

City of Bryant Arkansas



2020 Water and Wastewater Rate Study and Financial Plan



**CITY OF BRYANT, ARKANSAS
WATER AND WASTEWATER RATE STUDY
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Acknowledgements

During the course of this rate study, several City of Bryant employees and engineer consultants expended considerable time and effort in assisting the project team. These employees included Mayor Allen Scott and City Council, Mr. Mark Grimmatt, Ms. Joy Black, Ms. Christina Call, Ms. Angela Shepard and the City engineering consultant Craig Johnson, P.E.. The project team owes a debt of gratitude to the hard work, dedication and professionalism of these and other staff members, without whom this project would not have been successfully completed.

The project team has relied upon the extensive data supplied by the City of Bryant. 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

Background



In September 2020, the City of Bryant, Arkansas (the “City”) engaged **Willdan Financial Services** to conduct a water and wastewater rate study and long-term financial plan. The City was interested in developing an updated comprehensive water and wastewater rate plan for FY 2020 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, 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:

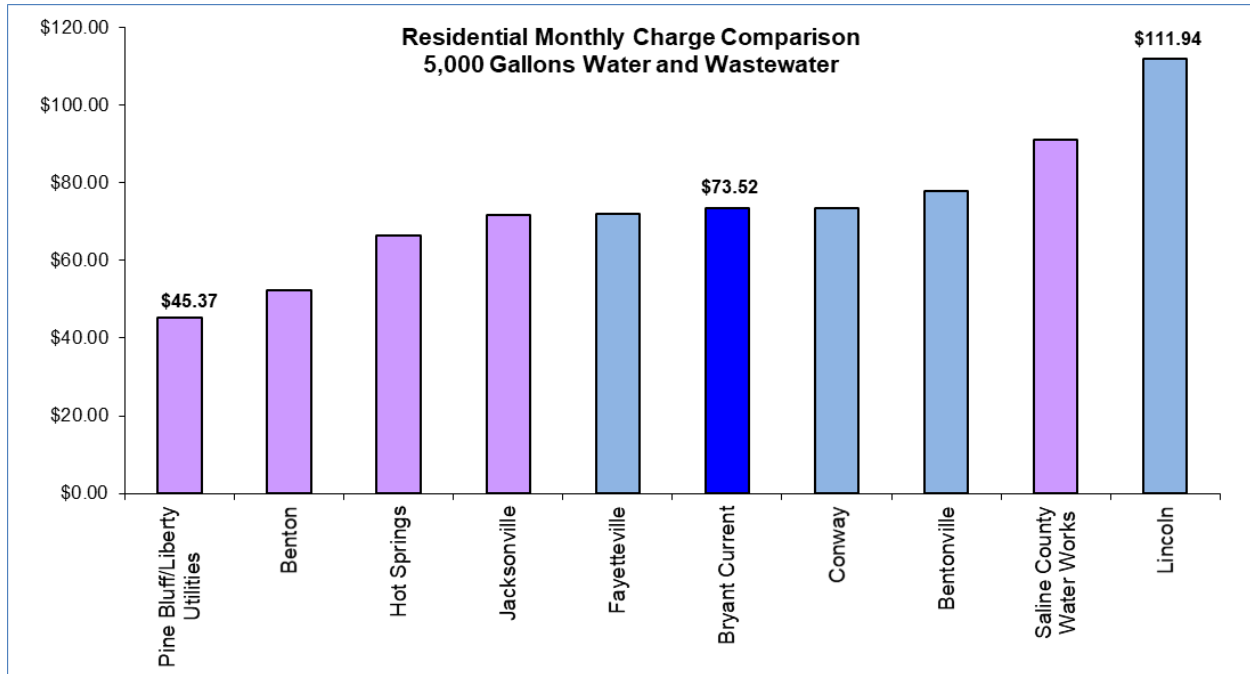
- A comprehensive analysis and evaluation of the water and wastewater systems’ current cost of service and revenue requirements.
- A forecast of operating expenses over the next decade, taking into consideration salient factors such as cost of water and wastewater treatment, inflation, system growth, and increases in staffing levels.
- A thorough review of the water and 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, volumes and billing units for the ten year forecast period.
- An analysis of alternative rate structures for water and 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.

Water and Wastewater Rate Comparison

Chart ES-1 compares Bryant’s current monthly water and wastewater charges to those of nearby cities in Arkansas. A billing volume of 5,000 gallons for water and 5,000 gallons for wastewater was used for the residential comparison as it represents typical usage levels for an average household in the City. The rate data is based on published rates and ordinances posted by each municipality on their websites as of October

2020. 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.

CHART ES-1



Water and Wastewater Customers and Meters – Test Year & Forecast

The majority of the water and wastewater accounts served by Bryant are residential accounts. **Table ES-2** presents total water and wastewater connections (customers) by customer class for the City for the test year and forecast period. As shown, overall water accounts are forecast to increase from **8,659** in the test year to **11,264** in FY 2029, an average annual increase of 3.0%. Similarly, wastewater accounts are forecast to increase from **8,622** in the test year to **11,249** in FY 2029. The addition of these new connections will result in both non-recurring connection fees and increasing monthly water and wastewater revenues.

TABLE ES-2

CITY OF BRYANT AR					
HISTORICAL & FORECAST TOTAL CUSTOMERS					
WATER Customer Classes					
Fiscal Year	Residential & Non-Residential	Multi-Family	Special Contracts Water Exempt	No Charge	Total
WATER Total Customers					
FY 2017	8,187	114	1	8	8,311
FY 2018	8,312	111	6	7	8,437
FY 2019	8,393	111	5	8	8,517
YE Aug. 2020	8,442	111	5	8	8,565
TY 2020	8,536	111	5	7	8,659
FY 2021	8,792	111	5	7	8,915
FY 2022	9,056	111	5	7	9,180
FY 2023	9,328	111	5	8	9,452
FY 2024	9,607	111	6	8	9,732
FY 2025	9,896	111	6	8	10,020
FY 2026	10,192	111	6	8	10,318
FY 2027	10,498	111	6	9	10,624
FY 2028	10,813	111	6	9	10,939
FY 2029	11,138	111	7	9	11,264
WASTEWATER Total Customers					
	Residential & Non-Residential	Quail Ridge	Drain Water	Other4	Total
FY 2017	8,120	1	2	-	8,123
FY 2018	8,308	1	2	-	8,310
FY 2019	8,500	1	2	-	8,503
YE Aug. 2020	8,591	1	2	-	8,594
TY 2020	8,618	1	3	-	8,622
FY 2021	8,877	1	3	-	8,881
FY 2022	9,143	1	3	-	9,147
FY 2023	9,417	1	3	-	9,421
FY 2024	9,700	1	3	-	9,704
FY 2025	9,991	1	3	-	9,995
FY 2026	10,290	1	3	-	10,294
FY 2027	10,599	1	3	-	10,603
FY 2028	10,917	1	3	-	10,921
FY 2029	11,245	1	3	-	11,249

Net Revenue Requirement

Table ES-3 presents the City’s forecast Net Revenue Requirement for the ten-year period FY 2020 through FY 2029. The table reveals that the total revenue requirement is expected to increase from \$7,491,281 in FY 2020 to \$10,610,645 in FY 2029. 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 2020 and the forecast period.

TABLE ES-3

CITY OF BRYANT AR								
CURRENT AND FORECAST NET REVENUE REQUIREMENT								
	Operating & Capital Expenses	CAW Costs	Capital Outlays	Debt Service	Transfers & Contingencies	Total Cost of Service	Less Non-Rate Revenues	Net Revenue Requirement
WATER Revenue Requirement								
2020	\$ 1,663,203	\$ 1,444,687	\$ 502,000	\$ 616,221	\$ 97,000	\$ 4,323,111	\$ 994,291	\$ 3,328,820
2021	1,766,671	1,324,106	503,530	613,799	97,000	4,305,106	1,008,150	3,296,956
2022	1,901,931	1,391,678	505,083	615,049	97,000	4,510,741	1,014,600	3,496,141
2023	1,965,444	1,462,150	601,659	491,398	97,000	4,617,652	1,021,333	3,596,318
2024	2,113,311	1,535,635	603,259	490,636	97,000	4,839,841	1,028,365	3,811,477
2025	2,184,654	1,612,255	612,308	492,230	97,000	4,998,447	1,035,707	3,962,740
2026	2,346,503	1,692,132	621,493	491,261	97,000	5,248,388	1,043,375	4,205,013
2027	2,426,649	1,775,396	630,815	491,446	97,000	5,421,305	1,051,384	4,369,921
2028	2,604,033	1,862,180	640,277	491,596	97,000	5,695,086	1,059,749	4,635,337
2029	2,694,097	1,952,624	649,881	491,609	97,000	5,885,211	1,068,488	4,816,723
WASTEWATER Revenue Requirement								
2020	2,837,835	-	101,909	1,116,617	120,000	4,176,361	13,900	4,162,461
2021	2,984,627	-	103,438	1,380,214	120,000	4,588,279	13,900	4,574,379
2022	3,148,251	-	104,989	1,521,897	120,000	4,895,137	13,900	4,881,237
2023	3,258,264	-	106,564	1,148,145	120,000	4,632,973	13,900	4,619,073
2024	3,436,909	-	108,162	1,319,262	120,000	4,984,334	13,900	4,970,434
2025	3,558,232	-	109,785	1,320,643	120,000	5,108,660	13,900	5,094,760
2026	3,753,525	-	111,432	1,319,136	120,000	5,304,093	13,900	5,290,193
2027	3,887,472	-	113,103	1,320,690	120,000	5,441,264	13,900	5,427,364
2028	4,101,254	-	114,800	1,321,742	120,000	5,657,796	13,900	5,643,896
2029	4,249,322	-	116,522	1,321,978	120,000	5,807,822	13,900	5,793,922
TOTAL Revenue Requirement								
2020	4,501,038	1,444,687	603,909	1,732,838	217,000	8,499,472	1,008,191	7,491,281
2021	4,751,299	1,324,106	606,968	1,994,012	217,000	8,893,385	1,022,050	7,871,334
2022	5,050,182	1,391,678	610,072	2,136,945	217,000	9,405,877	1,028,500	8,377,378
2023	5,223,708	1,462,150	708,223	1,639,543	217,000	9,250,625	1,035,233	8,215,391
2024	5,550,220	1,535,635	711,422	1,809,898	217,000	9,824,175	1,042,265	8,781,910
2025	5,742,886	1,612,255	722,093	1,812,873	217,000	10,107,107	1,049,607	9,057,500
2026	6,100,027	1,692,132	732,924	1,810,397	217,000	10,552,481	1,057,275	9,495,206
2027	6,314,121	1,775,396	743,918	1,812,135	217,000	10,862,570	1,065,284	9,797,286
2028	6,705,288	1,862,180	755,077	1,813,337	217,000	11,352,882	1,073,649	10,279,233
2029	6,943,419	1,952,624	766,403	1,813,587	217,000	11,693,033	1,082,388	10,610,645

As shown in these charts, Operating and Capital Outlay expenses are by far the largest annual expense paid by Bryant’s water and wastewater utilities. **Any changes in forecast estimates used in determining the City’s water and 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 City’s CIP assumptions are summarized in **Table ES-4**. The table reveals that the City’s CIP over the next five years is estimated to be **\$13,441,100** for the wastewater system (there are no CIP projects planned for the water system). The City anticipates funding a portion of the CIP with rate revenue and use of in-house labor and equipment. Additional funding is forecasted to come from bond issues totaling \$8,500,000.

Table ES-4

CITY OF BRYANT AR	
Capital Improvement Program	
	Cost
WASTEWATER PROJECTS	
SSES, Rehab & Validation Basins BR-02	\$ 1,340,000
SSES, Rehab & Validation Basins BR-01	1,773,000
Rehab & Validation Basins BR-05, BR-06, BR-07 & Unmonitored Area South	1,428,000
Basi 05 Pipeline Improvements	567,100
Future Project	-
OTHER CIP PROJECTS	8,333,000
TOTAL WATER PROJECTS	\$ 13,441,100

It should be noted that if the City materially revises its CIP, the rate plan may be subject to potentially significant revision.

Water and Wastewater Rate Design

Based on an extensive series of discussions with the City, the project team is presenting the following rate plan for the City Council to consider. The following is notable regarding the proposed rate plan:

- While the rate models present a forecast of rates for ten years, the project team recommends that the City adopt a 5-year rate plan, with rates to be automatically implemented annually on January 1 2021 through January 1 2025.
- Given the significant growth in the City and potential for unexpected events the project team recommends that the City periodically review these rates during the next five years, to incorporate any changes to costs, volumes or growth assumptions that may occur during that time.
- Further, the project team recommends the City Council adopt an ordinance that contains a provision allowing for 3% annual increases for the five-year period beyond FY 2025 or until a new rate plan is adopted. This will enhance the utilities ability to meet inflation costs and will also allow the City to issue as much as \$23 million in additional utility debt for future capital projects.
- The most significant impact on rates will be the cost of operating expense that includes the use of utility staff in-house labor and equipment to accomplish a significant portion of the utilities CIP. Should the City make material changes to its operating expenses and/or CIP, the City should undertake an immediate review of its rate plan.

- The second largest impact on rates will be debt issued to fund the CIP. The initial cost of service and rate proposal assumes that the Utility rate adjustments will be funded on a stand-alone basis, whereby debt service will be fully funded through rates.
- Three alternative bond financing scenarios were prepared by the City's financial advisor for an anticipated 2021 bond issue. These alternatives were evaluated as part of this rate study. The project team found that the results of the three alternative bond financing scenarios produced only nominal changes to five-year rate plan. Thus, there are no changes to the recommended rate plan.
- Finally, the project team recommends the City continue using the existing water and wastewater rate structure. This rate structure is effective and easily understood by customers.

Uniform adjustments are applied to the water and wastewater's existing base and volumetric rates for each rate class. There is no change to the basic rate structure other than the uniform annual adjustments in the rate plan. The rate plan and forecast revenues and expenses under this scenario is presented in **Appendix A**.

Table ES-5 presents a summary of the rate plan proposed for water customers. **Table ES-6** presents a summary of the rate plan proposed for wastewater customers. **Table ES-7** presents the customer rate impact assuming the proposed rate plan is adopted by City Council.



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TABLE ES-5

CITY OF BRYANT AR		PROPOSED WATER AND WASTEWATER RATE PLAN					
		Current	Effective				
		Jan-21	Jan-22	Jan-23	Jan-24	Jan-25	
WATER							
Residential; Non-Res. \$ Multi-Family							
<u>Monthly Minimum Charge</u>							
	\$	11.96	\$ 13.04	\$ 13.69	\$ 13.96	\$ 14.24	\$ 14.53
1"		17.95	19.57	20.54	20.95	21.37	21.80
1 1/2"		29.91	32.60	34.23	34.92	35.61	36.33
2"		59.82	65.20	68.46	69.83	71.23	72.65
3"		95.71	104.32	109.54	111.73	113.97	116.24
4"		179.46	195.61	205.39	209.50	213.69	217.96
6"		598.19	652.03	684.63	698.32	712.29	726.53
<u>Volume Rate Per 100 Gal</u>							
2,000	Above	0.575	0.627	0.658	0.671	0.685	0.698
Special Contracts Water Exempt							
<u>Monthly Minimum Charge</u>							
5/8"		11.96	13.04	13.69	13.96	14.24	14.53
1"		17.95	19.57	20.54	20.95	21.37	21.80
1 1/2"		29.91	32.60	34.23	34.92	35.61	36.33
2"		59.82	65.20	68.46	69.83	71.23	72.65
Compound/Woodland Hills		-	-	-	-	-	-
<u>Volume Rate Per 100 Gal</u>							
2,000	Above	0.195	0.213	0.224	0.228	0.233	0.237

TABLE ES-6

CITY OF BRYANT AR		PROPOSED WATER AND WASTEWATER RATE PLAN					
		Current	Effective				
		Jan-21	Jan-22	Jan-23	Jan-24	Jan-25	
WASTEWATER							
Residential & Non-Residential Inside							
<u>Monthly Minimum Charge</u>							
	\$	17.04	\$ 18.57	\$ 19.50	\$ 19.89	\$ 20.29	\$ 20.70
<u>Volume Rate/100 Gal</u>							
		0.909	0.991	1.040	1.061	1.082	1.104
Quail Ridge							
<u>Monthly Minimum Charge</u>							
		3,445.17	3,755.24	3,943.00	4,021.86	4,102.29	4,184.34
<u>Volume Rate/100 Gal</u>							
		-	-	-	-	-	-
Drain Water County Landfi C County Landfill							
<u>Monthly Minimum Charge</u>							
		-	-	-	-	-	
<u>Volume Rate/Gallon</u>							
		0.0525	0.0551	0.0579	0.0608	0.0638	0.0670

TABLE ES-7

		IMPACT OF RATE PLAN ON MONTHLY CHARGES					
		Current	Effective				
		Jan-21	Jan-22	Jan-23	Jan-24	Jan-25	
Residential Monthly Charges – 3/4"							
4,000 Water	4,000 WW	\$ 58.68	\$ 63.96	\$ 67.16	\$ 68.50	\$ 69.87	\$ 71.27
	Increase -- \$		5.28	3.20	1.34	1.37	1.40
	Increase -- %		9.0%	5.0%	2.0%	2.0%	2.0%
5,000 Water	5,000 WW	73.52	80.14	84.14	85.83	87.54	89.29
	Increase -- \$		6.62	4.01	1.68	1.72	1.75
	Increase -- %		9.0%	5.0%	2.0%	2.0%	2.0%
10,000 Water	5,000 WW	102.27	111.47	117.05	119.39	121.78	124.21
	Increase -- \$		9.20	5.57	2.34	2.39	2.44
30,000 Water	5,000 WW	217.27	236.82	248.67	253.64	258.71	263.89
	Increase -- \$		19.55	11.84	4.97	5.07	5.17
Commercial Monthly Charges – 2"							
40,000 Water	40,000 WW	\$ 640.78	\$ 698.45	\$ 733.37	\$ 748.04	\$ 763.00	\$ 778.26
	Increase -- \$		57.67	34.92	14.67	14.96	15.26

SECTION I

Introduction and Demographic Profile

Background



Figure 1 - Source:
<https://www.pinterest.com/pin/478577897871878331/>

In September 2020, the City of Bryant, Arkansas (the “City”) engaged **Willdan Financial Services** to conduct a water and wastewater rate study and long-term financial plan. The City was interested in developing an updated comprehensive water and wastewater rate plan for FY 2020 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 water and 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 water and 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, volumes and billing units for the ten-year forecast period.
- An analysis of alternative multi-year water and 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 Bryant. This includes a comparison of the City’s water and wastewater charges with other local communities.

