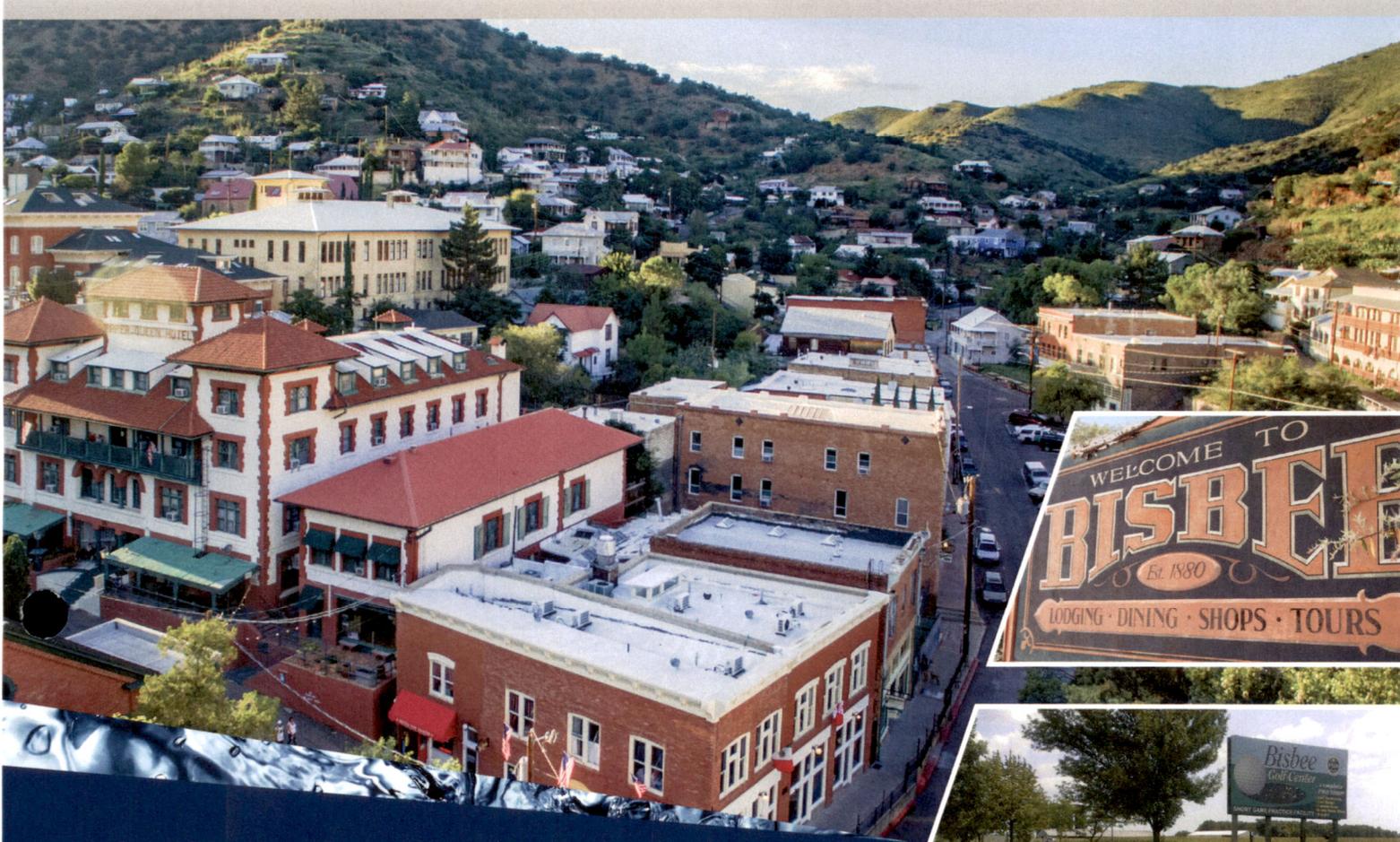


CITY OF BISBEE | ARIZONA



2018

Wastewater Rate Study

**CITY OF BISBEE, ARIZONA
2018 WASTEWATER RATE STUDY
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Acknowledgements

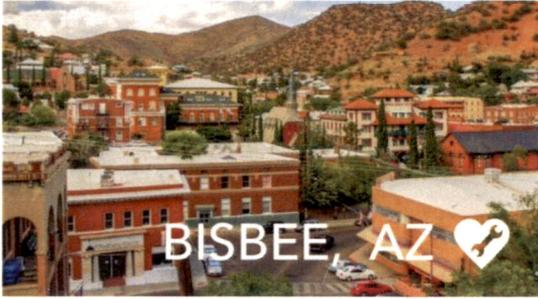
During the course of this rate study, several City of Bisbee employees and consultants expended considerable time and effort in assisting the project team. These include the Mayor and Council, Robert E Smith, Dwayne Wallace, and Keri Bagley. The project team owes a debt of gratitude to the hard work, dedication and professionalism of these individuals, without whom this project would not have been successfully completed.

The project team has relied upon the extensive data supplied by the City of Bisbee. Thus, the integrity of the study is largely dependent upon the accuracy of this financial and customer data. Every effort has been made by the project team to validate and confirm the information contained herein prior to the preparation of the final study documents. **This report presents no assurance or guarantee that the forecast contained herein will be consistent with actual results or performances.** These represent forecasts based on a series of assumptions about future behavior, and are not guarantees. Any changes in assumptions or actual events may result in significant revisions to the forecast and its conclusions. The cash flow projections and debt service coverage calculations are not intended to present overall financial positions, results of operations, and/or cash flows for the periods indicated, which is in conformity with guidelines for presentation of a forecast established by the American Institute of Certified Public Accountants.

Executive Summary

Executive Summary

Background



In January 2018, the City of Bisbee, Arizona (the “City”) engaged **Economists.com**, now a division of **Willdan Financial Services**, to conduct a wastewater rate study and long-term financial plan. The City was interested in developing an updated comprehensive wastewater rate plan for FY 2019 and beyond. The objective is to develop a long-term rate plan that will enable the City to recover sufficient funds to meet operating expenses, capital outlays, and debt service and coverage requirements, while at the same time minimizing the impact on ratepayers.

The City identified numerous objectives for this study, including but not limited to the following:

- A comprehensive analysis and evaluation of the wastewater system’s current cost of service and revenue requirements.
- A forecast of operating expenses over the next decade, taking into consideration salient factors such as cost of wastewater treatment, inflation, system growth, and increases in staffing levels.
- A thorough review of the wastewater systems’ known capital improvement needs, as well as a determination of the need for funding capital requirements through the issuance of long-term debt for the existing identified capital improvements.
- An estimate of current and forecast accounts for the ten-year forecast period.
- An analysis of alternative rate (fee) structures for wastewater rates that will recover sufficient revenues and will distribute costs equitably.
- A detailed analysis and comparison of the City’s current and proposed rates to rates in other surrounding communities.

Wastewater Rate Comparison

Tables ES-1 compares Bisbee’s current monthly wastewater charges to those of nearby cities in the region. A typical residential monthly wastewater bill for Bisbee is \$47.60. Billing volume of 5,000 gallons for wastewater was used for the residential comparison as it represents typical billing unit levels for an average household in communities with water meters. The rate data for comparison to the City is based on a 2017 Water Infrastructure Finance Authority of Arizona (WIFA) wastewater rate survey. These rates do not include sales tax, activation or other charges beyond the basic minimum and volume charges. The table reveals that the City’s rates are midrange when compared to most other cities in the region.

TABLE ES-1

City of Bisbee	
MONTHLY RESIDENTIAL CHARGES 5,000 WASTEWATER BILLING UNITS	
	5,000 Gallons Wastewater
Bisbee	\$ 47.60
Douglas	\$ 25.00
Tombstone	\$ 32.09
Patagonia	\$ 29.50
Nogales	\$ 31.04
San Luis	\$ 40.00
Somerton	\$ 36.50
Benson	\$ 25.99
Gila Bend	\$ 29.50
Wilcox	\$ 35.87
Camp Verde*	\$ 45.36
Clarkdale	\$ 54.00
Chino Valley	\$ 64.14
Sedona	\$ 58.76
Prescott	\$ 49.07
Jerome	\$ 52.67
AZ State Average-2017 WIFA Survey	\$ 36.18
* 18 Discharge Fixture Units	
Source: 2017 WIFA Survey	

Wastewater Customers – Test Year & Forecast

The majority of the wastewater accounts served by Bisbee are residential accounts. **Table ES-2** presents total wastewater connections (customers) by customer class for the City for the test year and forecast period. As shown, overall wastewater accounts are forecast to increase from **3,607** in the test year to **3,721** in FY 2028, an average annual increase of .50%. The addition of these new connections will result in both non-recurring connection fees and increasing monthly wastewater revenues.

TABLE ES-2

CITY OF BISBEE												
FORECAST TOTAL CUSTOMERS												
WASTEWATER Customer Classes												
	Residential	Residential Outside	Small Retail	Small Restaurants	Bars & Restaurants	Hotels – Per Room	Large Retail	Low Income	Discounted Low Income	Mixed Use	Schools	Total
Historical Wastewater Accounts												
FY 2017	2,777	2	138	15	15	379	37	104	66	70	4	3,607
FY 2018	2,754	-	137	15	15	379	28	110	73	70	4	3,585
Test Year and Forecast Wastewater Accounts												
TY 2019	2,725	-	135	16	14	379	27	124	83	70	4	3,577
FY 2020	2,739	-	136	16	14	379	27	125	83	70	4	3,593
FY 2021	2,753	-	137	16	14	379	27	126	83	70	4	3,609
FY 2022	2,767	-	138	16	14	379	27	127	83	70	4	3,625
FY 2023	2,781	-	139	16	14	379	27	128	83	70	4	3,641
FY 2024	2,795	-	140	16	14	379	27	129	83	70	4	3,657
FY 2025	2,809	-	141	16	14	379	27	130	83	70	4	3,673
FY 2026	2,823	-	142	16	14	379	27	131	83	70	4	3,689
FY 2027	2,837	-	143	16	14	379	27	132	83	70	4	3,705
FY 2028	2,851	-	144	16	14	379	27	133	83	70	4	3,721
WASTEWATER Annual New Customers												
FY 2018	(23)	(2)	(1)	-	-	-	(9)	6	7	-	-	(22)
TY 2019	(29)	-	(2)	1	(1)	-	(1)	14	10	-	-	(8)
FY 2020	14	-	1	-	-	-	-	1	-	-	-	16
FY 2021	14	-	1	-	-	-	-	1	-	-	-	16
FY 2022	14	-	1	-	-	-	-	1	-	-	-	16
FY 2023	14	-	1	-	-	-	-	1	-	-	-	16
FY 2024	14	-	1	-	-	-	-	1	-	-	-	16
FY 2025	14	-	1	-	-	-	-	1	-	-	-	16
FY 2026	14	-	1	-	-	-	-	1	-	-	-	16
FY 2027	14	-	1	-	-	-	-	1	-	-	-	16
FY 2028	14	-	1	-	-	-	-	1	-	-	-	16

Net Revenue Requirement

Table ES-3 presents the City’s forecast Net Revenue Requirement for the ten-year period FY 2019 through FY 2028. The table reveals that the total revenue requirement is expected to increase from **\$2,141,175** in FY 2019 to **\$2,451,635** in FY 2028. Detailed calculations are presented in the rate model contained in **Appendix A** of this report. These net revenue requirements must be raised from rates in the test year FY 2019 and the forecast period.

TABLE ES-3

CITY OF BISBEE							
CURRENT AND FORECAST NET REVENUE REQUIREMENT							
	Operating Expenses	Capital Outlays	Transfers	Debt Service	Total Cost of Service	Less Non-Rate Revenues	Net Revenue Requirement
WASTEWATER Revenue Requirement							
TY 2019	\$ 980,200	\$ 640,000	\$ 462,215	\$ 660,261	\$ 2,742,675	\$ 601,500	\$ 2,141,175
FY 2020	1,012,830	640,000	462,215	660,067	2,775,113	601,500	2,173,613
FY 2021	1,046,672	640,000	462,215	659,806	2,808,693	601,500	2,207,193
FY 2022	1,081,778	640,000	462,215	660,170	2,844,163	601,500	2,242,663
FY 2023	1,118,205	640,000	462,215	660,121	2,880,541	601,500	2,279,041
FY 2024	1,156,015	640,000	462,215	659,657	2,917,887	601,500	2,316,387
FY 2025	1,195,271	640,000	462,215	659,781	2,957,267	601,500	2,355,767
FY 2026	1,236,041	640,000	462,215	659,454	2,997,711	601,500	2,396,211
FY 2027	1,278,397	640,000	462,215	659,677	3,040,288	601,500	2,438,788
FY 2028	1,322,414	640,000	462,215	628,506	3,053,135	601,500	2,451,635

As shown in these charts, operating expenses and debt service payments are the largest annual expenses paid by Bisbee’s wastewater utility. Most of Debt Service derives from Refinanced WWTP Loans accompanied by small payments from other loans. No additional wastewater long-term debt is expected after issuing a 2018 bond to refinance debt.

Any changes in forecast operating expense and debt issue estimates used in determining the City’s wastewater revenue requirement for this rate study could require significant changes to the rate plan presented in this report.

One of the key assumptions used in the development of the long-term revenue requirement is the City’s Capital Improvement Plan. The Capital Reserve Contribution of \$640,000 required for 2019 as set aside for catastrophic failure or unplanned capital projects.

Wastewater Rate Recommendations

The wastewater rates developed in this study are designed to recover the test year and forecast revenue requirement while providing funding for the current identified capital, transfers and debt service.

