

# Consolidated Rate Study Prepared for the Lower Rio Grande Public Water Works Authority

At the Request of the Lower Rio Grande Public Water Works Authority (LRGPWWA)



**LOWER RIO GRANDE**  
Public Water Works Authority



**RCAC**

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# 1. Executive Summary

The purpose of this rate study is to assist the Lower Rio Grande Public Water Works Authority (“The Authority”) plan for the revenue needs of its water and sewer utilities over the next six years (FY24-FY29) through an examination of its rate structure. These needs include adequate revenue for operations, debt, reserves, projected capital improvements, and proposed transfers. The Authority’s existing rate structure does not provide sufficient revenue to meet these needs.

This report identifies three consolidated rate options for Authority consideration. Option 1 provides no increase in utility charges, while Options 2 and 3 build upon the existing rate structure of each utility applying a uniform increase in each case. Recognizing distinct challenges facing the Authority’s sewer operations, Options 2 and 3 provides additional revenue to place this fund on a sustainable basis by providing a subsidy that would be gradually phased out. This rate report recommends adoption of Option 3, which would meet the revenue needs of both utilities as well as assist the sewer fund fully achieve sustainability over a six-year forecast period.

Effective FY24, or a typical residential household *using 6,000 gallons per month*, utility rates would increase by **\$10.85** per month under Option 2 (\$2.51 for Water + \$8.34 for Sewer) and **\$13.12** per month *under the recommended Option 3* (\$3.59 for Water and \$9.53 for Sewer). Subsequent increases will be needed under each option to cover additional anticipated costs including operation of utility upgrades, project debt, and identified reserve contributions. With full implementation of the last major rate increase in 2017, the Authority’s monthly utility rates are substantially lower than comparable systems, particularly its sewer rates. Since 2017, inflation as measured by the US Consumer Price Index has increased approximately 24%.<sup>1</sup>

In addition to the primary recommendation of implementing the scheduled rate increases, the report advises LRGPWVA to evaluate supporting sources of operating and other earned revenue that could reduce reliance on monthly water and wastewater service charges to generate income. To improve operating and planning efficiency, the report recommends that LRGPWVA continue to investigate and implement asset management and energy audit recommendations, as well as examine other utility best practices.

Finally, the report incorporates assumptions about revenue, expenses, water consumption, inflation, system connections, reserve contributions, and the timing and financing of capital improvements, which if not realized, could either diminish or increase the need to adjust rates throughout the forecast period as identified.

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<sup>1</sup> [\\$1 in 2017 → 2023 | Inflation Calculator \(in2013dollars.com\)](#)

## 2. Introduction

### Rural Community Assistance Corporation (RCAC)

Founded in 1978, RCAC is a 501(c) (3) nonprofit organization that provides training, technical and financial resources and advocacy so rural communities can achieve their goals and visions. For more than 40 years, our dedicated staff and active board, coupled with our key values of leadership, collaboration, commitment, quality, and integrity, have helped rural communities throughout the West achieve positive change.

### Purpose of this Rate Study

The purpose of this study is to make the Authority aware of the need to assess appropriate rates for its water and sewer utilities. These utilities must be able to maintain operations and build reserves to cover the inevitable need to replace all components of the operation.

### Board Responsibilities

The Governing Body has a fiduciary responsibility to set the rates at such a level that the utility will be able to continue to operate now and into the future, including providing funds to replace all parts of the system as they wear out. While this document recommends certain rates, the ultimate decision rests with the Governing Body.

### Guiding Principles of This Study

This study is guided by the following principles:

**Sustainability:** Rates should cover costs enabling the Authority to provide services now and for the foreseeable future.

**Fairness:** Rates should be fair to all rate payers. No single rate payer or group of rate payers should be singled out for different rates. LRGPWWA should not charge more for such services than the cost to provide them.

**Ease of Understanding:** Rates should be easy for staff to understand, implement and explain to customers. The structure should be compatible with current utility billing software.

**Justifiability:** Rates should be based on actual financial needs of the Authority. Revenue generated from such rates should pay for the costs of providing water service to its customers including related debt and reserve contributions.

### Disclaimer

The recommendations contained in this rate study are based on financial information provided to RCAC by the Authority and its representatives. The information contained in this report is provided on an “as is” basis with no guarantees of completeness, accuracy, usefulness, or timeliness. Views and opinions expressed in this report

belong to the author and do not necessarily represent the official views of RCAC. For accounting advice, a Certified Public Accountant should be consulted. For legal advice, LRGPWWA should seek the advice of an attorney.

## 3. Lower Rio Grande PWWA

### Background

Established in 2009, The Lower Rio Grande Public Water Works Authority (LRGPWWA) provides potable water and/or sanitary sewer services to fifteen Colonias communities in Dona Ana County, NM. Through its water utility, the Authority serves more than 5,000 connections and through its sewer utility the Authority serves currently serves approximately 716 connections. Composed of five non-contiguous operating units, the Authority has expanded in recent years acquiring the Valle Del Rio Water System (2016), High Valley MDWCA (2018), and most recently, Rincon MDWCA (2022).

### Communities Served

Located within 150 miles of the US-Mexican border, all but one of the communities that the Authority serves have been designated “Colonias”. By definition, these communities are “determined to be Colonias based on objective criteria including lack of potable water supply, lack of adequate sewerage systems, and the lack of decent, safe, and sanitary housing”<sup>2</sup> among other factors.

As expected, median household incomes within these communities tend to be lower than New Mexico state and United States national averages (\$53,992 and \$69,717, respectively). Tabulated data for communities within the LRGPWWA service area (Exhibit 1) supports this observation and highlights potential affordability concerns, which are further discussed in Section 6. The unemployment rate for Dona Ana County, where LRGPWWA is located, is currently 4.3%.<sup>3</sup>

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<sup>2</sup> [https://www.law.cornell.edu/definitions/uscode.php?width=840&height=800&iframe=true&def\\_id=42-USC-949543095-1584133975&term\\_occur=8&term\\_src=](https://www.law.cornell.edu/definitions/uscode.php?width=840&height=800&iframe=true&def_id=42-USC-949543095-1584133975&term_occur=8&term_src=)

<sup>3</sup> <https://fred.stlouisfed.org/series/NMDONA5URN>

**Exhibit 1: Median Household Incomes of Communities Within the LRGPWWA Service Area<sup>4</sup>**

Zip Code	Town Represented	Population	Median Household Income	Margin of Error (+/-)
88024	Berino	469	\$ 38,029.00	\$ 6,082
88048	Mesquite	3,931	\$ 46,266.00	\$ 12,493
88052	Organ	291	\$ 26,999.00	NA
87940	Rincon	450	\$ 32,695.00	NA
88072	Vado	2,563	\$ 34,713.00	\$ 10,973

## 4. Water and Sewer Utility Profile

Spread over five distinct operating units the Authority owns extensive water infrastructure including:

- 24 ground-set storage tanks
- Mesquite Water Tower
- 15 domestic groundwater wells on the Middle and Upper Santa Fe Group aquifer
- Over 274 miles of waterlines
- Several booster pump stations
- Fire hydrants & water meters for over 5,000 water service connections

Currently serving over 700 accounts, the original wastewater system (constructed in 2012) consisted of 8-inch and 10-inch collections pipelines that drained to 10 lift stations located in Mesquite, NM. With over 1100 service connections anticipated upon completion, the Brazito Sewer Project will greatly expand the wastewater utility’s infrastructure and service area. In addition, the Authority owns multiple buildings, warehouses and administrative offices, which in part, are shared with its wastewater operations.

### Water Usage

Exhibit 1 characterizes billed water usage during the past three years (2020-2022) with metered residential and non-residential connections comprising 98% of the total volume of water sold. During this period, the number of water connections increased by 131 (2.61%) to 5152 connections, while average monthly volume per connection remained relatively unchanged. It is noted that billed water usage also provides the basis for the sewer commodity charge.

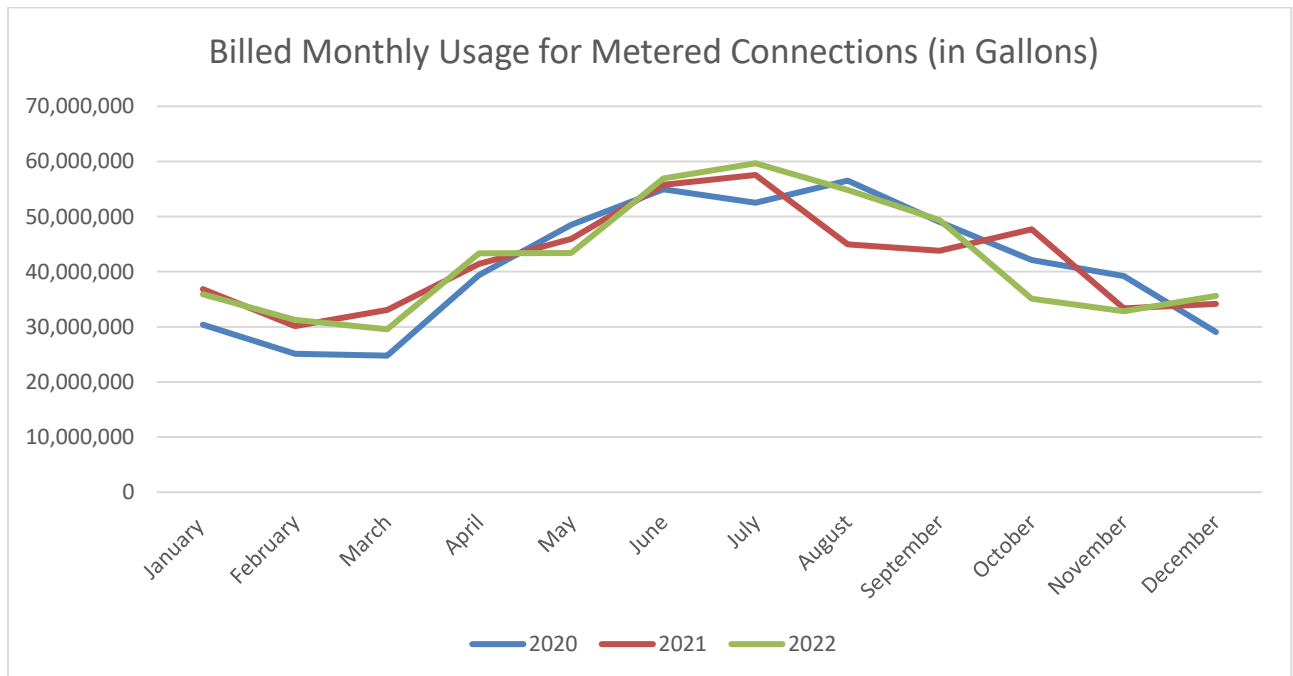
<sup>4</sup> Sources: 2021 5-year American Community Survey [ACS] (Berino, Mesquite, and Vado); 2018 5-Year ACS (Organ, Rincon)

**Exhibit 2: Water Sold at LRGPWWA (2020-2022)**

Year	Total Water Sold (Gals.)	Bulk Water Sold (Gals.)	Metered Water Sold (Gals.)	Total # Metered Connections	Monthly Volume per Connection
2020	510,253,317	14,874,545	495,378,772	5,021 (4802 Residential + 219 Non-Residential)	8,159
2021	508,721,677	6,827,199	501,894,478	5,103 (4919 Residential + 184 Non-Residential)	8,196
2022	514,525,237	9,357,100	505,168,137	5,152 (4969 Residential + 183 Non-Residential)	8,171
Average	511,166,744	10,352,948	500,813,796	5,092 (4897 Residential + 195 Non-Residential)	8,175

Analyzing this data further Exhibit 3 displays monthly billed usage volume (residential and non-residential) for the past three years. The data show a strong seasonal pattern with the highest consumption tending to occur during the summer months of June through August. The graph indicates significant non-household (i.e., discretionary) usage which the utility will need to monitor as it implements any rate increase.