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

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

Section IV – Water and Wastewater Rate Design – presents rate recommendations for the City of Bryant City 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 proposed rate plan.

Appendix A – presents a hard copy printout of the interactive Microsoft Excel spreadsheet model summary developed for the City of Bryant to calculate water and 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



Figure 2 - <https://www.cityofbryant.com/1463/Welcome-to-Bryant>

The City of Bryant is located in the geographic center of Arkansas. The City is approximately 9.1¹ square miles and has an estimated 2019 population of 20,968². The City is located in Saline County.

The City of Bryant has a Mayor-Council form of government in which the elected Mayor serves as the City’s chief administrative officer. The City Council Members establish and adopt City policies. Those policies are then implemented by the Mayor and City Staff. The Bryant City Council consists of eight aldermen, two are elected by, and represent, each of the four City

wards. The Mayor is elected at large.

¹ Wikipedia - https://en.wikipedia.org/wiki/Bryant,_Arkansas

² US Census Bureau - <https://www.census.gov/quickfacts/bryantcityarkansas>

The Mayor operates in much the same way as a Chief Executive Officer of a corporation. The Mayor's Office is responsible for the day-to-day administration of Bryant's City government, including managing the City's budget, departments and operations, and programs for communicating with residents and employees.

Water and Wastewater Current Rates

Table I-1 summarizes the City of Bryant's current water and wastewater rate structure.

TABLE I-1

CITY OF BRYANT AR				
CURRENT WATER AND WASTEWATER RATES				
Water Rates			Wastewater Rates	
Residential, Multi-Family & Non-Residential			Residential & Non-Residential	
Minimum Charge by Meter Size			Minimum Charge	
(Includes 2,000 Gallons in Base)	5/8"	\$ 11.96	(Includes 2,000 Gallons in Base)	\$ 17.04
	1"	17.95		
	1 1/2"	29.91	Volume Rate (per 100 Gallons)	
	2"	59.82	2,000 Above	\$ 0.909
Volume Rate (per 100 Gallons)			Quail Ridge	
2,000	Above	\$ 0.575	Minimum Charge	\$ 3,445.17
Special Contracts Water Exempt			Saline County Landfill	
Minimum Charge by Meter Size			Minimum Charge by Meter Size	
	5/8"	\$ 11.96		\$ -
	1"	17.95	Volume Rate (per Gallon)	\$ 0.0525
	1 1/2"	29.91		
Compound/Woodland Hills			-	
Volume Rate (per 100 Gallons)				
Commercial	1	Above	\$	0.195

The City of Bryant last adjusted its rates effective with the March 2018 billing cycle. The water rate structure assesses a base charge that increases based on meter size for all rate classes except compound meters and Woodland Hills. All water customers are charged a uniform volume rate per 100 gallons for metered water.

Residential and Non-Residential wastewater accounts are billed a base charge and uniform rate per 100 gallons of metered water consumed. The City has a contract with the Saline County landfill to treat leachate trucked from the landfill. The City charges a uniform rate per gallon to treat the waste delivered to its wastewater treatment facility.

Water and Wastewater Rate Comparison

Chart I-2 and Table I-3 compare the City’s monthly water and wastewater charges to surrounding communities in Arkansas. Volumes of 5,000 gallons for water and 5,000 gallons for wastewater were used for the residential comparison as it represents typical usage levels for an average household in the City. The comparison is based on inside residential rates for neighboring communities. The rate data is based on published rates and ordinances posted by each municipality on their website. These rates do not include sales tax, activation or other charges beyond the basic minimum and volume charges.

The following points are also notable:

- Many cities do not assess rates that recover the full cost of service, choosing instead to subsidize their water and wastewater utilities with other revenues or to defer needed repairs and maintenance at the expense of system reliability and integrity.
- Some cities use tax bonds to fund water/wastewater system construction. This results in lower rates but higher ad valorem taxes.

CHART I-2

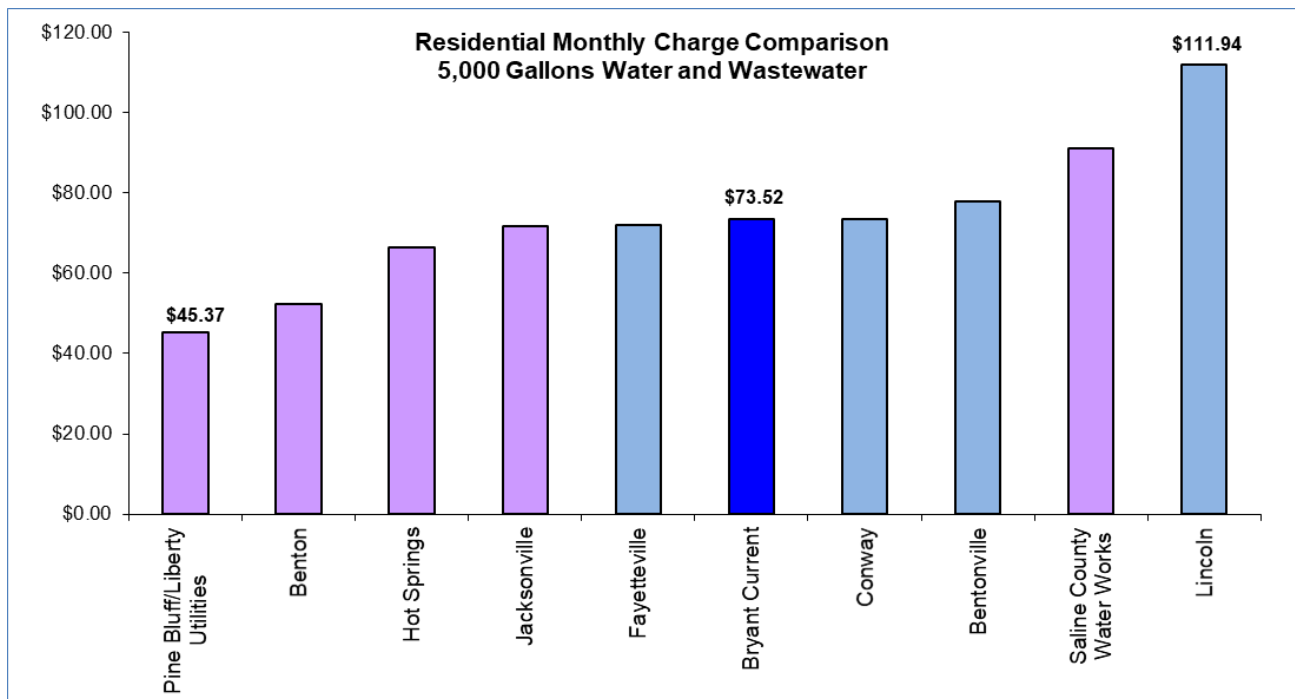


TABLE I-3

CITY OF BRYANT AR

**MONTHLY RESIDENTIAL CHARGES
5,000 GALLONS WATER; 5,000 GALLONS WASTEWATER**

	Water	Wastewater	Total
Bryant	\$ 29.21	\$ 44.31	\$ 73.52
Benton	22.69	29.78	52.47
Hot Springs	23.00	43.44	66.44
Pine Bluff/Liberty Utilities	28.68	16.69	45.37
Fayetteville	23.77	48.27	72.04
Conway (Corp)	21.42	51.13	72.55
Lincoln	70.06	41.88	111.94
Saline County Water Works	42.00	49.17	91.17

Source: Cities' Website



Section II

SECTION II

Water & Wastewater Test Year and Forecast Volumes



Figure 3 - <https://www.arkansasonline.com/news/2014/sep/25/residents-and-others-explain-what-makes-bryant-uni/>

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

For the City of Bryant, monthly water and wastewater records were reviewed for the period January 2017 through August 2020. These records provided summary information on the monthly water volumes distributed system-wide as well as the number of accounts for each period by defined customer class and the associated revenues.

Additionally, these records provided the number of accounts and revenues monthly for all classifications of wastewater customers.

According to standard utility ratemaking methodology, in order to allocate revenue requirements equitably among system users, customers must be classified into relatively homogeneous groups with similar usage characteristics or service demands. Costs are then allocated to the customer classes in proportion to the usage characteristics of each class. For the water system, costs are typically allocated to customers based on their average and peak water demands. For the wastewater system, costs are allocated to customers based on their estimated wastewater flows, and in some cases, based on wastewater strengths.

After thoroughly examining volume and 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 usage patterns.

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

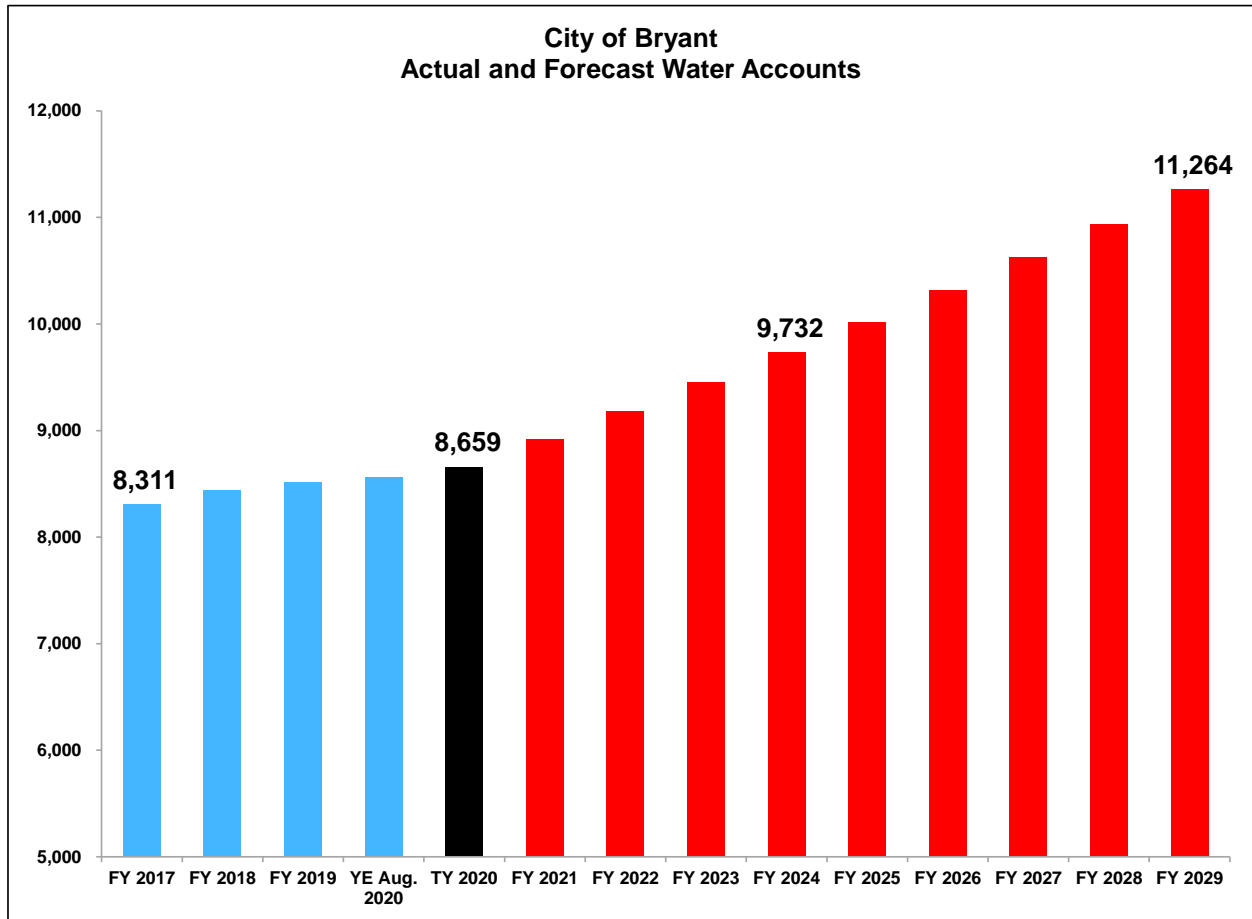
Water and Wastewater Customers and Meters – Test Year & Ten-Year Forecast

The majority of the water accounts served by Bryant are residential and non-residential accounts, with the balance being multi-family and special contract 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 BRYANT AR					
FORECAST TOTAL CUSTOMERS					
WATER Customer Classes					
Fiscal Year	Residential & Non-Residential	Multi-Family	Special Contracts Water Exempt	No Charge	Total
WATER Total Customers					
FY 2017	8,187	114	1	8	8,311
FY 2018	8,312	111	6	7	8,437
FY 2019	8,393	111	5	8	8,517
YE Aug. 2020	8,442	111	5	8	8,565
TY 2020	8,536	111	5	7	8,659
FY 2021	8,792	111	5	7	8,915
FY 2022	9,056	111	5	7	9,180
FY 2023	9,328	111	5	8	9,452
FY 2024	9,607	111	6	8	9,732
FY 2025	9,896	111	6	8	10,020
FY 2026	10,192	111	6	8	10,318
FY 2027	10,498	111	6	9	10,624
FY 2028	10,813	111	6	9	10,939
FY 2029	11,138	111	7	9	11,264
WATER Annual New Customers					
FY 2018	125	(3)	5	(1)	126
FY 2019	81	-	(1)	0	80
YE Aug. 2020	49	-	(0)	-	49
TY 2020	94	-	0	(1)	94
FY 2021	256	-	0	0	256
FY 2022	264	-	0	0	264
FY 2023	272	-	0	0	272
FY 2024	280	-	0	0	280
FY 2025	288	-	0	0	289
FY 2026	297	-	0	0	297
FY 2027	306	-	0	0	306
FY 2028	315	-	0	0	315
FY 2029	324	-	0	0	325

CHART II-2



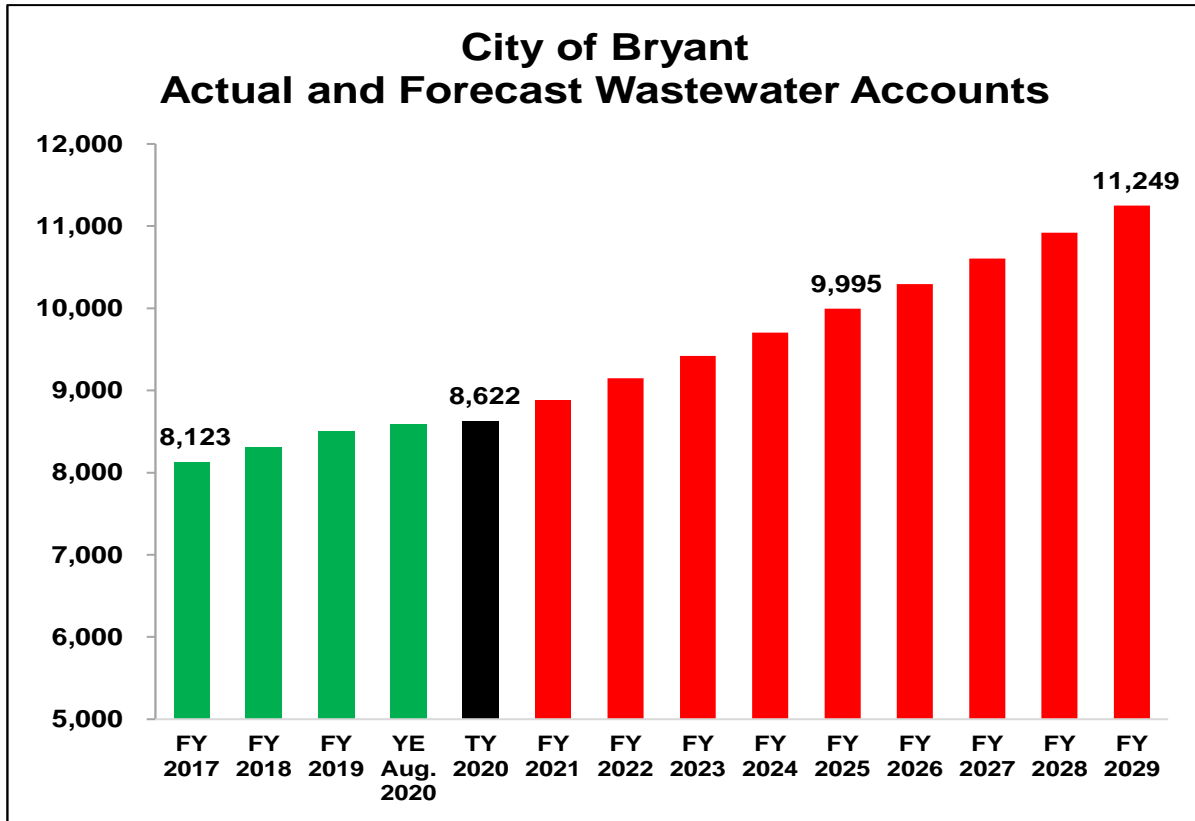
For each of the historical years, the average number of accounts for the year is shown and the growth reflects the difference from one fiscal year end to the next. Overall water accounts are forecast to increase from **8,659** in the test year to **11,264** in FY 2029, an average annual increase of 3.0% for Residential and Non-Residential customers. The number of multi-family and special contract accounts are not expected to grow during the rate plan period.