The City’s has not increased the wastewater system’s fixture fees and charges since it acquired the system in 2013. The City’s ability to maintain adequate financial condition in the past has been a result of the City Council and staff controlling operating and capital costs at a level that allows goals to be met without increasing fees. However, cost increases and aggressive CIP requirements are forcing the need to adjust rates in future.

Scenario I – Deferred Adjustments

The first scenario is summarized in **Table ES-4**. The following is notable regarding this proposed rate plan:

- The rate plan presents a forecast of rates for ten years.
- The initial rate adjustments are deferred until July 2021, with annual adjustments in each year after that.
- There is no change to the basic rate structure.

The projected rate revenues developed in this section, are forecast to be sufficient to fund all operating and current scheduled capital obligations in each of the next ten years (FY 2019 through FY 2028).

TABLE ES-4

CITY OF BISBEE											
Scenario: 2018 10 12 -- Scenario I											
Effective											
Current	Nov-18	Jul-19	Jul-20	Jul-21	Jul-22	Jul-23	Jul-24	Jul-25	Jul-26	Jul-27	
Residential Monthly Charges											
Percent Adjustment		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	
Residential	\$ 47.60	\$ 47.60	\$ 47.60	\$ 47.60	\$ 49.03	\$ 50.50	\$ 52.01	\$ 53.05	\$ 54.12	\$ 55.20	\$ 56.30
Low Income	28.57	28.57	28.57	28.57	29.43	30.31	31.22	31.84	32.48	33.13	33.79
Discounted Low Income	14.58	14.58	14.58	14.58	15.02	15.47	15.93	16.25	16.58	16.91	17.25
Commercial Monthly Charges											
Percent Adjustment		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	
Small Retail	\$ 53.79	\$ 53.79	\$ 53.79	\$ 53.79	\$ 55.40	\$ 57.07	\$ 58.78	\$ 59.95	\$ 61.15	\$ 62.38	\$ 63.62
Small Restaurants	92.07	92.07	92.07	92.07	94.83	97.68	100.61	102.62	104.67	106.77	108.90
Bars & Restaurants	153.59	153.59	153.59	153.59	158.20	162.94	167.83	171.19	174.61	178.10	181.67
Hotels -- Per Room	28.58	28.58	28.58	28.58	29.44	30.32	31.23	31.85	32.49	33.14	33.80
Large Retail	238.12	238.12	238.12	238.12	245.26	252.62	260.20	265.40	270.71	276.13	281.65

Scenario II – Annual Adjustments

The second scenario is summarized in **Table ES-5**. The following is notable regarding this proposed rate plan:

- The rate plan presents a forecast of rates for ten years.
- The initial rate adjustments begin in July 2019, with annual adjustments in each year after that. The adjustments are less in each year than under Scenario I, though the adjustments begin sooner.
- There is no change to the basic rate structure.

The projected rate revenues developed in this section, are forecast to be sufficient to fund all operating and current scheduled capital obligations in each of the next ten years (FY 2019 through FY 2028).

TABLE ES-5

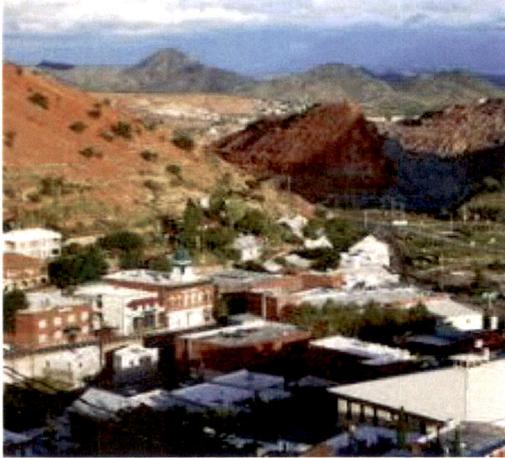
CITY OF BISBEE											
Scenario: 2018 10 12 -- Scenario I											
Effective											
Current	Nov-18	Jul-19	Jul-20	Jul-21	Jul-22	Jul-23	Jul-24	Jul-25	Jul-26	Jul-27	
Residential Monthly Charges											
Percent Adjustment	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	
Residential	\$ 47.60	\$ 47.60	\$ 48.08	\$ 49.04	\$ 50.02	\$ 51.02	\$ 52.04	\$ 53.08	\$ 54.14	\$ 55.22	\$ 56.33
Low Income	28.57	28.57	28.86	29.43	30.02	30.62	31.23	31.86	32.50	33.15	33.81
Discounted Low Incorr	14.58	14.58	14.73	15.02	15.32	15.63	15.94	16.26	16.58	16.92	17.25
Commercial Monthly Charges											
Percent Adjustment	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	
Small Retail	\$ 53.79	\$ 53.79	\$ 54.33	\$ 55.41	\$ 56.52	\$ 57.65	\$ 58.81	\$ 59.98	\$ 61.18	\$ 62.41	\$ 63.65
Small Restaurants	92.07	92.07	92.99	94.85	96.75	98.68	100.66	102.67	104.72	106.82	108.95
Bars & Restaurants	153.59	153.59	155.13	158.23	161.39	164.62	167.91	171.27	174.70	178.19	181.75
Hotels -- Per Room	28.58	28.58	28.87	29.44	30.03	30.63	31.25	31.87	32.51	33.16	33.82
Large Retail	238.12	238.12	240.50	245.31	250.22	255.22	260.33	265.53	270.84	276.26	281.79

Section I

SECTION I

Introduction and Demographic Profile

Background



In January 2018, the City of Bisbee, Arizona (the “City”) engaged **Economists.com**, now a part of Willdan Financial Services, to conduct a wastewater rate (fee) study and long-term financial plan. The City was interested in developing an updated comprehensive wastewater rate plan for FY 2019 and beyond. The objective of this study is to develop a long-term rate plan that will enable the City to recover sufficient funds to meet operating expenses, capital outlays, debt service and coverage requirements, while at the same time to the best extent possible minimizing the impact of any adjustments on ratepayers.

The City identified numerous objectives for this study, including but not limited to the following:

- A comprehensive analysis and evaluation of the wastewater systems’ current cost of service and revenue requirements.
- A forecast of operating expenses over the next decade, taking into consideration such factors as inflation, system growth, and increases in staffing levels.
- A thorough review of the wastewater system’s known capital improvement needs, as well as a determination of the need for funding capital requirements through the issuance of long-term debt for the existing identified capital improvements.
- An estimate of current and forecast accounts, volumes and billing units for the ten-year forecast period.
- An analysis of alternative multi-year wastewater rate plans that will distribute costs equitably.
- A detailed analysis and comparison of the City’s current and proposed rates to rates in other surrounding communities.

Report Organization

This report is organized into the following sections:

Section I – Introduction and Demographic Profile - outlines the background, objectives and scope of this rate study and long-term financial plan. It also presents the City's current rate structure and a community profile of the City of Bisbee. This includes a comparison of the City's wastewater charges with other Arizona cities.

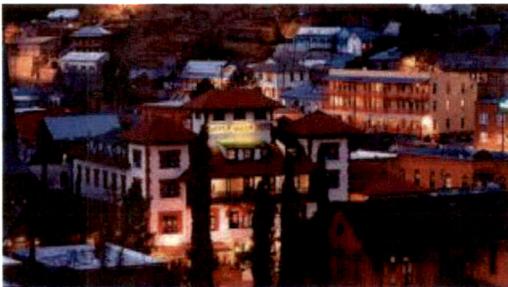
Section II – Wastewater Test Year and Forecast Volumes – analyzes the City's customer base, total accounts and current volumes of treated wastewater. This section presents totals for the current year and a ten-year forecast into the future.

Section III – Wastewater Test Year and Forecast Revenue Requirement – outlines the process of analyzing the City's current wastewater utility cost structure. The total current or "test year" revenue requirements are developed, and costs are functionalized between treatment, collection, administration and customer billing. Using the test year as a basis, costs are forecast for a ten-year period.

Section IV – Wastewater Rate Design – presents rate recommendations for the City of Bisbee Council and Staff to consider which would enable it to meet its revenue requirements over the next decade. This section also presents an analysis of the impact of this rate plan.

Appendix A – presents a hard copy printout of the interactive Microsoft Excel spreadsheet model summary developed for the City of Bisbee to calculate wastewater current and future revenue requirements. The model automatically generates all calculations based on a set of defined user inputs and *has an executive dashboard for users to develop real-time "what-if" scenarios.*

Community Overview



The City of Bisbee, Arizona is located in the south of Arizona. The City is approximately 5.16¹ square miles and has an estimated 2017 population of 5,192. The City is in Cochise County.

The City of Bisbee has a Council-Mayor form of government in which the elected Mayor and City Council Members establish policy. The City consists of six members who are elected from wards, each ward has two members. The Mayor is elected in a direct city-wide vote.

The City Manager operates much in much the same way as a chief executive officer of a corporation. The City Manager's Office is responsible for the day-to-day administration of Bisbee city's government, including managing the city's budget, the city's departments and operations, and programs for communicating with residents and employees.

¹ Wikipedia - [https://en.wikipedia.org/wiki/Bisbee, Arizona](https://en.wikipedia.org/wiki/Bisbee,_Arizona)

Wastewater Current Rates

Table I-1 summarizes the City of Bisbee’s current wastewater fee structure. The table reveals that the rates are flat monthly fees that varies based on the customer classification and/or number of rooms. This is necessary since the City does not operate the water system and does not have access to water usage data for its customers.

TABLE I-1

CITY OF BISBEE	
Current Monthly Wastewater Charges	
Residential Monthly Charges	
Residential	\$ 47.60
Low Income	28.57
Discounted Low Income	14.58
Commercial Monthly Charges	
Small Retail	\$ 53.79
Small Restaurants	92.07
Bars & Restaurants	153.59
Hotels -- Per Room	28.58
Large Retail	238.12

The City of Bisbee has not implemented a wastewater rate adjustment since 2013.

Wastewater Rate Comparison

Chart I-3 and Table I-4 compare the City’s monthly wastewater charges to surrounding cities in Arizona. A typical residential monthly wastewater bill for the city of Bisbee is \$47.60. Billing volume of 5,000 gallons for wastewater was used for the residential comparison as it represents typical billing unit levels for an average household in communities with water meters. The rate data for comparison to the City is based on a 2017 Water Infrastructure Finance Authority of Arizona (WIFA) wastewater rate survey. These rates do not include sales tax, activation or other charges beyond the basic minimum and volume charges.

CHART I-2

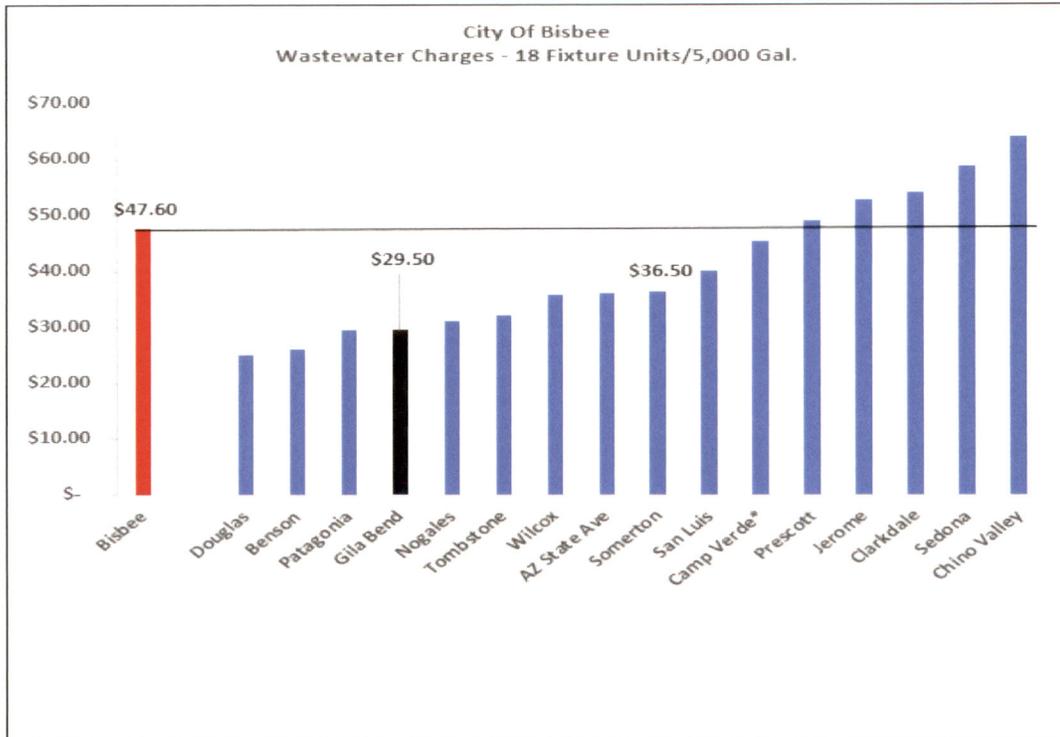


TABLE I-3

City of Bisbee	
MONTHLY RESIDENTIAL CHARGES 5,000 WASTEWATER BILLING UNITS	
	5,000 Gallons Wastewater
Bisbee	\$ 47.60
Douglas	\$ 25.00
Tombstone	\$ 32.09
Patagonia	\$ 29.50
Nogales	\$ 31.04
San Luis	\$ 40.00
Somerton	\$ 36.50
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Prescott	\$ 49.07
Jerome	\$ 52.67
AZ State Average-2017 WIFA Survey	\$ 36.18
* 18 Discharge Fixture Units	
Source: 2017 WIFA Survey	

Section II

SECTION II

Wastewater Test Year and Forecast Volumes



In order to accurately forecast future revenues and expenses, it is necessary to examine current wastewater utility conditions. The first step in developing cost of service rates is to analyze account and fixture units, both for the system as a whole, and for specified customer classes.