**Exhibit 3: Monthly Billed Consumption for Metered Connections (2020-2022)**





## Water Loss (Non-Revenue Water)

Derived from annual water audits prepared by the utility, Exhibit 4 shows a significant decrease between the amount of water produced and water sold. This trend reflects lower distribution losses indicating more efficient operation of the utility.

**Exhibit 4: Water Produced versus Water Sold**

Year	H2O Produced (Gals.)	Total Water Sold (Gals.)	Difference (Gals.)
2020	633,502,101	506,486,946	127,015,155
2021	615,462,700	508,721,677	106,741,023
2022	583,823,900	514,525,237	69,298,663

## Forecasted Growth

LRGPWWA has grown in recent years reflecting both expansion of the Authority’s physical boundaries as well as the increasing population of Dona Ana County. Incorporating information provided by the utility including discussion with Authority representatives, Exhibit 5 forecasts 0.5% annual growth in connections (both residential and non-residential) with *no change in per capita consumption* associated with either water or sewer charges during the FY24-29 forecast period. As shown below, the Authority’s sewer utility is projected to grow much faster through FY27 with the onboarding of new customers from the Brazito Sewer Project.

**Exhibit 5: Forecasted Number of Water and Sewer Connections (FY24-29)**

Item	FY24	FY25	FY26	FY27	FY28	FY29
Water Utility Connections	5304	5331	5357	5384	5505	5533
Sewer Utility Connections	800	900	1000	1142	1148	1153

# 5. Projects

Anticipating continuing infrastructure needs LRGPWVA has developed an Infrastructure Capital Improvement Plan for the FY24-28 period. The plan, which is presented in the following exhibit, includes requested funding for fourteen projects including water, wastewater, facility, and other improvements:

**Exhibit 6: LRGPWWA Infrastructure Capital Improvement Plan (ICIP) – FY24-28**

Infrastructure Capital Improvement Plan F2024-2028													
Lower Rio Grande Public Water Works Authority													
Project Summary													
ID	Year	Rank	Project Title	Category	Funded						Total	Amount	Phases?
					to date	2024	2025	2026	2027	2028	Project Cost	Not Yet Funded	
39635	2024	001	LRGPWWA South Valley Water System Improvements	Water - Water Supply	110,000	13,825,000	11,924,000	0	0	0	25,859,000	25,749,000	Yes
39636	2024	002	LRGPWWA East Mesa Water System Improvements	Water - Water Supply	110,000	2,044,000	8,544,000	0	0	0	10,698,000	10,588,000	Yes
30435	2024	003	LRGPWWA Central Operations Facility	Facilities - Administrative Facilities	4,796,939	750,000	0	0	0	0	5,546,939	750,000	Yes
21301	2024	004	LRGPWWA Authority Brazito Sewer Project	Water - Wastewater	22,842,800	11,000,000	0	0	0	0	33,842,800	11,000,000	Yes
30449	2024	005	LRGPWWA Contaminant Removal Facilities & Equipment	Water - Water Supply	0	600,000	600,000	600,000	0	0	1,800,000	1,800,000	Yes
24026	2024	006	LRGPWWA Information Technology Standardization	Equipment - Other	67,000	1,080,000	150,000	100,000	250,000	0	1,647,000	1,580,000	Yes
19248	2024	007	Authority Interconnect Looping Project	Water - Water Supply	325,521	100,000	1,507,367	0	0	0	1,932,888	1,607,367	Yes
25937	2024	008	40 Year Water Plan Update	Water - Water Supply	0	75,000	0	0	0	0	75,000	75,000	No
25920	2024	009	Water Rights Purchase	Water - Water Rights	0	1,800,000	0	0	0	0	1,800,000	1,800,000	Yes
25096	2024	010	Heavy Equipment Purchase	Equipment - Other	220,000	571,000	100,000	100,000	100,000	100,000	1,191,000	971,000	Yes
30447	2024	011	Water Master Plan	Water - Water Supply	110,000	50,000	0	0	0	0	160,000	50,000	No
22906	2025	001	Light Equipment Purchase	Equipment - Other	160,145	0	300,000	90,000	90,000	80,000	720,145	560,000	Yes
39631	2026	001	Water Line Extensions to Unserved Areas	Water - Water Supply	0	0	0	7,232,463	3,821,920	0	11,054,383	11,054,383	Yes
27612	2027	001	Green Projects	Other - Other	0	0	0	0	100,000	0	100,000	100,000	No

Refining these needs following consultation with Authority representatives, the following exhibit identifies key water and sewer projects that the Authority plans to undertake over the next six years (FY24-FY29) including estimated costs, terms, and timing. The exhibit includes critical water system improvements on the East Mesa for which an annual loan payment of **\$95,016** has been identified beginning in FY26 (July 2025), as well an annual loan payment of **\$123,394** for extension of waterline to unserved areas beginning in FY29<sup>5</sup>. Projects also include Phase 3 of the Brazito Sewer Project with an annual loan payment of **\$182,739** slated to begin in FY26. Since financing for these projects has not been secured entirely, actual costs, terms, and timing may vary from the estimates provided.

<sup>5</sup> The waterline extension is expected to serve ~40 additional connections, which have been incorporated in the rate study projections.

**Exhibit 7: Funding Scenario for LRGPWWA Water System Projects**

Project	% Water	% Sewer	Anticipated Source	Anticipated Cost	% Grant	Adjusted Cost	Term (years)	Interest Rate	Annual PMT (Water)	Annual PMT (Sewer)	Payment Begins
LRGPWWA East Mesa Water System Improvements	100%	0%	DWSRF	\$ 8,512,140.47	75%	\$2,128,035.12	30.00	2.0%	\$95,016.60	\$0.00	FY26
LRGPWWA Central Operations Facility	90%	10%	Capital Outlay	\$ 750,000.00	100%	\$0.00	30.00	2.0%	\$0.00	\$0.00	FY24
LRGPWWA Brazito Sewer Project (Phase 3)	0%	100%	USDA-RD	\$ 11,000,000.00	60%	\$4,400,000.00	40.00	2.75%	\$0.00	\$182,738.66	FY26
LRGPWWA Information Technology Standardization	90%	10%	Capital Outlay	\$ 1,580,000.00	100%	\$0.00	30.00	2.0%	\$0.00	\$0.00	FY27
Waterline Extensions to Unserved Areas	100%	0%	Water Trust Fund	\$ 11,054,383.00	75%	\$2,763,595.75	30.00	2.0%	\$123,394.34	\$0.00	FY29
Green Projects	90%	10%	Capital Outlay	\$ 100,000.00	100%	\$0.00	30.00	2.0%	\$0.00	\$0.00	FY28

## 6. Financial Condition

### Classification of Revenue and Expenses

The Authority earns system revenue from both operating and non-operating sources described below.

- Operating Revenue – monthly water and sewer sales; administrative fees, utility service fees, connection and reconnection charges, other service charges
- Earned Non-Operating Revenue – other sources of reliable earned revenue including interest received, rents and contracts

The rate study separated costs into four categories:

- Base Operating Expenses – these expenses are incurred in operating the utility. Typical examples include salaries and wages, employee benefits, maintenance & repairs, professional services (accounting, engineering, legal), field and office supplies, software, fuel and vehicle maintenance, supplies, telecommunications, field supplies, postage, printing/publishing/advertising, training, travel, and utilities (electricity).
- Additional Operating Costs – obtained from engineering estimates and other sources, these expenses pertain primarily to additional costs that are incurred when new projects are placed into operation.
- Debt Payments – consists of principal and interest payments on water and sewer utility loans
- Reserves – the report identifies several types of reserves: operating (working capital), debt, emergency, a capital reserve for the replacement of short-lived assets (<15 years expected useful life) and other categorized capital assets.

## Financial Performance

The following exhibit summarizes the financial performance of the Authority during the past three fiscal years (FY20-FY23):

### Exhibit 8: LRGPWWA Net System Revenue

Component	FY21	FY22	FY23 Est.
Water Operating Revenue	\$ 3,285,375.45	\$ 3,176,066.42	\$ 3,450,815.00
Sewer Operating Revenue	\$ 169,576.23	\$ 339,176.46	\$ 308,100.00
Earned Non-Operating Revenue	\$ 354,668.07	\$ 340,678.45	\$ 265,800.00
Total Earned Revenue:	\$ 3,809,619.75	\$ 3,855,921.33	\$ 4,024,715.00
Less: Base Operating Expenses + Debt	\$ 3,465,456.21	\$ 3,547,380.61	\$ 4,178,061.00
Net System Revenue:	\$ 344,163.54	\$ 308,540.72	\$ (153,346.00)

Overall, the financial performance of the Authority as deteriorated with an estimated net revenue loss of -\$153K indicated for FY23. One reason for this deterioration involves new debt payments for the Brazito Phase 2 Sewer Project for which the anticipated number of customers has not yet been realized. These payments, beginning in January 2023, cost the Authority \$127,746 for the last six months of FY23 and are expected to increase to \$255,492 in FY24. In FY23 the Authority also incurred substantial costs to replace collapsed sewer lines among other emergencies. Despite an estimated reserve balance of \$1.336M at the end of FY23<sup>6</sup>, additional revenue will be required to meet the Authority’s projected needs and to ensure that the Authority remains on a stable fiscal path going forward.

## Current Rate Schedule

Effective July 1, 2022, the following Exhibit 9 presents the current rate schedule for customers who are connected to the Authority’s water system. With the last major increase fully implemented in 2017, the utility will require additional revenue to meet its forecasted revenue needs.

<sup>6</sup> For rate setting purposes, as shown in Appendix A, \$588,847 of this amount has been assigned as an initial contribution to an operating (i.e., “Beginning Available Cash Reserves”) reserve fund.

**Exhibit 9: Current LRGPWWA Utility Rates**

**Part A: WATER**

## Water Rates

**Adopted February 17, 2021  
Implementation Date July 1, 2022 \***

**Residential Water Rates \***

Minimum Bill		\$ 21.35	for			2,000	gallons
Tier 1	2,001–5,000	gallons	for	\$ 3.42	per	1,000	gallons
Tier 2	5,001–10,000	gallons	for	\$ 4.27	per	1,000	gallons
Tier 3	10,001–15,000	gallons	for	\$ 5.12	per	1,000	gallons
Tier 4	15,001–20,000	gallons	for	\$ 5.98	per	1,000	gallons
Tier 5	Over 20,000	gallons	for	\$ 6.83	per	1,000	gallons

**Small Commercial Water Rates—12-month average 3,000 gallons or less \***

Minimum Bill		\$ 34.18	for			2,000	gallons
Tier 1	2,001–5,000	gallons	for	\$ 3.42	per	1,000	gallons
Tier 2	5,001–10,000	gallons	for	\$ 4.27	per	1,000	gallons
Tier 3	10,001–15,000	gallons	for	\$ 5.12	per	1,000	gallons
Tier 4	15,001–20,000	gallons	for	\$ 5.98	per	1,000	gallons
Tier 5	Over 20,000	gallons	for	\$ 6.83	per	1,000	gallons

**Commercial Water Rates \***

Minimum Bill		\$ 54.68	for			2,000	gallons
Tier 1	2,001–5,000	gallons	for	\$ 5.12	per	1,000	gallons
Tier 2	5,001–20,000	gallons	for	\$ 5.98	per	1,000	gallons
All over	All over 20,000	gallons	for	\$ 6.83	per	1,000	gallons

**PART B: SEWER**

## Sewer Rates

Adopted February 17, 2021  
Implementation Date July 1, 2022

**Residential Sewer Rates (If Water Service is from LRGPWWA)**

Minimum Bill	\$ 12.73		for				0 gallons
Tier 1	0–20,000	gallons	for	\$ 1.85	per	1,000	gallons
No additional charge for usage over 20,000 water usage							

**Commercial Sewer Rates (If Water Service is from LRGPWWA)**

Minimum Bill		\$16.71	for				0 gallons
Tier 1	0–10,000	gallons	for	\$ 2.12	per	1,000	gallons
Tier 2	10,001–20,000	gallons	for	\$ 2.39	per	1,000	gallons
Tier 3	All over 20,001	gallons	for	\$ 3.18	per	1,000	gallons

**These sewer rates only apply to people who receive water service from the LRG PWWA.**

**The following rates apply to those who receive only sewer service from the LRGPWWA:**

Residential Sewer Only: \$23.88 per month flat fee

Commercial Sewer Only: \$25.46 per month flat fee

The rate schedule recognizes residential and commercial customer classes for which separate access (minimum) and usage (commodity) charges are assigned. Residential water rates include 2,000 gallons of monthly water consumption in the access charge and the commodity charge incorporates an increasing tiered block rate structure sending a price signal to customers to encourage water conservation. These features along with higher commercial access charges help ease the rate burden on residential customers who can afford only limited usage.