Table II-3 and **Chart II-4** present the project team’s ten-year forecast of wastewater account growth. Wastewater accounts are forecast to increase **8,622** in the test year to **11,249** in FY 2029.

TABLE II-3

CITY OF BRYANT AR				
FORECAST TOTAL CUSTOMERS				
WASTEWATER Customer Classes				
	Residential & Non- Residential	Quail Ridge	Drain Water	Total
WASTEWATER Total Customers				
FY 2017	8,120	1	2	8,123
FY 2018	8,308	1	2	8,310
FY 2019	8,500	1	2	8,503
YE Aug. 2020	8,591	1	2	8,594
TY 2020	8,618	1	3	8,622
FY 2021	8,877	1	3	8,881
FY 2022	9,143	1	3	9,147
FY 2023	9,417	1	3	9,421
FY 2024	9,700	1	3	9,704
FY 2025	9,991	1	3	9,995
FY 2026	10,290	1	3	10,294
FY 2027	10,599	1	3	10,603
FY 2028	10,917	1	3	10,921
FY 2029	11,245	1	3	11,249
WASTEWATER Annual New Customers				
FY 2018	188	-	(0)	188
FY 2019	192	-	0	192
YE Aug. 2020	91	-	0	91
TY 2020	27	-	1	28
FY 2021	259	-	-	259
FY 2022	266	-	-	266
FY 2023	274	-	-	274
FY 2024	283	-	-	283
FY 2025	291	-	-	291
FY 2026	300	-	-	300
FY 2027	309	-	-	309
FY 2028	318	-	-	318
FY 2029	328	-	-	328

CHART II-4



Historical and Forecast Water Consumption

Total water system consumption data was analyzed over the same time period as customer data. A combination of consumption over the past 12 months and historical trends was used as the basis for the development of the forecast water and wastewater usage within the rate model.

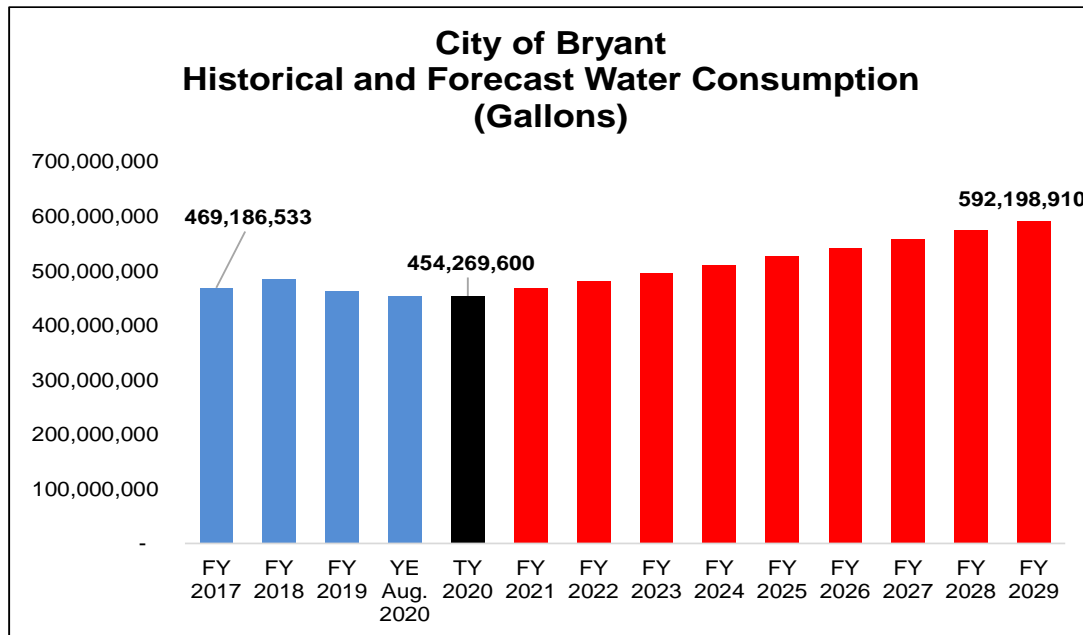
The project team prepared a ten-year forecast of water usage based on the same principles on which customer accounts were projected. The results of this forecast for water usage are presented in **Table II-5** and **Chart II-6**.

Water usage is expected to increase at an average annual rate of approximately 3% over the next decade. By FY 2029 water usage is expected to reach **592,198,910** gallons.

TABLE II-5

CITY OF BRYANT AR					
FORECAST BILLED CONSUMPTION					
WATER Customer Classes					
	Residential & Non-Residential	Multi-Family	Special Contracts Water Exempt	No Charge	Total
WATER Historical Volume					
FY 2017	434,863,033	3,123,700	27,369,000	3,830,800	469,186,533
FY 2018	445,748,800	2,746,500	32,534,600	3,643,400	484,673,300
FY 2019	427,356,400	2,217,800	30,173,600	2,718,800	462,466,600
YE Aug. 2020	419,960,700	1,705,800	30,484,800	2,118,300	454,269,600
WATER Forecast Volume					
TY 2020	419,960,700	1,705,800	30,484,800	2,118,300	454,269,600
FY 2021	432,559,521	1,705,800	31,399,344	2,181,849	467,846,514
FY 2022	445,536,307	1,705,800	32,341,324	2,247,304	481,830,735
FY 2023	458,902,396	1,705,800	33,311,564	2,314,724	496,234,483
FY 2024	472,669,468	1,705,800	34,310,911	2,384,165	511,070,344
FY 2025	486,849,552	1,705,800	35,340,238	2,455,690	526,351,280
FY 2026	501,455,038	1,705,800	36,400,445	2,529,361	542,090,645
FY 2027	516,498,689	1,705,800	37,492,459	2,605,242	558,302,190
FY 2028	531,993,650	1,705,800	38,617,233	2,683,399	575,000,082
FY 2029	547,953,460	1,705,800	39,775,750	2,763,901	592,198,910

CHART II-6



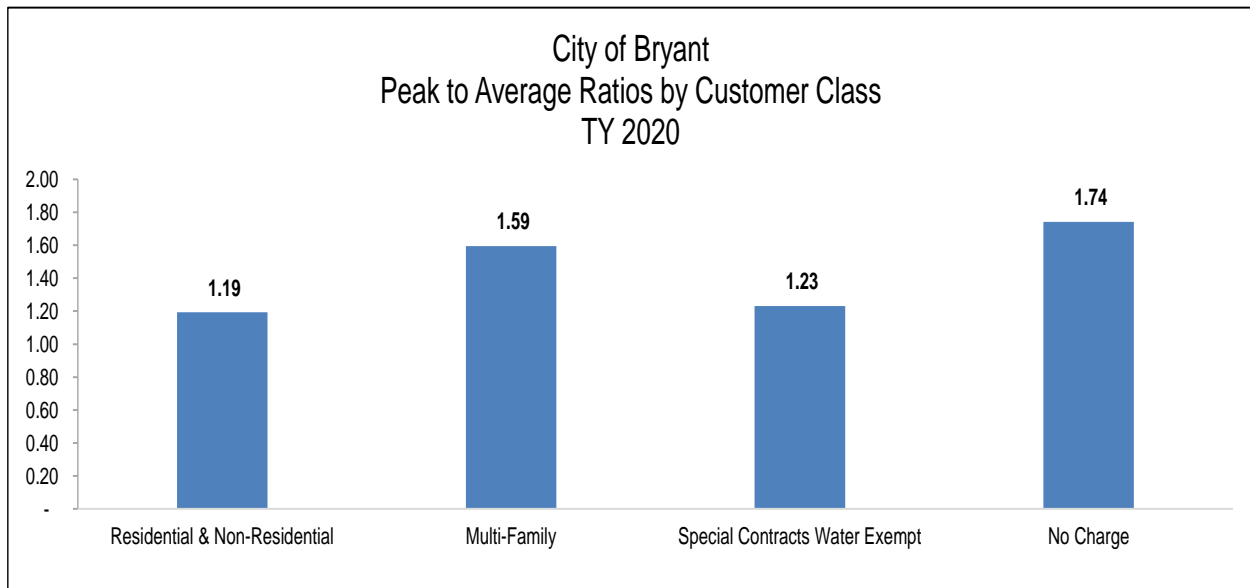
Peaking Factors

The cost of providing water to customers depends not only on the amount of water each class uses, but also on how that usage occurs over time. The maximum-day and maximum-hour peaking requirements of a water utility’s customers are an important influence on the utility’s costs. Because water utilities attempt to meet all of the demands of their customers, water systems are sized to meet customers’ peak requirements. Therefore, during off-peak periods, there are usually significant costs associated with the unused capacity of the system. These costs must be allocated to customers in proportion to the contribution of each customer class to the system peak, in order to develop equitable cost-based rates. Thus, it is necessary to determine the peak rate of use relative to the average rate of use for each class. This ratio is called a **Peaking Factor**.

The calculation of peaking factors for individual classes relies on available pumping and consumption information as well as professional judgment. If customer meters could record daily flow rates for each customer, more refined information could be obtained on peaking factors. This is not feasible because of the enormous cost that would be imposed on the utility. Therefore, it is accepted practice in the water industry to develop peaking factor estimates based on standard formulas using system peak day information and monthly customer class usage records. This is a conservative methodology, since customer class peaking factors based on peak months will inevitably be lower than the system-wide peaking factor, which is based on the peak day.

Based on AWWA guidelines, the customer class peaking factors calculated in this study are for non-coincidental peaks. The peaking factors developed for this analysis are based on the annualized water consumption by customer class for Test Year Ending December 2020. The calculations of the peaking factors by class are presented graphically in **Chart II-7**.

CHART II-7



Section III

SECTION III

Water & Wastewater Forecast Revenue Requirement



Figure 4 - <https://www.cityofbryant.com/>

In this section of the water and wastewater rate study and long-term financial plan, the City of Bryant's test year and forecast water and wastewater utility revenue requirements are developed. The test year consists of the City's fiscal year, January 1, 2020 through December 31, 2020. The estimates presented in this section are based on the City's proposed budget for FY 2020.

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 Bryant's system revenue requirements were developed using the cash basis of ratemaking. Under the cash basis, as defined by the 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. For rate design purposes, revenue requirements are developed separately for the water and wastewater systems.

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 2020 water system operating expenses and capital outlays in detail by expense category item. **Table III-2** presents the test year FY 2020 operating expenses and capital outlays in detail by expense category item for the wastewater system.

The following is noteworthy about these tables:

- There are two (2) departments within the City's Water Operating Fund (510), each with their own budget: Water Department (510-0900) and Wastewater Department (510-0950).
- Each department's 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.
 - **Operations Expense**, which captures administrative expenses associated with the management of the water and wastewater system, such as dues and subscriptions, permit fees and sales tax expense.
 - **Building and Grounds Expense**, includes utility costs and repair and maintenance of buildings and grounds.
 - **Supply Expense**, which includes postage, office and operating supplies, chemicals, and the cost of water purchased from Central Arkansas Water (CAW).
 - **Vehicle Expense** includes fuel, repairs and insurance expense for department vehicles.
 - **Professional Services**, these expenses include such items as financial audits, engineering services and other consulting.
 - **Miscellaneous Expense** includes computer hardware and software expense and depreciation.
 - **Water Bond and Fixed Assets**, include bond principal and interest payments and improvement projects and equipment purchased with rate revenues.

Tables III-1 and **III-2** also allocate total budget expenses between the water and wastewater functions based on function and general ratemaking principles. As the tables show, total operating expenses, transfers, and capital outlays in the test year are **\$6,766,634**, of which \$3,706,890 is for the water utility and \$3,059,744 is for the wastewater utility.

TABLE III-1

CITY OF BRYANT AR						
SCENARIO: 2021 04 02 -- Scenario 1 Bond Analysis						
	Net Budget	Treatment	Distribution	Admin	Customer Billing	
Operating & Maintenance						
Personnel Svcs	\$ 795,828	\$ -	\$ 716,246	\$ -	\$ 79,583	
Building & Grounds Exp	107,298	-	85,424	17,062	4,812	
Supply Expense	231,300	-	189,100	7,200	35,000	
Operations Expense	355,600	-	1,500	332,500	21,600	
Professional Services	64,812	-	51,562	12,125	1,125	
Miscellaneous Expense	46,860	-	42,174	-	4,686	
Vehicle Expense	61,504	-	31,252	15,126	15,126	
CAW Water Supply	1,444,687	1,444,687	-	-	-	
Total Operating & Maintenance	3,107,890	1,444,687	1,117,258	384,013	161,932	
Transfers	97,000	-	97,000	-	-	
Capital Outlays	502,000	-	502,000	-	-	
Total WATER Operating Expenses, Transfers and Capital Outlays	\$ 3,706,890	\$ 1,444,687	\$ 1,716,258	\$ 384,013	\$ 161,932	

TABLE III-2

CITY OF BRYANT AR						
SCENARIO: 2021 04 02 -- Scenario 1 Bond Analysis						
	Net Budget	Treatment	Collection	Admin	Customer Billing	
Operating & Maintenance						
Personnel Svcs	\$ 1,233,925	\$ 555,266	\$ 555,266	\$ -	\$ 123,393	
Building & Grounds Exp	463,015	318,261	132,311	10,235	2,208	
Supply Expense	556,300	385,000	142,500	10,800	18,000	
Vehicle Expense	96,193	-	96,193	-	-	
Operations Expense	366,590	1,250	328,540	15,600	21,200	
Professional Services	56,312	19,250	20,562	12,750	3,750	
Miscellaneous Expense	65,500	16,375	16,375	16,375	16,375	
Total Operating & Maintenance	2,837,835	1,295,402	1,291,748	65,760	184,926	
Transfers	120,000	-	120,000	-	-	
Capital Outlays	101,909	86,909	15,000	-	-	
Total WATER Operating Expenses, Transfers and Capital Outlays	\$ 3,059,744	\$ 1,382,311	\$ 1,426,748	\$ 65,760	\$ 184,926	

Cost of Service – Ten Year Forecast

Table III-3 presents the water and wastewater utility operating expense, transfers, debt service and capital outlay forecast for the ten-year period FY 2020 – FY 2029. 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:

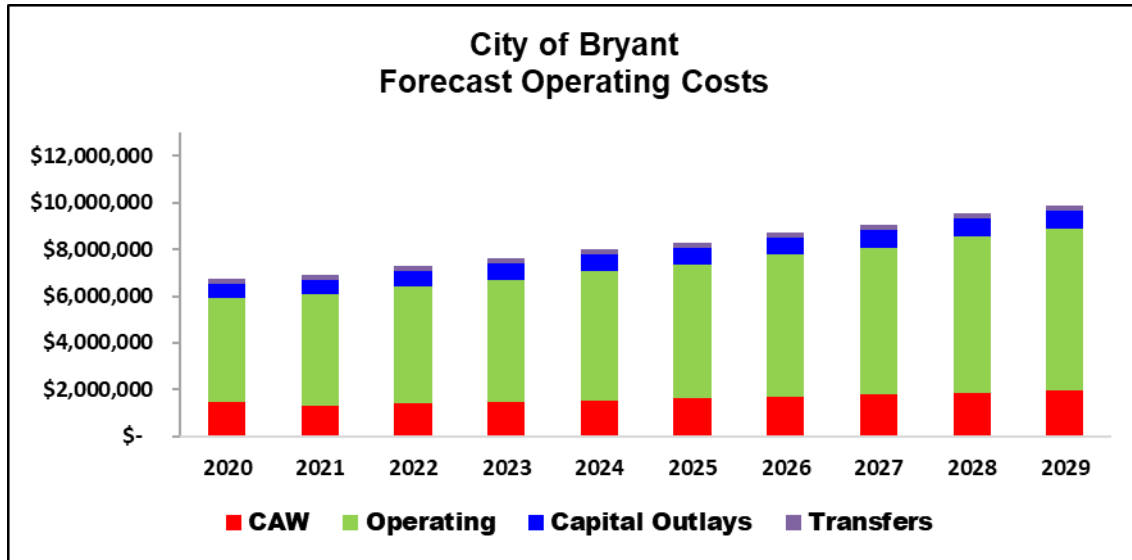
- Most operating costs are expected to increase at an annual rate of 3.0%, which is approximately equivalent to the rate of inflation.
- Certain expenses will increase at above-inflation rates, to reflect the rapid rate of increase of these costs. These expenses include chemicals, workers compensation, Medicare, and insurance.
- Personnel expenses will increase at higher rates to reflect the forecast growth in number of employees.
- The City recently renegotiated the rate charged for treated water purchased from CAW. The revised purchase water charges are expected to decrease from previous charges. CAW forecast rate is based on a CAW estimate for 2021 and the most recent historical increases implemented by CAW for 2022 and beyond.