For the City of Bisbee, monthly wastewater records were reviewed for the period of January 2017 through May 2018. These records provided summary information on the monthly number of accounts for each period.

According to standard utility ratemaking methodology, in order to allocate revenue requirements equitably among system users, customers must be classified into relatively homogeneous groups based on number of fixtures or service demands. Costs are then allocated to the customer classes in proportion to the number of fixtures in each class.

After thoroughly examining customer data, the project team made no revisions to the City's existing rate classifications. The project team finds these customer class distinctions to be reasonable and appropriate, meeting the criteria of homogenous groups with similar demand (i.e., business, residential).

In this section, the City's functional customer classes and test year fixture counts will be thoroughly analyzed. A ten-year projection of customers and discharge fixture units will also be presented. These forecasts, along with the revenue requirements, will form the basis of the proposed rate designs.

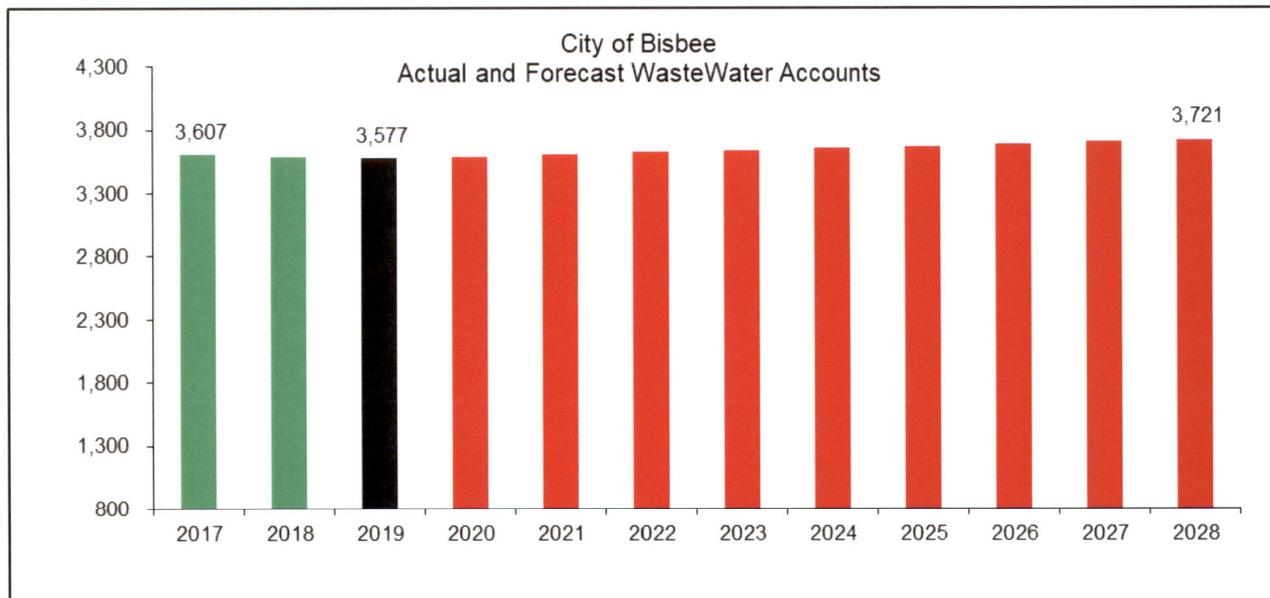
Wastewater Customers – Test Year & Ten-Year Forecast

The majority of wastewater accounts are residential accounts with the remaining being commercial customers. **Table II-1** and **Chart II-2** present total water accounts for the City for the test year and forecast period.

TABLE II-1

CITY OF BISBEE												
FORECAST TOTAL CUSTOMERS												
WASTEWATER Customer Classes												
	Residential	Residential Outside	Small Retail	Small Restaurants	Bars & Restaurants	Hotels - Per Room	Large Retail	Low Income	Discounted Low Income	Mixed Use	Schools	Total
Historical Wastewater Accounts												
FY 2017	2,777	2	138	15	15	379	37	104	66	70	4	3,607
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WASTEWATER Annual New Customers												
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TY 2019	(29)	-	(2)	1	(1)	-	(1)	14	10	-	-	(8)
FY 2020	14	-	1	-	-	-	-	1	-	-	-	16
FY 2021	14	-	1	-	-	-	-	1	-	-	-	16
FY 2022	14	-	1	-	-	-	-	1	-	-	-	16
FY 2023	14	-	1	-	-	-	-	1	-	-	-	16
FY 2024	14	-	1	-	-	-	-	1	-	-	-	16
FY 2025	14	-	1	-	-	-	-	1	-	-	-	16
FY 2026	14	-	1	-	-	-	-	1	-	-	-	16
FY 2027	14	-	1	-	-	-	-	1	-	-	-	16
FY 2028	14	-	1	-	-	-	-	1	-	-	-	16

CHART II-2

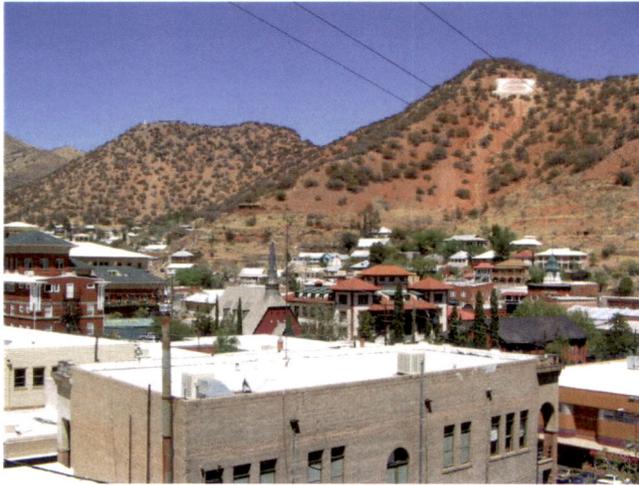


For each of the historical years, the average number of accounts for the year is shown and the growth reflects the difference from one fiscal year end to the next. Overall wastewater accounts are forecast to increase from **3,607** in the test year to **3,721** in FY 2028, an average annual increase of .50% for all customer classes.

Section III

SECTION III

Wastewater Forecast Revenue Requirement



In this section of the wastewater rate study and long-term financial plan, the City of Bisbee test year and forecast wastewater utility revenue requirements are developed. The test year consists of the City's fiscal year, July 1, 2018 through June 30, 2019. The estimates presented in this section are based on the City's proposed budget for FY 2019.

The calculation of a revenue requirement differs from a utility's budget in that it represents only that amount that must be raised through the City's user rates. This means that non-rate revenue (such as reconnection fees, late payment charges and interest) must be subtracted from the budgeted operating and capital expenditures

to determine the net revenue requirement to be raised from rates.

As is typical for publicly owned utilities, the city of Bisbee's system revenue requirements were developed using the cash basis of ratemaking. Under the cash basis, as defined by the Water Environment Federation (WEF) Manual of Practice (MOP) No. 27 and AWWA Manual M-1, system revenue requirements consist of cash expenditures and other financial commitments (such as debt service coverage or reserves) that must be met through system operating revenues and other revenue sources.

All data used in the development of the revenue requirements was obtained from the financial statements, budgets and other information provided by the City. Detailed calculations are presented in the rate model contained in **Appendix A** of this report.

The assumptions utilized in this expense forecast will be thoroughly detailed in this section of the report. These assumptions are critical to the development of both the revenue requirement and the ultimate rate recommendation. The project team reviewed these assumptions with the City staff and considers all to be consistent with staff recommendations.

In this section, current and forecast Operating Costs, Capital Outlays, Transfers, and Debt Service will be examined first. Non-rate revenues will be subtracted from the total to yield the Net Revenue Requirement.

Operating Expenses and Capital Outlays – Test Year

Table III-1 on the following page summarizes the test year FY 2019 wastewater system operating expenses and capital outlays in detail by department and expense category item.

The Wastewater Funds budget includes one or more of the following expense categories:

- **Personnel**, which includes all personnel costs, such as salary and benefit expenses, and payroll taxes.
- **Operation and Maintenance**, which captures the primary operating expenses associated with the day-to-day management and maintenance of the wastewater operations. This includes postage, office equipment and supplies, IT costs, chemicals, plant operation and maintenance (O&M), collections O&M etc.
- **Capital Outlays**, capital improvements funded through the wastewater utility budgets.
- **Debt Service**, consisting of mainly Refinanced WWTP Loans
- **Transfers** to the General Fund

Table III-1 also allocates total budget expenses between the wastewater functions based on function and general ratemaking principles. As the tables show, total operating expenses, transfers, debt service and capital outlays in the test year are **\$2,742,675**.

TABLE III-1

City of Bisbee	
TEST YEAR COST OF SERVICE	
	2019 Budget
Operating Expenses:	
Personnel	\$ 395,171
Operating & Maint.	<u>585,029</u>
Total Operating Expenses*	\$ 980,200
Capital Outlays/Capital Reserve	640,000
Transfers	462,215
Debt Service	<u>660,261</u>
Total Cost of Service	2,742,675

Operating Expenses and Capital Outlays – Ten Year Forecast

Table III-2 and Chart III-3 present the wastewater utility operating expense, capital outlays, debt service and transfers forecast for the ten-year period FY 2019 – FY 2028. Details behind these calculations can be found in the rate model contained in Appendix A. This forecast is based on the following set of assumptions:

- Most operating costs are expected to increase at an annual rate of 3.0%, which is approximately equivalent to the rate of inflation.
- Certain expenses will increase at above-inflation rates, to reflect the rapid rate of increase of these costs. These expenses include chemicals, workers compensation, Medicare and insurance.

TABLE III-2

CITY OF BISBEE						
WASTEWATER - Operations, Capital Outlays and Equipment Lease						
	Personnel	Operations	Capital Reserve/Outlays	Transfers	Total	
2019	\$ 395,171	\$ 585,029	\$ 640,000	\$ 462,215	\$ 2,082,415	
2020	408,837	603,994	640,000	462,215	2,115,045	
2021	423,057	623,614	640,000	462,215	2,148,887	
2022	437,861	643,916	640,000	462,215	2,183,993	
2023	453,278	664,927	640,000	462,215	2,220,420	
2024	469,340	686,675	640,000	462,215	2,258,230	
2025	486,080	709,191	640,000	462,215	2,297,486	
2026	503,536	732,505	640,000	462,215	2,338,256	
2027	521,746	756,651	640,000	462,215	2,380,612	
2028	540,749	781,664	640,000	462,215	2,424,629	

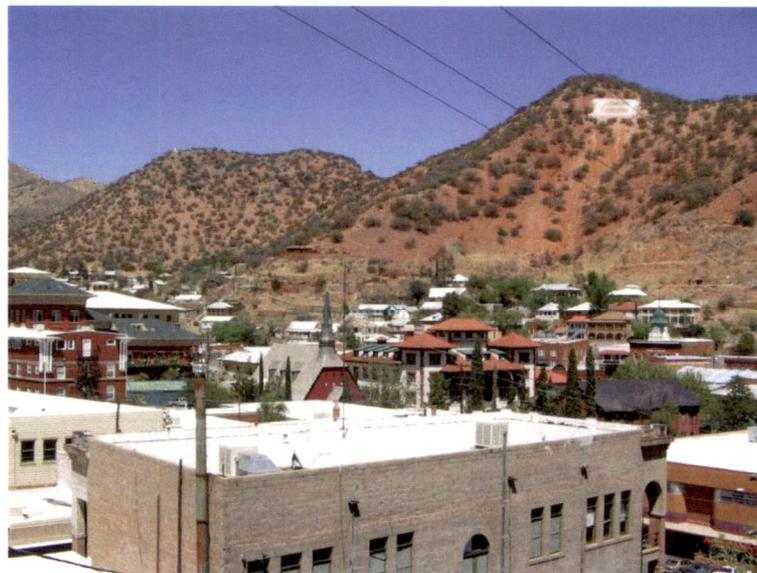
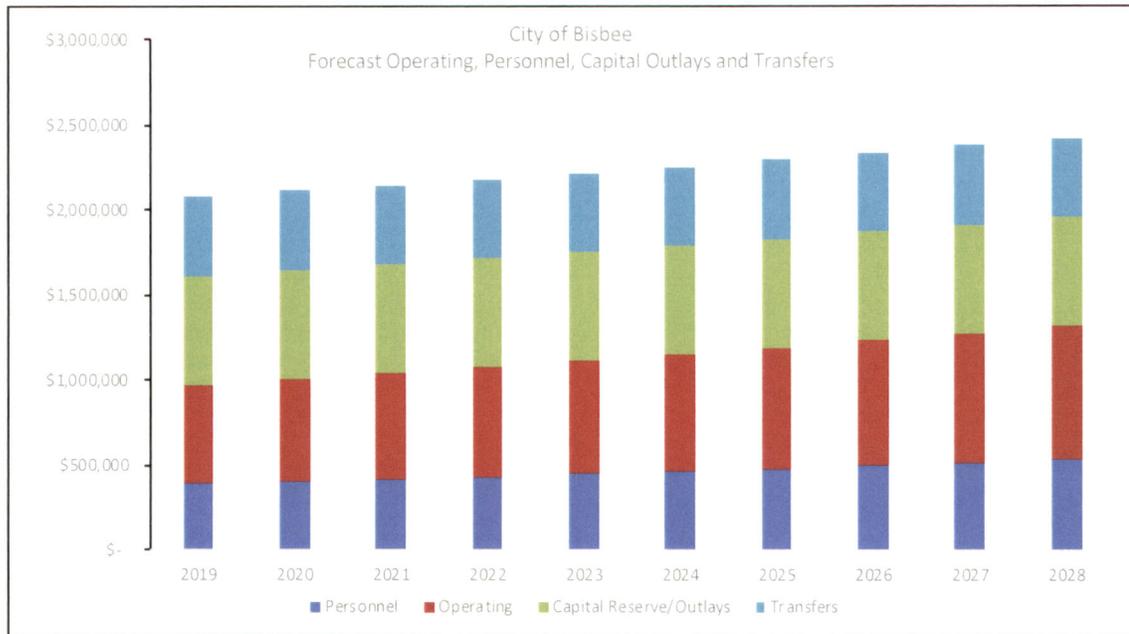


CHART III-3



As shown in these charts, those expenses categorized as operating expense is the second lowest expense in the year 2019 but progresses to be the largest expense for the year 2028. These expenses are growing more rapidly than the other category of expenses. The Personnel expense is also increasing by a large margin due to overall overhead costs rising through the years. Capital Outlays and Transfers remain constant through the forecast.

