating and capital costs of the utility. If revenues are insufficient to meet funding requirements, recommendations are made to increase rates sufficiently to meet the utility's revenue requirements. The cost of service analysis provides context for rate design. Throughout this report various years are referenced regarding the City's financial plan. The years referenced are the City's fiscal years (FY), which are October 1<sup>st</sup> through September 30<sup>th</sup>.

### 1.2 Project Approach

To meet the project objectives identified by the City, Burns & McDonnell conducted the rate study in a three-step approach. This approach, depicted in Figure 1-1, is grounded in the principles established by the American Water Works Association (AWWA) *M1 Rate Manual* and the Water Environment Federation (WEF) *Financing and Charges for Wastewater Systems*.

**Figure 1-1: Study Methodology**



**Step 1: Financial Planning** provides an indication of the adequacy of the revenue generated by current rates. The results of the financial forecast analysis answer the questions "Are the existing rates adequate?" and "If not, what level of overall revenue increase is needed?" The Financial Planning Analysis is presented in Section 2.0 of this report.

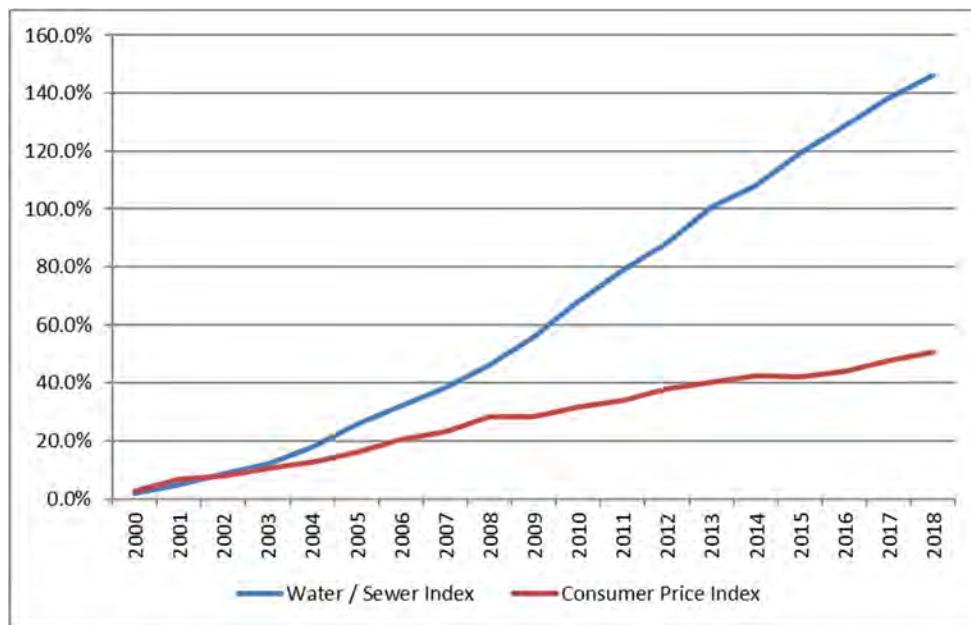
**Step 2: Cost of Service** focuses on assigning cost responsibility to customer classes. Each customer class is allocated an appropriate share of the overall system costs based on the level of service provided. The net revenue requirements (costs to be recovered from rates) identified in Step 1 are allocated to customers in accordance with industry standards and principles and system specifics. The Cost of Service Analysis is detailed in Section 3.0 of this report.

**Step 3: Rate Design** provides for the required revenue recovery. Once the overall level of revenue required is identified and customer class responsibility for that level of revenue is determined, schedules of rates for each rate class are developed that will generate revenues accordingly. The Rate Design Analysis is detailed in Section 4.0 of this report. A regional bill comparison is also provided for neighboring sewer systems in Section 4.0.

### 1.3 Industry Trends in Sewer Rate Increases

Nationally, the cost of residential sewer service is rising faster than many other household costs. Replacement of aging infrastructure is one of several dynamics impacting sewer utility rates. Other dynamics generally include increasing regulatory requirements, inflation on operating and capital costs, and a trend in declining consumption most often associated with more efficient fixtures and appliances and greater awareness of water conservation.

Every utility is different, and the relative importance of these dynamics will vary by utility. However, there is no doubt that sewer rate increases have substantially outpaced general inflation in the United States. The United States Bureau of Labor Statistics (BLS) tracks many facets of inflation. The most commonly referenced measure is the Consumer Price Index for all Urban Consumers (CPI-U) which measures inflation at the consumer level for a representative basket of goods. The BLS also tracks a combined inflation index for consumer water and sewer costs. Figure 1-2 compares changes in the BLS' consumer price index to changes in the BLS' water and sewer cost index.

**Figure 1-2: Changes in General Inflation vs. Water and Sewer Rates**

Cumulatively since 2000, the water and sewer index has risen over 140 percent, while CPI has increased about 50 percent. Annually, this equates to an approximate increase of 5 percent per year for the water and sewer index, while CPI's annual rate of change is about 2 percent per year.

Other industry surveys reach similar conclusions regarding water and/or sewer rates. The National Association of Clean Water (NACWA) annually updates its *Cost of Clean Water Index*, which surveys sewer utilities across the nation regarding the cost of residential sewer service. From 1985 through 2017, the annual increase according to this survey has been 5 percent per year. American Water Works Association (AWWA) also conducts a broad, annual water and sewer rate survey. The most recent publication indicates from 2004 through 2014, sewer rates were indicated to increase approximately 6 percent annually.

Each utility is influenced by specific circumstances that can lead to increases that are higher or lower than these industry trends. However, costs associated with renewal and replacement of existing infrastructure and the increasing cost of regulatory compliance are two of the primary dynamics contributing toward the increases in sewer rates. Understanding the reality of increasing costs within the sewer industry provides helpful context in evaluating proposed financial plans regarding La Vista's sewer utility.

## 2.0 FINANCIAL PLANNING ANALYSIS

### 2.1 Introduction to Financial Planning

The primary issue addressed in Financial Planning Analysis is revenue sufficiency. The results of Financial Planning Analysis answer the questions:

- "Are the existing rates adequate to meet future funding needs?"
- "If not, what level of overall revenue increase is needed?"

To determine if the existing schedule of rates can be expected to generate enough revenue to meet the City's operating and capital costs, Burns & McDonnell prepared a five-year financial projection of revenues and expenditures for the utility. A comparison of projected revenues and expenditures provides insight into the adequacy of overall revenue levels.

Our approach to Financial Planning involves the following basic steps:

1. Project revenues under existing rates.
2. Project utility expenditures.
3. Develop a multi-year financial plan
4. Evaluate financial sufficiency based on key performance indicators such as reserve balances.

The planning period includes the current fiscal year (FY) 2019 and a five-year forecast period, 2020 – 2024. The City utilizes a twelve-month fiscal year beginning October 1. The Financial Plan Analysis recognizes and references the same fiscal year in the forecast period.

The remainder of this section of the report discusses how the sewer utility financial plan was developed and identifies the sufficiency of existing rates to adequately meet future costs.

### 2.2 Sewer Utility Revenues under Existing Rates

The first step in Financial Planning Analysis was to project revenues under the existing schedule of rates. To support this effort an analysis of customer billing determinants and revenues was performed.