TABLE III-3

CITY OF BRYANT AR						
FORECAST OPERATING EXPENSES AND CAPITAL OUTLAYS						
SCENARIO:						
2021 04 02 – Scenario 1 Bond Analysis						
	Operating Expenses	CAW Payments	Capital Outlays	Transfers & Contingencies	Total Operating & Capital Exp.	
WATER Revenue Requirement						
2020	\$ 1,663,203	\$ 1,444,687	\$ 502,000	\$ 97,000	\$ 3,706,890	
2021	1,766,671	1,324,106	503,530	97,000	3,691,308	
2022	1,901,931	1,391,678	505,083	97,000	3,895,692	
2023	1,965,444	1,462,150	601,659	97,000	4,126,253	
2024	2,113,311	1,535,635	603,259	97,000	4,349,205	
2025	2,184,654	1,612,255	612,308	97,000	4,506,217	
2026	2,346,503	1,692,132	621,493	97,000	4,757,127	
2027	2,426,649	1,775,396	630,815	97,000	4,929,860	
2028	2,604,033	1,862,180	640,277	97,000	5,203,491	
2029	2,694,097	1,952,624	649,881	97,000	5,393,602	
WASTEWATER Revenue Requirement						
2020	\$ 2,837,835	\$ -	\$ 101,909	\$ 120,000	\$ 3,059,744	
2021	2,984,627	-	103,438	120,000	3,208,065	
2022	3,148,251	-	104,989	120,000	3,373,240	
2023	3,258,264	-	106,564	120,000	3,484,828	
2024	3,436,909	-	108,162	120,000	3,665,072	
2025	3,558,232	-	109,785	120,000	3,788,017	
2026	3,753,525	-	111,432	120,000	3,984,957	
2027	3,887,472	-	113,103	120,000	4,120,575	
2028	4,101,254	-	114,800	120,000	4,336,054	
2029	4,249,322	-	116,522	120,000	4,485,844	

Chart III-4 the total water and wastewater annual cost of service through FY 2029. This includes operating expenses, capital outlays, transfers, and debt service.

CHART III-4



As shown in these charts, operating charges are by far the largest annual expense paid by Bryant’s water and wastewater utilities. Labor and equipment charges used to accomplish capital improvement projects “in-house” in lieu of retaining contractors are included in the budgeted operating expenses. If the projects require significantly more effort than budgeted or the City is compelled to retain outside contractor services this could change the costs included in the rate study. **Any changes in the operating forecast estimates used in determining the City’s water and wastewater revenue requirement for this rate study could require significant changes to the rate plan presented in this report.**

Capital Improvement Plan

The City has developed a comprehensive long-term capital improvements plan for the next five years. The purpose of the CIP is to rehabilitate and maintain the existing system, expand the system and to service new growth. In addition, the project team consulted with City Staff to forecast CIP through the end of the rate plan period.

The capital improvement plan is an integral part of any long-term rate and financing plan. The City finances its capital improvements through a combination of in-house labor and equipment, and revenue-funded long-term debt.

Table III-5 on the following pages summarizes the City’s CIP. The wastewater CIP includes wastewater collection system construction and pump station rehabilitation.

Table III-6 reveals that the City’s CIP over the next five years is estimated to be \$ **\$13,441,100** for the wastewater system. The City intends to accomplish a majority of the CIP projects with in-house labor and equipment.

Further, the City is forecast to issue bonds totaling **\$8,500,000** for the currently identified wastewater system projects over the next five years.

Table III-5

CITY OF BRYANT AR	
CAPITAL IMPROVEMENT PLAN FOR FUNDING THROUGH NEW BOND ISSUES	
FY 2020 - FY 2025	
SCENARIO: 2021 04 02 -- Scenario 1 Bond Analysis	<u>Cost</u>
WASTEWATER PROJECTS	
Basi 05 Pipeline Improvements	\$ 567,100
Rehab & Validation Basins BR-05, BR-06, BR-07 & Unmonitored Area South of BR-05	1,428,000
Rehab & Validation Basins BR-03	1,544,000
SSES, Rehab & Validation Basins BR-01	1,773,000
SSES, Rehab & Validation Basins BR-04	2,364,000
SSES, Rehab & Validation Basins BR-02	1,340,000
Pump Station Rehabilitation	1,475,000
Misc. Gravity System Improvements	2,950,000
Total	\$ 13,441,100

Table III-6

CITY OF BRYANT AR			
CIP FUNDING SOURCES FY 2020 - FY 2025			
	In-house Labor & Equipment	Wastewater Bond Issue	TOTAL
2020	\$ 1,580,100	\$ -	\$ 1,580,100
2021	1,129,000	6,000,000	7,129,000
2022	1,116,000	-	1,116,000
2023	1,062,000	2,500,000	3,562,000
2024	94,000	-	94,000
2025	-	-	-
Total	\$ 4,981,100	\$ 8,500,000	\$ 13,481,100

Existing and Forecast Debt Service

Table III-7 presents current and forecast debt service assuming that the City issues new water and/or wastewater revenue bonds from FY 2020 through FY 2025 to fund the CIP. The City currently has four bond issues outstanding in the Test Year and one Series 2020 bond issue. These bonds were issued to fund both water and wastewater system improvements. Debt service on these issues is currently being paid from Utility System Revenue. For FY 2021 forward, it is projected that bonds will also be repaid entirely with Utility System Revenues. Future revenue debt is assumed to have a 20-year term, 3.0% interest rate and level principal and interest payments.

As shown Table III-6, the City is assumed to issue approximately **\$8,500,000** in wastewater-related debt over the next five years. The timing and amount of debt issues can vary based on many factors, but the totals listed in this study are sufficient for the purpose of setting a long-term rate plan.

These assumptions are preliminary in nature 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 contained in this study may require revision.

Table III-7

CITY OF BRYANT AR						
CURRENT AND FORECAST DEBT SERVICE						
SCENARIO: 2021 04 02 -- Scenario 1 Bond Analysis						
Year	Water		Wastewater		Total	
	Current	Forecast	Current	Forecast		
TY 2020	\$ 616,221	\$ -	\$ 1,116,617	\$ -	\$ 1,732,838	
FY 2021	613,799	-	1,109,347	270,867	1,994,012	
FY 2022	615,049	-	1,113,097	408,800	2,136,945	
FY 2023	491,398	-	742,145	406,000	1,639,543	
FY 2024	490,636	-	739,862	579,400	1,809,898	
FY 2025	492,230	-	744,643	576,000	1,812,873	
FY 2026	491,261	-	741,736	577,400	1,810,397	
FY 2027	491,446	-	742,290	578,400	1,812,135	
FY 2028	491,596	-	742,742	579,000	1,813,337	
FY 2029	491,609	-	742,778	579,200	1,813,587	

Three alternative bond structure scenarios were prepared by the City’s financial advisor for the anticipated \$6,000,000 2021 bond issue. These alternatives were evaluated as part of this rate study. Table III-8 and Table III-9 present future debt service assuming the second and third bond financing alternatives, respectively. Although the annual payments differ in each alternative the overall impact on the rate plan is nominal over the proposed five-year plan period (see Section IV).

Table III-8

CITY OF BRYANT AR						
CURRENT AND FORECAST DEBT SERVICE						
SCENARIO: 2020 10 30 -- Scenario 2 Bond Analysis						
Year	Water		Wastewater		Total	
	Current	Forecast	Current	Forecast		
TY 2020	\$ 616,221	\$ -	\$ 1,116,617	\$ -	\$	1,732,838
FY 2021	613,799	-	1,109,347	145,200		1,868,345
FY 2022	615,049	-	1,113,097	217,800		1,945,945
FY 2023	491,398	-	742,145	427,800		1,661,343
FY 2024	490,636	-	739,862	600,800		1,831,298
FY 2025	492,230	-	744,643	602,000		1,838,873
FY 2026	491,261	-	741,736	602,800		1,835,797
FY 2027	491,446	-	742,290	603,200		1,836,935
FY 2028	491,596	-	742,742	603,200		1,837,537
FY 2029	491,609	-	742,778	602,800		1,837,187

Table III-9

CITY OF BRYANT AR						
CURRENT AND FORECAST DEBT SERVICE						
SCENARIO: 2020 10 30 -- Scenario 3 Bond Analysis						
Year	Water		Wastewater		Total	
	Current	Forecast	Current	Forecast		
TY 2020	\$ 616,221	\$ -	\$ 1,116,617	\$ -	\$	1,732,838
FY 2021	181,226	254,175	1,109,347	318,492		1,863,239
FY 2022	182,476	284,771	1,113,097	356,829		1,937,172
FY 2023	58,825	377,800	742,145	473,400		1,652,170
FY 2024	58,064	378,155	739,862	645,245		1,821,326
FY 2025	59,658	380,375	744,643	648,025		1,832,701
FY 2026	58,689	379,931	741,736	647,469		1,827,825
FY 2027	58,874	379,132	742,290	646,468		1,826,763
FY 2028	59,024	380,197	742,742	647,803		1,829,765
FY 2029	59,036	380,819	742,778	648,582		1,831,214

The project team found that the results of the three alternative bond financing scenarios produced only nominal changes to five-year rate plan. Thus, there are no changes to the recommended rate plan.

Non-Rate Revenues

Although sales revenues constitute the majority of the revenue received by the City of Bryant for water and wastewater service, a certain amount of revenue is accrued from non-rate sources. These revenues include other penalties, credit card fees, miscellaneous charges and sales tax receipts. These non-rate revenues are subtracted from the overall budget to determine the revenue requirement to be raised from rates. Non-rate revenues are conservatively forecasted not to increase during the next ten years. Annual non-rate revenue totals are presented in **Table III-10**.

Table III-10

CITY OF BRYANT AR				
FORECAST NON-RATE REVENUES				
SCENARIO:				
2021 04 02 -- Scenario 1 Bond Analysis				
	Water	Wastewater	Total Water & WW	
2020	\$ 994,291	\$ 13,900	\$ 1,008,191	
2021	1,008,150	13,900	1,022,050	
2022	1,014,600	13,900	1,028,500	
2023	1,021,333	13,900	1,035,233	
2024	1,028,365	13,900	1,042,265	
2025	1,035,707	13,900	1,049,607	
2026	1,043,375	13,900	1,057,275	
2027	1,051,384	13,900	1,065,284	
2028	1,059,749	13,900	1,073,649	
2029	1,068,488	13,900	1,082,388	

Net Revenue Requirement

Table III-11 presents the test year and ten-year forecast for the City’s net revenue requirement to be raised from rates for the water and wastewater utility for the test year 2020 and forecast period. The water and wastewater net revenue requirement is expected to increase from **\$7,491,281** in FY 2020 to **\$10,610,645** in FY 2029.

Table III-11

CITY OF BRYANT AR								
CURRENT AND FORECAST NET REVENUE REQUIREMENT								
	Operating & Capital Expenses	CAW Costs	Capital Outlays	Debt Service	Transfers & Contingencies	Total Cost of Service	Less Non-Rate Revenues	Net Revenue Requirement
WATER Revenue Requirement								
2020	\$ 1,663,203	\$ 1,444,687	\$ 502,000	\$ 616,221	\$ 97,000	\$ 4,323,111	\$ 994,291	\$ 3,328,820
2021	1,766,671	1,324,106	503,530	613,799	97,000	4,305,106	1,008,150	3,296,956
2022	1,901,931	1,391,678	505,083	615,049	97,000	4,510,741	1,014,600	3,496,141
2023	1,965,444	1,462,150	601,659	491,398	97,000	4,617,652	1,021,333	3,596,318
2024	2,113,311	1,535,635	603,259	490,636	97,000	4,839,841	1,028,365	3,811,477
2025	2,184,654	1,612,255	612,308	492,230	97,000	4,998,447	1,035,707	3,962,740
2026	2,346,503	1,692,132	621,493	491,261	97,000	5,248,388	1,043,375	4,205,013
2027	2,426,649	1,775,396	630,815	491,446	97,000	5,421,305	1,051,384	4,369,921
2028	2,604,033	1,862,180	640,277	491,596	97,000	5,695,086	1,059,749	4,635,337
2029	2,694,097	1,952,624	649,881	491,609	97,000	5,885,211	1,068,488	4,816,723
WASTEWATER Revenue Requirement								
2020	2,837,835	-	101,909	1,116,617	120,000	4,176,361	13,900	4,162,461
2021	2,984,627	-	103,438	1,380,214	120,000	4,588,279	13,900	4,574,379
2022	3,148,251	-	104,989	1,521,897	120,000	4,895,137	13,900	4,881,237
2023	3,258,264	-	106,564	1,148,145	120,000	4,632,973	13,900	4,619,073
2024	3,436,909	-	108,162	1,319,262	120,000	4,984,334	13,900	4,970,434
2025	3,558,232	-	109,785	1,320,643	120,000	5,108,660	13,900	5,094,760
2026	3,753,525	-	111,432	1,319,136	120,000	5,304,093	13,900	5,290,193
2027	3,887,472	-	113,103	1,320,690	120,000	5,441,264	13,900	5,427,364
2028	4,101,254	-	114,800	1,321,742	120,000	5,657,796	13,900	5,643,896
2029	4,249,322	-	116,522	1,321,978	120,000	5,807,822	13,900	5,793,922
TOTAL Revenue Requirement								
2020	4,501,038	1,444,687	603,909	1,732,838	217,000	8,499,472	1,008,191	7,491,281
2021	4,751,299	1,324,106	606,968	1,994,012	217,000	8,893,385	1,022,050	7,871,334
2022	5,050,182	1,391,678	610,072	2,136,945	217,000	9,405,877	1,028,500	8,377,378
2023	5,223,708	1,462,150	708,223	1,639,543	217,000	9,250,625	1,035,233	8,215,391
2024	5,550,220	1,535,635	711,422	1,809,898	217,000	9,824,175	1,042,265	8,781,910
2025	5,742,886	1,612,255	722,093	1,812,873	217,000	10,107,107	1,049,607	9,057,500
2026	6,100,027	1,692,132	732,924	1,810,397	217,000	10,552,481	1,057,275	9,495,206
2027	6,314,121	1,775,396	743,918	1,812,135	217,000	10,862,570	1,065,284	9,797,286
2028	6,705,288	1,862,180	755,077	1,813,337	217,000	11,352,882	1,073,649	10,279,233
2029	6,943,419	1,952,624	766,403	1,813,587	217,000	11,693,033	1,082,388	10,610,645

Water Utility Cost Functionalization

Once the total water and wastewater system costs have been identified, the next step in the rate development process is to isolate the costs associated with each system function. Some of these expenditures are a function of base water demand; others are based on the peak demands placed on the system. Certain costs are associated with serving customers regardless of the volume of water use or wastewater discharge. The basic steps used to allocate the City’s water revenue requirements include the following:

1. Each system’s costs (revenue requirements) are categorized by utility function (i.e. treatment, distribution, administrative, customer). This process is known as *functionalization*.
2. Functionalized costs are classified based on the service characteristics or the types of demand served by the utility (base and maximum day). This process is known as *classification*.

3. Costs by service characteristic are allocated to customer classes in proportion to the service demands demonstrated by each class.

This three-step process allows for the allocation of system costs in the same terms as customer classes. The approaches described in this section follow standard industry practices. Water system costs are allocated to the following functions:

Treatment – the process by which raw water is converted to potable water

Distribution – the lines that carry water to individual customers’ properties

Administration – miscellaneous overhead and other non-operating costs

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

The project team allocated operating budget line item expenses individually to system functions based on general guidelines, specific research and input from the City of Bryant staff. The results of the allocation process for the test year are summarized in **Table III-10**.

TABLE III-10

CITY OF BRYANT AR			
TEST YEAR WATER COST FUNCTIONALIZATION			
SCENARIO:			
2021 04 02 -- Scenario 1 Bond Analysis			
2020			
Function	Revenue Requirement	Percent	
Treatment	\$ 1,112,417	33.4%	
Distribution	1,796,022	54.0%	
Administration	295,692	8.9%	
Customer	<u>124,688</u>	<u>3.7%</u>	
Total	3,328,820	100.0%	

Water Utility Cost Classification

The allocation of functionalized water system costs to service characteristics follows the base-extra capacity cost allocation method recommended by AWWA. Using this method, costs are segregated into the following categories:

Base costs – capital costs and O&M expenses associated with service to customers under average demand conditions. This category does not include any costs attributable to variations in water use resulting from peaks in demand. Base costs tend to vary directly with the total quantity of water used.

Maximum Day/Extra Capacity costs – costs attributable to facilities that are designed to meet peaking requirements. These costs include capital and operating charges for additional plant and system capacity beyond that required for average usage.

Customer Billing costs – costs associated with any aspect of customer service, including billing, accounting, and meter services. These costs are independent of the amount of water used and the size of the customer’s meter and are not subject to peaking factors.

According to AWWA Manual M-1, in the base-extra capacity method, care must be taken in separating costs between those devoted to base capacity and those devoted to extra capacity. The peak to average factor is calculated by dividing the volume on the peak day of the year by the average daily volume. Facilities designed to meet maximum-day requirements, such as the treatment and distribution functions, are allocated 80% (1/1.25) to base, and 20% to extra capacity (Max Day). This means that facilities designed to meet maximum-day requirements, such as the treatment and distribution functions, are allocated 80% to base, and 20% to extra capacity.

All customer service-related costs are allocated 100% to customer billing. Administration costs are generally not directly-assignable to individual classifications. Therefore, it is standard rate-making practice to allocate these costs on an indirect basis to service characteristics.

The system-wide costs by service characteristic are shown in **Table III-11**. As with cost functionalization, these percentages are not expected to change significantly in the forecast period.