Capital Improvement Plan

A capital improvement plan is typically an integral part of any long-term rate and financing plan. The City does not have a formal CIP. Instead it has implemented a plan to contribute **\$640,000** a year to a fund dedicated to providing sufficient capital in case of an emergency with the system or a future project that needs to be built to assist the utility.

Existing and Forecast Debt Service

Table III-5 and **Chart III-6** present current and forecast debt service coverage. The City currently has three bond issues outstanding. One bond is for a Vector truck, and a second is for a solar project at the wastewater treatment plant.

The most important debt is the newly refinanced WWTP debt, which is approximately \$550,000 per year during the forecast period. This recently closed debt involved the refinancing of several existing debt issues, and has resulted in reducing the cash flow requirements for the City’s wastewater fund by approximately

\$600,000 per year. This significant reduction of cash requirements has greatly benefited the wastewater utility, and will reduce the magnitude of future rate adjustments.

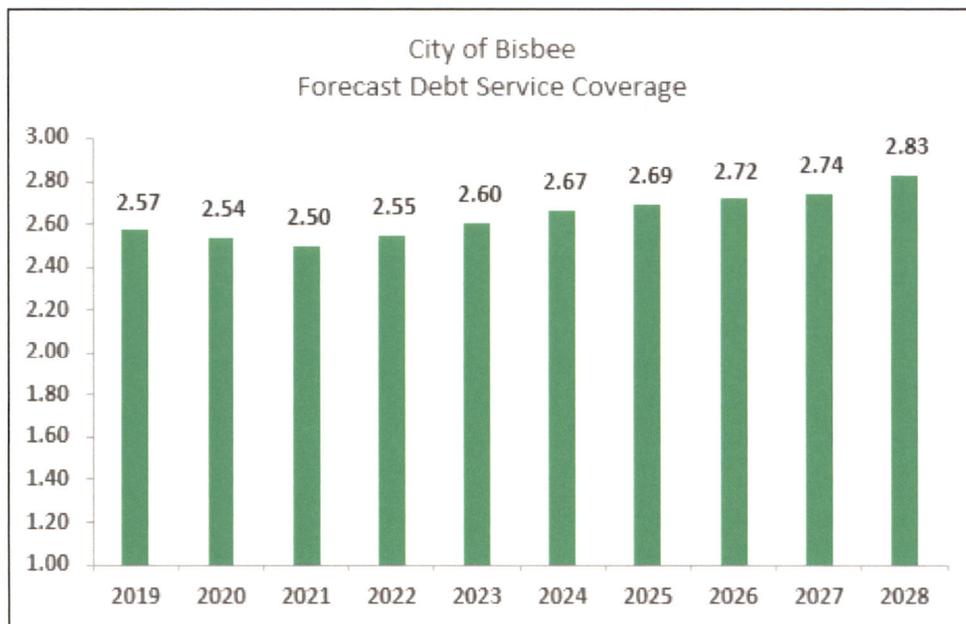
Table III-5 presents ten years of debt service payments from the test year onwards. Table III-6 shows that if the recommended rate plan is adopted, the City is forecast to be able to meet and exceed a 1.25 times debt coverage requirement in every year of the forecast period.

These assumptions are preliminary and subject to change. **Should the City Council choose to issue more or less revenue debt than assumed in this study or should different financing terms be available at the time the debt is issued, then the rate plans in this study may require revision.**

Table III-5

CITY OF BISBEE						
Total Debt Service						
	Vactor Truck Loan			Refinanced WWTP Loans		Total Debt Service
		WFA Solar	Sub-Total			
2018	\$	30,905	\$ 79,847	\$ 110,752	\$ 549,509	\$ 660,261
2019		30,905	79,824	110,729	549,338	660,067
2020		30,905	79,801	110,706	549,100	659,806
2021		30,905	79,777	110,682	549,488	660,170
2022		30,905	79,753	110,658	549,463	660,121
2023		30,905	79,727	110,632	549,025	659,657
2024		30,905	79,701	110,606	549,175	659,781
2025		30,905	79,674	110,579	548,875	659,454
2026		30,905	79,647	110,552	549,125	659,677
2027		-	79,618	79,618	548,888	628,506

Chart III-6



Non-Rate Revenues

Although sales revenues constitute the majority of the revenue received by the City of Bisbee for wastewater service, a certain amount of revenue is accrued from non-rate sources. These revenues include City Sales Tax, Interest/Penalties, Service Charges/Penalties and hook-up fees. These non-rate revenues are subtracted from the overall budget to determine the revenue requirement to be raised from rates. Annual non-rate revenue totals are presented in **Table III-7**.

Table III-7

CITY OF BISBEE										
NON-RATE REVENUE										
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
City Sales Tax	\$ 344,500	\$ 344,500	\$ 344,500	\$ 344,500	\$ 344,500	\$ 344,500	\$ 344,500	\$ 344,500	\$ 344,500	\$ 344,500
Interest/Penalties Earned	163,000	163,000	163,000	163,000	163,000	163,000	163,000	163,000	163,000	163,000
Miscellaneous Revenue	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
APS Solar Reimburse -WW	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
SERVICE Charge/Penalty	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
HOOK-UP Fees	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Total Non-Rate Revenues	\$ 601,500									

Net Revenue Requirement

Table III-8 presents the test year and ten-year forecast for the City's net revenue requirement to be raised from rates for the wastewater utility for the test year 2019 and forecast period. The wastewater net revenue requirement is expected to increase from **\$2,141,175** in FY 2019 to **\$2,451,635** in FY 2028.

Table III-8

CITY OF BISBEE										
CURRENT AND FORECAST NET REVENUE REQUIREMENT										
	Operating Expenses	Capital Outlays	Transfers	Debt Service	Total Cost of Service	Less Non-Rate Revenues	Net Revenue Requirement			
WASTEWATER Revenue Requirement										
TY 2019	\$ 980,200	\$ 640,000	\$ 462,215	\$ 660,261	\$ 2,742,675	\$ 601,500	\$ 2,141,175			
FY 2020	1,012,830	640,000	462,215	660,067	2,775,113	601,500	2,173,613			
FY 2021	1,046,672	640,000	462,215	659,806	2,808,693	601,500	2,207,193			
FY 2022	1,081,778	640,000	462,215	660,170	2,844,163	601,500	2,242,663			
FY 2023	1,118,205	640,000	462,215	660,121	2,880,541	601,500	2,279,041			
FY 2024	1,156,015	640,000	462,215	659,657	2,917,887	601,500	2,316,387			
FY 2025	1,195,271	640,000	462,215	659,781	2,957,267	601,500	2,355,767			
FY 2026	1,236,041	640,000	462,215	659,454	2,997,711	601,500	2,396,211			
FY 2027	1,278,397	640,000	462,215	659,677	3,040,288	601,500	2,438,788			
FY 2028	1,322,414	640,000	462,215	628,506	3,053,135	601,500	2,451,635			

Wastewater Utility Cost Functionalization and Classification

Wastewater system costs are allocated to the following functions:

Treatment -- Volume – the costs associated with treating wastewater volume discharges

Collection – the lines that transport wastewater from customers’ properties to the wastewater treatment plant

Administration – miscellaneous overhead and other non-operating costs

Customer Billing – the processes involved in billing and other services to customers

Wastewater utility operating budget line item expenses are allocated individually to functions. The results of the allocation process are presented on **Table III-9**. These percentages are not forecast to change significantly during the next ten years.

TABLE III-9

CITY OF BISBEE		
TEST YEAR WASTEWATER COST FUNCTIONALIZATION		
Function	TY 2018 Revenue Requirement	Percent
Treatment	\$ 1,036,992	48.4%
Collection	543,479	25.4%
Administration	522,258	24.4%
Customer	<u>38,447</u>	1.8%
Total	\$ 2,141,175	100.0%

Wastewater Utility Cost Allocation

The total wastewater utility costs by customer class for the test year are summarized in **Table III-10** and for the ten-year forecast period in **Table III-11**.

TABLE III-10

CITY OF BISBEE

TEST YEAR WASTEWATER COST ALLOCATION

Customer Classification	TY 2018 Revenue Requirement	Percent
Residential	\$ 1,631,323	76.2%
Commercial	<u>509,853</u>	<u>23.8%</u>
Total	\$ 2,141,175	100.0%

TABLE III-11

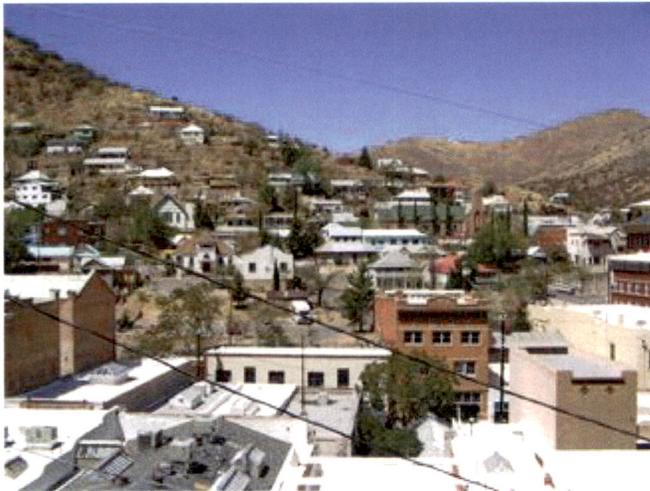
CITY OF BISBEE

FORECAST WASTEWATER COST ALLOCATION

Year	Residential	Commercial	Total
TY 2018	\$ 1,631,323	\$ 509,853	\$ 2,141,175
FY 2019	1,657,131	516,482	2,173,613
FY 2020	1,683,834	523,359	2,207,193
FY 2021	1,712,004	530,659	2,242,663
FY 2022	1,740,892	538,149	2,279,041
FY 2023	1,770,546	545,841	2,316,387
FY 2024	1,801,782	553,985	2,355,767
FY 2025	1,833,859	562,351	2,396,211
FY 2026	1,867,600	571,188	2,438,788
FY 2027	1,878,590	573,046	2,451,635

SECTION IV

Wastewater Rate Design



Rate design involves determining charges for each class of customers that will generate a desired level of revenue that is recognized by WEF and other industry cost of service rate-making principles. The wastewater rates developed in this section are designed to recover the test year and forecast revenue requirements while providing funding for the identified capital improvements and existing debt service.

The City has not increased the wastewater system's fixture fees and charges since 2013. The City's ability to maintain adequate financial condition in the past had been a result of the City's Council and staff controlling operating and capital costs at a level that allowed goals to be met without increasing fees.

In this section, the project team presents two alternative rate plans for the City to consider:

Scenario 1 – Deferred Adjustments – Defers initial rate adjustments until FY 2023

Scenario II – Annual Adjustments – Implements lesser annual adjustments each year beginning in FY 2019

Each alternative will be presented in turn.

Scenario I – Deferred Adjustments

The first scenario is summarized in **Table IV-1**. The following is notable regarding this proposed rate plan:

- The rate plan presents a forecast of rates for ten years.
- The initial rate adjustments are deferred until July 2021, with annual adjustments in each year after that.
- There is no change to the basic rate structure.

The projected rate revenues developed in this section, are forecast to be sufficient to fund all operating and current scheduled capital obligations in each of the next ten years (FY 2019 through FY 2028).

TABLE IV-1

CITY OF BISBEE											
Scenario: 2018 10 12 -- Scenario I											
Effective											
	Current	Nov-18	Jul-19	Jul-20	Jul-21	Jul-22	Jul-23	Jul-24	Jul-25	Jul-26	Jul-27
Residential Monthly Charges											
Percent Adjustment		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%
Residential	\$ 47.60	\$ 47.60	\$ 47.60	\$ 47.60	\$ 49.03	\$ 50.50	\$ 52.01	\$ 53.05	\$ 54.12	\$ 55.20	\$ 56.30
Low Income	28.57	28.57	28.57	28.57	29.43	30.31	31.22	31.84	32.48	33.13	33.79
Discounted Low Income	14.58	14.58	14.58	14.58	15.02	15.47	15.93	16.25	16.58	16.91	17.25
Commercial Monthly Charges											
Percent Adjustment		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%
Small Retail	\$ 53.79	\$ 53.79	\$ 53.79	\$ 53.79	\$ 55.40	\$ 57.07	\$ 58.78	\$ 59.95	\$ 61.15	\$ 62.38	\$ 63.62
Small Restaurants	92.07	92.07	92.07	92.07	94.83	97.68	100.61	102.62	104.67	106.77	108.90
Bars & Restaurants	153.59	153.59	153.59	153.59	158.20	162.94	167.83	171.19	174.61	178.10	181.67
Hotels -- Per Room	28.58	28.58	28.58	28.58	29.44	30.32	31.23	31.85	32.49	33.14	33.80
Large Retail	238.12	238.12	238.12	238.12	245.26	252.62	260.20	265.40	270.71	276.13	281.65

Scenario II – Annual Adjustments

The first scenario is summarized in **Table IV-2**. The following is notable regarding this proposed rate plan:

- The rate plan presents a forecast of rates for ten years.
- The initial rate adjustments begin in July 2019, with annual adjustments in each year after that. The adjustments are less in each year than under Scenario I, though the adjustments begin sooner.
- There is no change to the basic rate structure.