#### 2.2.1 Historical and Projected Customers

Table 2-1 presents the historical sewer customers served by the City from 2016 to 2018 and the projection of customers for the 2019 to 2024 planning period. In recent years, La Vista has experienced a minimal increase in the number of accounts. For the purpose of this Study, forecasted accounts are anticipated to

remain consistent with 2018 historical levels. Potential future annexations are not expected to materially impact the number of customer accounts unless the City annexes into the Sarpy Wastewater Service Area.

### 2.2.2 Historical and Projected Volumes

Table 2-1 also presents the historical and projected billed sewer volume. Projected volumes are also anticipated to remain consistent with recent history for residential and commercial classes. Industrial hand billed customers include three accounts: Culligan, US Cold Storage, and Yahoo. Culligan service began in 2018. Industrial hand billed volume and revenue is anticipated to increase slightly in 2019 as a result of a full year of service to Culligan. Projected volume for this class is anticipated to remain consistent throughout the remainder of the study period.

**Table 2-1: Historical and Projected Accounts and Volume**

Line No.		Historical			Budget		Projected		
		2016	2017	2018	2019	2020	2021	2022	2024
<b>Accounts [1]</b>									
1	Residential	6,526	6,605	6,614	6,614	6,614	6,614	6,614	6,614
2	Commercial	456	482	522	522	522	522	522	522
3	Industrial Hand Billed	2	2	3	3	3	3	3	3
4	Total Accounts	6,984	7,089	7,139	7,139	7,139	7,139	7,139	7,139
5	Change in Accounts			2%	1%	0%	0%	0%	0%
<b>Billed Volume (Ccf) [2]</b>									
6	Residential	458,118	441,069	434,908	434,900	434,900	434,900	434,900	434,900
7	Commercial	443,276	464,094	483,197	483,350	483,350	483,350	483,350	483,350
8	Industrial Hand Billed	4,629	3,698	4,592	6,700	6,700	6,700	6,700	6,700
9	Total Billed Volume	906,023	908,861	922,697	924,950	924,950	924,950	924,950	924,950

[1] FY 2020 and beyond assumes no change in accounts.

[2] FY 2020 and beyond assumes residential and commercial billable flow consistent with FY 2018. Industrial hand billed volume in FY 2019 reflects full year of Culligan operations.

### 2.2.3 Existing Sewer Rates

The current sewer rate schedule is shown in Table 2-2 and features a fixed monthly base fee and a volumetric rate that varies according to class for domestic use of the system. Industrial Hand Billed rates reflect the General Commercial rates.

**Table 2-2: Existing Sewer Rates**

Line No.	<u>Description</u>	Existing Rates	
		Customer Charge	Flow Charge [2]
1	Residential	\$ 11.99	\$ 3.50
2	Multi-family [1]	\$ 11.99	\$ 3.50
3	Commercial	\$ 12.85	\$ 3.50

[1] A per unit customer charge is also billed at \$1.82 per unit based on the number of units in a complex less one. This per unit fee ends in FY 2019.

[2] Volume Charge is measured in Ccf

## 2.2.4 User Revenues under Existing Rates

Table 2-3 presents historical user revenues for 2016 to 2018 and a projection of user revenues under existing rates for the planning period. The projection of user revenues was estimated based on the forecasted accounts, estimated volumes, and existing rates.

Historical sewer user revenues ranged from approximately \$3.0 million in 2016 to \$3.9 million in 2018. User charge revenues for 2019 are estimated to be about \$4.3 million. Overall, sewer user charge revenues under existing rates are projected to remain consistent with 2019 levels through the end of the study period. When projecting future user charge revenues, it is assumed that a small increase in the number of accounts is offset by the reduced use per account.

**Table 2-3: Historical and Projected Sewer User Charge Revenues**

Line No.	Historical			Budget		Projected			
	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b><u>User Charge Revenues under Existing Rates [3]</u></b>									
1 Residential	\$ 1,842,166	\$ 2,096,496	\$ 2,290,098	\$ 2,473,800	\$ 2,473,800	\$ 2,473,800	\$ 2,473,800	\$ 2,473,800	\$ 2,473,800
2 Commercial	\$ 1,184,920	\$ 1,426,999	\$ 1,640,076	\$ 1,772,200	\$ 1,772,200	\$ 1,772,200	\$ 1,772,200	\$ 1,772,200	\$ 1,772,200
3 Industrial Hand Billed	\$ 13,734	\$ 11,983	\$ 16,652	\$ 23,900	\$ 23,900	\$ 23,900	\$ 23,900	\$ 23,900	\$ 23,900
4 Total UC Revenues	\$ 3,040,820	\$ 3,535,478	\$ 3,946,826	\$ 4,269,900	\$ 4,269,900	\$ 4,269,900	\$ 4,269,900	\$ 4,269,900	\$ 4,269,900

[1] Revenues for FY 2019-2028 are projected based on estimated billing units and approved FY 2019 rates.

## 2.2.5 Miscellaneous Revenues

Table 2-4 presents historical and projected miscellaneous revenues generated by the sewer system. Sewer service charges billed, shown on Line 3 of Table 2-4, is net of hand billed revenues. The remaining sewer service charges billed revenue represents multi-family per unit customer charges that are being phased out by the City. Department billing for all customers will be through MUD water billing. Other miscellaneous revenue streams are anticipated to remain consistent with budgeted 2019 levels.

**Table 2-4: Historical and Projected Miscellaneous Revenues**

Line No.	Historical			Budget		Projected			
	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b><u>Miscellaneous Revenue</u></b>									
1 Lottery Transfer	-	-	4,673	3,000	3,000	3,000	3,000	3,000	3,000
2 Grant Income	22,918	19,731	-	-	-	-	-	-	-
3 Sewer Service Charges Billed [1]	186,061	150,027	101,483	46,300	-	-	-	-	-
4 Sewer Hookups B.I. Permits	139,269	224,105	137,206	100,000	100,000	100,000	100,000	100,000	100,000
5 Other Income	26,980	12,024	6,361	115	115	115	115	115	115
6 Total Other Revenue	375,227	405,888	249,723	149,415	103,115	103,115	103,115	103,115	103,115

[1] Excludes industrial hand billed revenues. Remaining Sewer Service Charges assumed to decline to \$0 in FY 2020.

## 2.3 Sewer Utility Expenditures

The Sewer Utility's primary expenditures include the following operating and capital costs:

- Operation and Maintenance (O&M) Expenses
- Capital Improvement Program (CIP) Expenditures
- Debt Service Expenditures
- Transfers to Fund 20 (Reserve for Capital Projects)

### **2.3.1 Operation and Maintenance Expenses**

Table 2-5 presents the recent historical and projected sewer system operation and maintenance (O&M) expenses through the 2024 planning period. The sewer O&M expenses include the collection, treatment, and administrative operating costs incurred by the utility in providing sewer service to the City. Costs related to major capital projects are excluded from Table 2-5 and will be discussed later in this report.