TABLE III-11

CITY OF BRYANT AR			
TEST YEAR WATER COST CLASSIFICATION			
SCENARIO:			
2021 04 02 – Scenario 1 Bond Analysis			
2020			
Revenue			
Function	Requirement	Percent	
Base	\$ 2,551,778	76.66%	
Maximum Day	637,944	19.16%	
Customer	<u>139,098</u>	<u>4.18%</u>	
Total	3,328,820	100.0%	

Water Utility Cost Allocation

Allocation of costs by service characteristic to customer classes is based on the proportionate use levels of each characteristic by each class. The total water utility costs by customer class for the test year are summarized in **Table III-12** and for the ten year forecast period in **Table III-13**.

TABLE III-12

CITY OF BRYANT AR		
TEST YEAR WATER COST ALLOCATION		
SCENARIO: 2021 04 02 -- Scenario 1 Bond Analysis		
Function	2020 Revenue Requirement	Percent
Residential & Non-Residential	\$ 3,066,293	92.1%
Multi-Family	18,506	0.6%
Total	3,328,820	100.0%

TABLE III-13

CITY OF BRYANT AR			
FORECAST WATER COST ALLOCATION			
SCENAR 2021 04 02 -- Scenario 1 Bond Analysis			
Year	Residential & Non-Residential	Multi-Family	Total
TY 2020	\$ 3,066,293	\$ 18,506	\$ 3,328,820
FY 2021	3,037,432	17,799	3,296,956
FY 2022	3,221,443	18,328	3,496,141
FY 2023	3,314,254	18,308	3,596,318
FY 2024	3,513,057	18,842	3,811,477
FY 2025	3,653,001	19,023	3,962,740
FY 2026	3,876,878	19,602	4,205,013
FY 2027	4,029,464	19,781	4,369,921
FY 2028	4,274,763	20,374	4,635,337
FY 2029	4,442,607	20,559	4,816,723

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

As was the case for the water system, wastewater utility operating budget line item expenses are allocated individually to functions. The results of the allocation process are presented on **Table III-14**. As with the water utility, these percentages are not forecast to change significantly during the next ten years.

TABLE III-14

CITY OF BRYANT AR			
TEST YEAR WASTEWATER COST FUNCTIONALIZATION			
SCENARIO:			
2021 04 02 -- Scenario 1 Bond Analysis			
	2020		
Function	Revenue	Requirement	Percent
Treatment	\$	1,887,935	45.4%
Collection		2,024,675	48.6%
Administration		65,541	1.6%
Customer		<u>184,310</u>	<u>4.4%</u>
Total		4,162,461	100.0%

Wastewater Utility Cost Allocation

Allocation of wastewater utility costs by service characteristic to customer classes is performed in the same manner as described for the water utility. The total wastewater utility costs by customer class for the test year are summarized in **Table III-15** and for the ten-year forecast period in **Table III-16**.

TABLE III-15

CITY OF BRYANT AR

TEST YEAR WASTEWATER COST ALLOCATION

SCENARIO:
2021 04 02 -- Scenario 1 Bond Analysis

Function	2020	
	Revenue Requirement	Percent
Residential & Non-Residential	\$ 4,122,053	99.0%
Quail Ridge	23,646	0.6%
Drain Water	<u>16,762</u>	0.4%
Total	4,162,461	100.0%

TABLE III-16

CITY OF BRYANT AR

FORECAST WASTEWATER COST ALLOCATION

SCENARIO:
2021 04 02 -- Scenario 1 Bond Analysis

Year	Residential	Quail Ridge	Drain Water	Total
2020	\$ 4,122,053	\$ 23,646	\$ 16,762	\$ 4,162,461
2021	4,531,169	25,287	17,923	4,574,379
2022	4,836,437	26,218	18,582	4,881,237
2023	4,578,068	23,994	17,011	4,619,073
2024	4,927,543	25,098	17,792	4,970,434
2025	5,052,086	24,971	17,703	5,094,760
2026	5,247,194	25,160	17,838	5,290,193
2027	5,384,545	25,055	17,764	5,427,364
2028	5,600,684	25,284	17,927	5,643,896
2029	5,750,864	25,194	17,864	5,793,922

Section IV

SECTION IV

Water and Wastewater Rate Design



Rate design involves determining charges for each class of customers that will generate a desired level of revenue in accordance with AWWA and other industry cost of service rate-making principles. The water and 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.

Based on an extensive series of discussions with the City, the project team is presenting the following rate plan for the City Council to consider. The following is notable regarding the proposed rate plan:

- While the rate models present a forecast of rates for ten years, the project team recommends that the City adopt a 5-year rate plan, with rates to be automatically implemented annually on January 1, 2021 through January 1, 2025.
- Given the significant growth in the City and potential for unexpected events the project team recommends that the City periodically review these rates during the next five years, to incorporate any changes to costs, volumes or growth assumptions that may occur during that time.
- Further, the project team recommends the City Council adopt an ordinance that contains a provision allowing for 3% annual increases for the five-year period beyond FY 2025 or until a new rate plan is adopted. This will enhance the utilities ability to meet inflation costs and will also allow the City to issue as much as \$23 million in additional utility debt for future capital projects.
- The most significant impact on rates will be the cost of operating expense that includes the use of utility staff in-house labor and equipment to accomplish a significant portion of the utilities CIP. Should the City make material changes to its operating expenses and/or CIP, the City should undertake an immediate review of its rate plan.
- The second largest impact on rates will be debt issued to fund the CIP. The initial cost of service and rate proposal assumes that the Utility rate adjustments will be funded on a stand-alone basis, whereby debt service will be fully funded through rates.
- Three alternative bond financing scenarios were prepared by the City's financial advisor for an anticipated 2021 bond issue. These alternatives were evaluated as part of this rate study. **Table**

IV-4 presents an analysis of the three alternatives and potential impact of the alternatives on customers each year over a five-year period. The project team found that the results of the three alternative bond financing scenarios produced only nominal changes to five-year rate plan. Thus, there are no changes to the recommended rate plan.

- Finally, the project team recommends the City continue using the existing water and wastewater rate structure. This rate structure is effective and easily understood by customers.

Uniform adjustments are applied to the water and wastewater’s existing base and volumetric rates for each rate class. There is no change to the basic rate structure other than the uniform annual adjustments in the rate plan. The rate plan and forecast revenues and expenses under this scenario is presented in **Appendix A**.

Table IV-1 presents a summary of the rate plan proposed for water customers. **Table IV-2** presents a summary of the rate plan proposed for wastewater customers. **Table IV-3** presents the customer rate impact assuming the proposed rate plan is adopted by City Council. Finally, **Table IV-4** presents the impact each of the alternative bond payment structure scenarios will have on customers.

TABLE IV-1

CITY OF BRYANT AR		PROPOSED WATER AND WASTEWATER RATE PLAN					
		Current	Effective				
		Jan-21	Jan-22	Jan-23	Jan-24	Jan-25	
WATER							
Residential; Non-Res. \$ Multi-Family							
<u>Monthly Minimum Charge</u>							
	\$	11.96	\$ 13.04	\$ 13.69	\$ 13.96	\$ 14.24	\$ 14.53
1"		17.95	19.57	20.54	20.95	21.37	21.80
1 1/2"		29.91	32.60	34.23	34.92	35.61	36.33
2"		59.82	65.20	68.46	69.83	71.23	72.65
3"		95.71	104.32	109.54	111.73	113.97	116.24
4"		179.46	195.61	205.39	209.50	213.69	217.96
6"		598.19	652.03	684.63	698.32	712.29	726.53
<u>Volume Rate Per 100 Gal</u>							
2,000	Above	0.575	0.627	0.658	0.671	0.685	0.698
Special Contracts Water Exempt							
<u>Monthly Minimum Charge</u>							
5/8"		11.96	13.04	13.69	13.96	14.24	14.53
1"		17.95	19.57	20.54	20.95	21.37	21.80
1 1/2"		29.91	32.60	34.23	34.92	35.61	36.33
2"		59.82	65.20	68.46	69.83	71.23	72.65
Compound/Woodland Hills		-	-	-	-	-	-
<u>Volume Rate Per 100 Gal</u>							
2,000	Above	0.195	0.213	0.224	0.228	0.233	0.237

TABLE IV-2

CITY OF BRYANT AR		PROPOSED WATER AND WASTEWATER RATE PLAN					
		Current	Effective				
		Jan-21	Jan-22	Jan-23	Jan-24	Jan-25	
WASTEWATER							
Residential & Non-Residential Inside							
Monthly Minimum Charge	\$ 17.04	\$ 18.57	\$ 19.50	\$ 19.89	\$ 20.29	\$ 20.70	
Volume Rate/100 Gal	0.909	0.991	1.040	1.061	1.082	1.104	
Quail Ridge							
Monthly Minimum Charge	3,445.17	3,755.24	3,943.00	4,021.86	4,102.29	4,184.34	
Volume Rate/100 Gal	-	-	-	-	-	-	
Drain Water County Landfill C County Landfill							
Monthly Minimum Charge	-	-	-	-	-	-	
Volume Rate/Gallon	0.0525	0.0551	0.0579	0.0608	0.0638	0.0670	

TABLE IV-3

CITY OF BRYANT AR		IMPACT OF RATE PLAN ON MONTHLY CHARGES					
		Current	Effective				
		Jan-21	Jan-22	Jan-23	Jan-24	Jan-25	
Residential Monthly Charges -- 3/4"							
4,000 Water	4,000 WW	\$ 58.68	\$ 63.96	\$ 67.16	\$ 68.50	\$ 69.87	\$ 71.27
	Increase -- \$		5.28	3.20	1.34	1.37	1.40
	Increase -- %		9.0%	5.0%	2.0%	2.0%	2.0%
5,000 Water	5,000 WW	73.52	80.14	84.14	85.83	87.54	89.29
	Increase -- \$		6.62	4.01	1.68	1.72	1.75
	Increase -- %		9.0%	5.0%	2.0%	2.0%	2.0%
10,000 Water	5,000 WW	102.27	111.47	117.05	119.39	121.78	124.21
	Increase -- \$		9.20	5.57	2.34	2.39	2.44
30,000 Water	5,000 WW	217.27	236.82	248.67	253.64	258.71	263.89
	Increase -- \$		19.55	11.84	4.97	5.07	5.17
Commercial Monthly Charges -- 2"							
40,000 Water	40,000 WW	\$ 640.78	\$ 698.45	\$ 733.37	\$ 748.04	\$ 763.00	\$ 778.26
	Increase -- \$		57.67	34.92	14.67	14.96	15.26

TABLE IV-4

		Effective					Avg. Annual Increase
		Jan-21	Jan-22	Jan-23	Jan-24	Jan-25	
CITY OF BRYANT AR							
ALTERNATIVE BOND STRUCTURE IMPACT ON MONTHLY CHARGES							
Residential Monthly Charges - 5/8"							
5,000 Water	5,000 WW						
Scenario 1		\$ 80.14	\$ 84.14	\$ 85.83	\$ 87.54	\$ 89.29	3.0%
Scenario 2		78.96	82.75	84.40	86.09	87.81	2.9%
Scenario 3		78.96	81.64	83.60	85.61	87.67	2.7%
Non-Residential Monthly Bill - 2"							
40,000 Water	40,000 WW						
Scenario 1		698.45	733.37	748.04	763.00	778.26	3.0%
Scenario 2		688.42	721.97	736.41	751.13	766.16	2.9%
Scenario 3		688.42	712.08	729.44	747.25	765.51	2.8%

Notes on Rate Recommendations

The forecast and recommendations presented in this study represent a combination of the best information available from the City of Bryant 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 such as unforeseen construction schedule changes.
- CAW costs increase or decrease significantly from costs used in developing the rate plan.
- 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 Bryant 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 Bryant at this time.

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



Figure 5- <http://www.bryantdaily.com/bryant-football-teams-take-the-field-for-fan-fair-on-friday/>

Appendix A



City of Bryant, AR

Ten Year Rate Analysis and Pro Forma

Fiscal Years 2020 - 2029



Utility System

Water
Sewer
Combined

Dashboard

Projections
Bill Comparison
Comparable Utilities

Customer Class

All Classes

Years

10
5

Total Net Revenues

Debt Service

Total Revenues

Debt Coverage

Combined Projections

Future Debt Term 20

Water Future Bond Issues		
	Alternative	Proposed
2020		\$ -
2021		\$ -
2022		\$ -
2023		\$ -
2024		\$ -
2025		\$ -
2026		\$ -
2027		\$ -
2028		\$ -
2029		\$ -

Sewer Future Bond Issues		
	Alternative	Proposed
2020		\$ -
2021		\$ -
2022		\$ -
2023		\$ 2,500,000
2024		\$ -
2025		\$ -
2026		\$ -
2027		\$ -
2028		\$ -
2029		\$ -

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Water Rate Adjustments											
Meter Charge	0.00%	9.00%	5.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	
Volume Charge	0.00%	9.00%	5.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	
		121	108	108	144	161	189	210	241	263	294
Sewer Rate Adjustments											
Base Charge	0.00%	9.00%	5.00%	2.00%	2.00%	2.00%	0.00%	2.00%	0.00%	2.00%	
Volume Charge Residential	0.00%	9.00%	5.00%	2.00%	2.00%	2.00%	0.00%	2.00%	0.00%	2.00%	
Volume Charge Non-Residential	0.00%	9.00%	5.00%	2.00%	2.00%	2.00%	0.00%	2.00%	0.00%	2.00%	

**CITY OF BRYANT AR
WATER/WASTEWATER COST OF SERVICE MODEL**

	Prior	Effective Jan-20	Effective Apr-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25	Effective Jan-26	Effective Jan-27	Effective Jan-28	Effective Jan-29
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City Rate Plan -- 10 Year Summary
Scen: 2021 04 02 -- Scenario 1 Bond Analysis

1 Water Monthly Rates and Charges

CITY Water Rate and Charges

W1 Residential & Non-Residential

Monthly Minimum Charge

5/8"	\$	11.96	\$	11.96	\$	13.04	\$	13.69	\$	13.96	\$	14.24	\$	14.53	\$	14.82	\$	15.11	\$	15.42	\$	15.72
1"		17.95		17.95		19.57		20.54		20.95		21.37		21.80		22.24		22.68		23.14		23.60
1 1/2"		29.91		29.91		32.60		34.23		34.92		35.61		36.33		37.05		37.79		38.55		39.32
2"		59.82		59.82		65.20		68.46		69.83		71.23		72.65		74.11		75.59		77.10		78.64

Volume Rate/100 Gal

2,000	Above	\$	0.575	\$	0.575	\$	0.627	\$	0.658	\$	0.671	\$	0.685	\$	0.698	\$	0.712	\$	0.727	\$	0.741	\$	0.756
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W2 Multi-Family

Monthly Minimum Charge

5/8"	\$	11.96	\$	11.96	\$	13.04	\$	13.69	\$	13.96	\$	14.24	\$	14.53	\$	14.82	\$	15.11	\$	15.42	\$	15.72
1"		17.95		17.95		19.57		20.54		20.95		21.37		21.80		22.24		22.68		23.14		23.60
1 1/2"		29.91		29.91		32.60		34.23		34.92		35.61		36.33		37.05		37.79		38.55		39.32
2"		59.82		59.82		65.20		68.46		69.83		71.23		72.65		74.11		75.59		77.10		78.64
3"		95.71		95.71		104.32		109.54		111.73		113.97		116.24		118.57		120.94		123.36		125.83
4"		179.46		179.46		195.61		205.39		209.50		213.69		217.96		222.32		226.77		231.30		235.93
6"		598.19		598.19		652.03		684.63		698.32		712.29		726.53		741.06		755.89		771.00		786.42

Volume Rate/100 Gal

2,000	Above		0.575		0.575		0.627		0.658		0.671		0.685		0.698		0.712		0.727		0.741		0.756
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W3 Special Contracts Water Exempt

Monthly Minimum Charge

5/8"	\$	11.96	\$	11.96	\$	13.04	\$	13.69	\$	13.96	\$	14.24	\$	14.53	\$	14.82	\$	15.11	\$	15.42	\$	15.72
1"		17.95		17.95		19.57		20.54		20.95		21.37		21.80		22.24		22.68		23.14		23.60
1 1/2"		29.91		29.91		32.60		34.23		34.92		35.61		36.33		37.05		37.79		38.55		39.32
2"		59.82		59.82		65.20		68.46		69.83		71.23		72.65		74.11		75.59		77.10		78.64
Compound/Woodland Hills		-		-		-		-		-		-		-		-		-		-		-

Volume Rate/100 Gal

1	Above		0.195		0.195		0.213		0.224		0.228		0.233		0.237		0.242		0.247		0.252		0.257
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**CITY OF BRYANT AR
WATER/WASTEWATER COST OF SERVICE MODEL**

	Prior	Effective Jan-20	Effective Apr-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25	Effective Jan-26	Effective Jan-27	Effective Jan-28	Effective Jan-29
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City Rate Plan -- 10 Year Summary
Scen: 2021 04 02 -- Scenario 1 Bond Analysis

2 Wastewater Monthly Rates and Charges

Residential & Non-Residential

Monthly Minimum Charge

All Meters	\$	17.04	\$	17.04	\$	18.57	\$	19.50	\$	19.89	\$	20.29	\$	20.70	\$	20.70	\$	21.11	\$	21.11	\$	21.53
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Volume Rate/100 Gal

2,000 Above		0.909		0.909		0.991		1.040		1.061		1.082		1.104		1.104		1.126		1.126		1.149
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Quail Ridge

Monthly Minimum Charge

All Meters		3,445.17		3,445.17		3,755.24		3,943.00		4,021.86		4,102.29		4,184.34		4,184.34		4,268.03		4,268.03		4,353.39
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Volume Rate/100 Gal