The projected rate revenues developed in this section, are forecast to be sufficient to fund all operating and current scheduled capital obligations in each of the next ten years (FY 2019 through FY 2028).

TABLE IV-2

CITY OF BISBEE											
Scenario: 2018 10 12 -- Scenario II -- Annual Adjustments											
Effective											
Current	Nov-18	Jul-19	Jul-20	Jul-21	Jul-22	Jul-23	Jul-24	Jul-25	Jul-26	Jul-27	
Residential Monthly Charges											
Percent Adjustment	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	
Residential	\$ 47.60	\$ 47.60	\$ 48.08	\$ 49.04	\$ 50.02	\$ 51.02	\$ 52.04	\$ 53.08	\$ 54.14	\$ 55.22	\$ 56.33
Low Income	28.57	28.57	28.86	29.43	30.02	30.62	31.23	31.86	32.50	33.15	33.81
Discounted Low Incomr	14.58	14.58	14.73	15.02	15.32	15.63	15.94	16.26	16.58	16.92	17.25
Commercial Monthly Charges											
Percent Adjustment	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	
Small Retail	\$ 53.79	\$ 53.79	\$ 54.33	\$ 55.41	\$ 56.52	\$ 57.65	\$ 58.81	\$ 59.98	\$ 61.18	\$ 62.41	\$ 63.65
Small Restaurants	92.07	92.07	92.99	94.85	96.75	98.68	100.66	102.67	104.72	106.82	108.95
Bars & Restaurants	153.59	153.59	155.13	158.23	161.39	164.62	167.91	171.27	174.70	178.19	181.75
Hotels -- Per Room	28.58	28.58	28.87	29.44	30.03	30.63	31.25	31.87	32.51	33.16	33.82
Large Retail	238.12	238.12	240.50	245.31	250.22	255.22	260.33	265.53	270.84	276.26	281.79

Notes on Rate Recommendations

The forecast and recommendations presented in this study represent a combination of the best information available from The City of Bisbee and the project team's expertise. However, this forecast relies in part on assumptions about future events and events beyond the control of the project team (such as account growth rates within the City). The forecast and recommendations contained in this study may be subject to revision if any of the following events occurs:

- Actual growth in accounts and consumed volumes is less than (or significantly greater than) forecast.
- Capital improvement plan funding costs increase significantly due to the rising cost of materials or other factors.
- An unforeseen event impacts the City, such as an extended recession, natural catastrophe or terrorist attack.
- Significant and long-lasting changes in weather patterns.
- Increases or decreases in interest rates, coverage requirements, or reserve requirements for long-term debt.
- The City of Bisbee budget levels or priorities change significantly from those forecast in this study.

It should be noted that none of these events are foreseen by the project team or the City of Bisbee at this time.

If any of these events occur, the City may be compelled to consider further adjustments to its wastewater rates.

CITY OF BISBEE										
WASTEWATER COST OF SERVICE MODEL										
EFFECTIVE DATE										
Current	Nov-18	Jul-19	Jul-20	Jul-21	Jul-22	Jul-23	Jul-24	Jul-25	Jul-26	Jul-27

Proposed Rate Schedule

Scenario: 2018 10 12 -- Scenario I -- Deferred Adjustments

Wastewater Rates -- Residential

Residential	\$ 47.60	\$ 47.60	\$ 47.60	\$ 47.60	\$ 49.03	\$ 50.50	\$ 52.01	\$ 53.05	\$ 54.12	\$ 55.20	\$ 56.30
Residential Outside	95.20	95.20	95.20	95.20	98.06	101.00	104.03	106.11	108.23	110.39	112.60
Low Income	28.57	28.57	28.57	28.57	29.43	30.31	31.22	31.84	32.48	33.13	33.79
Discounted Low Income	14.58	14.58	14.58	14.58	15.02	15.47	15.93	16.25	16.58	16.91	17.25

Wastewater Rates -- Commercial

Small Retail	53.79	53.79	53.79	53.79	55.40	57.07	58.78	59.95	61.15	62.38	63.62
Small Restaurants	92.07	92.07	92.07	92.07	94.83	97.68	100.61	102.62	104.67	106.77	108.90
Bars & Restaurants	153.59	153.59	153.59	153.59	158.20	162.94	167.83	171.19	174.61	178.10	181.67
Hotels -- Per Room	28.58	28.58	28.58	28.58	29.44	30.32	31.23	31.85	32.49	33.14	33.80
Large Retail	238.12	238.12	238.12	238.12	245.26	252.62	260.20	265.40	270.71	276.13	281.65
Mixed Use	87.76	87.76	87.76	87.76	90.39	93.10	95.90	97.82	99.77	101.77	103.80
Schools	1,097.62	1,097.62	1,097.62	1,097.62	1,130.55	1,164.47	1,199.40	1,223.39	1,247.85	1,272.81	1,298.27

CITY OF BISBEE WASTEWATER COST OF SERVICE MODEL											
	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Model Summary		Scenario: 2018 10 12 -- Scenario I -- Deferred Adjustments										
1	Total Accounts											
	Total Accounts	3,577	3,593	3,609	3,625	3,641	3,657	3,673	3,689	3,705	3,721	
	New Accounts	-	16	16	16	16	16	16	16	16	16	
	Avg. Annual Growth Rate		0.45%	0.45%	0.44%	0.44%	0.44%	0.44%	0.44%	0.43%	0.43%	
	EFFECTIVE											
2	Wastewater Rates -- Residential		Nov-18	Jul-19	Jul-20	Jul-21	Jul-22	Jul-23	Jul-24	Jul-25	Jul-26	Jul-27
	Residential	\$ 47.60	\$ 47.60	\$ 47.60	\$ 47.60	\$ 49.03	\$ 50.50	\$ 52.01	\$ 53.05	\$ 54.12	\$ 55.20	\$ 56.30
	Increase -- Dollars	-	-	-	-	1.43	1.47	1.51	1.04	1.06	1.08	1.10
	Increase -- Percent	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%
	Residential Outside	95.20	95.20	95.20	95.20	98.06	101.00	104.03	106.11	108.23	110.39	112.60
	Increase -- Dollars	-	-	-	-	2.86	2.94	3.03	2.08	2.12	2.16	2.21
	Increase -- Percent	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%
	Low Income	28.57	28.57	28.57	28.57	29.43	30.31	31.22	31.84	32.48	33.13	33.79
	Increase -- Dollars	-	-	-	-	0.86	0.88	0.91	0.62	0.64	0.65	0.66
	Increase -- Percent	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%
	Discounted Low Income	14.58	14.58	14.58	14.58	15.02	15.47	15.93	16.25	16.58	16.91	17.25
	Increase -- Dollars	-	-	-	-	0.44	0.45	0.46	0.32	0.33	0.33	0.34
	Increase -- Percent	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%
3	Wastewater Rates -- Commercial											
	Small Retail	53.79	53.79	53.79	53.79	55.40	57.07	58.78	59.95	61.15	62.38	63.62
	Increase -- Dollars	-	-	-	-	1.61	1.66	1.71	1.18	1.20	1.22	1.25
	Increase -- Percent	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%
	Small Restaurants	92.07	92.07	92.07	92.07	94.83	97.68	100.61	102.62	104.67	106.77	108.90
	Increase -- Dollars	-	-	-	-	2.76	2.84	2.93	2.01	2.05	2.09	2.14
	Increase -- Percent	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%
	Bars & Restaurants	153.59	153.59	153.59	153.59	158.20	162.94	167.83	171.19	174.61	178.10	181.67
	Increase -- Dollars	-	-	-	-	4.61	4.75	4.89	3.36	3.42	3.49	3.56
	Increase -- Percent	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%
	Hotels -- Per Room	28.58	28.58	28.58	28.58	29.44	30.32	31.23	31.85	32.49	33.14	33.80
	Increase -- Dollars	-	-	-	-	0.86	0.88	0.91	0.62	0.64	0.65	0.66
	Increase -- Percent	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%
	Large Retail	238.12	238.12	238.12	238.12	245.26	252.62	260.20	265.40	270.71	276.13	281.65
	Increase -- Dollars	-	-	-	-	7.14	7.36	7.58	5.20	5.31	5.41	5.52
	Increase -- Percent	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%
	Mixed Use	87.76	87.76	87.76	87.76	90.39	93.10	95.90	97.82	99.77	101.77	103.80
	Increase -- Dollars	-	-	-	-	2.63	2.71	2.79	1.92	1.96	2.00	2.04
	Increase -- Percent	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%
	Schools	1,097.62	1,097.62	1,097.62	1,097.62	1,130.55	1,164.47	1,199.40	1,223.39	1,247.85	1,272.81	1,298.27
	Increase -- Dollars	-	-	-	-	32.93	33.92	34.93	23.99	24.47	24.96	25.46
	Increase -- Percent	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%

CITY OF BISBEE											
WASTEWATER COST OF SERVICE MODEL											
	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Model Summary Scenario: **2018 10 12 -- Scenario I -- Deferred Adjustments**

4	TOTAL Revenues and Expenses										
	WW Rate Revenues	\$ 2,076,768	\$ 2,085,753	\$ 2,094,738	\$ 2,161,576	\$ 2,235,932	\$ 2,312,805	\$ 2,370,935	\$ 2,428,552	\$ 2,487,525	\$ 2,547,886
	Non-Rate Revenues:										
	City Sales Tax	344,500	344,500	344,500	344,500	344,500	344,500	344,500	344,500	344,500	344,500
	Interest/Penalties Earned	163,000	163,000	163,000	163,000	163,000	163,000	163,000	163,000	163,000	163,000
	Miscellaneous Revenue	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
	APS Solar Reimburse -WWTP	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
	USE of WWTP Reserves	-	-	-	-	-	-	-	-	-	-
	USER Fees	-	-	-	-	-	-	-	-	-	-
	SERVICE Charge/Penalty	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
	HOOK-UP Fees	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
	USE of fund balance	-	-	-	-	-	-	-	-	-	-
	Other Income	-	-	-	-	-	-	-	-	-	-
	Total Non-Rate Revenues	601,500									
	Total Revenues	2,678,268	2,687,253	2,696,238	2,763,076	2,837,432	2,914,305	2,972,435	3,030,052	3,089,025	3,149,386
	Operating Expenses										
	Personnel	395,171	408,837	423,057	437,861	453,278	469,340	486,080	503,536	521,746	540,749
	Operating & Maint.	585,029	603,994	623,614	643,916	664,927	686,675	709,191	732,505	756,651	781,664
	Operating Expenses	980,200	1,012,830	1,046,672	1,081,778	1,118,205	1,156,015	1,195,271	1,236,041	1,278,397	1,322,414
	Net Revenues after Operating Expenses	1,698,069	1,674,423	1,649,567	1,681,298	1,719,227	1,758,290	1,777,164	1,794,011	1,810,628	1,826,972
	Capital Outlays	640,000	640,000	640,000	640,000	640,000	640,000	640,000	640,000	640,000	640,000
	Transfers	462,215	462,215	462,215	462,215	462,215	462,215	462,215	462,215	462,215	462,215
	Debt Service -- Current										
	Vactor Truck Loan	30,905	30,905	30,905	30,905	30,905	30,905	30,905	30,905	30,905	-
	Refinanced WWTP Loans	549,509	549,338	549,100	549,488	549,463	549,025	549,175	548,875	549,125	548,888
	WFA Solar	79,847	79,824	79,801	79,777	79,753	79,727	79,701	79,674	79,647	79,618
	Other	-	-	-	-	-	-	-	-	-	-
	Total	660,261	660,067	659,806	660,170	660,121	659,657	659,781	659,454	659,677	628,506
	Debt Service -- Future										
	Series 2019	-	-	-	-	-	-	-	-	-	-
	Series 2020	-	-	-	-	-	-	-	-	-	-
	Series 2021	-	-	-	-	-	-	-	-	-	-
	Series 2022	-	-	-	-	-	-	-	-	-	-
	Series 2023	-	-	-	-	-	-	-	-	-	-
	Series 2024	-	-	-	-	-	-	-	-	-	-
	Series 2025	-	-	-	-	-	-	-	-	-	-
	Series 2026	-	-	-	-	-	-	-	-	-	-
	Series 2027	-	-	-	-	-	-	-	-	-	-
	Total	-									
	Total Debt Service	660,261	660,067	659,806	660,170	660,121	659,657	659,781	659,454	659,677	628,506
	Total Cost of Service	2,742,675	2,775,113	2,808,693	2,844,163	2,880,541	2,917,887	2,957,267	2,997,711	3,040,288	3,053,135
	Net Revenues	(64,407)	(87,860)	(112,455)	(81,087)	(43,109)	(3,583)	15,167	32,341	48,737	96,251
	Percent of COS	-2.4%	-3.3%	-4.2%	-2.9%	-1.5%	-0.1%	0.5%	1.1%	1.6%	3.1%

CITY OF BISBEE WASTEWATER COST OF SERVICE MODEL											
	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Model Summary Scenario: **2018 10 12 -- Scenario I -- Deferred Adjustments**