Further addressing affordability concerns, the Authority has instituted a payment plan for customers who may have difficulty paying a monthly water bill in its entirety, and activity promotes other utility payment assistance programs through its customer outreach. Considering these measures to address affordability, as well as customer and administrative familiarity with the existing structure, LRGPWWA management requested that needed rate increase be implemented in accordance with the existing rate structure to the maximum extent possible.

In addition to monthly water service charges, the Authority also assesses fees and other non-rate charges related to utility service. An adopted increase in the current water installation fee (from \$2,100 to \$3,100) has been incorporated into this report for forecasting purposes.

## Survey of Utility Rates

The following exhibit compares LRGPWWA’s monthly water and sewer rates with surrounding utilities as well as systems of comparable size. While system charges vary based on numerous factors, the Authority’s existing monthly charge of 35.88 (2022) for 6K gallons of monthly water usage is considerably lower than the \$45.85 per connection average monthly rate for public water systems of similar size (5,000-10,000 connections), as cited in the 2021 New Mexico Environment Department public water and sewer rate survey.<sup>7</sup> The Authority’s monthly sewer rates are much lower than systems in the comparison set.

### Exhibit 10: Selected Area Utility Rates (2021)

#### Part A: WATER

System Name	# Connections	Residential (6K Gallons)	Commercial (6K Gallons)
LRGPWWA	5138	\$34.84	\$48.71*
Elephant Butte	1062	\$46.77	\$42.21
Anthony W&SD	2815	\$37.97	\$39.84*
Silver City	6689	\$34.79	\$34.79
2021 Average Rate (N-5)	<b>5000-10000</b>	\$45.85 = Average rate per connection	

\*Small Commercial Rates

<sup>7</sup> 2021 Public Water and Wastewater User Charge Survey for December 2020 Rates, NMED Drinking Water Bureau, p.9, [NoP4Wd1EyorPC~sl~BWz~sl~H2+PXdCQEKefUZMa+xAIRrWuxlvdEEjyB6bvMc6urD1eMjUvHgvdUNlgnG5Bji3QSiqxCVcKFoNy6AfxYq6Tm0pS90pi8hJH+eF06njSlzhGmf.pdf \(nm.gov\)](https://www.nmed.gov/~/media/2021/12/2021-Public-Water-and-Wastewater-User-Charge-Survey-for-December-2020-Rates-NMED-Drinking-Water-Bureau-p9.pdf)

**Part B: SEWER**

System Name	# Connections	Residential (6K Gallons)	Commercial (6K Gallons)
LRGPWWA (2023)	716	\$23.83	\$29.43
Dona Ana County (2021)	NA	\$51.22	\$97.22
Dona Ana MDWCA (2022)	1383	\$42.79	\$42.79
Anthony W&SD (2021)	2695	\$40.95	\$51.50
2021 Sewer Data Average (N=13)	1000-5000	Average rate per connection = \$35.96	

## 7. Rate Setting Process

### Discussion and Approach

Forecasting water and sewer utility revenue needs over a six-year period (FY24-29), this report incorporates both recommended and alternative rate options for LRGPWWA consideration. The rate study recognizes five key goals identified by the Authority:

- Generate adequate revenue to meet the forecasted needs of the water and sewer system operating expenses, project debt and reserves
- Allocate shared revenue and costs to provide a basis for rate increases
- Implement a phased approach for applying needed rate adjustments
- Enable transfer of funds to maintain stability of the Authority’s sewer operations
- Maintain existing rate structure to maximum extent possible

The rate study allocates shared sources of revenue and costs into water and sewer components, an analysis which the Authority does not currently perform. Relying on the relative number of water and sewer connections to establish this allocation, the analysis shown in Appendix A considers the impact of inflation and system growth.

Addressing a phased-in approach to proposed rate increases, the rate study assesses the timing of revenue needs making gradual adjustments to build system capacity. Such increases are easier to justify and allow the customer more time to absorb the corresponding rate impact.



As directed by LRGPWWA management the rate study also establishes a mechanism for the Authority to transfer funds from its water to its sewer operations. The reason for this transfer is to help pay for immediate costs associated with sewer operations, particularly the sewer utility's share of allocated costs (see Appendix D), and the incurrence of additional debt to pay for sewer improvements (viz. Brazito Phase 2) for which the projected number of wastewater connections has not been fully realized. Failure to provide this subsidy would harshly penalize existing sewer customers making rates much less affordable for many customers. This subsidy would be phased out over time with anticipated increases in the number of sewer connections served.

Recognizing the Authority's goal to maintain the existing rate structure to the maximum extent possible, the rate study identifies uniform adjustments to the existing tiered rate structure. This rate structure recognizes the water conservation goals of the Authority and is familiar to both customers and administrative staff.

### Methodology

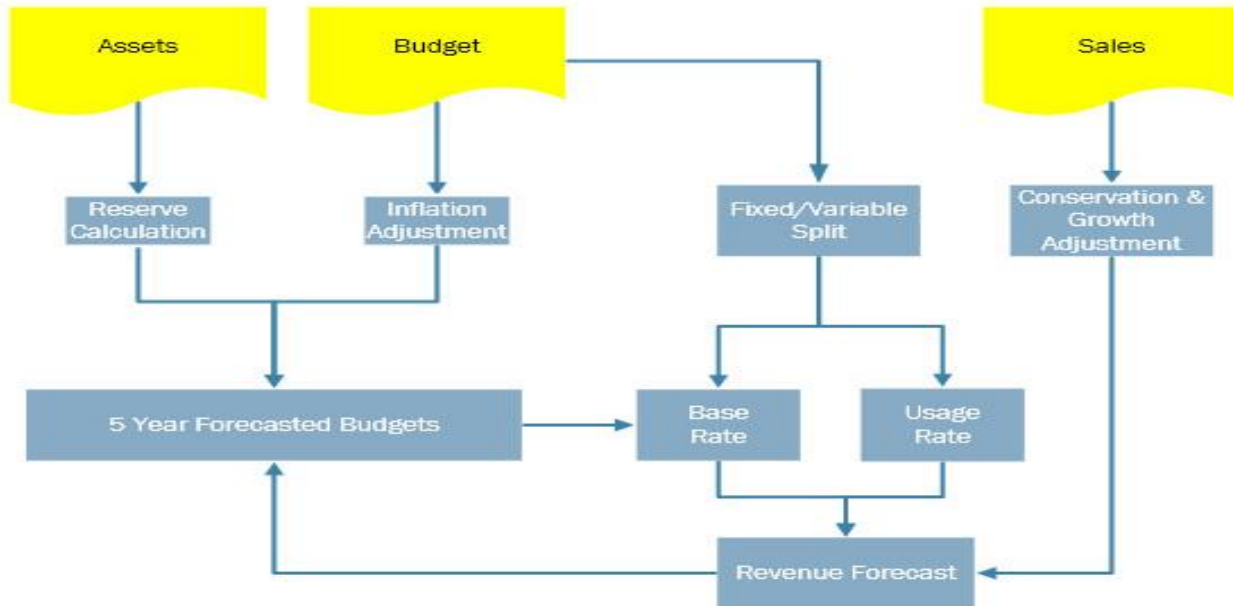
Based on guidance developed by the American Water Works Association,<sup>8</sup> the following graph depicts the rate setting methodology used to establish proposed rate options for the Authority's water and sewer utilities. The process consists of analyzing key inputs (sales, budget, and assets) to derive an appropriate rate structure to fulfill the revenue requirements of the utility. The process involves compiling lists of all capitalized assets, the current budget, and the current sales history as provided by Authority, which is adjusted for anticipated changes in usage and number of connections. Recommended reserves are calculated and entered in a 5 to 6-year budget forecast, which is adjusted for inflation. The budgeted expenses are then divided between fixed and variable costs, which supports the determination of appropriate base (access) and usage (commodity) charges.

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<sup>8</sup> Principles of Water Rates, Fees and Charges, 7<sup>th</sup> Edition (2017), American Water Works Association

**Exhibit 11: Rate Setting Methodology**

**Rate Setting with Water Meters**



## 8. Capital Replacement Program

The rate study considers funding for replacement of the water utility’s capital assets. These assets are divided into short-lived assets (0-15 years)<sup>9</sup> based on expected useful life and generalized asset categories shown in Appendix C Summarized below, funding for each asset category considers existing reserves, existing annual contribution levels, and anticipated additional contributions over the FY24-29 period as new assets are placed into service. Funding for this plan will be further informed by engineering reports, lender requirements, and asset planning initiatives.

<sup>9</sup> In 2018 The Authority has identified an annual short-lived contribution of \$109,783.33

**Exhibit 12: Forecasted Contributions to LRGPWWA Capital Replacement Program (FY24-FY29)**

**Part A (WATER)**

Lower Rio Grande PWWA (Water)	FY24	FY25	FY26	FY27	FY28	FY29
Capital Reserve (General Assets)	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78
Short-Lived Asset Reserve	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33
Total	\$ 116,384.11	\$ 116,384.11	\$ 116,384.11	\$ 116,384.11	\$ 116,384.11	\$ 116,384.11

**Part B (SEWER)**

Lower Rio Grande PWWA (Sewer)	FY24	FY25	FY26	FY27	FY28	FY29
Capital Reserve (General Assets)	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75
Short-Lived Asset Reserve	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 61,500.00	\$ 61,500.00	\$ 61,500.00
Total	\$ 40,924.75	\$ 40,924.75	\$ 40,924.75	\$ 77,424.75	\$ 77,424.75	\$ 77,424.75

## 9. Budget and Forecast

The purpose of the utility operating budget is to ensure the system's revenues balance its expenditures and needed reserves. To achieve a balanced budget, the utility should assess the following items with respect to future operational and capital needs, including the impact of inflation, system growth and usage trends:

- Historic revenues and expenses from the past 2 to 4 fiscal years
- Current debt-service requirements
- Operating revenues and costs
- Uncollectable accounts (as a % of sales)
- Any unplanned “emergency” expenses that occurred within the past several years
- Revenues from customer billings and other sources of income for the past several years
- Required reserves
- Transfers to/from financial reserves

These elements are further described below.

### Joint Utility Fund Analysis

Shown in Appendix C, the utility fund analysis worksheet allocates base operating costs into water and sewer components from which respective revenue forecasts are derived. The analysis incorporates relative changes in

the number of water and sewer connections as well as anticipated increases in cost (i.e., cost factor) for each line item. Exhibit 13 summarizes the weighted cost factors that will be applied during the FY24-29 forecast period.