O&M costs for 2019 reflect the approved budget. Projected O&M expenses are escalated from the 2019 budget amounts based on the following annual inflation factors:

- Personnel expenses excluding insurance benefits - 3.6 percent
- Insurance benefits - 6.0 percent
- Expenses for treatment service provided by the City of Omaha - 5.25 percent
- All other expenses – 2.0 percent

Applying these inflation factors to the appropriate O&M expenses leads to an increase in total O&M of about 4.7 percent annually from 2020 through 2024.

**Table 2-5: Historical and Projected Operation and Maintenance Expenses**

Line No.		Historical		Budgeted	Projected				
		2016	2017	2018	2019	2020	2021	2022	2024
<b>Sewer Administrative</b>									
1	Total Administrative Cost [1]	500,735	532,674	161,088	-	-	-	-	-
<b>Sewer Maintenance</b>									
2	Salaries	260,115	262,811	263,757	489,287	506,800	525,000	543,900	563,500
3	FICA	19,005	19,213	19,270	37,431	38,800	40,200	41,600	43,100
4	Insurance	52,948	36,632	40,196	65,172	69,100	73,200	77,600	82,300
5	Pension	15,191	14,842	15,332	26,759	27,700	28,700	29,700	31,900
6	Transfers	-	-	-	-	-	-	-	-
7	Commodities	20,662	17,071	13,769	39,046	39,900	40,600	41,300	42,100
8	Contractual Services	134,180	135,375	131,671	241,127	246,000	250,900	255,800	260,800
9	Omaha WW Treatment	1,812,443	2,192,836	2,466,111	2,615,105	2,752,400	2,896,900	3,049,000	3,209,100
10	Maintenance	37,328	30,599	26,237	38,201	39,000	39,700	40,400	41,100
11	Other	10	169	25	227	200	200	200	200
12	Capital Outlay	350,886	47,514	55,719	-	-	-	-	-
13	CAT Lease	-	-	-	36,908	37,700	38,500	39,300	40,100
14	Total Sewer Maintenance Cost	2,702,768	2,757,062	3,032,088	3,589,263	3,757,600	3,933,900	4,118,800	4,313,100
15	Total O&M	3,203,503	3,289,736	3,193,176	3,589,263	3,757,600	3,933,900	4,118,800	4,313,100
16	Change		2.7%	-2.9%	12.4%	4.7%	4.7%	4.7%	4.7%

[1] The City discontinued use of Dept 41 in FY 2019. Administrative costs are now entered directly to Dept 42 (Sewer Maintenance).

[2] FY 2018 reflects 11 month of actuals and one month estimated for Omaha WW Treatment.

[3] Assumed inflation is as follows:

-Omaha treatment is estimated to increase at 5.25% annually.

-Salary, Pensions, and FICA inflate by 3.6% annually.

-Insurance inflates at 6% annually.

-All other items inflate at 2% annually.

[4] Line 12 forecasted in CIP (Table 5).

### 2.3.2 Projected Capital Improvement Expenditures

Table 2-6 presents the projected capital improvement (CIP) expenditures anticipated for the planning period. The CIP used for this Study is based on the five-year capital planning estimates developed by the City. As shown on Line 2 of Table 2-6, the most substantial CIP project is the East La Vista Sewer/Pavement Rehabilitation project, amounting to \$3.9 million over the study period, with the majority of expense being incurred in 2021.

Line 5 of Table 2-6 includes an allowance for annual renewal and replacement of collection system mains beginning in 2020 at \$100,000 and ramping up to \$300,000 by 2024. At the \$500,000 level (2019 dollars), it is estimated that the City could renew or replace approximately 1.0 percent of its system annually. Renewal and replacement of underground infrastructure is a considerable challenge in the water and sewer industry. A 1 to 2 percent renewal rate is generally consistent with industry targets and is suitable for planning purposes such as this Study. As shown on Line 5, renewal and replacement projects are phased-in to lessen the financial impact of implementation. While renewal and replacement spending is not anticipated to reach 1.0 percent by the end of this study period in 2024, it is likely such a target could be reached within a ten-year time horizon. Whether or not a 1 percent renewal rate is sufficient for the La Vista system will need to be evaluated over time.

Overall, the total CIP through 2028 amounts to \$6.1 million in current dollars. Assuming 3.0 percent inflation per year beginning in 2020, the total inflated CIP amounts to about \$6.5 million.

**Table 2-6: Capital Improvement Program**

Line No.	<u>Budgeted Projects</u>	Projected						Total
		2019	2020	2021	2022	2023	2024	
1	Big Papi Sewer Siphon Replacement	-	-	-	-	450,000	-	450,000
2	East La Vista Sewer/ Pavement Rehab M376 (228)	125,000	-	3,800,000	-	-	-	3,925,000
3	Motor Vehicles	335,000	-	-	30,000	300,000	-	665,000
4	Other Capital Outlay	-	-	40,000	-	-	-	40,000
5	Renewal and Replacement [1]	-	100,000	150,000	200,000	250,000	300,000	1,000,000
6	Total Budgeted Projects	460,000	100,000	3,990,000	230,000	1,000,000	300,000	6,080,000
7	Total Inflated Projects [2]	460,000	103,000	4,233,000	251,300	1,125,500	347,800	6,520,600

[1] Estimated collection system renewal and replacement.

[2] CIP inflated at 3% compounding annually.

### 2.3.3 Projected Debt Service Requirements

The City currently has no outstanding sewer system debt. A debt issue is proposed for 2021 in the amount of \$4.0 million to fund the East La Vista Sewer/Pavement Rehabilitation project and avoid sudden increases in rates. Table 2-7 presents the existing and proposed debt service requirements for the Sewer Utility.

**Table 2-7: Existing and Proposed Debt Service**

Line No.		Projected									
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>Proposed Debt</b>											
1	2021 Debt Issue Payments	-	-	80,900	297,600	297,600	297,600	297,600	297,600	297,600	297,600
2	Total Debt Service	-	-	80,900	297,600	297,600	297,600	297,600	297,600	297,600	297,600

[1] Debt service assumes 20 year term, 4% rate, and 1.1% issuance expense. FY 2021 payment is a partial year payment and interest only.

Payments for the proposed \$4.0 million issue assumes a 20-year term, 4.0 percent interest, and 1.1 percent issuance expenses. Full principal and interest payments are estimated to be \$297,600 per year starting in 2022, following an interest only payment of \$80,900 in 2021. These estimated payments reflect an equal annual payment structure and are estimated solely for the purpose of depicting future revenue requirements and evaluating the sufficiency of revenues under approved and future rates. The actual structure of future debt may vary based on the recommendations of the City's Municipal Advisor and market conditions at the time of issuance.

### 2.4 Sewer Utility Financial Plan Cash Flow

Table 2-8 presents a cash flow that evaluates the sufficiency of revenues under existing rates to meet future cash requirements of the system. The City maintains two primary funds for the sewer utility. Fund 02 is the operating fund, which is where most revenues and expenses are recorded. The City has also

established Fund 20, which represents a reserve fund for the sewer utility that is intended to be used as a rate stabilization tool for funding capital projects. Table 2-8 begins by evaluating Fund 02 on Lines 1 through 39, followed by Fund 20 on Lines 40 through 44.