5 Debt Coverage Calculation

Coverage-Eligible Revenues	2,678,268	2,687,253	2,696,238	2,763,076	2,837,432	2,914,305	2,972,435	3,030,052	3,089,025	3,149,386
Operating Expenses	980,200	1,012,830	1,046,672	1,081,778	1,118,205	1,156,015	1,195,271	1,236,041	1,278,397	1,322,414
Net Revenues Eligible for Coverage	1,698,069	1,674,423	1,649,567	1,681,298	1,719,227	1,758,290	1,777,164	1,794,011	1,810,628	1,826,972
Debt Service -- Current	660,261	660,067	659,806	660,170	660,121	659,657	659,781	659,454	659,677	628,506
Debt Service -- Future										
Series 2019	-	-	-	-	-	-	-	-	-	-
Series 2020	-	-	-	-	-	-	-	-	-	-
Series 2021	-	-	-	-	-	-	-	-	-	-
Series 2022	-	-	-	-	-	-	-	-	-	-
Series 2023	-	-	-	-	-	-	-	-	-	-
Series 2024	-	-	-	-	-	-	-	-	-	-
Series 2025	-	-	-	-	-	-	-	-	-	-
Series 2026	-	-	-	-	-	-	-	-	-	-
Series 2027	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Total Debt Service	\$ 660,261	\$ 660,067	\$ 659,806	\$ 660,170	\$ 660,121	\$ 659,657	\$ 659,781	\$ 659,454	\$ 659,677	\$ 628,506
Debt Coverage	2.57	2.54	2.50	2.55	2.60	2.67	2.69	2.72	2.74	2.91

4 Fund Balance

Beginning Balance - Unrestricted Reserve	\$ 921,136	\$ 1,496,729	\$ 2,048,869	\$ 2,576,415	\$ 3,135,328	\$ 3,732,219	\$ 4,368,636	\$ 5,023,804	\$ 5,696,145	\$ 6,384,882
Bond Issues	-	-	-	-	-	-	-	-	-	-
Connection Fees	-	-	-	-	-	-	-	-	-	-
Revenues less Cost of Service	(64,407)	(87,860)	(112,455)	(81,087)	(43,109)	(3,583)	15,167	32,341	48,737	96,251
Grant (Principal Forgiveness)	-	-	-	-	-	-	-	-	-	-
Rate Rev Capital Reserve Contribution	640,000	640,000	640,000	640,000	640,000	640,000	640,000	640,000	640,000	640,000
Total Sources	575,593	552,140	527,545	558,913	596,891	636,417	655,167	672,341	688,737	736,251
<u>Less Uses of Funds:</u>										
Capital Improvement Plan	-	-	-	-	-	-	-	-	-	-
Total Uses of Funds	-	-	-	-	-	-	-	-	-	-
Ending Unrestricted and Capital Reserve Fund Balance	1,496,729	2,048,869	2,576,415	3,135,328	3,732,219	4,368,636	5,023,804	5,696,145	6,384,882	7,121,132

<div style="border: 1px solid black; padding: 5px; display: inline-block;"> CITY OF BISBEE WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Input Area -- Rate Recommendations

Scenario: 2018 10 12 -- Scenario I -- Deferred Adjustments

Month of Adjustment (July = 1)		5	1	1	1	1	1	1	1	1	1
EFFECTIVE		Nov-18	Jul-19	Jul-20	Jul-21	Jul-22	Jul-23	Jul-24	Jul-25	Jul-26	Jul-27
Annual Adjustment											
Residential <small>DASHBOARD</small>		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%
Residential Outside <small>DASHBOARD</small>		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%
Small Retail		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%
Small Restaurants		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%
Bars & Restaurants		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%
Hotels -- Per Room		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%
Large Retail		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%
Low Income		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%
Discounted Low Income		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%
Mixed Use		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%
Schools		0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%	2.00%
Residential											
Base Charge	\$ 47.60	\$ 47.60	\$ 47.60	\$ 47.60	\$ 49.03	\$ 50.50	\$ 52.01	\$ 53.05	\$ 54.12	\$ 55.20	\$ 56.30
Residential Outside											
Base Charge	95.20	95.20	95.20	95.20	98.06	101.00	104.03	106.11	108.23	110.39	112.60
Small Retail											
User Fee	-	-	-	-	-	-	-	-	-	-	-
Base Charge	53.79	53.79	53.79	53.79	55.40	57.07	58.78	59.95	61.15	62.38	63.62
Small Restaurants											
Base Charge	92.07	92.07	92.07	92.07	94.83	97.68	100.61	102.62	104.67	106.77	108.90
Bars & Restaurants											
User Fee	-	-	-	-	-	-	-	-	-	-	-
Base Charge	153.59	153.59	153.59	153.59	158.20	162.94	167.83	171.19	174.61	178.10	181.67

<div style="border: 1px solid black; padding: 5px; display: inline-block;"> CITY OF BISBEE WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Input Area -- Rate Recommendations

Scenario: 2018 10 12 -- Scenario I -- Deferred Adjustments

Hotels -- Per Room

User Fee	-	-	-	-	-	-	-	-	-	-	-
Base Charge	28.58	28.58	28.58	28.58	29.44	30.32	31.23	31.85	32.49	33.14	33.80
Large Retail											
Base Charge	238.12	238.12	238.12	238.12	245.26	252.62	260.20	265.40	270.71	276.13	281.65
Low Income											
Base Charge	28.57	28.57	28.57	28.57	29.43	30.31	31.22	31.84	32.48	33.13	33.79
Discounted Low Income											
Base Charge	14.58	14.58	14.58	14.58	15.02	15.47	15.93	16.25	16.58	16.91	17.25
Mixed Use											
Base Charge	87.76	87.76	87.76	87.76	90.39	93.10	95.90	97.82	99.77	101.77	103.80
Schools											
Base Charge	1,097.62	1,097.62	1,097.62	1,097.62	1,130.55	1,164.47	1,199.40	1,223.39	1,247.85	1,272.81	1,298.27

Summary of Results -- Rate Calculator

Revenues Less Cost of Service		(64,407) -3.1%	(87,860) -4.2%	(112,455) -5.4%	(81,087) -3.8%	(43,109) -1.9%	(3,583) -0.2%	15,167 0.6%	32,341 1.3%	48,737 2.0%	96,251 3.8%
Net Revenues		(64,407)	(87,860)	(112,455)	(81,087)	(43,109)	(3,583)	15,167	32,341	48,737	96,251
Debt Coverage		2.57	2.54	2.50	2.55	2.60	2.67	2.69	2.72	2.74	2.91

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	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Input Area -- Rate Recommendations

Scenario: 2018 10 12 -- Scenario I -- Deferred Adjustments

WW Rate Revenues

WW Rate Revenue

Residential	\$ 1,556,520	\$ 1,564,517	\$ 1,572,514	\$ 1,623,974	\$ 1,681,157	\$ 1,740,309	\$ 1,785,425	\$ 1,830,210	\$ 1,876,072	\$ 1,923,037
Residential Outside	-	-	-	-	-	-	-	-	-	-
Small Retail	87,140	87,785	88,431	91,526	94,955	98,507	101,275	104,033	106,861	109,761
Small Restaurants	17,677	17,677	17,677	18,164	18,708	19,270	19,671	20,064	20,465	20,875
Bars & Restaurants	25,803	25,803	25,803	26,513	27,308	28,127	28,713	29,287	29,873	30,470
Hotels -- Per Room	129,982	129,982	129,982	133,556	137,563	141,690	144,639	147,531	150,482	153,492
Large Retail	76,208	76,208	76,208	78,304	80,653	83,072	84,801	86,497	88,227	89,992
Low Income	42,512	42,855	43,198	44,738	46,443	48,210	49,595	50,976	52,392	53,845
Discounted Low Income	14,522	14,522	14,522	14,921	15,369	15,830	16,159	16,482	16,812	17,148
Mixed Use	73,718	73,718	73,718	75,746	78,018	80,359	82,031	83,672	85,345	87,052
Schools	52,686	52,686	52,686	54,135	55,759	57,431	58,627	59,799	60,995	62,215
Total WW Rate Revenues	2,076,768	2,085,753	2,094,738	2,161,576	2,235,932	2,312,805	2,370,935	2,428,552	2,487,525	2,547,886

Less Revenues to be Raised from Rates:

Residential	\$ 1,631,323	\$ 1,657,131	\$ 1,683,834	\$ 1,712,004	\$ 1,740,892	\$ 1,770,546	\$ 1,801,782	\$ 1,833,859	\$ 1,867,600	\$ 1,878,590
Residential Outside	-	-	-	-	-	-	-	-	-	-
Small Retail	80,818	82,282	83,794	85,384	87,013	88,686	90,442	92,245	94,137	94,885
Small Restaurants	9,578	9,680	9,786	9,900	10,016	10,136	10,263	10,394	10,533	10,543
Bars & Restaurants	8,381	8,470	8,563	8,662	8,764	8,869	8,980	9,095	9,216	9,225
Hotels -- Per Room	226,889	229,300	231,810	234,496	237,252	240,085	243,103	246,204	249,496	249,732
Large Retail	15,966	16,136	16,312	16,501	16,695	16,895	17,107	17,325	17,557	17,573
Low Income	74,233	75,627	77,066	78,578	80,127	81,718	83,386	85,099	86,896	87,637
Discounted Low Income	49,688	50,216	50,766	51,354	51,958	52,578	53,239	53,918	54,639	54,691
Mixed Use	41,906	42,351	42,815	43,311	43,820	44,343	44,900	45,473	46,081	46,125
Schools	2,395	2,420	2,447	2,475	2,504	2,534	2,566	2,598	2,633	2,636
Sub-Total	2,141,175	2,173,613	2,207,193	2,242,663	2,279,041	2,316,387	2,355,767	2,396,211	2,438,788	2,451,635

Rate Revenue Less RRRR:

Residential	(74,803)	(92,614)	(111,321)	(88,029)	(59,735)	(30,237)	(16,357)	(3,650)	8,472	44,447
Residential Outside	-	-	-	-	-	-	-	-	-	-
Small Retail	6,322	5,503	4,637	6,142	7,941	9,821	10,833	11,788	12,724	14,876
Small Restaurants	8,099	7,997	7,891	8,264	8,693	9,134	9,408	9,670	9,933	10,332
Bars & Restaurants	17,422	17,333	17,240	17,851	18,544	19,259	19,733	20,192	20,656	21,245
Hotels -- Per Room	(96,907)	(99,318)	(101,828)	(100,939)	(99,689)	(98,395)	(98,464)	(98,672)	(99,014)	(96,240)
Large Retail	60,242	60,072	59,896	61,802	63,957	66,178	67,694	69,172	70,670	72,418
Low Income	(31,721)	(32,772)	(33,868)	(33,840)	(33,684)	(33,507)	(33,791)	(34,124)	(34,503)	(33,792)
Discounted Low Income	(35,166)	(35,694)	(36,244)	(36,433)	(36,589)	(36,748)	(37,080)	(37,436)	(37,827)	(37,542)
Mixed Use	31,813	31,367	30,904	32,435	34,198	36,016	37,131	38,199	39,264	40,927
Schools	50,291	50,266	50,239	51,660	53,255	54,898	56,061	57,201	58,362	59,579
Rate Revenue less Revenue Rqmt	(64,407)	(87,860)	(112,455)	(81,087)	(43,109)	(3,583)	15,167	32,341	48,737	96,251

<div style="border: 1px solid black; padding: 5px; display: inline-block;"> CITY OF BISBEE WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Input Area -- Rate Recommendations
Scenario: 2018 10 12 -- Scenario 1 -- Deferred Adjustments

WASTEWATER -- Customer & Usage Data

Customer Class Units -- Base Annual Units	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Residential	2,725	2,739	2,753	2,767	2,781	2,795	2,809	2,823	2,837	2,851
Residential Outside	-	-	-	-	-	-	-	-	-	-
Small Retail	135	136	137	138	139	140	141	142	143	144
Small Restaurants	16	16	16	16	16	16	16	16	16	16
Bars & Restaurants	14	14	14	14	14	14	14	14	14	14
Hotels -- Per Room	379	379	379	379	379	379	379	379	379	379
Large Retail	27	27	27	27	27	27	27	27	27	27
Low Income	124	125	126	127	128	129	130	131	132	133
Discounted Low Income	83	83	83	83	83	83	83	83	83	83
Mixed Use	70	70	70	70	70	70	70	70	70	70
Schools	4	4	4	4	4	4	4	4	4	4
Total Wastewater	3,577	3,593	3,609	3,625	3,641	3,657	3,673	3,689	3,705	3,721

Net Annual Fixtures after Minimum:

Residential										
Monthly Customers Billed	2,725	2,739	2,753	2,767	2,781	2,795	2,809	2,823	2,837	2,851
Residential Outside										
Monthly Customers Billed	-	-	-	-	-	-	-	-	-	-
Small Retail										
Monthly Customers Billed	135	136	137	138	139	140	141	142	143	144
Small Restaurants										
Monthly Customers Billed	16	16	16	16	16	16	16	16	16	16
Bars & Restaurants										
Monthly Customers Billed	14	14	14	14	14	14	14	14	14	14
Hotels -- Per Room										
Monthly Customers Billed	379	379	379	379	379	379	379	379	379	379
Large Retail										
Monthly Customers Billed	27	27	27	27	27	27	27	27	27	27
Low Income										
Monthly Customers Billed	124	125	126	127	128	129	130	131	132	133
Discounted Low Income										
Monthly Customers Billed	83	83	83	83	83	83	83	83	83	83
Mixed Use										
Monthly Customers Billed	70	70	70	70	70	70	70	70	70	70
Schools										
Monthly Customers Billed	4	4	4	4	4	4	4	4	4	4
Rounded Net Fixtures after Minimum	3,577	3,593	3,609	3,625	3,641	3,657	3,673	3,689	3,705	3,721

<div style="border: 1px solid black; padding: 5px; display: inline-block;"> CITY OF BISBEE WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Input Area -- Rate Recommendations