1 Above		-		-		-		-		-		-		-		-		-		-		-
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Drain Water

Monthly Minimum Charge

All Meters		-		-		-		-		-		-		-		-		-		-		-
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Volume Rate/100 Gal

1 Above		5.00		5.25		5.51		5.79		6.08		6.38		6.70		7.04		7.39		7.76		8.14
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**CITY OF BRYANT AR
WATER/WASTEWATER COST OF SERVICE MODEL**

Prior Effective Effective Effective Effective Effective Effective Effective Effective Effective Effective
Jan-20 Apr-21 Jan-22 Jan-23 Jan-24 Jan-25 Jan-26 Jan-27 Jan-28 Jan-29

City Rate Plan -- 10 Year Summary
Scen: 2021 04 02 -- Scenario 1 Bond Analysis

**CITY OF BRYANT AR
WATER/WASTEWATER COST OF SERVICE MODEL**

	Prior	Effective Jan-20	Effective Apr-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25	Effective Jan-26	Effective Jan-27	Effective Jan-28	Effective Jan-29
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City Rate Plan -- 10 Year Summary
Scen: 2021 04 02 -- Scenario 1 Bond Analysis

3 Residential Monthly Charges -- WATER

5,000 Gallons -- 3/4" Meter												
Total	\$ 13.69	\$ 13.69	\$ 14.92	\$ 15.66	\$ 15.98	\$ 16.30	\$ 16.62	\$ 16.95	\$ 17.29	\$ 17.64	\$ 17.99	
Dollar Inc	-	-	1.23	0.75	0.31	0.32	0.33	0.33	0.34	0.35	0.35	
Percent Inc		0.0%	9.0%	5.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
10,000 Gallons -- 3/4" Meter												
Total	16.56	16.56	18.05	18.95	19.33	19.72	20.11	20.52	20.93	21.34	21.77	
Dollar Inc	-	-	1.49	0.90	0.38	0.39	0.39	0.40	0.41	0.42	0.43	
Percent Inc		0.0%	9.0%	5.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
20,000 Gallons -- 3/4" Meter												
Total	22.31	22.31	24.32	25.53	26.04	26.57	27.10	27.64	28.19	28.76	29.33	
Dollar Inc	-	-	2.01	1.22	0.51	0.52	0.53	0.54	0.55	0.56	0.58	
Percent Inc		0.0%	9.0%	5.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
30,000 Gallons -- 3/4" Meter												
Total	28.06	28.06	30.59	32.11	32.76	33.41	34.08	34.76	35.46	36.17	36.89	
Dollar Inc	-	-	2.53	1.53	0.64	0.66	0.67	0.68	0.70	0.71	0.72	
Percent Inc		0.0%	9.0%	5.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	

4 Commercial Monthly Charges -- WATER

20,000 Gallons -- 1 1/2" Meter												
Total	22.31	22.31	24.32	25.53	26.04	26.57	27.10	27.64	28.19	28.76	29.33	
Dollar Inc	-	-	2.01	1.22	0.51	0.52	0.53	0.54	0.55	0.56	0.58	
Percent Inc		0.0%	9.0%	5.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
40,000 Gallons -- 1 1/2" Meter												
Total	33.81	33.81	36.85	38.70	39.47	40.26	41.06	41.89	42.72	43.58	44.45	
Dollar Inc	-	-	3.04	1.84	0.77	0.79	0.81	0.82	0.84	0.85	0.87	
Percent Inc		0.0%	9.0%	5.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	

**CITY OF BRYANT AR
WATER/WASTEWATER COST OF SERVICE MODEL**

	Prior	Effective Jan-20	Effective Apr-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25	Effective Jan-26	Effective Jan-27	Effective Jan-28	Effective Jan-29
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City Rate Plan -- 10 Year Summary
Scen: 2021 04 02 -- Scenario 1 Bond Analysis

5 Residential Monthly Charges -- WASTEWATER

5,000 Gallons -- 3/4" Meter

Total 3/4"	\$ 19.77	\$ 19.77	\$ 21.55	\$ 22.62	\$ 23.08	\$ 23.54	\$ 24.01	\$ 24.01	\$ 24.49	\$ 24.49	\$ 24.98
Dollar Inc	-	-	1.78	1.08	0.45	0.46	0.47	-	0.48	-	0.49
Percent Inc		0.0%	9.0%	5.0%	2.0%	2.0%	2.0%	0.0%	2.0%	0.0%	2.0%

10,000 Gallons -- 3/4" Meter

Total 3/4"	24.31	24.31	26.50	27.83	28.38	28.95	29.53	29.53	30.12	30.12	30.72
Dollar Inc	-	-	2.19	1.33	0.56	0.57	0.58	-	0.59	-	0.60
Percent Inc		0.0%	9.0%	5.0%	2.0%	2.0%	2.0%	0.0%	2.0%	0.0%	2.0%

15,000 Gallons -- 3/4" Meter

Total 3/4"	28.86	28.86	31.45	33.03	33.69	34.36	35.05	35.05	35.75	35.75	36.46
Dollar Inc	-	-	2.60	1.57	0.66	0.67	0.69	-	0.70	-	0.71
Percent Inc		0.0%	9.0%	5.0%	2.0%	2.0%	2.0%	0.0%	2.0%	0.0%	2.0%

20,000 Gallons -- 3/4" Meter

Total 3/4"	33.40	33.40	36.41	38.23	38.99	39.77	40.57	40.57	41.38	41.38	42.21
Dollar Inc	-	-	3.01	1.82	0.76	0.78	0.80	-	0.81	-	0.83
Percent Inc		0.0%	9.0%	5.0%	2.0%	2.0%	2.0%	0.0%	2.0%	0.0%	2.0%

6 Commercial Monthly Charges -- WASTEWATER

20,000 Gallons -- 1 1/2" Meter

Total 1 1/2"	\$ 33.40	\$ 33.40	\$ 36.41	\$ 38.23	\$ 38.99	\$ 39.77	\$ 40.57	\$ 40.57	\$ 41.38	\$ 41.38	\$ 42.21
Dollar Inc	-	-	3.01	1.82	0.76	0.78	0.80	-	0.81	-	0.83
Percent Inc		0.0%	9.0%	5.0%	2.0%	2.0%	2.0%	0.0%	2.0%	0.0%	2.0%

40,000 Gallons -- 1 1/2" Meter

Total 1 1/2"	51.58	51.58	56.22	59.04	60.22	61.42	62.65	62.65	63.90	63.90	65.18
Dollar Inc	-	-	4.64	2.81	1.18	1.20	1.23	-	1.25	-	1.28
Percent Inc		0.0%	9.0%	5.0%	2.0%	2.0%	2.0%	0.0%	2.0%	0.0%	2.0%

CITY OF BRYANT AR										
WATER/WASTEWATER COST OF SERVICE MODEL										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029

Revenue Summary

Scenario: 2021 04 02 -- Scenario 1 Bond Analysis

WATER Revenues -- Total

W1	Residential & Non-Residential	\$	2,836,444	\$	3,096,829	\$	3,430,344	\$	3,612,365	\$	3,795,151	\$	3,987,185	\$	4,188,937	\$	4,400,897	\$	4,623,582	\$	4,857,536
W2	Multi-Family		25,370		26,892		28,920		29,568		30,159		30,762		31,378		32,005		32,645		33,298
W3	Special Contracts Water Exen		59,537		65,002		72,003		75,823		79,660		83,691		87,926		92,375		97,049		101,959
	Total Rate Revenue		2,921,350		3,188,724		3,531,267		3,717,756		3,904,970		4,101,639		4,308,240		4,525,277		4,753,277		4,992,793
	Non-Rate Revenue		994,291		1,008,150		1,014,600		1,021,333		1,028,365		1,035,707		1,043,375		1,051,384		1,059,749		1,068,488
	Total Revenue		3,915,641		4,196,874		4,545,866		4,739,090		4,933,335		5,137,346		5,351,615		5,576,661		5,813,026		6,061,281

Water Revenues -- Additional

W1	Residential & Non-Residential		260,386		333,514		182,021		182,786		192,035		201,752		211,960		222,685		233,953
W2	Multi-Family		1,522		2,029		648		591		603		615		628		640		653
W3	Special Contracts Water Exempt		5,465		7,000		3,821		3,837		4,031		4,235		4,449		4,674		4,911
W4	No Charge		-		-		-		-		-		-		-		-		-
	Total Rate Revenue		267,373		342,543		186,490		187,214		196,669		206,602		217,037		228,000		239,517
	Non-Rate Revenue		13,860		6,449		6,734		7,031		7,342		7,668		8,009		8,365		8,738
	Total Revenue		281,233		348,993		193,223		194,245		204,011		214,270		225,046		236,365		248,255

WASTEWATER Revenues -- Total

WW1	Residential & Non-Residential	\$	4,009,662	\$	4,377,749	\$	4,849,213	\$	5,106,522	\$	5,364,912	\$	5,636,377	\$	5,814,970	\$	6,099,225	\$	6,292,484	\$	6,600,081
WW2	Quail Ridge		41,342		43,823		47,128		48,183		49,147		50,130		50,212		51,133		51,216		52,155
WW3	Drain Water		91,806		95,244		101,216		106,277		111,591		117,170		123,029		129,180		135,639		142,421
	Total Rate Revenue		4,142,811		4,516,816		4,997,557		5,260,983		5,525,650		5,803,677		5,988,211		6,279,538		6,479,339		6,794,658
	Non-Rate Revenue		13,900		13,900		13,900		13,900		13,900		13,900		13,900		13,900		13,900		13,900
	Total Revenue		4,156,711		4,530,716		5,011,457		5,274,883		5,539,550		5,817,577		6,002,111		6,293,438		6,493,239		6,808,558

WASTEWATER Revenues -- Additional

WW1	Residential & Non-Residential		368,087		471,463		257,310		258,390		271,465		178,593		284,255		193,259		307,598
WW2	Quail Ridge		2,481		3,306		1,055		964		983		82		921		84		939
WW3	Drain Water		3,438		5,972		5,061		5,314		5,580		5,859		6,151		6,459		6,782
	Total Rate Revenue		374,006		480,741		263,426		264,668		278,027		184,533		291,327		199,801		315,319
	Non-Rate Revenue		-		-		-		-		-		-		-		-		-
	Total Revenue		374,006		480,741		263,426		264,668		278,027		184,533		291,327		199,801		315,319

CITY OF BRYANT AR										
WATER/WASTEWATER COST OF SERVICE MODEL										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029

Revenue and Expense Summary

Scen: 2021 04 02 -- Scenario 1 Bond Analysis

1 TOTAL Revenues and Expenses -- CASH BASIS

Beginning Fund Balance	\$	3,041,857	\$	2,614,736	\$	2,448,942	\$	2,600,388	\$	3,363,736	\$	4,012,446	\$	4,860,262	\$	5,661,507	\$	6,669,036	\$	7,622,420	
Rate Revenues																					
<u>Water Rate Revenue</u>																					
W1 Residential & Non-Residential	\$	2,836,444	\$	3,096,829	\$	3,430,344	\$	3,612,365	\$	3,795,151	\$	3,987,185	\$	4,188,937	\$	4,400,897	\$	4,623,582	\$	4,857,536	
W2 Multi-Family		25,370		26,892		28,920		29,568		30,159		30,762		31,378		32,005		32,645		33,298	
W3 Special Contracts Water Exempt		59,537		65,002		72,003		75,823		79,660		83,691		87,926		92,375		97,049		101,959	
W4 No Charge		-		-		-		-		-		-		-		-		-		-	
W5 Other5		-		-		-		-		-		-		-		-		-		-	
W6 Other6		-		-		-		-		-		-		-		-		-		-	
Total		<u>2,921,350</u>		<u>3,188,724</u>		<u>3,531,267</u>		<u>3,717,756</u>		<u>3,904,970</u>		<u>4,101,639</u>		<u>4,308,240</u>		<u>4,525,277</u>		<u>4,753,277</u>		<u>4,992,793</u>	
<u>Wastewater Rate Revenue</u>																					
WW1 Residential & Non-Residential		4,009,662		4,377,749		4,849,213		5,106,522		5,364,912		5,636,377		5,814,970		6,099,225		6,292,484		6,600,081	
WW2 Quail Ridge		41,342		43,823		47,128		48,183		49,147		50,130		50,212		51,133		51,216		52,155	
WW3 Drain Water		91,806		95,244		101,216		106,277		111,591		117,170		123,029		129,180		135,639		142,421	
WW4 Other4		-		-		-		-		-		-		-		-		-		-	
WW5 Other5		-		-		-		-		-		-		-		-		-		-	
Total		<u>4,142,811</u>		<u>4,516,816</u>		<u>4,997,557</u>		<u>5,260,983</u>		<u>5,525,650</u>		<u>5,803,677</u>		<u>5,988,211</u>		<u>6,279,538</u>		<u>6,479,339</u>		<u>6,794,658</u>	
Non-Rate Revenues		<u>1,008,191</u>		<u>1,022,050</u>		<u>1,028,500</u>		<u>1,035,233</u>		<u>1,042,265</u>		<u>1,049,607</u>		<u>1,057,275</u>		<u>1,065,284</u>		<u>1,073,649</u>		<u>1,082,388</u>	
Total Revenues		<u>8,072,351</u>		<u>8,727,590</u>		<u>9,557,323</u>		<u>10,013,972</u>		<u>10,472,885</u>		<u>10,954,923</u>		<u>11,353,726</u>		<u>11,870,099</u>		<u>12,306,265</u>		<u>12,869,839</u>	

CITY OF BRYANT AR										
WATER/WASTEWATER COST OF SERVICE MODEL										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029

Revenue and Expense Summary
Scen: 2021 04 02 -- Scenario 1 Bond Analysis

Cost of Service

Cost Center Code

1	Water Expenses	3,107,890	3,090,778	3,293,609	3,427,594	3,648,946	3,796,909	4,038,635	4,202,045	4,466,214	4,646,721
2	Wastewater Expenses	2,837,835	2,984,627	3,148,251	3,258,264	3,436,909	3,558,232	3,753,525	3,887,472	4,101,254	4,249,322
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
	Total	5,945,725	6,075,405	6,441,860	6,685,858	7,085,855	7,355,141	7,792,160	8,089,517	8,567,468	8,896,043

Budget Code

100	Personnel Svcs	2,029,753	2,198,479	2,413,011	2,499,268	2,735,484	2,834,717	3,095,174	3,209,209	3,496,821	3,627,771
200	Building & Grounds Exp	570,313	587,893	606,025	624,726	644,013	663,906	684,425	705,589	727,420	749,939
300	Supply Expense	787,600	815,488	844,426	874,455	905,620	937,967	971,543	1,006,398	1,042,584	1,080,156
700	Vehicle Expense	451,793	465,977	480,618	495,731	511,332	527,438	544,065	561,231	578,955	597,254
400	Operations Expense	431,402	444,344	457,675	471,405	485,547	500,114	515,117	530,570	546,488	562,882
500	Professional Services	103,172	107,029	111,039	115,209	119,547	124,058	128,752	133,634	138,714	144,000
700	Vehicle Expense	61,504	63,349	65,250	67,207	69,223	71,300	73,439	75,642	77,912	80,249
600	Miscellaneous Expense	65,500	68,739	72,139	75,708	79,454	83,386	87,513	91,846	96,394	101,168
CAW	CAW Water Supply	1,444,687	1,324,106	1,391,678	1,462,150	1,535,635	1,612,255	1,692,132	1,775,396	1,862,180	1,952,624
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
	Total	5,945,725	6,075,405	6,441,860	6,685,858	7,085,855	7,355,141	7,792,160	8,089,517	8,567,468	8,896,043

Total Operating Expenses

Net Revenues for Transfers,CO and Debt Service

Capital Outlays

Debt Service

Debt Service -- Current

Debt Service -- Future

Total Debt Service

Net Revenues for Contingencies & Transfers

Total Contingencies & Transfers

Total Cost of Service

Net Revenues

Percent of COS

Ending Fund Balance

Revenue Adequacy Tests

Total Operating + Debt Service + Transfers

Expenses Per Day

Days of Operating Expenses

Debt Coverage

Excluding Cap Outlays, G/F Transfers

All Inclusive

		5,945,725	6,075,405	6,441,860	6,685,858	7,085,855	7,355,141	7,792,160	8,089,517	8,567,468	8,896,043
	Net Revenues for Transfers,CO and Debt Service	2,126,626	2,652,185	3,115,463	3,328,114	3,387,029	3,599,782	3,561,567	3,780,582	3,738,797	3,973,796
	Capital Outlays	603,909	606,968	610,072	708,223	711,422	722,093	732,924	743,918	755,077	766,403
	Debt Service										
	Debt Service -- Current	1,732,838	1,994,012	2,136,945	1,639,543	1,638,498	1,641,473	1,638,997	1,640,735	1,641,937	1,642,187
	Debt Service -- Future	-	-	-	-	171,400	171,400	171,400	171,400	171,400	171,400
	Total Debt Service	1,732,838	1,994,012	2,136,945	1,639,543	1,809,898	1,812,873	1,810,397	1,812,135	1,813,337	1,813,587
	Net Revenues for Contingencies & Transfers	(210,121)	51,205	368,446	980,348	865,710	1,064,816	1,018,245	1,224,529	1,170,383	1,393,806
	Total Contingencies & Transfers	217,000	217,000	217,000	217,000	217,000	217,000	217,000	217,000	217,000	217,000
	Total Cost of Service	8,499,472	8,893,385	9,405,877	9,250,625	9,824,175	10,107,107	10,552,481	10,862,570	11,352,882	11,693,033
	Net Revenues	(427,121)	(165,795)	151,446	763,348	648,710	847,816	801,245	1,007,529	953,383	1,176,806
	Percent of COS	-5.3%	-1.9%	1.6%	7.6%	6.2%	7.7%	7.1%	8.5%	7.7%	9.1%
	Ending Fund Balance	2,614,736	2,448,942	2,600,388	3,363,736	4,012,446	4,860,262	5,661,507	6,669,036	7,622,420	8,799,225
	Revenue Adequacy Tests										
	Total Operating + Debt Service + Transfers	7,895,563	8,286,417	8,795,805	8,542,401	9,112,754	9,385,014	9,819,557	10,118,652	10,597,805	10,926,630
	Expenses Per Day	21,632	22,703	24,098	23,404	24,966	25,712	26,903	27,722	29,035	29,936
	Days of Operating Expenses	121	108	108	144	161	189	210	241	263	294
	Debt Coverage										
	Excluding Cap Outlays, G/F Transfers	1.23	1.33	1.46	2.03	1.87	1.99	1.97	2.09	2.06	2.19
	All Inclusive	0.75	0.92	1.07	1.47	1.36	1.47	1.44	1.56	1.53	1.65