Line 1 of Table 2-8 shows user revenues under existing rates, shown previously on Line 4 of Table 2-3. Lines 2 through 6 present the proposed revenue increases needed to finance the City's operating and capital costs for the planning period. Beginning in 2020, 5.0 percent increases are proposed to be implemented annually through 2024. The basis for these recommended increases will be discussed more thoroughly later in this section of the report.

Billing for La Vista's sewer service is provided by the Metropolitan Utilities District (MUD). MUD recovers the cost of this service by assessing a billing charge on each bill issued on behalf of the City. This service fee is currently \$1.8452 per bill and amounts to approximately \$158,000 in 2019. This expense is assumed to increase 3.0 percent annually.

Other revenues are shown on Line 10, shown previously in Table 2-4. Line 11 of Table 2-8 includes an estimate of interest income for the utility assuming a yield of approximately 0.9 percent. Line 12 shows the total operating revenues forecasted over the study period. Including proposed revenue adjustments, total Sewer Utility operating revenues are projected to range from \$4.3 million in 2019 to \$5.4 million in 2024.

Operating revenue requirements are shown on Lines 13 through 18 of Table 2-8 and include O&M expenses, debt service payments, and transfers to Fund 20. O&M expenses, identified previously on Line 15 of Table 2-5, are shown on Line 13 of Table 2-8. Total Debt Service on Line 16 includes existing and proposed debt and is consistent with the total debt service shown previously on Line 2 of Table 2-7. Deposits to Fund 20 are shown on Line 17 of Table 2-8. The transfers are sized based on the anticipated availability of cash in each fiscal year.

Total operating revenue requirements are summarized on Line 18. This amount is deducted from Line 12, total sewer revenues, to determine the annual operating balance shown on Line 19.

**Table 2-8: Projected Sewer Utility Cash Flow**

Line No.	Projected					
	2019	2020	2021	2022	2023	2024
<b>Fund 02 Flow of Funds</b>						
1	Gross Revenue Under Existing Rates	4,269,900	4,269,900	4,269,900	4,269,900	4,269,900
<u>Proposed Revenue Adjustments</u>						
2	Year	Month	Increase			
2	2020	2	5.00%	195,700	213,500	213,500
3	2021	2	5.00%		205,500	224,200
4	2022	2	5.00%			224,200
5	2023	2	5.00%		215,800	235,400
6	2024	2	5.00%			235,400
	Total Proposed Additional Revenue			419,000	653,500	899,700
7	Gross User Charge Revenue With Increases	4,269,900	4,465,600	4,688,900	4,923,400	5,169,600
8	MUD Billing Fee [1]	158,000	162,700	167,600	172,700	177,800
9	Net Sewer User Charge Revenue	4,111,900	4,302,900	4,521,300	4,750,700	4,991,800
10	Other Sewer Fund Revenue	149,415	103,115	103,115	103,115	103,115
11	Interest Income [2]	14,400	9,700	12,800	15,100	17,200
12	<b>Grand Total Sewer Revenue</b>	<b>4,275,715</b>	<b>4,415,715</b>	<b>4,637,215</b>	<b>4,868,915</b>	<b>5,112,115</b>
<u>Revenue Requirements</u>						
13	Operation and Maintenance Expense	3,589,300	3,757,600	3,933,900	4,118,800	4,313,100
14	Debt Service					
14	Existing Debt	-	-	-	-	-
15	Proposed Debt	-	-	80,900	297,600	297,600
16	Total Debt Service	-	-	80,900	297,600	297,600
17	Transfer to Fund 20	1,100,000	380,000	-	-	100,000
18	<b>Total Revenue Requirements</b>	<b>4,689,300</b>	<b>4,137,600</b>	<b>4,014,800</b>	<b>4,416,400</b>	<b>4,610,700</b>
19	<b>Annual Operating Balance</b>	<b>(413,585)</b>	<b>278,115</b>	<b>622,415</b>	<b>452,515</b>	<b>501,415</b>
20	<u>Capital Sources</u>					
20	Transfer from Fund 20	-	-	-	-	700,000
21	Debt Issuance	-	-	4,000,000	-	-
22	Total Capital Sources	-	-	4,000,000	-	700,000
23	<u>Capital Uses</u>					
23	CIP	460,000	103,000	4,233,000	251,300	1,125,500
24	Bond Issuance Expense	-	-	44,000	-	-
25	<b>Total Capital Uses</b>	<b>460,000</b>	<b>103,000</b>	<b>4,277,000</b>	<b>251,300</b>	<b>1,125,500</b>
26	<b>Annual Capital Balance</b>	<b>(460,000)</b>	<b>(103,000)</b>	<b>(277,000)</b>	<b>(251,300)</b>	<b>(425,500)</b>
<b>Fund 02 Cash Flow Summary</b>						
27	Total Revenues	4,275,715	4,415,715	4,637,215	4,868,915	5,112,115
28	Total Expenses	5,149,300	4,240,600	8,291,800	4,667,700	5,736,200
29	Annual Balance	(873,585)	175,115	345,415	201,215	75,915
30	Beginning Balance	1,815,371	941,786	1,116,901	1,462,316	1,663,531
31	Annual balance	(873,585)	175,115	345,415	201,215	75,915
32	Ending Balance	941,786	1,116,901	1,462,316	1,663,531	1,739,446
33	Operating Reserve Target [3]	897,300	939,400	983,500	1,029,700	1,078,300
34	Debt Service Coverage	-	-	8.69	2.52	2.68
<b>Fund 20 Flow of Funds</b>						
35	Beginning Balance	-	1,105,000	1,496,700	1,510,200	1,523,800
36	Transfers In	1,100,000	380,000	-	-	100,000
37	Interest Income [2]	5,000	11,700	13,500	13,600	10,600
38	Transfers Out	-	-	-	-	8,000
39	Ending Balance	1,105,000	1,496,700	1,510,200	1,523,800	834,400

[1] Reflects FY 2019 MUD billing rate of \$1.8452 per bill which is assumed to increase 3% annually after FY 2019

[2] Assumes earned Interest Income 0.9%.

[3] Operating reserve balance target equals 25% of total O&amp;M.

Capital sources and uses of funds are shown on Lines 20 through 26 of Table 2-8. Sources of funds include transfers from Fund 20 and proposed debt issuance. As shown on Line 26, a single debt issue of \$4.0 million is anticipated in 2021, discussed previously in Section 2.3.3. A transfer from Fund 20 is projected to occur in 2023. Uses of funds includes the capital improvement plan shown previously on Line 7 of Table 2-6, and issuance expenses for future debt issues.

Lines 27 through 34 evaluate the aggregate cash flow for Fund 02, including both operating and capital requirements. Total revenues on Line 27 combine total sewer operating revenue from Line 12 and capital sources of funds on Line 22. Expenses reflect total operating revenue requirements from Line 18 and total capital uses from Line 25. Netting the total sources and uses of funds for Fund 02 provides the annual balance on Line 29. A negative balance will draw reserves down in Fund 02, while a positive balance will increase reserves in Fund 02. As shown on Line 29, the proposed 5 percent increases are sufficient to provide a positive operating balance beginning in 2020.

The beginning balance available for Fund 02 at the beginning of 2019 is shown on Line 30 and amounted to \$1.8 million. The ending balance for each fiscal year is determined by adding the annual operating balance to the beginning balance. In 2019, the ending balance is anticipated to be approximately \$942,000.