**Exhibit 13: Forecasted Cost Factors (FY24-29)**

Component	FY24	FY25	FY26	FY27	FY28	FY29
Cost Factor	1.0544	1.0418	1.0300	1.0300	1.0300	1.0300

**Reserve Funding**

AWWA standards guiding this rate study recommend a review of four types of reserves:

1. Debt Reserve: As required by some lenders, the purpose of this reserve is to assure payment of debt obligations. For example, USDA-RD requires its borrowers contribute 10% of an annual loan payment each year until a full year’s debt payment has been accumulated. With required contributions to the Authority’s debt reserve account largely satisfied,<sup>10</sup> the study recommends default annual contributions of \$10K each to the water and sewer utility operating units with additional annual contributions as new project debt is incurred (i.e., 10% on new debt payments).
2. Operating Reserve: Operating reserves are established to provide the utility with the ability to withstand short term cash-flow fluctuations. A 45- to 90-day cash on hand operating reserve is a frequently used industry norm.<sup>11</sup> Following consultation with LRGPWWA representatives, the study provides alternate operating reserve targets of 20-40 days and 40-70 days available cash on hand for Rate Options 2 and 3, respectively.<sup>12</sup>
3. Emergency Reserve: Emergency reserves are intended to help utilities deal with short-term emergencies, such as mainline breaks or pump failures. The rate study identifies a \$10K annual contribution to the water and sewer operating units for the FY24-FY29 period, with the assumption that additional funding from the operating reserve can be provided as needed.
4. Capital Replacement Program (CRP) – Discussed in Section 8, the utility’s CRP funds the timely replacement of the utility’s short-lived and categorized capital assets. Funding for this plan will be further informed by engineering reports, lender requirements, and asset planning initiatives.

**Transfers (Sewer Utility Subsidy)**

As directed by LRGPWWA management, the rate study establishes a mechanism to transfer revenue generated by the Authority’s water utility to its sewer operations. The subsidies are intended to stabilize the Authority’s sewer utility includes consideration of existing project debt (sic. Brazito Sewer Project-Phase 2) for which the

<sup>10</sup> Per discussion with K. Jackson, LRGPWWA financial manager, 6.09.23.  
<sup>11</sup> Developing Rates for Small Systems, AWWA Manual M54, 1st Edition (2004), p. 22  
<sup>12</sup> For purposes of the rate study, the operating reserve (cash on hand) is calculated as follows: (Ending Net Position/Base Operating Expenses) x 365 days.

anticipated number of wastewater connections has not been fully realized, as well as the allocation of joint utility expenses.

As presented in Exhibit 14, the rate study identifies two levels of support. Under Level 1 the subsidy would be provided for 6 years, which coincides with the rate study forecast period, while the subsidy for Level 2 would be extended an additional 5 years:

**Exhibit 14: Sewer Utility Subsidies**

Level	Days Cash on Hand Provided	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	Total
1	40-70	\$ 400,000	\$ 225,000	\$ 400,000	\$ 275,000	\$ 250,000	\$ 195,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,745,000
2	20-40	\$ 400,000	\$ 250,000	\$ 500,000	\$ 400,000	\$ 350,000	\$ 325,000	\$ 200,000	\$ 200,000	\$ 150,000	\$ 125,000	\$ 75,000	\$ -	\$ 2,975,000

## 10. Forecasted Revenue Needs

Incorporating information provided in the previous sections the rate analysis forecasts that the Authority will need to generate approximately \$30M, or about \$5M on average, over the next six years to meet projected revenue needs including anticipated operating costs, debt, and projected reserve contributions. The rate study forecasts that most of the additional required revenue indicated will be generated by increases in the Authority’s monthly water and sewer charges. These needs reflect numerous variables including operating efficiency, implementation and financing of new projects, and inflation. In FY22 the Authority generated \$3.9M in earned revenue.

## 11. Rate Options

The report identifies three water and three sewer rate options for Authority consideration:

### Option 1

No change in existing water and sewer rate structure over the forecast period (FY24-FY29)

### Option 2

Water - Starting July 2024 (FY24), implementation of an 7% uniform increase to the Authority’s existing monthly water access (base rate) and commodity (usage) charges, with additional uniform increases to these charges as follows: 6% in FY25 (July 2024), 6% in FY 26 (July 2025), 4% in FY27 (July 2026), 2% in FY28 (July 2027), and 2% in FY29 (July 2028). The rate study forecasts this option will provide a 20-40 days’ cash on hand operating reserve at the end of each fiscal year (FY24-29) and will enable the **Level 2 subsidy** described in Section 9 through its termination in FY34.

Sewer - Starting July 2023 (FY24), implementation of a 35% uniform increase to the Authority’s existing monthly water access (base rate) and commodity (usage) charges, with additional uniform increases to these charges as follows: 30% in FY25 (July 2024), 25% in FY 26 (July 2025), 15% in FY27 (July 2026), 8% in FY28 (July 2027), and 3% in FY29 (July 2028). The rate study forecasts this option will provide a 20-40 days’ cash on hand operating reserve at the end of each fiscal year (FY24-29) and will enable the **Level 2 subsidy** described in Section 9 through its termination in FY34.

**Option 3 (Recommended Option)**

Water - Starting July 2023 (FY24), implementation of a 10% uniform increase to the Authority’s existing monthly water access (base rate) and commodity (usage) charges, with additional uniform increases to these charges as follows: 4% in FY25 (July 2024), 4% in FY 26 (July 2025), 2% in FY27 (July 2026), 2% in FY28 (July 2027), and 0% in FY29 (July 2028). The rate study forecasts this option will provide a 40-70 days’ cash on hand operating reserve at the end of each fiscal year (FY24-29) and will enable the **Level 1 subsidy** described in Section 9 through its termination at the end of FY29.

Sewer - Starting July 2023 (FY24), implementation of a 40% uniform increase to the Authority’s existing monthly water access (base rate) and commodity (usage) charges, with additional uniform increases to these charges as follows: 40% in FY25 (July 2024), 30% in FY 26 (July 2025), 15% in FY27 (July 2026), 8% in FY28 (July 2027), and 5% in FY29 (July 2028). The rate study forecasts this option will provide a 40-70 days’ cash on hand operating reserve at the end of each fiscal year (FY24-29) and will enable the **Level 1 subsidy** described in Section 9 through its termination at the end of FY29.

The rate increases associated with each option are summarized in the following table:

**Exhibit 15: Summary of Rate Increases for Proposed Options**

**Part A (WATER)**

Rate Option	FY24	FY25	FY26	FY27	FY28	FY29
#1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
#2	7.0%	6.0%	6.0%	4.0%	2.0%	2.0%
#3 (Recommended)	10.0%	4.0%	4.0%	2.0%	2.0%	0.0%

**Part B (SEWER)**

Rate Option	FY24	FY25	FY26	FY27	FY28	FY29
#1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
#2	35.0%	30.0%	25.0%	15.0%	8.0%	3.0%
#3 (Recommended)	40.0%	40.0%	30.0%	15.0%	8.0%	5.0%

## 12. Evaluation and Impact

The rate study evaluated each option based on multiple criteria including the ability to meet each utility’s defined revenue needs, fairness, justifiability, ease of understanding, ease of implementation, and alignment with stated utility goals. The following table summarizes the relative strengths and weaknesses of each rate option:

**Option 1**

Advantages – lowest rate impact, customer acceptance

Disadvantages – Option is not viable based on inability to meet forecasted revenue needs of the utility

**Option 2**

Advantages – satisfies goals and revenue needs of the utility

Disadvantages – higher rate impact than Option 1; prolonged subsidy period extending beyond the rate study period

**Option 3**

Advantages – most fully satisfies goals and revenue needs of the utility

Disadvantages – highest rate impact on sewer customers

### Rate Impact

Options 2 and 3 will increase monthly charges for all LRGPWWA water customers during the first year of implementation (FY24). The following table summarizes the monthly *residential* rates for each rate option at selected usage levels during this first year.

**Exhibit 15: Rate Impact on Residential Customers at Selected Usage Levels – FY24**

**Part A: WATER**

Monthly Usage Level (Gallons)	Option 1 (No Change)	Option 2	Option 3 (Recommended)
Base Charge (No Usage)	\$21.35	\$22.84	\$23.49
2,000	\$21.35	\$22.84	\$23.49
<b>6,000</b>	\$35.88	\$38.39	\$39.47
10,000	\$52.96	\$56.67	\$58.26
15,000	\$78.56	\$84.06	\$86.42

**Part B: SEWER**

Monthly Usage Level (Gallons)	Option 1 (No Change)	Option 2	Option 3 (Recommended)
Base Charge (No Usage)	\$12.73	\$17.19	\$17.82
2,000	\$16.43	\$22.18	\$23.00
<b>6,000</b>	\$23.83	\$32.17	\$33.36
10,000	\$31.23	\$42.16	\$43.72
15,000	\$40.48	\$54.65	\$56.67

Exhibit 16 provides a comparison of anticipated monthly water and sewer rates for Options 2 and 3 throughout the forecast period at the 6,000-gallon usage level. As indicated, under Option 3 sewer rates are projected to increase more than Option 2 (and water rates less) due to the lower subsidy amounts identified.<sup>13</sup>

**Exhibit 16: Projected Increase in Residential Utility Rates at 6,000-Gallon Usage Level**

**Part A (WATER)**

Rate Option	Existing Monthly Rate	FY24	FY25	FY26	FY27	FY28	FY29
<b>#2</b>	\$35.88	\$38.39	\$40.70	\$43.14	\$44.86	\$45.76	\$46.67
<b>#3</b>	\$35.88	\$39.47	\$41.05	\$42.69	\$43.54	\$44.41	\$44.41

<sup>13</sup> Beyond FY29, further rate adjustments within the 0-5% range are indicated under each rate option assuming a 3% inflation rate.



**Part B (SEWER)**

Rate Option	Existing Monthly Rate	FY24	FY25	FY26	FY27	FY28	FY29
#2	\$23.83	\$32.17	\$41.82	\$52.28	\$60.12	\$64.93	\$66.88
#3	\$23.83	\$33.36	\$46.71	\$60.72	\$69.83	\$75.41	\$79.18

**Fiscal Impact**

The following table summarizes the fiscal impact of each rate option with the Ending Net Position demonstrating the ability of each utility to cover forecasted operating expenses, debt, and reserves. The table also expresses the utility’s anticipated Debt Coverage Ratio, which should be >1.0 and is of specific interest to funders the Authority engages. As shown, the financial condition of each utility improves markedly under Options 2 and 3.

**Exhibit 16: Fiscal Impact of Each Rate Option**

**Part A: WATER**

Option	Projected Outcome	Indicator
Option 1: No Change in Rates	Deteriorating fiscal position jeopardizing operations and access to needed funding	Ending Net Position [FY24=\$0.040M/FY29 = <b>-\$3.288M</b> ], Debt Coverage Ratio (FY29= <b>-0.02</b> )
Option 2	Stable fiscal position meeting system revenue needs	Ending Net Position [FY24 = \$0.272M/FY29 = 0.268M), Debt Coverage Ratio (FY29 = 1.23)
Option 3 (Recommended)	Most stable fiscal position meeting system revenue needs	Net Position (FY24 = 0.372M/FY29 = \$0.518M), Debt Coverage Ratio (1.22)

**Part B: SEWER**

Option	Projected Outcome	Indicator
Option 1: No Change in Rates	Deteriorating fiscal position jeopardizing operations and access to needed funding	Net Position (FY24 = <b>-\$0.044M</b> /FY29 = <b>-\$2.679M</b> ), Debt Coverage Ratio (FY29 = <b>-0.12</b> )

Option 2	Stable fiscal position meeting system revenue needs	Ending Net Position [FY24 = \$0.042M/FY29 = \$0.099M), Debt Coverage Ratio (FY29 = 1.28)
Option 3 (Recommended)	Most stable fiscal position meeting system revenue needs	Ending Net Position [FY24 = \$0.054M/FY29 = \$0.232M), Debt Coverage Ratio (FY29 = 1.36)

### Discussion

Examining the fiscal impacts of each option, Option 1 does not provide a viable solution to the Authority’s revenue needs resulting in a severe revenue shortfall by the end of FY29 forecast period. Rate options 2 and 3 meet the required needs of each utility with Option 3 providing the greatest financial capacity overall. While entailing more aggressive annual sewer rate increases, Option 3 enables the sewer utility to achieve sustainable operation in a shorter period of time, within the rate study forecast period, with no subsidy provided beyond FY29. Option 3 also provides a more robust operating reserve as expressed by available cash on hand, which ranges from 40-70 days under this option.