CITY OF BRYANT AR										
WATER/WASTEWATER COST OF SERVICE MODEL										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029

Revenue and Expense Summary

Scen: 2021 04 02 -- Scenario 1 Bond Analysis

2 WATER Revenues and Expenses – CASH BASIS

Water Revenues											
<u>Water Rate Revenue</u>											
W1	Residential & Non-Residential	\$ 2,836,444	\$ 3,096,829	\$ 3,430,344	\$ 3,612,365	\$ 3,795,151	\$ 3,987,185	\$ 4,188,937	\$ 4,400,897	\$ 4,623,582	\$ 4,857,536
W2	Multi-Family	25,370	26,892	28,920	29,568	30,159	30,762	31,378	32,005	32,645	33,298
W3	Special Contracts Water Exempt	59,537	65,002	72,003	75,823	79,660	83,691	87,926	92,375	97,049	101,959
W4	No Charge	-	-	-	-	-	-	-	-	-	-
W5	Other5	-	-	-	-	-	-	-	-	-	-
W6	Other6	-	-	-	-	-	-	-	-	-	-
		2,921,350	3,188,724	3,531,267	3,717,756	3,904,970	4,101,639	4,308,240	4,525,277	4,753,277	4,992,793
	Non-Rate Revenues	994,291	1,008,150	1,014,600	1,021,333	1,028,365	1,035,707	1,043,375	1,051,384	1,059,749	1,068,488
	Total Revenues	3,915,641	4,196,874	4,545,866	4,739,090	4,933,335	5,137,346	5,351,615	5,576,661	5,813,026	6,061,281
Water Cost of Service											
<u>Cost Center Code</u>											
1	Water Expenses	3,107,890	3,090,778	3,293,609	3,427,594	3,648,946	3,796,909	4,038,635	4,202,045	4,466,214	4,646,721
2	Wastewater Expenses	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
	Total	3,107,890	3,090,778	3,293,609	3,427,594	3,648,946	3,796,909	4,038,635	4,202,045	4,466,214	4,646,721
<u>Budget Code</u>											
100	Personnel Svcs	795,828	871,824	978,715	1,012,932	1,130,543	1,170,639	1,300,215	1,347,028	1,489,982	1,544,480
200	Building & Grounds Exp	107,298	110,517	113,832	117,247	120,765	124,388	128,119	131,963	135,922	140,000
300	Supply Expense	231,300	238,299	245,511	252,942	260,600	268,491	276,622	285,002	293,636	302,534
400	Operations Expense	355,600	366,898	378,566	390,618	403,066	415,924	429,205	442,926	457,100	471,744
500	Professional Services	64,812	66,757	68,759	70,822	72,947	75,135	77,389	79,711	82,102	84,565
600	Miscellaneous Expense	46,860	49,027	51,297	53,675	56,167	58,777	61,512	64,377	67,380	70,526
700	Vehicle Expense	61,504	63,349	65,250	67,207	69,223	71,300	73,439	75,642	77,912	80,249
CAW	CAW Water Supply	1,444,687	1,324,106	1,391,678	1,462,150	1,535,635	1,612,255	1,692,132	1,775,396	1,862,180	1,952,624
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
	Total	3,107,890	3,090,778	3,293,609	3,427,594	3,648,946	3,796,909	4,038,635	4,202,045	4,466,214	4,646,721
	Total Operating Expenses	3,107,890	3,090,778	3,293,609	3,427,594	3,648,946	3,796,909	4,038,635	4,202,045	4,466,214	4,646,721

CITY OF BRYANT AR WATER/WASTEWATER COST OF SERVICE MODEL										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenue and Expense Summary										
Scen: 2021 04 02 -- Scenario 1 Bond Analysis										
Net Revenues for Transfers,CO and Debt Service	807,751	1,106,096	1,252,257	1,311,495	1,284,388	1,340,437	1,312,981	1,374,616	1,346,812	1,414,560
Capital Outlays	502,000	503,530	505,083	601,659	603,259	612,308	621,493	630,815	640,277	649,881
Debt Service										
Debt Service -- Current	616,221	613,799	615,049	491,398	490,636	492,230	491,261	491,446	491,596	491,609
Debt Service -- Future	-	-	-	-	-	-	-	-	-	-
Total Debt Service	616,221	613,799	615,049	491,398	490,636	492,230	491,261	491,446	491,596	491,609
Net Revenues for Contingencies & Transfers	(310,470)	(11,232)	132,126	218,438	190,493	235,899	200,227	252,356	214,940	273,070
Total Contingencies & Transfers	97,000	97,000	97,000	97,000	97,000	97,000	97,000	97,000	97,000	97,000
Total Cost of Service	4,323,111	4,305,106	4,510,741	4,617,652	4,839,841	4,998,447	5,248,388	5,421,305	5,695,086	5,885,211
Net Revenues	(407,470)	(108,232)	35,126	121,438	93,493	138,899	103,227	155,356	117,940	176,070
Percent of COS	-10.4%	-2.6%	0.8%	2.6%	1.9%	2.7%	1.9%	2.8%	2.0%	2.9%
Debt Coverage	1.31	1.80	2.04	2.67	2.62	2.72	2.67	2.80	2.74	2.88

CITY OF BRYANT AR										
WATER/WASTEWATER COST OF SERVICE MODEL										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029

Revenue and Expense Summary

Scen: 2021 04 02 -- Scenario 1 Bond Analysis

3 WASTEWATER Revenues and Expenses -- CASH BASIS

Wastewater Revenues																					
<u>Wastewater Rate Revenue</u>																					
WW1	Residential & Non-Residential	\$	4,009,662	\$	4,377,749	\$	4,849,213	\$	5,106,522	\$	5,364,912	\$	5,636,377	\$	5,814,970	\$	6,099,225	\$	6,292,484	\$	6,600,081
WW2	Quail Ridge		41,342		43,823		47,128		48,183		49,147		50,130		50,212		51,133		51,216		52,155
WW3	Drain Water		91,806		95,244		101,216		106,277		111,591		117,170		123,029		129,180		135,639		142,421
WW4	Other4		-		-		-		-		-		-		-		-		-		-
WW5	Other5		-		-		-		-		-		-		-		-		-		-
			4,142,811		4,516,816		4,997,557		5,260,983		5,525,650		5,803,677		5,988,211		6,279,538		6,479,339		6,794,658
	Non-Rate Revenues		13,900		13,900		13,900		13,900		13,900		13,900		13,900		13,900		13,900		13,900
	Total Revenues		4,156,711		4,530,716		5,011,457		5,274,883		5,539,550		5,817,577		6,002,111		6,293,438		6,493,239		6,808,558
Wastewater Cost of Service																					
<u>Cost Center Code</u>																					
1	Water Expenses		-		-		-		-		-		-		-		-		-		-
2	Wastewater Expenses		2,837,835		2,984,627		3,148,251		3,258,264		3,436,909		3,558,232		3,753,525		3,887,472		4,101,254		4,249,322
0	#N/A		-		-		-		-		-		-		-		-		-		-
0	#N/A		-		-		-		-		-		-		-		-		-		-
0	#N/A		-		-		-		-		-		-		-		-		-		-
0	#N/A		-		-		-		-		-		-		-		-		-		-
0	#N/A		-		-		-		-		-		-		-		-		-		-
	Total		2,837,835		2,984,627		3,148,251		3,258,264		3,436,909		3,558,232		3,753,525		3,887,472		4,101,254		4,249,322
<u>Budget Code</u>																					
100	Personnel Svcs		1,233,925		1,326,655		1,434,297		1,486,336		1,604,941		1,664,078		1,794,958		1,862,181		2,006,839		2,083,291
200	Building & Grounds Exp		463,015		477,376		492,193		507,478		523,248		539,518		556,306		573,626		591,498		609,940
300	Supply Expense		556,300		577,189		598,915		621,513		645,020		669,476		694,920		721,396		748,948		777,622
700	Vehicle Expense		96,193		99,079		102,051		105,113		108,266		111,514		114,860		118,305		121,855		125,510
400	Operations Expense		366,590		377,588		388,915		400,583		412,600		424,978		437,728		450,859		464,385		478,317
500	Professional Services		56,312		58,002		59,742		61,534		63,380		65,281		67,240		69,257		71,335		73,475
600	Miscellaneous Expense		65,500		68,739		72,139		75,708		79,454		83,386		87,513		91,846		96,394		101,168
0	#N/A		-		-		-		-		-		-		-		-		-		-
0	#N/A		-		-		-		-		-		-		-		-		-		-
0	#N/A		-		-		-		-		-		-		-		-		-		-
	Total		2,837,835		2,984,627		3,148,251		3,258,264		3,436,909		3,558,232		3,753,525		3,887,472		4,101,254		4,249,322
	Total Operating Expenses		2,837,835		2,984,627		3,148,251		3,258,264		3,436,909		3,558,232		3,753,525		3,887,472		4,101,254		4,249,322

CITY OF BRYANT AR										
WATER/WASTEWATER COST OF SERVICE MODEL										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenue and Expense Summary										
Scen: 2021 04 02 -- Scenario 1 Bond Analysis										
Net Revenues for Transfers,CO and Debt Service	1,318,875	1,546,089	1,863,206	2,016,619	2,102,641	2,259,346	2,248,586	2,405,966	2,391,985	2,559,236
Capital Outlays	101,909	103,438	104,989	106,564	108,162	109,785	111,432	113,103	114,800	116,522
Debt Service										
Debt Service -- Current	1,116,617	1,380,214	1,521,897	1,148,145	1,147,862	1,149,243	1,147,736	1,149,290	1,150,342	1,150,578
Debt Service -- Future	-	-	-	-	171,400	171,400	171,400	171,400	171,400	171,400
Total Debt Service	1,116,617	1,380,214	1,521,897	1,148,145	1,319,262	1,320,643	1,319,136	1,320,690	1,321,742	1,321,978
Net Revenues for Contingencies & Transfers	100,349	62,438	236,320	761,910	675,217	828,918	818,018	972,174	955,444	1,120,736
Total Contingencies & Transfers	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
Total Cost of Service	4,176,361	4,588,279	4,895,137	4,632,973	4,984,334	5,108,660	5,304,093	5,441,264	5,657,796	5,807,822
Net Revenues	(19,651)	(57,562)	116,320	641,910	555,217	708,918	698,018	852,174	835,444	1,000,736
Percent of COS	-0.5%	-1.3%	2.3%	12.2%	10.0%	12.2%	11.6%	13.5%	12.9%	14.7%
Debt Coverage (excludes Debt, Cap Outlays, G/F Transfers)	1.18	1.12	1.22	1.76	1.59	1.71	1.70	1.82	1.81	1.94

**CITY OF BRYANT AR
WATER/WASTEWATER COST OF SERVICE MODEL**

Current 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029

Model Summary

Scenario: 2021 04 02 -- Scenario 1 Bond Analysis

1 Water and Wastewater Rates

Water Rates -- Residential

Monthly Minimum Charge--3/4" \$ 11.96 \$ 11.96 \$ 13.04 \$ 13.69 \$ 13.96 \$ 14.24 \$ 14.53 \$ 14.82 \$ 15.11 \$ 15.42 \$ 15.72

Volume Rate Per 100 Gal
2,000 Above 0.575 0.575 0.627 0.658 0.671 0.685 0.698 0.712 0.727 0.741 0.756

Wastewater Rates - Residential

Monthly Minimum Charge \$ 17.04 \$ 17.04 \$ 18.57 \$ 19.50 \$ 19.89 \$ 20.29 \$ 20.70 \$ 20.70 \$ 21.11 \$ 21.11 \$ 21.53
Volume Rate Per 100 Gal 0.909 0.909 0.991 1.040 1.061 1.082 1.104 1.104 1.126 1.126 1.149

2 Residential Standard Monthly Bill

5,000 Gal	Total	\$	73.52	\$	73.52	\$	80.14	\$	84.14	\$	85.83	\$	87.54	\$	89.29	\$	90.00	\$	91.80	\$	92.54	\$	94.39
Water & WW	Increase -- \$				-		6.62		4.01		1.68		1.72		1.75		0.71		1.80		0.74		1.85
	Increase -- %				0.0%		9.0%		5.0%		2.0%		2.0%		2.0%		0.8%		2.0%		0.8%		2.0%
10,000 Gal	Total		102.27		102.27		111.47		117.05		119.39		121.78		124.21		125.62		128.13		129.60		132.19
Water; 5K WW	Increase -- \$				-		9.20		5.57		2.34		2.39		2.44		1.41		2.51		1.46		2.59
	Increase -- %				0.0%		9.0%		5.0%		2.0%		2.0%		2.0%		1.1%		2.0%		1.1%		2.0%
15,000 Gal	Total		131.02		131.02		142.81		149.95		152.95		156.01		159.13		161.24		164.46		166.65		169.99
Water; 5K WW	Increase -- \$				-		11.79		7.14		3.00		3.06		3.12		2.11		3.22		2.19		3.33
	Increase -- %				0.0%		9.0%		5.0%		2.0%		2.0%		2.0%		1.3%		2.0%		1.3%		2.0%
30,00 Gal	Total	\$	217.27	\$	217.27	\$	236.82	\$	248.67	\$	253.64	\$	258.71	\$	263.89	\$	268.09	\$	273.45	\$	277.82	\$	283.38
Water; 5K WW	Increase -- \$				-		19.55		11.84		4.97		5.07		5.17		4.20		5.36		4.37		5.56
	Increase -- %				0.0%		9.0%		5.0%		2.0%		2.0%		2.0%		1.6%		2.0%		1.6%		2.0%

CITY OF BRYANT AR
WATER/WASTEWATER COST OF SERVICE MODEL

Current 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029

Model Summary**Scenario: 2021 04 02 -- Scenario 1 Bond Analysis**

3 Fund Balance, Revenues and Expenses	Current	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029									
Beginning Fund Balance	\$	3,041,857	\$	2,614,736	\$	2,448,942	\$	2,600,388	\$	3,363,736	\$	4,012,446	\$	4,860,262	\$	5,661,507	\$	6,669,036	\$	7,622,420
Revenues and Expenses																				
Water Rate Revenues	\$	2,921,350	\$	3,188,724	\$	3,531,267	\$	3,717,756	\$	3,904,970	\$	4,101,639	\$	4,308,240	\$	4,525,277	\$	4,753,277	\$	4,992,793
WW Rate Revenues		4,142,811		4,516,816		4,997,557		5,260,983		5,525,650		5,803,677		5,988,211		6,279,538		6,479,339		6,794,658
Non-Rate Revenues		1,008,191		1,022,050		1,028,500		1,035,233		1,042,265		1,049,607		1,057,275		1,065,284		1,073,649		1,082,388
Total Revenues		8,072,351		8,727,590		9,557,323		10,013,972		10,472,885		10,954,923		11,353,726		11,870,099		12,306,265		12,869,839
Operating Expenses		5,945,725		6,075,405		6,441,860		6,685,858		7,085,855		7,355,141		7,792,160		8,089,517		8,567,468		8,896,043
Net Revenues for Transfers, Capital Outlays and Debt		2,126,626		2,652,185		3,115,463		3,328,114		3,387,029		3,599,782		3,561,567		3,780,582		3,738,797		3,973,796
Capital Outlays		603,909		606,968		610,072		708,223		711,422		722,093		732,924		743,918		755,077		766,403
Current Debt Service		1,732,838		1,994,012		2,136,945		1,639,543		1,638,498		1,641,473		1,638,997		1,640,735		1,641,937		1,642,187
Future Debt Service		-		-		-		-		171,400		171,400		171,400		171,400		171,400		171,400
Total Debt Service		1,732,838		1,994,012		2,136,945		1,639,543		1,809,898		1,812,873		1,810,397		1,812,135		1,813,337		1,813,587
Total Contingencies & Transfers		217,000		217,000		217,000		217,000		217,000		217,000		217,000		217,000		217,000		217,000
Total Cost of Service		8,499,472		8,893,385		9,405,877		9,250,625		9,824,175		10,107,107		10,552,481		10,862,570		11,352,882		11,693,033
Net Revenues		(427,121)		(165,795)		151,446		763,348		648,710		847,816		801,245		1,007,529		953,383		1,176,806
Percent of COS		-5.0%		-1.9%		1.6%		8.3%		6.6%		8.4%		7.6%		9.3%		8.4%		10.1%
Debt Coverage																				
Excluding Transfers, CO, Debt		1.23		1.33		1.46		2.03		1.87		1.99		1.97		2.09		2.06		2.19
All Inclusive		0.75		0.92		1.07		1.47		1.36		1.47		1.44		1.56		1.53		1.65
Ending Water & Sewer Combined Fund Balance		2,614,736		2,448,942		2,600,388		3,363,736		4,012,446		4,860,262		5,661,507		6,669,036		7,622,420		8,799,225
Unrestricted/Capital Fund Balance from CIP Funding		(1,576,000)		2,848,000		1,300,480		1,952,485		111,010		102,120		103,141		104,172		105,214		106,266
One Day Operating Expenditures (Op.Exp+Det Svc)		21,632		22,703		24,098		23,404		24,966		25,712		26,903		27,722		29,035		29,936
Days of Operating Expenditures		121		108		108		144		161		189		210		241		263		294
Fund Balance Goal Days		60																		
Over (Short) of Requirement		1,297,901		1,362,151		1,445,886		1,404,230		1,497,987		1,542,742		1,614,174		1,663,340		1,742,105		1,796,158
		1,316,836		1,086,791		1,154,502		1,959,505		2,514,459		3,317,520		4,047,333		5,005,696		5,880,315		7,003,067