As a matter of sound financial planning, the City strives to provide an ending operating balance equal to at least 25 percent of each year's O&M. The targeted minimum balance was established to provide working capital liquidity and an emergency reserve to provide a measure of financial resiliency. This amount is shown on Line 33 and increases over time due to inflation in O&M. Comparing the projected ending balance for Fund 02 on Line 32 with the annual target on Line 33 indicates that the ending balance is sufficient to meet this target throughout the study period.

Debt service coverage is shown on Line 34. Debt service coverage is a frequent requirement in bond covenants associated with utility revenue bonds. This coverage ratio is calculated as follows:

$$\left( \frac{\text{Grand Total Sewer Revenue} - \text{O\&M Expense}}{\text{Total Debt Service}} \right)$$

Debt service coverage represents a degree of security to bondholders that the utility could encounter lower revenues or higher O&M and still have the financial capacity to pay annual debt service. Typically the minimum debt service coverage level is determined by examining bond covenants for outstanding

debt. However, because the City does not currently have outstanding debt, minimum debt service coverage levels are not discernable. For the purpose of this Study, Burns & McDonnell has assumed a minimum coverage requirement of 1.25x. This level is consistent with the covenant requirements of many of our clients, although it can vary by utility. As shown on Line 34, projected debt service coverage is substantially higher than an assumed minimum ratio of 1.25.

Fund 20 sources and uses are shown on Lines 35 through 39 of Table 2-8. Fund 20 acts as a separate vehicle for storing funds created with the purpose of cash funding capital projects. Sources of funds for Fund 20 include beginning balances, transfers in from Fund 02, and interest income earned in Fund 20. An initial deposit into Fund 20 of \$1.1 million is shown on Line 36, consistent with the transfer out of Fund 02 shown previously on Line 17. Transfers out of Fund 20 are used for capital projects and were shown previously on Line 20. By the end of the study period, a balance in Fund 20 of \$0.9 million is anticipated, providing a degree of financial flexibility should additional operating or capital expenditures be incurred beyond the assumptions contained herein.

## 2.5 Financial Planning Scenarios

During the Study, alternate planning assumptions were evaluated. Two primary scenarios were tested. One assumed no debt issuance in 2021, meaning all capital projects would be funded 100 percent from each year's rate revenues. Due to the near-term timing of the East La Vista Sewer / Pavement Rehabilitation Project, two rate increases of about 20 percent per year would be required in 2020 and 2021 to generate sufficient revenues to cash fund the peak of the CIP which occurs in 2021. Because the CIP subsequently declines from its peak in 2021, following the two large increases, revenues would over recover costs in fiscal years beginning in 2022. The use of proposed debt resolves this issue and is a reasonable approach to mitigate near-term rate increases, spreading the cost of the long-lived improvements out over 20 years.

Another scenario tested the sensitivity of the financial plan to higher annual increases in treatment services provided by the City of Omaha. In the proposed plan, inflation on treatment expense is assumed to be 5.25 percent per year. If treatment costs increased 7.50 percent per year, annual sewer rate increases for the City of La Vista would increase from the 5.0 percent per year shown in Table 2-8 to about 6.50 percent per year.

## 3.0 COST OF SERVICE ANALYSIS

### 3.1 Introduction

The cost of service analysis is focused on determining revenue responsibility. Once the overall need for revenue increases is identified through financial planning, the results of the cost of service analysis help answer the following question:

1. "Which customer class or classes are responsible for the costs incurred to provide service?"

To determine each customer class' equitable share of the cost of providing utility service, the cost of service analysis compares the revenues received from each customer class under the existing schedule of rates with the allocated cost responsibility for that class.

The cost of service analysis was developed in the following steps:

1. Determine the net revenue requirements to be recovered from user charges.
2. Allocate test period operating and capital costs.
3. Estimate the system test period units of service.
4. Develop test period unit costs of service by class.
5. Assign the costs of service to customer classes.

To equitably develop rates for sewer service, the sewer utility's customer classes are allocated their respective share of the total cost of service according to their use of the system. Cost are assigned through consideration of demands placed on the system related to volume costs, customer costs, and other relevant factors.

### 3.2 Sewer Cost of Service

#### 3.2.1 Net Revenue Requirements

As described in Section 2.0 of this report, the cash needs of the sewer utility were projected over a five-year study period. The test period for the cost of service analysis is 2020, which corresponds to the first year for which revenue adjustments are proposed. For the sewer utility, the revenue adjustment amounts to a 5.0 percent increase in the test year.

Table 3-1 summarizes the net revenue requirements to be recovered from sewer rates in the 2020 test year. The net revenue requirements represent the level of costs that must be recovered from sewer rates and are equal to total operating and capital cost expenditures less all sources of other revenue. As

presented in Table 3-1, the net operating costs are equal to \$4.1 million and the net capital costs are equal to \$381,600 for a total net revenue requirement of about \$4.5 million. This is 5.0 percent higher than revenues under existing sewer volume rates, consistent with the 2020 revenue increase identified in the recommended sewer utility financial plan.

**Table 3-1: Test Year 2020 Sewer Net Revenue Requirements**

Line No.	Description	Operating Expense \$	Capital Cost \$	Total \$
<b>Revenue Requirements</b>				
1	Operating Expense	3,757,600	-	3,757,600
2	Debt Service	-	-	-
3	Transfer to Fund 20	-	380,000	380,000
4	MUD Billing	162,700	-	162,700
5	Total	3,920,300	380,000	4,300,300
<b>Revenue Requirements Met from Other Sources</b>				
6	Sewer Service Charges Billed	-	-	-
7	Sewer Hookups B.I. Permits	100,000	-	100,000
8	Lottery Transfer	3,000	-	3,000
9	Grant Income	-	-	-
10	Other Income	115	-	115
11	Interest Income	9,700	-	9,700
12	Use of/ (Deposit to) Reserves	(278,115)	-	(278,115)
13	Annualized Increase	(16,200)	(1,600)	(17,800)
14	Total	(181,500)	(1,600)	(183,100)
15	Cost of Service to be met by User Charges	4,101,800	381,600	4,483,400
16	Gross Revenue under Existing Rates			4,269,900
17	System Revenue Adjustment			5.00%

### 3.2.2 Cost of Service Methodology

According to the Water Environment Federation (WEF) publication *Financing and Charges for Wastewater Systems*, three cost allocation methodologies are generally used in the identification and allocation of wastewater utility costs. They are:

- Design-Basis Cost Allocation Methodology, whereby costs are allocated to functions based on engineering design considerations that influence the size and purpose of facilities.
- Functional Cost Allocation Methodology, whereby costs are allocated to functions based on the operational purpose of facilities rather than engineering design.
- Hybrid Approach, where in general capital costs are allocated on the design basis while operating costs are allocated on the functional basis.

For this analysis, the functional cost allocation basis was followed, which aligns well with the current sewer cost structure and services related to the City's collection system.

### **3.2.3 Functional Cost Assignment**

The sewer utility system includes a variety of facilities that work in concert with one another to meet necessary service requirements. For the City, sewer system assets are limited primarily to collection system infrastructure, with treatment provided by the City of Omaha.