Having stated these points, implementation of Option 3 will have the greatest rate impact on customers overall, particularly for sewer customers who currently pay much lower rates than surrounding utilities identified in Exhibit 10. In addition, due to its greater rate impact, implementation of Rate Option 3 could initially result in a larger drop in water consumption upon which both water and sewer usage charges are based. As such, the Authority may consider Rate Option 2 a reasonable alternative while noting the lower operating reserve (20-40 days’ cash on hand) that it provides throughout the forecast period.

## 13. Conclusion and Recommendations

During the FY24-FY29 forecast period, the Authority’s will need to generate approximately **\$30M** in revenue to cover anticipated water and sewer utility needs including daily operating expenses, debt, reserves, and projected capital improvements. Working closely with LRGPWWA representatives this report developed three rate options for board consideration.

The report recommends adoption of Rate Option 3, which offers a sustainable approach for meeting the system's revenue needs while stabilizing the Authority's sewer operations. Nevertheless, Rate Option 2 provides a similar outcome and may be deemed suitable based on sewer rate affordability concerns and possible drop in related water usage, which the extended subsidy period of 11 years under this option seeks to address. A principal reason for selecting Rate Option 3, aside from enhanced financial capacity, is due to technical considerations, namely, that the rate study encompasses a six-year forecast period beyond which project planning and other revenue needs were not comprehensively considered.

In addition to recommending Option 3, the report recommends that LRGPWWA closely monitor performance of whichever rate option it selects making appropriate adjustments as needed. Project costs, project financing, system growth and usage, project timing, and other factors, including findings from a proposed preliminary engineering report for the Brazito Phase 3 Sewer Project, may all reduce or increase the Authority's revenue needs.

Looking beyond the six-year forecast period, as revenue needs are met, the utility is encouraged to resume implementation of an annual cost adjustments based on the Consumer Price Index, or similar index, as warranted. Finally, the utility is encouraged to continue implementing best practices (e.g., asset management planning, recommendation of water and energy audits) to improve operating efficiency.

# 14. Appendices

## APPENDIX A: 6-Year Forecast for Each Rate Option

### Rate Option 1 – No Change in Rates

### Part A: WATER - Ending Net Position (FY29) = **-\$3.288M**

Lower Rio Grande PWWA (Water)	FY24	FY25	FY26	FY27	FY28	FY29
Water Sales	\$ 3,304,013.31	\$ 3,320,533.38	\$ 3,337,136.04	\$ 3,353,821.72	\$ 3,429,296.78	\$ 3,446,443.26
Administrative Fees	\$ 13,440.00	\$ 13,440.00	\$ 13,440.00	\$ 13,440.00	\$ 13,440.00	\$ 13,440.00
Util Serv. Fees	\$ 5,250.00	\$ 5,250.00	\$ 5,250.00	\$ 5,250.00	\$ 5,250.00	\$ 5,250.00
Utility- Connection Fees	\$ 77,500.00	\$ 77,500.00	\$ 77,500.00	\$ 77,500.00	\$ 77,500.00	\$ 77,500.00
Utility Reconnection Fees	\$ 159,075.00	\$ 159,075.00	\$ 159,075.00	\$ 159,075.00	\$ 159,075.00	\$ 159,075.00
Other Charges for Services	\$ 7,350.00	\$ 7,350.00	\$ 7,350.00	\$ 7,350.00	\$ 7,350.00	\$ 7,350.00
<b>Total Operating Revenue</b>	<b>\$ 3,566,628.31</b>	<b>\$ 3,583,148.38</b>	<b>\$ 3,599,751.04</b>	<b>\$ 3,616,436.72</b>	<b>\$ 3,691,911.78</b>	<b>\$ 3,709,058.26</b>
Additional Revenue from Service Rate Adjustments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deduction for Partial Year adjustment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Uncollectable Accounts	\$ (8,916.57)	\$ (8,957.87)	\$ (8,999.38)	\$ (9,041.09)	\$ (9,229.78)	\$ (9,272.65)
<b>Total Adjusted Operating Revenue</b>	<b>\$ 3,557,711.74</b>	<b>\$ 3,574,190.51</b>	<b>\$ 3,590,751.67</b>	<b>\$ 3,607,395.63</b>	<b>\$ 3,682,682.00</b>	<b>\$ 3,699,785.61</b>
Base Operating Expenses*	\$ 3,507,692.33	\$ 3,526,247.66	\$ 3,659,473.34	\$ 3,748,826.25	\$ 3,861,291.03	\$ 3,979,421.47
Adjustment for Allocated Expenses	\$ (152,456.81)	\$ (179,482.88)	\$ (202,496.06)	\$ (229,002.23)	\$ (235,872.29)	\$ (240,656.75)
Additional Operating Costs (New Projects)						
<b>Total Adjusted Operating Expenses</b>	<b>\$ 3,355,235.52</b>	<b>\$ 3,346,764.78</b>	<b>\$ 3,456,977.28</b>	<b>\$ 3,519,824.02</b>	<b>\$ 3,625,418.74</b>	<b>\$ 3,738,764.72</b>
<b>NET OPERATING REVENUE</b>	<b>\$ 202,476.22</b>	<b>\$ 227,425.73</b>	<b>\$ 133,774.39</b>	<b>\$ 87,571.61</b>	<b>\$ 57,263.25</b>	<b>\$ (38,979.11)</b>
Impact Fees	\$ 42,000.00	\$ 42,000.00	\$ 42,000.00	\$ 42,000.00	\$ 42,000.00	\$ 42,000.00
Rental Fees	\$ 10,500.00	\$ 10,500.00	\$ 10,500.00	\$ 10,500.00	\$ 10,500.00	\$ 10,500.00
Joint Powers Agreement	\$ 102,000.00	\$ 102,000.00	\$ 102,000.00	\$ 102,000.00	\$ 102,000.00	\$ 102,000.00
Miscellaneous - Other (Contract)	\$ 111,300.00	\$ 111,300.00	\$ 111,300.00	\$ 111,300.00	\$ 111,300.00	\$ 111,300.00
<b>Total Non-Operating Revenue</b>	<b>\$ 265,800.00</b>	<b>\$ 265,800.00</b>	<b>\$ 265,800.00</b>	<b>\$ 265,800.00</b>	<b>\$ 265,800.00</b>	<b>\$ 265,800.00</b>
<b>Allocated Non-Operating Revenue</b>	<b>\$ (34,834.50)</b>	<b>\$ (38,393.06)</b>	<b>\$ (41,809.10)</b>	<b>\$ (45,904.65)</b>	<b>\$ (45,662.81)</b>	<b>\$ (45,662.81)</b>
<b>NET SYSTEM REVENUE</b>	<b>\$ 433,441.71</b>	<b>\$ 454,832.67</b>	<b>\$ 357,765.29</b>	<b>\$ 307,466.96</b>	<b>\$ 277,400.44</b>	<b>\$ 181,158.08</b>
Existing Loan Payments (Principal and Interest)	\$ 446,223.43	\$ 446,223.43	\$ 446,223.43	\$ 446,223.43	\$ 446,223.43	\$ 446,223.43
Additional Loans	\$ -	\$ -	\$ 95,016.60	\$ 95,016.60	\$ 95,016.60	\$ 218,410.94
<b>Total Debt</b>	<b>\$ 446,223.43</b>	<b>\$ 446,223.43</b>	<b>\$ 541,240.04</b>	<b>\$ 541,240.04</b>	<b>\$ 541,240.04</b>	<b>\$ 664,634.37</b>
<b>Amount Available for Reserves</b>	<b>\$ (12,781.72)</b>	<b>\$ 8,609.24</b>	<b>\$ (183,474.75)</b>	<b>\$ (233,773.08)</b>	<b>\$ (263,839.60)</b>	<b>\$ (483,476.29)</b>
<b>Plus: Beginning Available Cash Reserves</b>	<b>\$ 588,846.80</b>	<b>\$ 39,680.96</b>	<b>\$ (313,093.91)</b>	<b>\$ (1,032,952.78)</b>	<b>\$ (1,722,233.97)</b>	<b>\$ (2,416,581.69)</b>
<b>Transfer to Sewer Fund</b>	<b>\$ (400,000.00)</b>	<b>\$ (225,000.00)</b>	<b>\$ (400,000.00)</b>	<b>\$ (275,000.00)</b>	<b>\$ (250,000.00)</b>	<b>\$ (195,000.00)</b>
<b>Net Position Before Reserves</b>	<b>\$ 176,065.08</b>	<b>\$ (176,709.80)</b>	<b>\$ (896,568.66)</b>	<b>\$ (1,541,725.85)</b>	<b>\$ (2,236,073.57)</b>	<b>\$ (3,095,057.98)</b>
Emergency Reserve	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Debt Reserve	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 54,124.00	\$ 54,124.00	\$ 66,463.44
Capital Reserve (General Assets)	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78
Short-Lived Asset Reserve	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33
<b>Total Reserves</b>	<b>\$ 136,384.11</b>	<b>\$ 136,384.11</b>	<b>\$ 136,384.11</b>	<b>\$ 180,508.12</b>	<b>\$ 180,508.12</b>	<b>\$ 192,847.55</b>
<b>Ending Net Position</b>	<b>\$ 39,680.96</b>	<b>\$ (313,093.91)</b>	<b>\$ (1,032,952.78)</b>	<b>\$ (1,722,233.97)</b>	<b>\$ (2,416,581.69)</b>	<b>\$ (3,287,905.53)</b>
*Excludes Interest Expense and Depreciation,						