Scenario: 2018 10 12 -- Scenario I -- Deferred Adjustments

Customer Class Units -- Total Bills

Residential	32,700	32,868	33,036	33,204	33,372	33,540	33,708	33,876	34,044	34,212	34,212
Residential Outside	-	-	-	-	-	-	-	-	-	-	-
Small Retail	1,620	1,632	1,644	1,656	1,668	1,680	1,692	1,704	1,716	1,728	1,728
Small Restaurants	192	192	192	192	192	192	192	192	192	192	192
Bars & Restaurants	168	168	168	168	168	168	168	168	168	168	168
Hotels -- Per Room	4,548	4,548	4,548	4,548	4,548	4,548	4,548	4,548	4,548	4,548	4,548
Large Retail	320	320	320	320	320	320	320	320	320	320	320
Low Income	1,488	1,500	1,512	1,524	1,536	1,548	1,560	1,572	1,584	1,596	1,596
Discounted Low Income	996	996	996	996	996	996	996	996	996	996	996
Mixed Use	840	840	840	840	840	840	840	840	840	840	840
Schools	48	48	48	48	48	48	48	48	48	48	48
Total Wastewater	42,920	43,112	43,304	43,496	43,688	43,880	44,072	44,264	44,456	44,648	44,648
	3,577	3,593	3,609	3,625	3,641	3,657	3,673	3,689	3,705	3,721	3,721

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EFFECTIVE DATE										
Current	Nov-18	Jul-19	Jul-20	Jul-21	Jul-22	Jul-23	Jul-24	Jul-25	Jul-26	Jul-27

Proposed Rate Schedule

Scenario: 2018 10 12 -- Scenario II -- Annual Adjustments

Wastewater Rates -- Residential

Residential	\$ 47.60	\$ 47.60	\$ 48.08	\$ 49.04	\$ 50.02	\$ 51.02	\$ 52.04	\$ 53.08	\$ 54.14	\$ 55.22	\$ 56.33
Residential Outside	95.20	95.20	96.15	98.08	100.04	102.04	104.08	106.16	108.28	110.45	112.66
Low Income	28.57	28.57	28.86	29.43	30.02	30.62	31.23	31.86	32.50	33.15	33.81
Discounted Low Income	14.58	14.58	14.73	15.02	15.32	15.63	15.94	16.26	16.58	16.92	17.25

Wastewater Rates -- Commercial

Small Retail	53.79	53.79	54.33	55.41	56.52	57.65	58.81	59.98	61.18	62.41	63.65
Small Restaurants	92.07	92.07	92.99	94.85	96.75	98.68	100.66	102.67	104.72	106.82	108.95
Bars & Restaurants	153.59	153.59	155.13	158.23	161.39	164.62	167.91	171.27	174.70	178.19	181.75
Hotels -- Per Room	28.58	28.58	28.87	29.44	30.03	30.63	31.25	31.87	32.51	33.16	33.82
Large Retail	238.12	238.12	240.50	245.31	250.22	255.22	260.33	265.53	270.84	276.26	281.79
Mixed Use	87.76	87.76	88.64	90.41	92.22	94.06	95.94	97.86	99.82	101.82	103.85
Schools	1,097.62	1,097.62	1,108.60	1,130.77	1,153.38	1,176.45	1,199.98	1,223.98	1,248.46	1,273.43	1,298.90

CITY OF BISBEE
WASTEWATER COST OF SERVICE MODEL

Current 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028

Model Summary Scenario: 2018 10 12 -- Scenario II -- Annual Adjustments

		EFFECTIVE																			
		Non-18		Jul-19		Jul-20		Jul-21		Jul-22		Jul-23		Jul-24		Jul-25		Jul-26		Jul-27	
1 Total Accounts		3,577	3,593	3,609	3,625	3,641	3,657	3,673	3,689	3,705	3,721										
Total Accounts		16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
New Accounts		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Avg Annual Growth Rate		0.45%	0.44%	0.44%	0.44%	0.44%	0.44%	0.44%	0.43%	0.43%	0.43%										
2 Wastewater Rates -- Residential		47.60	47.60	48.08	49.04	50.02	51.02	52.04	53.08	54.14	55.22	56.33									
Residential		0.48	0.48	0.96	0.96	0.98	1.00	1.02	1.04	1.06	1.10	1.10									
Increase -- Dollars		-	-	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Increase -- Percent		0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Residential Outside		95.20	95.20	96.15	98.08	100.04	102.04	104.08	106.16	108.28	110.45	112.66									
Residential Outside		-	-	0.95	1.92	1.96	2.00	2.04	2.08	2.12	2.17	2.21									
Increase -- Dollars		-	-	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Increase -- Percent		0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Low Income		28.57	28.57	28.86	29.43	30.02	30.62	31.23	31.86	32.50	33.15	33.81									
Low Income		-	-	0.29	0.58	0.59	0.60	0.61	0.62	0.64	0.65	0.66									
Increase -- Dollars		-	-	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Increase -- Percent		0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Discounted Low Income		14.58	14.58	14.73	15.02	15.32	15.63	15.94	16.26	16.58	16.92	17.25									
Discounted Low Income		-	-	0.15	0.29	0.30	0.31	0.32	0.33	0.33	0.34	0.34									
Increase -- Dollars		-	-	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Increase -- Percent		0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
3 Wastewater Rates -- Commercial		53.79	53.79	54.33	55.41	56.52	57.65	58.81	59.98	61.18	62.41	63.65									
Small Retail		0.54	0.54	1.09	1.09	1.11	1.13	1.15	1.18	1.20	1.22	1.25									
Increase -- Dollars		-	-	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Increase -- Percent		0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Small Restaurants		92.07	92.07	92.99	94.85	96.75	98.68	100.66	102.67	104.72	106.82	108.95									
Small Restaurants		-	-	0.92	1.86	1.90	1.93	1.97	2.01	2.14	2.09	2.14									
Increase -- Dollars		-	-	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Increase -- Percent		0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Bars & Restaurants		153.59	153.59	155.13	158.23	161.39	164.62	167.91	171.27	174.70	178.19	181.75									
Bars & Restaurants		-	-	1.54	3.10	3.16	3.23	3.29	3.36	3.43	3.49	3.56									
Increase -- Dollars		-	-	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Increase -- Percent		0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Hotels -- Per Room		28.58	28.58	28.87	29.44	30.03	30.63	31.25	31.87	32.51	33.16	33.82									
Hotels -- Per Room		-	-	0.29	0.58	0.59	0.60	0.61	0.62	0.64	0.65	0.66									
Increase -- Dollars		-	-	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Increase -- Percent		0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Large Retail		238.12	238.12	240.50	245.31	250.22	255.22	260.33	265.53	270.84	276.26	281.79									
Large Retail		-	-	2.38	4.81	4.91	5.00	5.10	5.21	5.31	5.42	5.53									
Increase -- Dollars		-	-	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Increase -- Percent		0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Mixed Use		87.76	87.76	88.64	90.41	92.22	94.06	95.94	97.86	99.82	101.82	103.85									
Mixed Use		-	-	0.88	1.77	1.81	1.84	1.88	1.92	1.96	2.00	2.04									
Increase -- Dollars		-	-	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Increase -- Percent		0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Schools		1,097.62	1,097.62	1,108.60	1,130.77	1,153.38	1,176.45	1,199.98	1,223.98	1,248.46	1,273.43	1,298.90									
Schools		-	-	10.98	22.17	22.62	23.07	23.53	24.00	24.48	24.97	25.47									
Increase -- Dollars		-	-	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									
Increase -- Percent		0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%									

CITY OF BISBEE											
WASTEWATER COST OF SERVICE MODEL											
	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Model Summary	Scenario: 2018 10 12 -- Scenario II -- Annual Adjustments																					
4 TOTAL Revenues and Expenses																						
WW Rate Revenues	\$	2,076,768	\$	2,104,873	\$	2,154,473	\$	2,206,989	\$	2,260,743	\$	2,315,765	\$	2,372,084	\$	2,429,729	\$	2,488,730	\$	2,549,120		
Non-Rate Revenues:																						
City Sales Tax		344,500		344,500		344,500		344,500		344,500		344,500		344,500		344,500		344,500		344,500		344,500
Interest/Penalties Earned		163,000		163,000		163,000		163,000		163,000		163,000		163,000		163,000		163,000		163,000		163,000
Miscellaneous Revenue		40,000		40,000		40,000		40,000		40,000		40,000		40,000		40,000		40,000		40,000		40,000
APS Solar Reimburse -WWTP		25,000		25,000		25,000		25,000		25,000		25,000		25,000		25,000		25,000		25,000		25,000
USE of WWTP Reserves		-		-		-		-		-		-		-		-		-		-		-
USER Fees		-		-		-		-		-		-		-		-		-		-		-
SERVICE Charge/Penalty		25,000		25,000		25,000		25,000		25,000		25,000		25,000		25,000		25,000		25,000		25,000
HOOK-UP Fees		4,000		4,000		4,000		4,000		4,000		4,000		4,000		4,000		4,000		4,000		4,000
USE of fund balance		-		-		-		-		-		-		-		-		-		-		-
Other Income		-		-		-		-		-		-		-		-		-		-		-
Total Non-Rate Revenues		601,500		601,500		601,500		601,500		601,500		601,500		601,500		601,500		601,500		601,500		601,500
Total Revenues		2,678,268		2,706,373		2,755,973		2,808,489		2,862,243		2,917,265		2,973,584		3,031,229		3,090,230		3,150,620		3,150,620
Operating Expenses																						
Personnel		395,171		408,837		423,057		437,861		453,278		469,340		486,080		503,536		521,746		540,749		540,749
Operating & Maint.		585,029		603,994		623,614		643,916		664,927		686,675		709,191		732,505		756,651		781,664		781,664
Operating Expenses		980,200		1,012,830		1,046,672		1,081,778		1,118,205		1,156,015		1,195,271		1,236,041		1,278,397		1,322,414		1,322,414
Net Revenues after Operating Expenses		1,698,069		1,693,542		1,709,302		1,726,711		1,744,038		1,761,250		1,778,313		1,795,187		1,811,834		1,828,207		1,828,207
Capital Outlays		640,000		640,000		640,000		640,000		640,000		640,000		640,000		640,000		640,000		640,000		640,000
Transfers		462,215		462,215		462,215		462,215		462,215		462,215		462,215		462,215		462,215		462,215		462,215
Debt Service -- Current																						
Vactor Truck Loan		30,905		30,905		30,905		30,905		30,905		30,905		30,905		30,905		30,905		30,905		-
Refinanced WWTP Loans		549,509		549,338		549,100		549,488		549,463		549,025		549,175		548,875		549,125		548,888		548,888
WFA Solar		79,847		79,824		79,801		79,777		79,753		79,727		79,701		79,674		79,647		79,618		79,618
Other		-		-		-		-		-		-		-		-		-		-		-
Total		660,261		660,067		659,806		660,170		660,121		659,657		659,781		659,454		659,677		659,677		628,506
Debt Service -- Future																						
Series	2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Series	2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Series	2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Series	2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Series	2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Series	2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Series	2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Series	2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Series	2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total		-		-		-		-		-		-		-		-		-		-		-
Total Debt Service		660,261		660,067		659,806		660,170		660,121		659,657		659,781		659,454		659,677		659,677		628,506
Total Cost of Service		2,742,675		2,775,113		2,808,693		2,844,163		2,880,541		2,917,887		2,957,267		2,997,711		3,040,288		3,053,135		3,053,135
Net Revenues		(64,407)		(68,740)		(52,720)		(35,674)		(18,297)		(622)		16,316		33,518		49,942		97,485		97,485
Percent of COS		-2.4%		-2.5%		-1.9%		-1.3%		-0.6%		0.0%		0.5%		1.1%		1.6%		3.1%		3.1%
		(64,407)		(87,860)		(112,455)		(81,087)		(43,109)		(3,583)		15,167		32,341		48,737		96,251		96,251

CITY OF BISBEE WASTEWATER COST OF SERVICE MODEL										
Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Model Summary

Scenario: 2018 10 12 -- Scenario II -- Annual Adjustments

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	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Model Summary Scenario: **2018 10 12 -- Scenario II -- Annual Adjustments**

5 Debt Coverage Calculation

Coverage-Eligible Revenues		2,678,268	2,706,373	2,755,973	2,808,489	2,862,243	2,917,265	2,973,584	3,031,229	3,090,230	3,150,620
Operating Expenses		980,200	1,012,830	1,046,672	1,081,778	1,118,205	1,156,015	1,195,271	1,236,041	1,278,397	1,322,414
Net Revenues Eligible for Coverage		1,698,069	1,693,542	1,709,302	1,726,711	1,744,038	1,761,250	1,778,313	1,795,187	1,811,834	1,828,207
Debt Service -- Current		660,261	660,067	659,806	660,170	660,121	659,657	659,781	659,454	659,677	628,506
Debt Service -- Future											
Series	2019	-	-	-	-	-	-	-	-	-	-
Series	2020	-	-	-	-	-	-	-	-	-	-
Series	2021	-	-	-	-	-	-	-	-	-	-
Series	2022	-	-	-	-	-	-	-	-	-	-
Series	2023	-	-	-	-	-	-	-	-	-	-
Series	2024	-	-	-	-	-	-	-	-	-	-
Series	2025	-	-	-	-	-	-	-	-	-	-
Series	2026	-	-	-	-	-	-	-	-	-	-
Series	2027	-	-	-	-	-	-	-	-	-	-
Total		-	-	-	-	-	-	-	-	-	-
Total Debt Service		\$ 660,261	\$ 660,067	\$ 659,806	\$ 660,170	\$ 660,121	\$ 659,657	\$ 659,781	\$ 659,454	\$ 659,677	\$ 628,506
Debt Coverage		2.57	2.57	2.59	2.62	2.64	2.67	2.70	2.72	2.75	2.91