Volume costs are those which vary directly with the quantity of wastewater contributed. Customer costs are those that generally vary in accordance with the quantity of customers served. Such costs may include billing, customer care, and related support costs. Additionally, infiltration/inflow costs may and frequently are recovered in whole or in part through service charges.

#### **3.2.3.1 Operating Expenses**

Operating expenses for the sewer system were forecasted previously in Table 2-5 of this report. Test year 2020 operating costs are assigned to functional components in Table 3-2.

In general, operation and maintenance costs were allocated based on several considerations, including:

- The cost causative or functional nature of the underlying expense.
- Directly assignable costs such as billing costs.
- The concept of readiness to serve which allocates a portion of volume-related costs to the customer component.

In light of these considerations, sewer system expenses were allocated to the volume component and customer components as shown in Table 3-2. The allocation basis for each item is noted by line in Table 3-2. Volume-related allocations assign approximately 91 percent of cost to the volume component and 9 percent of cost to the customer component.

Omaha treatment expense are allocated 83 percent to volume and 17 percent to customer based on a review of the 2018 costs charged to La Vista for Omaha treatment services. Billing costs charged by MUD are assigned 100 percent to the customer component. System general allocations reflect the aggregate result of all directly assigned sewer maintenance costs.

**Table 3-2: Allocation of Test Year 2020 Sewer Operation and Maintenance Expenses**

Line No.	Description	Test Year			Allocation Basis
		2020 Total \$	Volume	Customer	
Sewer Maintenance Expenditures					
1	Salaries	506,800	459,800	47,000	Volume
2	FICA	38,800	35,200	3,600	Volume
3	Insurance	69,100	62,700	6,400	Volume
4	Pension	27,700	25,100	2,600	Volume
5	Transfers	-	-	-	Volume
6	Commodities	39,900	36,200	3,700	Volume
7	Contractual Services	246,000	223,300	22,700	Volume
8	Omaha WW Treatment	2,752,400	2,273,500	478,900	Omaha Treatment
9	Maintenance	39,000	35,500	3,500	Volume
10	Other	200	200	-	Volume
11	Capital Outlay	-	-	-	Volume
12	CAT Lease	37,700	34,200	3,500	Volume
13	MUD Billing	162,700	-	162,700	Billing
14	Total Sewer Maintenance Cost	3,920,300	3,185,700	734,600	
		100.0%	81.3%	18.7%	
Less Other Operating Revenue					
15	Sewer Service Charges Billed	-	-	-	System General
16	Sewer Hookups B.I. Permits	100,000	81,300	18,700	System General
17	Lottery Transfer	3,000	2,400	600	System General
18	Grant Income	-	-	-	System General
19	Other Income	115	115	-	System General
20	Interest Income	9,700	7,900	1,800	System General
21	Use of / (Deposit to) Reserves	(278,115)	(226,015)	(52,100)	System General
22	Annualized Increase	(16,200)	(13,200)	(3,000)	System General
23	Subtotal Other Operating Revenue	(181,500)	(147,500)	(34,000)	
24	Net Sewer O&M Expense	4,101,800	3,333,200	768,600	
		100.0%	81.3%	18.7%	

### 3.2.3.2 Capital Costs

Cash capital costs for the sewer utility include revenue-financed capital projects and payment on proposed debt. In 2020 capital costs include revenue-financed capital only. These costs are assigned to the volume and customer functional component in Table 3-3 consistent with the volume-basis used for O&M expenses.

**Table 3-3: Allocation of Test Year 2020 Sewer Capital Costs**

Line No.	Description	Test Year			Allocation Basis
		2020 Total \$	Volume \$	Customer \$	
<b>Capital Costs</b>					
1	Existing & Proposed Debt	-	-	-	Volume
2	Revenue Financed Capital	380,000	344,805	35,200	Volume
3	Total Sewer Capital Costs	380,000	344,805	35,200	
<b>Less Other Sources</b>					
4	Annualized Increase	(1,600)	(1,500)	(100)	Volume
5	Total	(1,600)	(1,500)	(100)	
6	Net Sewer Capital Expense	381,600	346,305	35,300	

### 3.2.4 Units of Service

Functional costs responsibility of each customer class may be established based on the respective service requirements of each class. These service requirements are referred to as units of service and are summarized in Table 3-4.

Billable flow or volume is that portion of each customer's annual water use discharged directly into the sewer system. Billable flow is based upon the utility's billing records. Billing costs are allocated to classes based on the projected number of bills for each class.

**Table 3-4: Sewer Units of Service**

Line No.	Customer Class	Billed	
		Volume Ccf	Bills
1	Residential	434,900	79,368
2	Commercial	483,350	6,264
3	Industrial Hand Billed	6,700	36
4	Total	924,950	85,668

### 3.2.5 Unit Cost Development

Based on the functionalized operation and maintenance expenses and capital costs shown in Tables 3-2 and 3-3, and the units of service developed in Table 3-4, unit costs of service for each functional cost component may be determined. Table 3-5 indicates the unit of measure and applicable unit cost for each function.

**Table 3-5: Sewer Unit Cost Development**

Line <u>No.</u>	<u>Description</u>	Test Year 2020		
		<u>Total</u> \$	<u>Volume</u> Ccf	<u>Customer</u> \$
1	Total Units of Service	924,950		85,668
2	Unit of Measure		Ccf	Bills
3	Net Operating Expense - \$	4,101,800	3,333,200	768,600
4	Unit Cost - \$/Unit		3.60	8.97
5	Net Capital Costs - \$	381,605	346,305	35,300
6	Unit Cost - \$/Unit		0.37	0.41
7	Total Cost of Service	4,483,405	3,679,505	803,900
8	Unit Cost - \$/Unit		3.98	9.38

### 3.2.6 Allocation of Costs to Customer Classes

Applying the unit costs by function to each customer class' units of service allows for the distribution of costs to customer classes, as shown in Table 3-6. Units of service for each class are as developed previously in Table 3-5. By applying the unit cost for each function against the level of service provided to each customer class, the total cost of service by customer class may be determined.

After Test Year 2020 costs are assigned to customer classes, they may be compared against revenue under existing rates. This comparison provides an indication of equity in the recovery of costs through revenues under existing 2019 rates. As shown in Table 3-7, the total system adjustment is indicated to be 5.0 percent overall, consistent with the recommended financial plan.

**Table 3-6: Sewer Cost Allocation to Customer Classes**

Line No.	Description	Test Year		
		2020	Total \$	Volume \$
1	Unit Cost of Service - \$/Unit		3.98	9.38
Residential				
2	Units of Service		434,900	79,368
3	Allocated Cost - \$	2,474,900	1,730,100	744,800
Commercial				
4	Units of Service		483,350	6,264
5	Allocated Cost - \$	1,981,600	1,922,800	58,800
Industrial Hand Billed				
6	Units of Service		6,700	36
7	Allocated Cost - \$	27,000	26,700	300
Total				
8	Units of Service		924,950	85,668
9	Allocated Cost - \$	4,483,500	3,679,600	803,900

**Table 3-7: Comparison of Revenue Under Existing Rates to Allocated Cost of Service**

Line No.	Description	Revenue	Total		
		Under Existing Rates	Allocated Cost of Service	Indicated Increase / (Decrease)	Indicated Increase / (Decrease)
1	Residential	2,473,800	2,474,900	1,100	0.0%
2	Commercial	1,772,200	1,981,600	209,400	11.8%
3	Industrial Hand Billed	23,900	27,000	3,100	13.0%
4	Total	4,269,900	4,483,500	213,600	5.0%

It is important to note that cost of service results are instructive but for many reasons should not be interpreted as prescriptive in the development of proposed rates. Section 4.0 will discuss proposed rates for the sewer utility.