**Part B: SEWER- Ending Net Position (FY29) = -\$2.679M**

Lower Rio Grande PWWA (Sewer)	FY24	FY25	FY26	FY27	FY28	FY29
<b>Operating Revenue</b>						
44230 Utility Service Fees	\$ 219,487.66	\$ 246,923.61	\$ 274,359.57	\$ 308,380.16	\$ 313,314.24	\$ 314,880.81
44240 Utility Connection Fees	\$ 107,025.00	\$ 107,025.00	\$ 30,413.47	\$ 10,095.19	\$ 10,095.19	\$ 10,095.19
44250 Utility Re-Connection Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
44990 Other Charges for Services	\$ 7,670.67	\$ 8,629.50	\$ 9,588.33	\$ 10,777.29	\$ 10,949.72	\$ 11,004.47
<b>Total Operating Revenue</b>	<b>\$ 334,183.32</b>	<b>\$ 362,578.11</b>	<b>\$ 314,361.37</b>	<b>\$ 329,252.63</b>	<b>\$ 334,359.15</b>	<b>\$ 335,980.47</b>
Additional Revenue from Service Rate Adjustments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deduction for Partial Year adjustment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Uncollectable Accounts	\$ (835.46)	\$ (906.45)	\$ (785.90)	\$ (823.13)	\$ (835.90)	\$ (839.95)
<b>Total Adjusted Operating Revenue</b>	<b>\$ 333,347.86</b>	<b>\$ 361,671.67</b>	<b>\$ 313,575.47</b>	<b>\$ 328,429.50</b>	<b>\$ 333,523.26</b>	<b>\$ 335,140.52</b>
Base Operating Expenses*	\$ 239,619.00	\$ 248,743.25	\$ 257,698.88	\$ 265,429.84	\$ 273,392.74	\$ 281,594.52
Adjustment for Allocated Expenses	\$ 152,456.81	\$ 179,482.88	\$ 202,496.06	\$ 229,002.23	\$ 235,872.29	\$ 240,656.75
Additional Operating Costs (Brazito Phase 2/3)	\$ -	\$ -	\$ 104,931.69	\$ 108,079.64	\$ 113,103.19	\$ 117,078.76
<b>Total Operating Expenses</b>	<b>\$ 392,075.81</b>	<b>\$ 428,226.13</b>	<b>\$ 565,126.63</b>	<b>\$ 602,511.71</b>	<b>\$ 622,368.22</b>	<b>\$ 639,330.04</b>
<b>NET OPERATING REVENUE</b>	<b>\$ (58,727.94)</b>	<b>\$ (66,554.46)</b>	<b>\$ (251,551.16)</b>	<b>\$ (274,082.21)</b>	<b>\$ (288,844.96)</b>	<b>\$ (304,189.52)</b>
Other Reliable Sources of Non-Operating Revenue						
<b>Total Non-Operating Revenue</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Allocated Non-Operating Revenue	\$ 34,834.50	\$ 38,393.06	\$ 41,809.10	\$ 45,904.65	\$ 45,662.81	\$ 45,662.81
<b>NET SYSTEM REVENUE</b>	<b>\$ (23,893.44)</b>	<b>\$ (28,161.40)</b>	<b>\$ (209,742.06)</b>	<b>\$ (228,177.56)</b>	<b>\$ (243,182.15)</b>	<b>\$ (258,526.70)</b>
Existing Loan Payments	\$ 79,890.84	\$ 79,890.84	\$ 79,890.84	\$ 79,890.84	\$ 79,890.84	\$ 79,890.84
Brazito Sewer Phase 2	\$ 255,492.00	\$ 255,492.00	\$ 255,492.00	\$ 255,492.00	\$ 255,492.00	\$ 255,492.00
Additional Loans	\$ -	\$ -	\$ 182,738.66	\$ 182,738.66	\$ 182,738.66	\$ 182,738.66
<b>Total Debt</b>	<b>\$ 335,382.84</b>	<b>\$ 335,382.84</b>	<b>\$ 518,121.50</b>	<b>\$ 518,121.50</b>	<b>\$ 518,121.50</b>	<b>\$ 518,121.50</b>
<b>Amount Available for Reserves</b>	<b>\$ (359,276.28)</b>	<b>\$ (363,544.24)</b>	<b>\$ (727,863.56)</b>	<b>\$ (746,299.06)</b>	<b>\$ (761,303.65)</b>	<b>\$ (776,648.20)</b>
<b>Plus: Beginning Available Cash Reserves</b>		\$ (43,739.31)	\$ (266,746.58)	\$ (697,347.04)	\$ (1,307,883.00)	\$ (1,958,423.55)
<b>Transfer from Water Fund</b>	<b>\$ 400,000.00</b>	<b>\$ 225,000.00</b>	<b>\$ 400,000.00</b>	<b>\$ 275,000.00</b>	<b>\$ 250,000.00</b>	<b>\$ 195,000.00</b>
<b>Net Position Before Reserves</b>	<b>\$ 40,723.72</b>	<b>\$ (182,283.55)</b>	<b>\$ (594,610.14)</b>	<b>\$ (1,168,646.10)</b>	<b>\$ (1,819,186.65)</b>	<b>\$ (2,540,071.75)</b>
Emergency Reserve	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Debt Reserve	\$ 33,538.28	\$ 33,538.28	\$ 51,812.15	\$ 51,812.15	\$ 51,812.15	\$ 51,812.15
Capital Reserve (General Assets)	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75
Short-Lived Asset Reserve	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 61,500.00	\$ 61,500.00	\$ 61,500.00
<b>Total Reserves</b>	<b>\$ 84,463.03</b>	<b>\$ 84,463.03</b>	<b>\$ 102,736.90</b>	<b>\$ 139,236.90</b>	<b>\$ 139,236.90</b>	<b>\$ 139,236.90</b>
<b>Ending Net Position</b>	<b>\$ (43,739.31)</b>	<b>\$ (266,746.58)</b>	<b>\$ (697,347.04)</b>	<b>\$ (1,307,883.00)</b>	<b>\$ (1,958,423.55)</b>	<b>\$ (2,679,308.65)</b>
*Excludes Interest Expense and Depreciation,						

## Rate Option 2

### Part A: WATER - Ending Net Position (FY29) = \$0.268M

Lower Rio Grande PWWA (Water)	FY24	FY25	FY26	FY27	FY28	FY29
Water Sales	\$ 3,304,013.31	\$ 3,554,132.90	\$ 3,787,289.35	\$ 4,035,741.21	\$ 4,218,967.90	\$ 4,325,288.00
Administrative Fees	\$ 13,440.00	\$ 13,440.00	\$ 13,440.00	\$ 13,440.00	\$ 13,440.00	\$ 13,440.00
Util Serv. Fees	\$ 5,250.00	\$ 5,250.00	\$ 5,250.00	\$ 5,250.00	\$ 5,250.00	\$ 5,250.00
Utility- Connection Fees	\$ 77,500.00	\$ 77,500.00	\$ 77,500.00	\$ 77,500.00	\$ 77,500.00	\$ 77,500.00
Utility Reconnection Fees	\$ 159,075.00	\$ 159,075.00	\$ 159,075.00	\$ 159,075.00	\$ 159,075.00	\$ 159,075.00
Other Charges for Services	\$ 7,350.00	\$ 7,350.00	\$ 7,350.00	\$ 7,350.00	\$ 7,350.00	\$ 7,350.00
<b>Total Operating Revenue</b>	\$ 3,566,628.31	\$ 3,816,747.90	\$ 4,049,904.35	\$ 4,298,356.21	\$ 4,481,582.90	\$ 4,587,903.00
Additional Revenue from Service Rate Adjustments	\$ 232,437.34	\$ 214,314.21	\$ 228,373.55	\$ 162,236.80	\$ 84,801.25	\$ 86,938.29
Deduction for Partial Year adjustment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Uncollectable Accounts	\$ (8,916.57)	\$ (9,541.87)	\$ (10,124.76)	\$ (10,745.89)	\$ (11,203.96)	\$ (11,469.76)
<b>Total Adjusted Operating Revenue</b>	\$ 3,790,149.08	\$ 4,021,520.24	\$ 4,268,153.14	\$ 4,449,847.12	\$ 4,555,180.20	\$ 4,663,371.53
Base Operating Expenses*	\$ 3,507,692.33	\$ 3,526,247.66	\$ 3,659,473.34	\$ 3,748,826.25	\$ 3,861,291.03	\$ 3,979,421.47
Adjustment for Allocated Expenses	\$ (152,456.81)	\$ (179,482.88)	\$ (202,496.06)	\$ (229,002.23)	\$ (235,872.29)	\$ (240,656.75)
Additional Operating Costs (New Projects)						
<b>Total Adjusted Operating Expenses</b>	\$ 3,355,235.52	\$ 3,346,764.78	\$ 3,456,977.28	\$ 3,519,824.02	\$ 3,625,418.74	\$ 3,738,764.72
<b>NET OPERATING REVENUE</b>	\$ 434,913.55	\$ 674,755.46	\$ 811,175.86	\$ 930,023.10	\$ 929,761.45	\$ 924,606.81
Impact Fees	\$ 42,000.00	\$ 42,000.00	\$ 42,000.00	\$ 42,000.00	\$ 42,000.00	\$ 42,000.00
Rental Fees	\$ 10,500.00	\$ 10,500.00	\$ 10,500.00	\$ 10,500.00	\$ 10,500.00	\$ 10,500.00
Joint Powers Agreement	\$ 102,000.00	\$ 102,000.00	\$ 102,000.00	\$ 102,000.00	\$ 102,000.00	\$ 102,000.00
Miscellaneous - Other (Contract)	\$ 111,300.00	\$ 111,300.00	\$ 111,300.00	\$ 111,300.00	\$ 111,300.00	\$ 111,300.00
<b>Total Non-Operating Revenue</b>	\$ 265,800.00	\$ 265,800.00	\$ 265,800.00	\$ 265,800.00	\$ 265,800.00	\$ 265,800.00
<b>Allocated Non-Operating Revenue</b>	\$ (34,834.50)	\$ (38,393.06)	\$ (41,809.10)	\$ (45,904.65)	\$ (45,662.81)	\$ (45,662.81)
<b>NET SYSTEM REVENUE</b>	\$ 665,879.05	\$ 902,162.41	\$ 1,035,166.76	\$ 1,149,918.44	\$ 1,149,898.64	\$ 1,144,744.00
Existing Loan Payments (Principal and Interest)	\$ 446,223.43	\$ 446,223.43	\$ 446,223.43	\$ 446,223.43	\$ 446,223.43	\$ 446,223.43
Additional Loans	\$ -	\$ -	\$ 95,016.60	\$ 95,016.60	\$ 95,016.60	\$ 218,410.94
<b>Total Debt</b>	\$ 446,223.43	\$ 446,223.43	\$ 541,240.04	\$ 541,240.04	\$ 541,240.04	\$ 664,634.37
<b>Amount Available for Reserves</b>	\$ 219,655.62	\$ 455,938.97	\$ 493,926.72	\$ 608,678.41	\$ 608,658.60	\$ 480,109.62
<b>Plus: Beginning Available Cash Reserves</b>	\$ 588,846.80	\$ 272,118.30	\$ 341,673.16	\$ 199,215.77	\$ 227,386.06	\$ 305,536.54
<b>Transfer to Sewer Fund</b>	\$ (400,000.00)	\$ (250,000.00)	\$ (500,000.00)	\$ (400,000.00)	\$ (350,000.00)	\$ (325,000.00)
<b>Net Position Before Reserves</b>	\$ 408,502.42	\$ 478,057.27	\$ 335,599.88	\$ 407,894.18	\$ 486,044.66	\$ 460,646.17
Emergency Reserve	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Debt Reserve	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 54,124.00	\$ 54,124.00	\$ 66,463.44
Capital Reserve (General Assets)	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78
Short-Lived Asset Reserve	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33
<b>Total Reserves</b>	\$ 136,384.11	\$ 136,384.11	\$ 136,384.11	\$ 180,508.12	\$ 180,508.12	\$ 192,847.55
<b>Ending Net Position</b>	\$ 272,118.30	\$ 341,673.16	\$ 199,215.77	\$ 227,386.06	\$ 305,536.54	\$ 267,798.61

\*Excludes Interest Expense and Depreciation.