4 Fund Balance

Beginning Balance - Unrestricted Reserve	\$	921,136	\$ 1,496,729	\$ 2,067,989	\$ 2,655,269	\$ 3,259,595	\$ 3,881,298	\$ 4,520,675	\$ 5,176,992	\$ 5,850,510	\$ 6,540,452
Bond Issues		-	-	-	-	-	-	-	-	-	-
Connection Fees		-	-	-	-	-	-	-	-	-	-
Revenues less Cost of Service		(64,407)	(68,740)	(52,720)	(35,674)	(18,297)	(622)	16,316	33,518	49,942	97,485
Grant (Principal Forgiveness)		-	-	-	-	-	-	-	-	-	-
Rate Rev Capital Reserve Contribution		640,000	640,000	640,000	640,000	640,000	640,000	640,000	640,000	640,000	640,000
Total Sources		575,593	571,260	587,280	604,326	621,703	639,378	656,316	673,518	689,942	737,485
<u>Less Uses of Funds:</u>											
Capital Improvement Plan		-	-	-	-	-	-	-	-	-	-
Total Uses of Funds		-	-	-	-	-	-	-	-	-	-
Ending Unrestricted and Capital Reserve Fund Balance		1,496,729	2,067,989	2,655,269	3,259,595	3,881,298	4,520,675	5,176,992	5,850,510	6,540,452	7,277,937

<div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 0 auto; width: 80%;"> CITY OF BISBEE WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Input Area -- Rate Recommendations

Scenario: 2018 10 12 -- Scenario II -- Annual Adjustments

Month of Adjustment (July = 1)	5	1	1	1	1	1	1	1	1	1	1
EFFECTIVE	Nov-18	Jul-19	Jul-20	Jul-21	Jul-22	Jul-23	Jul-24	Jul-25	Jul-26	Jul-27	
Annual Adjustment											
Residential DASHBOARD	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Residential Outside DASHBOARD	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Small Retail	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Small Restaurants	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Bars & Restaurants	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Hotels -- Per Room	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Large Retail	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Low Income	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Discounted Low Income	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Mixed Use	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Schools	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Residential											
Base Charge	\$ 47.60	\$ 47.60	\$ 48.08	\$ 49.04	\$ 50.02	\$ 51.02	\$ 52.04	\$ 53.08	\$ 54.14	\$ 55.22	\$ 56.33
Residential Outside											
Base Charge	95.20	95.20	96.15	98.08	100.04	102.04	104.08	106.16	108.28	110.45	112.66
Small Retail											
User Fee	-	-	-	-	-	-	-	-	-	-	-
Base Charge	53.79	53.79	54.33	55.41	56.52	57.65	58.81	59.98	61.18	62.41	63.65
Small Restaurants											
Base Charge	92.07	92.07	92.99	94.85	96.75	98.68	100.66	102.67	104.72	106.82	108.95
Bars & Restaurants											
User Fee	-	-	-	-	-	-	-	-	-	-	-
Base Charge	153.59	153.59	155.13	158.23	161.39	164.62	167.91	171.27	174.70	178.19	181.75

<div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 0 auto; width: 80%;"> CITY OF BISBEE WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Input Area -- Rate Recommendations

Scenario: 2018 10 12 -- Scenario II -- Annual Adjustments

Hotels -- Per Room

User Fee	-	-	-	-	-	-	-	-	-	-	-
Base Charge	28.58	28.58	28.87	29.44	30.03	30.63	31.25	31.87	32.51	33.16	33.82
Large Retail											
Base Charge	238.12	238.12	240.50	245.31	250.22	255.22	260.33	265.53	270.84	276.26	281.79
Low Income											
Base Charge	28.57	28.57	28.86	29.43	30.02	30.62	31.23	31.86	32.50	33.15	33.81
Discounted Low Income											
Base Charge	14.58	14.58	14.73	15.02	15.32	15.63	15.94	16.26	16.58	16.92	17.25
Mixed Use											
Base Charge	87.76	87.76	88.64	90.41	92.22	94.06	95.94	97.86	99.82	101.82	103.85
Schools											
Base Charge	1,097.62	1,097.62	1,108.60	1,130.77	1,153.38	1,176.45	1,199.98	1,223.98	1,248.46	1,273.43	1,298.90

Summary of Results -- Rate Calculator

Revenues Less Cost of Service	(64,407) -3.1%	(68,740) -3.3%	(52,720) -2.4%	(35,674) -1.6%	(18,297) -0.8%	(622) 0.0%	16,316 0.7%	33,518 1.4%	49,942 2.0%	97,485 3.8%
Net Revenues	(64,407)	(68,740)	(52,720)	(35,674)	(18,297)	(622)	16,316	33,518	49,942	97,485
Debt Coverage	2.57	2.57	2.59	2.62	2.64	2.67	2.70	2.72	2.75	2.91

**CITY OF BISBEE
WASTEWATER COST OF SERVICE MODEL**

Current 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028

Input Area -- Rate Recommendations

Scenario: 2018 10 12 -- Scenario II -- Annual Adjustments

WW Rate Revenues

WW Rate Revenue

Residential	\$ 1,556,520	\$ 1,578,858	\$ 1,617,356	\$ 1,658,093	\$ 1,699,812	\$ 1,742,536	\$ 1,786,290	\$ 1,831,097	\$ 1,876,981	\$ 1,923,968
Residential Outside	-	-	-	-	-	-	-	-	-	-
Small Retail	87,140	88,590	90,953	93,449	96,008	98,633	101,324	104,084	106,913	109,814
Small Restaurants	17,677	17,839	18,182	18,545	18,916	19,294	19,680	20,074	20,475	20,885
Bars & Restaurants	25,803	26,040	26,539	27,070	27,611	28,163	28,727	29,301	29,887	30,485
Hotels -- Per Room	129,982	131,173	133,688	136,362	139,090	141,871	144,709	147,603	150,555	153,566
Large Retail	76,208	76,906	78,381	79,949	81,548	83,179	84,842	86,539	88,270	90,035
Low Income	42,512	43,248	44,430	45,678	46,958	48,272	49,619	51,001	52,418	53,871
Discounted Low Income	14,522	14,655	14,936	15,235	15,539	15,850	16,167	16,490	16,820	17,157
Mixed Use	73,718	74,394	75,821	77,337	78,884	80,461	82,071	83,712	85,386	87,094
Schools	52,686	53,169	54,188	55,272	56,377	57,505	58,655	59,828	61,025	62,245
Total WW Rate Revenues	2,076,768	2,104,873	2,154,473	2,206,989	2,260,743	2,315,765	2,372,084	2,429,729	2,488,730	2,549,120

Less Revenues to be Raised from Rates:

Residential	\$ 1,631,323	\$ 1,657,131	\$ 1,683,834	\$ 1,712,004	\$ 1,740,892	\$ 1,770,546	\$ 1,801,782	\$ 1,833,859	\$ 1,867,600	\$ 1,878,590
Residential Outside	-	-	-	-	-	-	-	-	-	-
Small Retail	80,818	82,282	83,794	85,384	87,013	88,686	90,442	92,245	94,137	94,885
Small Restaurants	9,578	9,680	9,786	9,900	10,016	10,136	10,263	10,394	10,533	10,543
Bars & Restaurants	8,381	8,470	8,563	8,662	8,764	8,869	8,980	9,095	9,216	9,225
Hotels -- Per Room	226,889	229,300	231,810	234,496	237,252	240,085	243,103	246,204	249,496	249,732
Large Retail	15,966	16,136	16,312	16,501	16,695	16,895	17,107	17,325	17,557	17,573
Low Income	74,233	75,627	77,066	78,578	80,127	81,718	83,386	85,099	86,896	87,637
Discounted Low Income	49,688	50,216	50,766	51,354	51,958	52,578	53,239	53,918	54,639	54,691
Mixed Use	41,906	42,351	42,815	43,311	43,820	44,343	44,900	45,473	46,081	46,125
Schools	2,395	2,420	2,447	2,475	2,504	2,534	2,566	2,598	2,633	2,636
Sub-Total	2,141,175	2,173,613	2,207,193	2,242,663	2,279,041	2,316,387	2,355,767	2,396,211	2,438,788	2,451,635

Rate Revenue Less RRRR:

Residential	(74,803)	(78,273)	(66,478)	(53,911)	(41,080)	(28,010)	(15,492)	(2,763)	9,381	45,379
Residential Outside	-	-	-	-	-	-	-	-	-	-
Small Retail	6,322	6,308	7,158	8,065	8,995	9,947	10,882	11,839	12,776	14,929
Small Restaurants	8,099	8,159	8,395	8,646	8,900	9,159	9,417	9,680	9,943	10,342
Bars & Restaurants	17,422	17,569	17,976	18,408	18,847	19,295	19,747	20,207	20,671	21,260
Hotels -- Per Room	(96,907)	(98,127)	(98,122)	(98,133)	(98,163)	(98,213)	(98,394)	(98,601)	(98,941)	(96,166)
Large Retail	60,242	60,771	62,069	63,447	64,852	66,284	67,735	69,214	70,713	72,462
Low Income	(31,721)	(32,379)	(32,636)	(32,900)	(33,169)	(33,446)	(33,767)	(34,099)	(34,478)	(33,766)
Discounted Low Income	(35,166)	(35,561)	(35,830)	(36,119)	(36,418)	(36,728)	(37,072)	(37,428)	(37,819)	(37,534)
Mixed Use	31,813	32,043	33,006	34,026	35,064	36,119	37,170	38,239	39,305	40,969
Schools	50,291	50,749	51,742	52,797	53,873	54,971	56,089	57,230	58,391	59,609
Rate Revenue less Revenue Rqmt	(64,407)	(68,740)	(52,720)	(35,674)	(18,297)	(622)	16,316	33,518	49,942	97,485

<div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 0 auto; width: 60%;"> CITY OF BISBEE WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Input Area -- Rate Recommendations
Scenario: 2018 10 12 -- Scenario II -- Annual Adjustments

WASTEWATER -- Customer & Usage Data

Customer Class Units -- Base Annual Units

Residential	2,725	2,739	2,753	2,767	2,781	2,795	2,809	2,823	2,837	2,851
Residential Outside	-	-	-	-	-	-	-	-	-	-
Small Retail	135	136	137	138	139	140	141	142	143	144
Small Restaurants	16	16	16	16	16	16	16	16	16	16
Bars & Restaurants	14	14	14	14	14	14	14	14	14	14
Hotels -- Per Room	379	379	379	379	379	379	379	379	379	379
Large Retail	27	27	27	27	27	27	27	27	27	27
Low Income	124	125	126	127	128	129	130	131	132	133
Discounted Low Income	83	83	83	83	83	83	83	83	83	83
Mixed Use	70	70	70	70	70	70	70	70	70	70
Schools	4	4	4	4	4	4	4	4	4	4
Total Wastewater	3,577	3,593	3,609	3,625	3,641	3,657	3,673	3,689	3,705	3,721

Net Annual Fixtures after Minimum:

Residential										
Monthly Customers Billed	2,725	2,739	2,753	2,767	2,781	2,795	2,809	2,823	2,837	2,851
Residential Outside										
Monthly Customers Billed	-	-	-	-	-	-	-	-	-	-
Small Retail										
Monthly Customers Billed	135	136	137	138	139	140	141	142	143	144
Small Restaurants										
Monthly Customers Billed	16	16	16	16	16	16	16	16	16	16
Bars & Restaurants										
Monthly Customers Billed	14	14	14	14	14	14	14	14	14	14
Hotels -- Per Room										
Monthly Customers Billed	379	379	379	379	379	379	379	379	379	379
Large Retail										
Monthly Customers Billed	27	27	27	27	27	27	27	27	27	27
Low Income										
Monthly Customers Billed	124	125	126	127	128	129	130	131	132	133
Discounted Low Income										
Monthly Customers Billed	83	83	83	83	83	83	83	83	83	83
Mixed Use										
Monthly Customers Billed	70	70	70	70	70	70	70	70	70	70
Schools										
Monthly Customers Billed	4	4	4	4	4	4	4	4	4	4
Rounded Net Fixtures after Minimum	3,577	3,593	3,609	3,625	3,641	3,657	3,673	3,689	3,705	3,721

<div style="border: 1px solid black; padding: 5px; display: inline-block;"> CITY OF BISBEE WASTEWATER COST OF SERVICE MODEL </div>											
	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028

Input Area -- Rate Recommendations

Scenario: 2018 10 12 -- Scenario II -- Annual Adjustments

Customer Class Units -- Total Bills

	Current	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Residential	32,700	32,868	33,036	33,204	33,372	33,540	33,708	33,876	34,044	34,212	
Residential Outside	-	-	-	-	-	-	-	-	-	-	-
Small Retail	1,620	1,632	1,644	1,656	1,668	1,680	1,692	1,704	1,716	1,728	
Small Restaurants	192	192	192	192	192	192	192	192	192	192	
Bars & Restaurants	168	168	168	168	168	168	168	168	168	168	
Hotels -- Per Room	4,548	4,548	4,548	4,548	4,548	4,548	4,548	4,548	4,548	4,548	
Large Retail	320	320	320	320	320	320	320	320	320	320	
Low Income	1,488	1,500	1,512	1,524	1,536	1,548	1,560	1,572	1,584	1,596	
Discounted Low Income	996	996	996	996	996	996	996	996	996	996	
Mixed Use	840	840	840	840	840	840	840	840	840	840	
Schools	48	48	48	48	48	48	48	48	48	48	
Total Wastewater	<u>42,920</u>	<u>43,112</u>	<u>43,304</u>	<u>43,496</u>	<u>43,688</u>	<u>43,880</u>	<u>44,072</u>	<u>44,264</u>	<u>44,456</u>	<u>44,648</u>	
	3,577	3,593	3,609	3,625	3,641	3,657	3,673	3,689	3,705	3,721	