## 4.0 PROPOSED RATE DESIGN

### 4.1 Existing Sewer Rates

The current sewer rate schedule is shown in Table 4-1. The sewer rate structure consists of a flow charge and customer charge. The flow charge of \$3.50 per hundred cubic feet is uniform for all classes. The customer charge is \$11.99 for the Residential and Multi-family accounts and \$12.85 for the Commercial accounts.

**Table 4-1: Existing Sewer Rates**

Line <u>No.</u>	<u>Description</u>	<u>Existing Rates</u>	
		<u>Customer Charge</u>	<u>Flow Charge [2]</u>
1	Residential	\$ 11.99	\$ 3.50
2	Multi-family [1]	\$ 11.99	\$ 3.50
3	Commercial	\$ 12.85	\$ 3.50

[1] A per unit customer charge is also billed at \$1.82 per unit based on the number of units in a complex less one. This per unit fee ends in FY 2019.

[2] Volume Charge is measured in Ccf

### 4.2 Sewer Rate Structure

As a general matter, sewer rate structures typically include a fixed or base fee and a volumetric fee. Sewer fixed fees do not usually vary by meter size, but some utilities will apply this practice to sewer rate design. Volumetric fees for sewer are generally not structured into blocks like some water rate structures and are typically designed to charge the same price per unit of use regardless of usage.

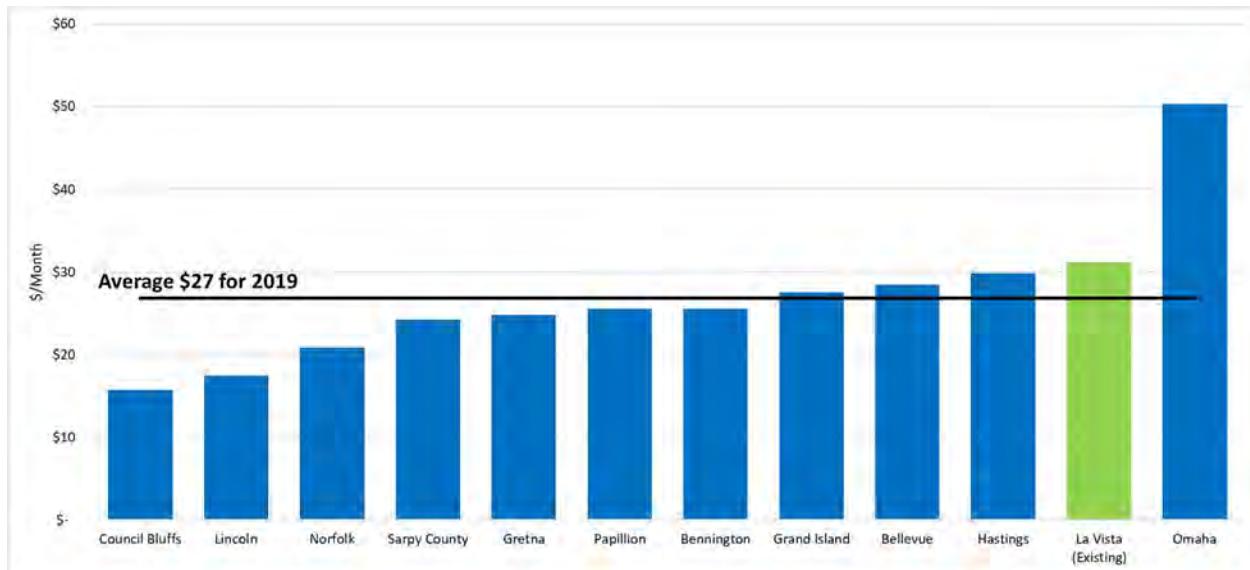
If the City were responsible for treatment of wastewater, the issue of the strength of contributed flows would introduce the possibility of varying volumetric charges by types of users. However, given the utility's responsibility for collection and conveyance only, and since the treatment service provided by the City of Omaha does not include a separate strength component in its rates, Burns & McDonnell is of the opinion that the existing uniform volume rate is a good fit for the City of La Vista. This structure is commonly used in the industry.

### 4.3 Regional Residential Sewer Rate Levels

A comparison of rates for twelve regional sewer utilities was conducted. Figure 4-1 shows a comparison of 2019 sewer bills for a residential customer using 5.5 Ccf per month. As shown in Figure 4-1, the

regional sewer typical bill ranges from about \$16 per month to about \$50 per month, with La Vista currently at just over \$31 a month.

**Figure 4-1: Residential Sewer Bill Comparison at 5.5 Ccf per Month**



#### 4.4 Proposed Sewer Rates

Table 4-2 shows existing and proposed sewer rates. For proposed rates, the current sewer rate structure is maintained. Base charges are proposed to increase approximately 2 percent per year, while volume charges are proposed to increase about 6 percent per year to meet the overall revenue increase of 5 percent per year. This approach is designed to improve the equity of cost recovery.

**Table 4-2: Existing and Proposed Sewer Rates**

<u>Description</u>	<u>Existing</u>	<u>Proposed Rates</u>				
	<u>Rates</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
<u>Customer Charge [1]</u>						
Residential	\$ 11.99	\$ 12.23	\$ 12.47	\$ 12.72	\$ 12.97	\$ 13.23
Commercial	\$ 12.85	\$ 13.11	\$ 13.37	\$ 13.64	\$ 13.91	\$ 14.19
Handbilled Industrial	\$ 12.85	\$ 13.11	\$ 13.37	\$ 13.64	\$ 13.91	\$ 14.19
<u>Flow Charge [2]</u>						
Residential	\$ 3.50	\$ 3.71	\$ 3.93	\$ 4.16	\$ 4.41	\$ 4.66
Commercial	\$ 3.50	\$ 3.71	\$ 3.93	\$ 4.16	\$ 4.41	\$ 4.66
Handbilled Industrial	\$ 3.50	\$ 3.71	\$ 3.93	\$ 4.16	\$ 4.41	\$ 4.66

[1] Customer charge increase at 2%

[2] Flow Charge increases at 6% and is measured in Ccf

Table 4-3 shows the changes in residential sewer bills over the study period for three different usage profiles, assuming all rate increases and proposed rates are implemented through 2024. For an average residential customer using 5.5 Ccf per month, increases in monthly sewer bills are expected to range from \$1.39/month in 2020 to \$1.63 a month in 2024.