**Part B: SEWER - Ending Net Position (FY29) = \$0.099M**

Lower Rio Grande PWWA (Sewer)	FY24	FY25	FY26	FY27	FY28	FY29
<b>Operating Revenue</b>						
44230 Utility Service Fees	\$ 219,487.66	\$ 343,530.90	\$ 497,127.38	\$ 699,581.51	\$ 818,243.96	\$ 888,648.29
44240 Utility Connection Fees	\$ 107,025.00	\$ 107,025.00	\$ 30,413.47	\$ 10,095.19	\$ 10,095.19	\$ 10,095.19
44250 Utility Re-Connection Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
44990 Other Charges for Services	\$ 7,670.67	\$ 8,629.50	\$ 9,588.33	\$ 10,777.29	\$ 10,949.72	\$ 11,004.47
<b>Total Operating Revenue</b>	\$ 334,183.32	\$ 459,185.40	\$ 537,129.18	\$ 720,453.98	\$ 839,288.88	\$ 909,747.95
Additional Revenue from Service Rate Adjustments	\$ 85,873.14	\$ 103,883.74	\$ 125,276.10	\$ 105,776.72	\$ 65,983.19	\$ 26,792.75
Deduction for Partial Year adjustment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Uncollectable Accounts	\$ (835.46)	\$ (1,147.96)	\$ (1,342.82)	\$ (1,801.13)	\$ (2,098.22)	\$ (2,274.37)
<b>Total Adjusted Operating Revenue</b>	\$ 419,221.01	\$ 561,921.18	\$ 661,062.46	\$ 824,429.57	\$ 903,173.85	\$ 934,266.33
Base Operating Expenses*	\$ 239,619.00	\$ 248,743.25	\$ 257,698.88	\$ 265,429.84	\$ 273,392.74	\$ 281,594.52
Adjustment for Allocated Expenses	\$ 152,456.81	\$ 179,482.88	\$ 202,496.06	\$ 229,002.23	\$ 235,872.29	\$ 240,656.75
Additional Operating Costs (Brazito Phase 2/3)	\$ -	\$ -	\$ 104,931.69	\$ 108,079.64	\$ 113,103.19	\$ 117,078.76
<b>Total Operating Expenses</b>	\$ 392,075.81	\$ 428,226.13	\$ 565,126.63	\$ 602,511.71	\$ 622,368.22	\$ 639,330.04
<b>NET OPERATING REVENUE</b>	\$ 27,145.20	\$ 133,695.05	\$ 95,935.83	\$ 221,917.86	\$ 280,805.63	\$ 294,936.29
Allocated Non-Operating Revenue	\$ 34,834.50	\$ 38,393.06	\$ 41,809.10	\$ 45,904.65	\$ 45,662.81	\$ 45,662.81
<b>NET SYSTEM REVENUE</b>	\$ 61,979.70	\$ 172,088.11	\$ 137,744.93	\$ 267,822.51	\$ 326,468.45	\$ 340,599.11
Existing Loan Payments	\$ 79,890.84	\$ 79,890.84	\$ 79,890.84	\$ 79,890.84	\$ 79,890.84	\$ 79,890.84
Brazito Sewer Phase 2	\$ 255,492.00	\$ 255,492.00	\$ 255,492.00	\$ 255,492.00	\$ 255,492.00	\$ 255,492.00
Additional Loans	\$ -	\$ -	\$ 182,738.66	\$ 182,738.66	\$ 182,738.66	\$ 182,738.66
<b>Total Debt</b>	\$ 335,382.84	\$ 335,382.84	\$ 518,121.50	\$ 518,121.50	\$ 518,121.50	\$ 518,121.50
<b>Amount Available for Reserves</b>	\$ (273,403.14)	\$ (163,294.73)	\$ (380,376.58)	\$ (250,298.99)	\$ (191,653.06)	\$ (177,522.40)
<b>Plus: Beginning Available Cash Reserves</b>		\$ 42,133.83	\$ 44,376.07	\$ 61,262.59	\$ 71,726.71	\$ 90,836.75
<b>Transfer from Water Fund</b>	\$ 400,000.00	\$ 250,000.00	\$ 500,000.00	\$ 400,000.00	\$ 350,000.00	\$ 325,000.00
<b>Net Position Before Reserves</b>	\$ 126,596.86	\$ 128,839.10	\$ 163,999.49	\$ 210,963.60	\$ 230,073.65	\$ 238,314.35
Emergency Reserve	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Debt Reserve	\$ 33,538.28	\$ 33,538.28	\$ 51,812.15	\$ 51,812.15	\$ 51,812.15	\$ 51,812.15
Capital Reserve (General Assets)	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75
Short-Lived Asset Reserve	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 61,500.00	\$ 61,500.00	\$ 61,500.00
<b>Total Reserves</b>	\$ 84,463.03	\$ 84,463.03	\$ 102,736.90	\$ 139,236.90	\$ 139,236.90	\$ 139,236.90
<b>Ending Net Position</b>	\$ 42,133.83	\$ 44,376.07	\$ 61,262.59	\$ 71,726.71	\$ 90,836.75	\$ 99,077.46
*Excludes Interest Expense and Depreciation.						

## Rate Option 3 (Recommended)

### Part A: WATER - Ending Net Position (FY29) = \$0.518M

Lower Rio Grande PWWA (Water)	FY24	FY25	FY26	FY27	FY28	FY29
Water Sales	\$ 3,304,013.31	\$ 3,654,246.98	\$ 3,820,153.45	\$ 3,993,592.24	\$ 4,165,542.45	\$ 4,270,516.20
Administrative Fees	\$ 13,440.00	\$ 13,440.00	\$ 13,440.00	\$ 13,440.00	\$ 13,440.00	\$ 13,440.00
Util Serv. Fees	\$ 5,250.00	\$ 5,250.00	\$ 5,250.00	\$ 5,250.00	\$ 5,250.00	\$ 5,250.00
Utility- Connection Fees	\$ 77,500.00	\$ 77,500.00	\$ 77,500.00	\$ 77,500.00	\$ 77,500.00	\$ 77,500.00
Utility Reconnection Fees	\$ 159,075.00	\$ 159,075.00	\$ 159,075.00	\$ 159,075.00	\$ 159,075.00	\$ 159,075.00
Other Charges for Services	\$ 7,350.00	\$ 7,350.00	\$ 7,350.00	\$ 7,350.00	\$ 7,350.00	\$ 7,350.00
<b>Total Operating Revenue</b>	<b>\$ 3,566,628.31</b>	<b>\$ 3,916,861.98</b>	<b>\$ 4,082,768.45</b>	<b>\$ 4,256,207.24</b>	<b>\$ 4,428,157.45</b>	<b>\$ 4,533,131.20</b>
Additional Revenue from Service Rate Adjustments	\$ 332,053.34	\$ 146,900.73	\$ 153,570.17	\$ 80,271.20	\$ 83,727.40	\$ -
Deduction for Partial Year adjustment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Uncollectable Accounts	\$ (8,916.57)	\$ (9,792.15)	\$ (10,206.92)	\$ (10,640.52)	\$ (11,070.39)	\$ (11,332.83)
<b>Total Adjusted Operating Revenue</b>	<b>\$ 3,889,765.08</b>	<b>\$ 4,053,970.55</b>	<b>\$ 4,226,131.70</b>	<b>\$ 4,325,837.92</b>	<b>\$ 4,500,814.46</b>	<b>\$ 4,521,798.37</b>
Base Operating Expenses*	\$ 3,507,692.33	\$ 3,526,247.66	\$ 3,659,473.34	\$ 3,748,826.25	\$ 3,861,291.03	\$ 3,979,421.47
Adjustment for Allocated Expenses	\$ (152,456.81)	\$ (179,482.88)	\$ (202,496.06)	\$ (229,002.23)	\$ (235,872.29)	\$ (240,656.75)
Additional Operating Costs (New Projects)						
<b>Total Adjusted Operating Expenses</b>	<b>\$ 3,355,235.52</b>	<b>\$ 3,346,764.78</b>	<b>\$ 3,456,977.28</b>	<b>\$ 3,519,824.02</b>	<b>\$ 3,625,418.74</b>	<b>\$ 3,738,764.72</b>
<b>NET OPERATING REVENUE</b>	<b>\$ 534,529.55</b>	<b>\$ 707,205.77</b>	<b>\$ 769,154.42</b>	<b>\$ 806,013.90</b>	<b>\$ 875,395.72</b>	<b>\$ 783,033.65</b>
Impact Fees	\$ 42,000.00	\$ 42,000.00	\$ 42,000.00	\$ 42,000.00	\$ 42,000.00	\$ 42,000.00
Rental Fees	\$ 10,500.00	\$ 10,500.00	\$ 10,500.00	\$ 10,500.00	\$ 10,500.00	\$ 10,500.00
Joint Powers Agreement	\$ 102,000.00	\$ 102,000.00	\$ 102,000.00	\$ 102,000.00	\$ 102,000.00	\$ 102,000.00
Miscellaneous - Other (Contract)	\$ 111,300.00	\$ 111,300.00	\$ 111,300.00	\$ 111,300.00	\$ 111,300.00	\$ 111,300.00
<b>Total Non-Operating Revenue</b>	<b>\$ 265,800.00</b>	<b>\$ 265,800.00</b>	<b>\$ 265,800.00</b>	<b>\$ 265,800.00</b>	<b>\$ 265,800.00</b>	<b>\$ 265,800.00</b>
<b>Allocated Non-Operating Revenue</b>	<b>\$ (34,834.50)</b>	<b>\$ (38,393.06)</b>	<b>\$ (41,809.10)</b>	<b>\$ (45,904.65)</b>	<b>\$ (45,662.81)</b>	<b>\$ (45,662.81)</b>
<b>NET SYSTEM REVENUE</b>	<b>\$ 765,495.05</b>	<b>\$ 934,612.72</b>	<b>\$ 993,145.32</b>	<b>\$ 1,025,909.25</b>	<b>\$ 1,095,532.90</b>	<b>\$ 1,003,170.84</b>
Existing Loan Payments (Principal and Interest)	\$ 446,223.43	\$ 446,223.43	\$ 446,223.43	\$ 446,223.43	\$ 446,223.43	\$ 446,223.43
Additional Loans	\$ -	\$ -	\$ 95,016.60	\$ 95,016.60	\$ 95,016.60	\$ 218,410.94
<b>Total Debt</b>	<b>\$ 446,223.43</b>	<b>\$ 446,223.43</b>	<b>\$ 541,240.04</b>	<b>\$ 541,240.04</b>	<b>\$ 541,240.04</b>	<b>\$ 664,634.37</b>
<b>Amount Available for Reserves</b>	<b>\$ 319,271.62</b>	<b>\$ 488,389.28</b>	<b>\$ 451,905.28</b>	<b>\$ 484,669.21</b>	<b>\$ 554,292.87</b>	<b>\$ 338,536.47</b>
<b>Plus: Beginning Available Cash Reserves</b>	<b>\$ 588,846.80</b>	<b>\$ 371,734.30</b>	<b>\$ 498,739.47</b>	<b>\$ 414,260.64</b>	<b>\$ 443,421.73</b>	<b>\$ 567,206.48</b>
<b>Transfer to Sewer Fund</b>	<b>\$ (400,000.00)</b>	<b>\$ (225,000.00)</b>	<b>\$ (400,000.00)</b>	<b>\$ (275,000.00)</b>	<b>\$ (250,000.00)</b>	<b>\$ (195,000.00)</b>
<b>Net Position Before Reserves</b>	<b>\$ 508,118.42</b>	<b>\$ 635,123.59</b>	<b>\$ 550,644.75</b>	<b>\$ 623,929.85</b>	<b>\$ 747,714.60</b>	<b>\$ 710,742.95</b>
Operating Reserve						
Emergency Reserve	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Debt Reserve	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 54,124.00	\$ 54,124.00	\$ 66,463.44
Capital Reserve (General Assets)	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78	\$ 31,600.78
Short-Lived Asset Reserve	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33	\$ 84,783.33
<b>Total Reserves</b>	<b>\$ 136,384.11</b>	<b>\$ 136,384.11</b>	<b>\$ 136,384.11</b>	<b>\$ 180,508.12</b>	<b>\$ 180,508.12</b>	<b>\$ 192,847.55</b>
<b>Ending Net Position</b>	<b>\$ 371,734.30</b>	<b>\$ 498,739.47</b>	<b>\$ 414,260.64</b>	<b>\$ 443,421.73</b>	<b>\$ 567,206.48</b>	<b>\$ 517,895.39</b>
*Excludes Interest Expense and Depreciation,						



**Part B: SEWER - Ending Net Position (FY29) = \$0.232M**

Lower Rio Grande PWWA (Sewer)	FY24	FY25	FY26	FY27	FY28	FY29
<b>Operating Revenue</b>						
44230 Utility Service Fees	\$ 219,487.66	\$ 357,331.94	\$ 556,643.75	\$ 814,306.35	\$ 952,056.04	\$ 1,033,744.35
44240 Utility Connection Fees	\$ 107,025.00	\$ 107,025.00	\$ 30,413.47	\$ 10,095.19	\$ 10,095.19	\$ 10,095.19
44250 Utility Re-Connection Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
44990 Other Charges for Services	\$ 7,670.67	\$ 8,629.50	\$ 9,588.33	\$ 10,777.29	\$ 10,949.72	\$ 11,004.47
<b>Total Operating Revenue</b>	\$ 334,183.32	\$ 472,986.44	\$ 596,645.55	\$ 835,178.83	\$ 973,100.95	\$ 1,054,844.02
Additional Revenue from Service Rate Adjustments	\$ 98,140.73	\$ 143,647.44	\$ 167,828.09	\$ 122,756.68	\$ 76,545.31	\$ 51,945.65
Deduction for Partial Year adjustment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Uncollectable Accounts	\$ (835.46)	\$ (1,182.47)	\$ (1,491.61)	\$ (2,087.95)	\$ (2,432.75)	\$ (2,637.11)
<b>Total Adjusted Operating Revenue</b>	\$ 431,488.60	\$ 615,451.41	\$ 762,982.03	\$ 955,847.56	\$ 1,047,213.51	\$ 1,104,152.56
Base Operating Expenses*	\$ 239,619.00	\$ 248,743.25	\$ 257,698.88	\$ 265,429.84	\$ 273,392.74	\$ 281,594.52
Adjustment for Allocated Expenses	\$ 152,456.81	\$ 179,482.88	\$ 202,496.06	\$ 229,002.23	\$ 235,872.29	\$ 240,656.75
Additional Operating Costs (Brazito Phase 2/3)			104,931.69	108,079.64	113,103.19	117,078.76
<b>Total Operating Expenses</b>	\$ 392,075.81	\$ 428,226.13	\$ 565,126.63	\$ 602,511.71	\$ 622,368.22	\$ 639,330.04
<b>NET OPERATING REVENUE</b>	\$ 39,412.79	\$ 187,225.28	\$ 197,855.40	\$ 353,335.85	\$ 424,845.29	\$ 464,822.52
Allocated Non-Operating Revenue	\$ 34,834.50	\$ 38,393.06	\$ 41,809.10	\$ 45,904.65	\$ 45,662.81	\$ 45,662.81
<b>NET SYSTEM REVENUE</b>	\$ 74,247.29	\$ 225,618.34	\$ 239,664.50	\$ 399,240.50	\$ 470,508.10	\$ 510,485.34
Existing Loan Payments	79,890.84	79,890.84	79,890.84	79,890.84	79,890.84	79,890.84
Brazito Sewer Phase 2	\$ 255,492.00	\$ 255,492.00	\$ 255,492.00	\$ 255,492.00	\$ 255,492.00	\$ 255,492.00
Additional Loans	\$ -	\$ -	\$ 182,738.66	\$ 182,738.66	\$ 182,738.66	\$ 182,738.66
<b>Total Debt</b>	\$ 335,382.84	\$ 335,382.84	\$ 518,121.50	\$ 518,121.50	\$ 518,121.50	\$ 518,121.50
<b>Amount Available for Reserves</b>	\$ (261,135.55)	\$ (109,764.50)	\$ (278,457.00)	\$ (118,881.00)	\$ (47,613.40)	\$ (7,636.17)
<b>Plus: Beginning Available Cash Reserves</b>		\$ 54,401.42	\$ 85,173.89	\$ 103,979.99	\$ 120,862.09	\$ 184,011.80
<b>Transfer from Water Fund</b>	\$ 400,000.00	\$ 225,000.00	\$ 400,000.00	\$ 275,000.00	\$ 250,000.00	\$ 195,000.00
<b>Net Position Before Reserves</b>	\$ 138,864.45	\$ 169,636.92	\$ 206,716.89	\$ 260,098.99	\$ 323,248.69	\$ 371,375.63
Operating Reserve						
Emergency Reserve	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Debt Reserve	\$ 33,538.28	\$ 33,538.28	\$ 51,812.15	\$ 51,812.15	\$ 51,812.15	\$ 51,812.15
Capital Reserve (General Assets)	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75	\$ 15,924.75
Short-Lived Asset Reserve	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 61,500.00	\$ 61,500.00	\$ 61,500.00
<b>Total Reserves</b>	\$ 84,463.03	\$ 84,463.03	\$ 102,736.90	\$ 139,236.90	\$ 139,236.90	\$ 139,236.90
<b>Ending Net Position</b>	\$ 54,401.42	\$ 85,173.89	\$ 103,979.99	\$ 120,862.09	\$ 184,011.80	\$ 232,138.73
*Excludes Interest Expense and Depreciation,						

**APPENDIX B: Authority of LRGPWWA Water Utility Capital Replacement Program (CRP)**

To facilitate timely replacement and rehabilitation of capital reserves, the Authority has identified a capital replacement program. This program consists of two categories: short-lived assets with an expected useful life of 15 years or less, and a general asset reserve containing categorized water and sewer assets owned by the Authority. Annual identified contributions (\$109,783) of the Authority’s short-lived asset reserve (\$109,783 date from 2018) are stated below:

**Table 1: LRGPWWA Short-Lived Asset Listing Replacement Cost**

**SHORT LIVED ASSET LISTING**

**REPLACEMENT COST**

**JUNE 3 2018**

<b>FIVE YEAR REPLACEMENT ASSETS</b>	<b>Size</b>	<b>Number</b>	<b>Cost</b>	<b>Total</b>
Submersible Water Pumps	7.5 HP	0	\$ 5,000.00	\$ -
Booster Pumps	7.5 HP	9	\$ 3,000.00	\$ 27,000.00
IT Equipment	NA	1	\$ 50,000.00	\$ 50,000.00
Well Pump & Motor		4	\$ 15,000.00	\$ 60,000.00
Cathodic Protection	NA	11		\$ 2,750.00
<b>Total Five Year Replacement Budget</b>				<b>\$ 139,750.00</b>
<b>Annual Contribution</b>				<b>\$ 27,950.00</b>
<b>TEN YEAR REPLACEMENT ASSETS</b>				
	<b>Size</b>	<b>Number</b>	<b>Cost</b>	<b>Total</b>
Building Reparis		6	\$ 10,000.00	\$ 60,000.00
Service Utility Vehicles		5	\$ 50,000.00	\$ 250,000.00
Radio Read Meters	3/4"	500	\$ 200.00	\$ 100,000.00
<b>Total Ten Year Replacement Budget</b>				<b>\$ 410,000.00</b>
<b>Annual Contribution</b>				<b>\$ 41,000.00</b>
<b>FIFTEEN YEAR REPLACEMENT ASSETS</b>				
	<b>Size</b>	<b>Number</b>	<b>Cost</b>	<b>Total</b>
Valves	4",6",8",10"	50	\$ 650.00	\$ 32,500.00
Well Pump/Motor		11	\$ 15,000.00	\$ 165,000.00
Chlorination Equipment		5	\$ 25,000.00	\$ 125,000.00
Control Paneles/SCADA		2	\$ 20,000.00	\$ 40,000.00
Lift Station Components		10	\$ 25,000.00	\$ 250,000.00
<b>Total Fifteen Year Replacement Budget</b>				<b>\$ 612,500.00</b>
<b>Annual Contribution</b>				<b>\$ 40,833.33</b>
<b>TOTAL ANNUAL CONTRIBUTUION</b>				<b>\$ 109,783.33</b>

Tables 3 and 4 identify the Authority’s for additional water and sewer system assets, which are categorized by function and are funded on a default cash-needs basis shown below:

**Table 2: Default Funding of LRGPPWA Water and Sewer Utility Assets**


Replacement Value From	To	Cash	Grant	Loan
\$0	\$20,000	100%	0%	0%
\$20,001	\$100,000	25%	25%	50%
\$100,001	\$500,000	10%	50%	40%
\$500,001	\$9,999,999	2%	75%	23%
\$10,000,000	\$99,999,999	1%	75%	24%

**Capitalization Threshold**      **\$ 5,000**

**Table 3: LRGPPWA General Category Assets (Water)**

#	Asset	Year Acquired	Unit Cost (Historic, Current or Future)	Cost Type (H, C, F)	Allocated	Estimated Historic Cost (Water only)	Normal Estimated Life	Current Age	Estimated Current Cost	Planned Remaining Life	Estimated Remaining Life	Estimated Future Cost	Fund with Cash	Fund with Grant	Fund with Loan	Existing Reserves	Annual Reserve Required
<b>Replacement of Existing Capital Assets</b>																	
1	Distribution	Var	24,082,734	C	100%				24,082,734		30	47,640,334	0.50%	75%	25%	9,320	7,069
1	Production	Var	3,856,385	C	100%				3,856,385		10	4,841,019	1.00%	75%	24%	2,985	4,435
1	Storage	Var	8,499,349	C	100%				8,499,349		15	11,954,190	0.50%	75%	25%	3,289	3,628
1	Building (incl. gates and fencing)	Var	1,764,631	C	100%				1,764,631		25	3,115,622	1.00%	75%	24%	1,366	1,118
1	Equipment - SCADA, software, meter and billing programs	Var	295,568	C	100%				295,568		5	331,158	10.00%	50%	40%	2,288	6,100
1	Machinery	Var	973,135	C	100%				973,135		10	1,221,601	1.00%	75%	85%	753	1,119
<b>Subtotal Replacement of Existing Capital Assets</b>						\$0			39,471,801			69,103,923	1%	74%	25%	20,000	23,468
<b>Reserves for Additional Capital Assets</b>																	
5	Ford 150	2024	55,000	C	50%			1	137,500			140,663	20%	0%	80%	20,000	8,133
													0%	0%	0%	0	
<b>Subtotal Reserves for Additional Capital Assets</b>									137,500			140,663	20%	0%	80%	20,000	8,133
													Enter Existing Reserves for Additional Capital Assets			↑	
<b>Total Capital Reserves</b>									39,609,301			69,244,586	1%	74%	25%	40,000	31,601

**Table 4: LRGPWWA General Category Assets (Sewer)**

#	Asset	Year Acquired	Unit Cost (Historic, Current or Future)	Cost Type (H, C, F)	Allocated	Estimated Historic Cost (Water only)	Normal Estimated Life	Current Age	Estimated Current Cost	Planned Remaining Life	Estimated Remaining Life	Estimated Future Cost	Fund with Cash	Fund with Grant	Fund with Loan	Existing Reserves	Annual Reserve Required
<b>Replacement of Existing Capital Assets</b>																	
1	Treatment	Var	134,000	C	100%				134,000		15	188,469	10%	50%	40%	2,474	1,048
1	Collection	Var	14,976,236	C	100%				14,976,236		30	29,625,910	1%	75%	25%	13,823	4,128
1	Allocated-Buildings	Var	26,474	C	100%				26,474		25	46,743	20%	25%	55%	977	313
1	Allocated-Machinery	Var	94,683	C	100%				94,683		5	106,084	10%	50%	40%	1,748	1,751
1	Allocated-Equipment	Var	26,474	C	100%				26,474		10	33,234	20%	25%	55%	977	552
1													0%	0%	85%	0	0
<b>Subtotal Replacement of Existing Capital Assets</b>						\$0			15,257,867			30,000,438	1%	75%	25%	20,000	7,792
<b>Reserves for Additional Capital Assets</b>																	
5	Ford 150	2024	55,000	C	50%			1	137,500			140,663	20%	0%	80%	20,000	8,133
													0%	0%	0%	0	
<b>Subtotal Reserves for Additional Capital Assets</b>									137,500			140,663	20%	0%	80%	20,000	8,133
												Enter Existing Reserves for Additional Capital Assets 					
<b>Total Capital Reserves</b>									15,395,367			30,141,101	1%	74%	25%	40,000	15,925

**APPENDIX C: LRGPWWA Joint Utility Fund Analysis**

The following worksheet allocates existing base operating costs over the six-year forecast period (FY24-29) with adjustments for inflation and fluctuation in the relative number of water and sewer connections. The worksheet also characterizes these costs by fixed and variable composition. With growth in sewer connections expected to outpace growth in water connections during the forecast period, the allocated share of sewer costs will increase substantially.