**Table 4-3: Typical Residential Sewer Bills Under Existing and Proposed Rates**

Line No.	Description	Billable Flow Ccf	Existing Rates \$	Proposed Rates				
				2020 \$	2021 \$	2022 \$	2023 \$	2024 \$
Residential								
1	Low	3.5	\$ 24.24	\$ 25.22	\$ 26.23	\$ 27.28	\$ 28.41	\$ 29.54
2	Average	5.5	\$ 31.17	\$ 32.56	\$ 34.00	\$ 35.51	\$ 37.13	\$ 38.76
3	High	8.5	\$ 41.74	\$ 43.77	\$ 45.88	\$ 48.08	\$ 50.46	\$ 52.84
Proposed Increase (\$)								
4	Low		\$ 0.97	\$ 1.01	\$ 1.06	\$ 1.13	\$ 1.14	
5	Average		\$ 1.39	\$ 1.45	\$ 1.51	\$ 1.62	\$ 1.63	
6	High		\$ 2.03	\$ 2.11	\$ 2.21	\$ 2.38	\$ 2.39	
Proposed Increase (%)								
7	Low		4.0%	4.0%	4.0%	4.1%	4.0%	
8	Average		4.5%	4.4%	4.4%	4.6%	4.4%	
9	High		4.9%	4.8%	4.8%	4.9%	4.7%	

Table 4-4 shows the changes in Commercial sewer bills over the study period for three different usage profiles, assuming all rate increases and proposed rates are implemented through 2024. For a Commercial customer using 75 Ccf per month, increases in monthly sewer bills are expected to range from \$16.01/month in 2020 to \$19.03 a month in 2024.

**Table 4-4: Typical Commercial Sewer Bills Under Existing and Proposed Rates**

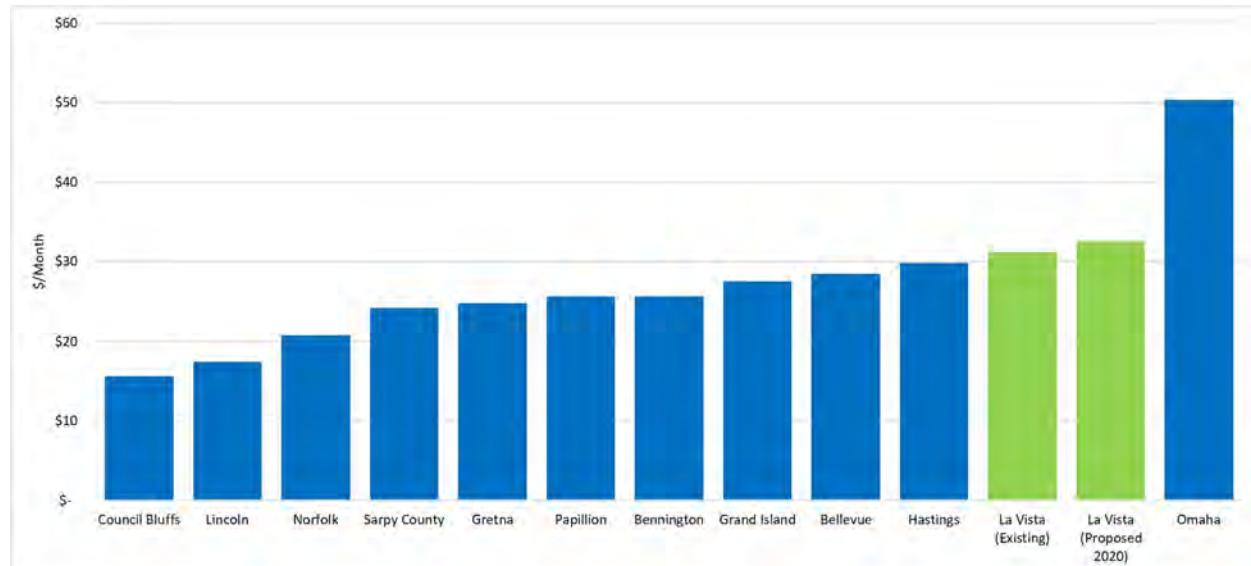
Line No.	Description	Billable Flow Ccf	Existing Rates \$	Proposed Rates				
				2020 \$	2021 \$	2022 \$	2023 \$	2024 \$
Commercial								
1	Low	25.0	\$ 100.35	\$ 105.86	\$ 111.62	\$ 117.64	\$ 124.16	\$ 130.69
2	Medium	75.0	\$ 275.35	\$ 291.36	\$ 308.12	\$ 325.64	\$ 344.66	\$ 363.69
3	High	130.0	\$ 467.85	\$ 495.41	\$ 524.27	\$ 554.44	\$ 587.21	\$ 619.99
Proposed Increase (\$)								
4	Low		\$ 5.51	\$ 5.76	\$ 6.02	\$ 6.52	\$ 6.53	
5	Medium		\$ 16.01	\$ 16.76	\$ 17.52	\$ 19.02	\$ 19.03	
6	High		\$ 27.56	\$ 28.86	\$ 30.17	\$ 32.77	\$ 32.78	
Proposed Increase (%)								
7	Low		5.5%	5.4%	5.4%	5.5%	5.3%	
8	Medium		5.8%	5.8%	5.7%	5.8%	5.5%	
9	High		5.9%	5.8%	5.8%	5.9%	5.6%	

Burns & McDonnell considers the multi-year cash flow and rate forecast provided in this report a roadmap and anticipates that the City will continue its practice of adopting rates annually for the next fiscal year. This practice allows the City an annual opportunity to consider near term funding needs with the benefit of recent, actual results of each fiscal year as they are completed. The financial outlook can be refreshed to reflect the latest conditions as part of the annual budgeting process, including such critical items as customer usage of its system, O&M expense trends, actual renewal and replacement costs, other capital project needs, and prevailing economic conditions, all of which will evolve over time.

#### 4.5 Typical Bills and Residential Bill Comparison

Figure 4-2 revisits the regional comparison of residential bills at 5.5 Ccf monthly consumption level including La Vista's existing and proposed 2020 rates. As noted in the introduction to this report, sewer utility rates are increasing approximately 5 to 6 percent annually. It is important to note that many of the regional utilities included in Figure 4-2 will be increasing rates over time.

**Figure 4-2: Proposed Residential Monthly Bill Comparison**



## 4.6 Statement of Limitations

In preparation of the City of La Vista Sewer Rate Study, Burns & McDonnell relied upon information provided by the City. The information included various analyses, computer-generated information and reports, audited financial reports, and other financial and statistical information, as well as other documents such as operating budgets and current rate schedules. In addition, input regarding key assumptions was provided by City staff to Burns & McDonnell. While Burns & McDonnell has no reason to believe that the information provided, and upon which Burns & McDonnell has relied, is inaccurate or incomplete in any material respect, Burns & McDonnell has not independently verified such information and cannot guarantee its accuracy or completeness.

Estimates and projections prepared by Burns & McDonnell relating to financial forecasting and costs are based on Burns & McDonnell's experience, qualifications, and judgment as a professional consultant. Since Burns & McDonnell has no control over weather, cost and availability of labor, material and equipment, labor productivity, contractors' procedures and methods, unavoidable delays, economic conditions, government regulations and laws (including interpretation thereof), competitive bidding, and market conditions or other factors affecting such estimates or projections, Burns & McDonnell does not guarantee the accuracy of its estimates or predictions.



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