**CITY OF BRYANT AR
WATER/WASTEWATER COST OF SERVICE MODEL**

Current 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029

Model Summary

Scenario: 2021 04 02 -- Scenario 1 Bond Analysis

5 Total Accounts

Water Accounts

Total Accounts	8,659	8,915	9,180	9,452	9,732	10,020	10,318	10,624	10,939	11,264
New Accounts	-	256	264	272	280	289	297	306	315	325
Avg. Annual Growth Rate		2.96%	2.96%	2.96%	2.96%	2.97%	2.97%	2.97%	2.97%	2.97%

Wastewater Accounts

Total Accounts	8,622	8,881	9,147	9,421	9,704	9,995	10,294	10,603	10,921	11,249
New Accounts	-	259	266	274	283	291	300	309	318	328
Avg. Annual Growth Rate		3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

6 Annual Volume

Water Volume

Residential & Non-Residential	419,960,700	432,559,521	445,536,307	458,902,396	472,669,468	486,849,552	501,455,038	516,498,689	531,993,650	547,953,460
Multi-Family	1,705,800	1,705,800	1,705,800	1,705,800	1,705,800	1,705,800	1,705,800	1,705,800	1,705,800	1,705,800
Total System	454,269,600	467,846,514	481,830,735	496,234,483	511,070,344	526,351,280	542,090,645	558,302,190	575,000,082	592,198,910

Wastewater Billing Units

Residential & Non-Residential	413,744,400	426,156,732	438,941,434	452,109,677	465,672,967	479,643,156	494,032,451	508,853,425	524,119,027	539,842,598
Quail Ridge	2,484,000	2,484,000	2,484,000	2,484,000	2,484,000	2,484,000	2,484,000	2,484,000	2,484,000	2,484,000
Total System	417,984,054	430,396,386	443,181,088	456,349,331	469,912,621	483,882,810	498,272,105	513,093,079	528,358,681	544,082,252

<div style="border: 1px solid black; padding: 5px; display: inline-block; background-color: white; color: black;"> CITY OF BRYANT AR WATER/WASTEWATER COST OF SERVICE MODEL </div>												
	Prior	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	

Water Summary

Scen: 2021 04 02 -- Scenario 1 Bond Analysis

1 Water Monthly Rates and Charges

Residential & Non-Residential

Monthly Minimum Charge

Base Charge		\$	11.96	\$	11.96	\$	13.04	\$	13.69	\$	13.96	\$	14.24	\$	14.53	\$	14.82	\$	15.11	\$	15.42	\$	15.72	
	1"		17.95		17.95		19.57		20.54		20.95		21.37		21.80		22.24		22.68		23.14		23.60	
	1 1/2"		29.91		29.91		32.60		34.23		34.92		35.61		36.33		37.05		37.79		38.55		39.32	
	2"		59.82		59.82		65.20		68.46		69.83		71.23		72.65		74.11		75.59		77.10		78.64	

Volume Rate/1,000 Gal – Per 100 Gallons

2,000 Above		0.575	0.575	0.627	0.658	0.671	0.685	0.698	0.712	0.727	0.741	0.756
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Special Contracts Water Exempt

Monthly Minimum Charge

5/8"		\$	11.96	\$	11.96	\$	13.04	\$	13.69	\$	13.96	\$	14.24	\$	14.53	\$	14.82	\$	15.11	\$	15.42	\$	15.72	
	1"		17.95		17.95		19.57		20.54		20.95		21.37		21.80		22.24		22.68		23.14		23.60	
	1 1/2"		29.91		29.91		32.60		34.23		34.92		35.61		36.33		37.05		37.79		38.55		39.32	
	2"		59.82		59.82		65.20		68.46		69.83		71.23		72.65		74.11		75.59		77.10		78.64	
Compound/Woodland Hills			-		-		-		-		-		-		-		-		-		-		-	

Volume Rate/1,000 Gal – Per 100 Gallons

2,000 Above		\$	0.195	\$	0.195	\$	0.213	\$	0.224	\$	0.228	\$	0.233	\$	0.237	\$	0.242	\$	0.247	\$	0.252	\$	0.257
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2.1 Residential Monthly Charge

5,000 Gallons	Total		\$	29.21	\$	29.21	\$	31.84	\$	33.43	\$	34.10	\$	34.78	\$	35.48	\$	36.19	\$	36.91	\$	37.65	\$	38.40
	Dollar Inc																							
	Percent Inc					0.0%		9.0%		5.0%		2.0%		2.0%		2.0%		2.0%		2.0%		2.0%		2.0%
10,000 Gallons	Total			57.96		57.96		63.18		66.34		67.66		69.02		70.40		71.80		73.24		74.70		76.20
	Dollar Inc							5.22		3.16		1.33		1.35		1.38		1.41		1.44		1.46		1.49
	Percent Inc					0.0%		9.0%		5.0%		2.0%		2.0%		2.0%		2.0%		2.0%		2.0%		2.0%
20,000 Gallons	Total			115.46		115.46		125.85		132.14		134.79		137.48		140.23		143.04		145.90		148.82		151.79
	Dollar Inc							10.39		6.29		2.64		2.70		2.75		2.80		2.86		2.92		2.98
	Percent Inc					0.0%		9.0%		5.0%		2.0%		2.0%		2.0%		2.0%		2.0%		2.0%		2.0%
30,000 Gallons	Total			172.96		172.96		188.53		197.95		201.91		205.95		210.07		214.27		218.56		222.93		227.39
	Dollar Inc							15.57		9.43		3.96		4.04		4.12		4.20		4.29		4.37		4.46
	Percent Inc					0.0%		9.0%		5.0%		2.0%		2.0%		2.0%		2.0%		2.0%		2.0%		2.0%

3 Total Accounts

Total Accounts																							
				8,659		8,915		9,180		9,452		9,732		10,020		10,318		10,624		10,939		11,264	
New Accounts						256		264		272		280		289		297		306		315		325	
Avg. Annual Growth Rate						2.96%		2.96%		2.96%		2.96%		2.97%		2.97%		2.97%		2.97%		2.97%	

4 Annual Water Consumption

W.1	Residential & Non-Residential		419,960,700	432,559,521	445,536,307	458,902,396	472,669,468	486,849,552	501,455,038	516,498,689	531,993,650	547,953,460
W.2	Multi-Family		1,705,800	1,705,800	1,705,800	1,705,800	1,705,800	1,705,800	1,705,800	1,705,800	1,705,800	1,705,800
W.3	Special Contracts Water Exempt		30,484,800	31,399,344	32,341,324	33,311,564	34,310,911	35,340,238	36,400,445	37,492,459	38,617,233	39,775,750
W.4	No Charge		2,118,300	2,181,849	2,247,304	2,314,724	2,384,165	2,455,690	2,529,361	2,605,242	2,683,399	2,763,901
	Total System		454,269,600	467,846,514	481,830,735	496,234,483	511,070,344	526,351,280	542,090,645	558,302,190	575,000,082	592,198,910

<div style="border: 1px solid black; padding: 5px; display: inline-block; background-color: white; color: black;"> CITY OF BRYANT AR WATER/WASTEWATER COST OF SERVICE MODEL </div>											
	Prior	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029

Water Summary

Scen: 2021 04 02 -- Scenario 1 Bond Analysis

5 Revenues and Expenses – CASH BASIS																					
Water Revenues																					
<u>Water Rate Revenue</u>																					
W.1	Residential & Non-Residential	\$	2,836,444	\$	3,096,829	\$	3,430,344	\$	3,612,365	\$	3,795,151	\$	3,987,185	\$	4,188,937	\$	4,400,897	\$	4,623,582	\$	4,857,536
W.2	Multi-Family		25,370		26,892		28,920		29,568		30,159		30,762		31,378		32,005		32,645		33,298
W.3	Special Contracts Water Exempt		59,537		65,002		72,003		75,823		79,660		83,691		87,926		92,375		97,049		101,959
W.4	No Charge		-		-		-		-		-		-		-		-		-		-
			2,921,350		3,188,724		3,531,267		3,717,756		3,904,970		4,101,639		4,308,240		4,525,277		4,753,277		4,992,793
	Non-Rate Revenues		994,291		1,008,150		1,014,600		1,021,333		1,028,365		1,035,707		1,043,375		1,051,384		1,059,749		1,068,488
	Total Revenues		3,915,641		4,196,874		4,545,866		4,739,090		4,933,335		5,137,346		5,351,615		5,576,661		5,813,026		6,061,281
Water Cost of Service																					
<u>Cost Center Code</u>																					
1	Water Expenses	\$	3,107,890	\$	3,090,778	\$	3,293,609	\$	3,427,594	\$	3,648,946	\$	3,796,909	\$	4,038,635	\$	4,202,045	\$	4,466,214	\$	4,646,721
2	Wastewater Expenses		-		-		-		-		-		-		-		-		-		-
	Total		3,107,890		3,090,778		3,293,609		3,427,594		3,648,946		3,796,909		4,038,635		4,202,045		4,466,214		4,646,721
<u>Budget Code</u>																					
100	Personnel Svcs	\$	795,828	\$	871,824	\$	978,715	\$	1,012,932	\$	1,130,543	\$	1,170,639	\$	1,300,215	\$	1,347,028	\$	1,489,982	\$	1,544,480
200	Building & Grounds Exp		107,298		110,517		113,832		117,247		120,765		124,388		128,119		131,963		135,922		140,000
300	Supply Expense		231,300		238,299		245,511		252,942		260,600		268,491		276,622		285,002		293,636		302,534
400	Operations Expense		355,600		366,898		378,566		390,618		403,066		415,924		429,205		442,926		457,100		471,744
500	Professional Services		64,812		66,757		68,759		70,822		72,947		75,135		77,389		79,711		82,102		84,565
600	Miscellaneous Expense		46,860		49,027		51,297		53,675		56,167		58,777		61,512		64,377		67,380		70,526
700	Vehicle Expense		61,504		63,349		65,250		67,207		69,223		71,300		73,439		75,642		77,912		80,249
CAW	CAW Water Supply		1,444,687		1,324,106		1,391,678		1,462,150		1,535,635		1,612,255		1,692,132		1,775,396		1,862,180		1,952,624
	Total		3,107,890		3,090,778		3,293,609		3,427,594		3,648,946		3,796,909		4,038,635		4,202,045		4,466,214		4,646,721
	Total Operating Expenses		3,107,890		3,090,778		3,293,609		3,427,594		3,648,946		3,796,909		4,038,635		4,202,045		4,466,214		4,646,721
	Net Revenues for Transfers,Capital Outlays and Debt Service		807,751		1,106,096		1,252,257		1,311,495		1,284,388		1,340,437		1,312,981		1,374,616		1,346,812		1,414,560
	Capital Outlays		502,000		503,530		505,083		601,659		603,259		612,308		621,493		630,815		640,277		649,881
<u>Debt Service</u>																					
	Debt Service -- Current		616,221		613,799		615,049		491,398		490,636		492,230		491,261		491,446		491,596		491,609
	Debt Service -- Future		-		-		-		-		-		-		-		-		-		-
	Total Debt Service		616,221		613,799		615,049		491,398		490,636		492,230		491,261		491,446		491,596		491,609
	Net Revenues for Contingencies & Transfers		(310,470)		(11,232)		132,126		218,438		190,493		235,899		200,227		252,356		214,940		273,070
	Total Contingencies & Transfers		97,000		97,000		97,000		97,000		97,000		97,000		97,000		97,000		97,000		97,000
	Total Cost of Service		4,323,111		4,305,106		4,510,741		4,617,652		4,839,841		4,998,447		5,248,388		5,421,305		5,695,086		5,885,211
			TRUE		TRUE		TRUE		TRUE		TRUE		TRUE		TRUE		TRUE		TRUE		TRUE
	Net Revenues		(407,470)		(108,232)		35,126		121,438		93,493		138,899		103,227		155,356		117,940		176,070
	Percent of COS		-10.4%		-2.6%		0.8%		2.6%		1.9%		2.7%		1.9%		2.8%		2.0%		2.9%
<u>Debt Coverage</u>																					
	Excludes Capital Outlays, G/F Transfers		1.31		1.80		2.04		2.67		2.62		2.72		2.67		2.80		2.74		2.88
	All Inclusive		0.34		0.82		1.06		1.25		1.19		1.28		1.21		1.32		1.24		1.36

CITY OF BRYANT AR											
WATER/WASTEWATER COST OF SERVICE MODEL											
	Current	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029

Wastewater Summary

Scen: 2021 04 02 -- Scenario 1 Bond Analysis

1 Wastewater Monthly Rates and Charges

Residential & Non-Residential

Monthly Minimum Charge	\$	17.04	\$	17.04	\$	18.57	\$	19.50	\$	19.89	\$	20.29	\$	20.70	\$	20.70	\$	21.11	\$	21.11	\$	21.53
Volume Rate/100 Gallons		0.909		0.909		0.991		1.040		1.061		1.082		1.104		1.104		1.126		1.126		1.149

Drain Water

Monthly Minimum Charge	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Volume Rate/100 Gallons	\$	5.000	\$	5.250	\$	5.513	\$	5.788	\$	6.078	\$	6.381	\$	6.700	\$	7.036	\$	7.387	\$	7.757	\$	8.144

2.1 Residential Monthly Charge

5,000 Gallons	Total	\$	44.31	\$	44.31	\$	48.30	\$	50.71	\$	51.73	\$	52.76	\$	53.82	\$	53.82	\$	54.89	\$	54.89	\$	55.99
	Dollar Inc		-		-		3.99		2.41		1.01		1.03		1.06		-		1.08		-		1.10
	Percent Inc		0.0%		0.0%		9.0%		5.0%		2.0%		2.0%		2.0%		0.0%		2.0%		0.0%		2.0%
10,000 Gallons	Total		89.76		89.76		97.84		102.73		104.78		106.88		109.02		109.02		111.20		111.20		113.42
	Dollar Inc		-		-		8.08		4.89		2.05		2.10		2.14		-		2.18		-		2.22
	Percent Inc		0.0%		0.0%		9.0%		5.0%		2.0%		2.0%		2.0%		0.0%		2.0%		0.0%		2.0%
20,000 Gallons	Total		180.66		180.66		196.92		206.77		210.90		215.12		219.42		219.42		223.81		223.81		228.29
	Dollar Inc		-		-		16.26		9.85		4.14		4.22		4.30		-		4.39		-		4.48
	Percent Inc		0.0%		0.0%		9.0%		5.0%		2.0%		2.0%		2.0%		0.0%		2.0%		0.0%		2.0%
30,000 Gallons	Total		271.56		271.56		296.00		310.80		317.02		323.36		329.82		329.82		336.42		336.42		343.15
	Dollar Inc		-		-		24.44		14.80		6.22		6.34		6.47		-		6.60		-		6.73
	Percent Inc		0.0%		0.0%		9.0%		5.0%		2.0%		2.0%		2.0%		0.0%		2.0%		0.0%		2.0%

3 Total Accounts

Total Accounts		8,622		8,881		9,147		9,421		9,704		9,995		10,294		10,603		10,921		11,249
New Accounts				259		266		274		283		291		300		309		318		328
Avg. Annual Growth Rate				3.00%		3.00%		3.00%		3.00%		3.00%		3.00%		3.00%		3.00%		3.00%

4 Annual Wastewater Billing Units

WW.1 Residential & Non-Residential	413,744,400	426,156,732	438,941,434	452,109,677	465,672,967	479,643,156	494,032,451	508,853,425	524,119,027	539,842,598
WW.2 Quail Ridge	2,484,000	2,484,000	2,484,000	2,484,000	2,484,000	2,484,000	2,484,000	2,484,000	2,484,000	2,484,000
WW.3 Drain Water	1,755,654	1,755,654	1,755,654	1,755,654	1,755,654	1,755,654	1,755,654	1,755,654	1,755,654	1,755,654
Total System	417,984,054	430,396,386	443,181,088	456,349,331	469,912,621	483,882,810	498,272,105	513,093,079	528,358,681	544,082,252

CITY OF BRYANT AR											
WATER/WASTEWATER COST OF SERVICE MODEL											
	Current	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029

Wastewater Summary

Scen: 2021 04 02 -- Scenario 1 Bond Analysis

5 Revenues and Expenses -- CASH BASIS

Wastewater Revenues

Wastewater Rate Revenue

WW.1 Residential & Non-Residential	4,009,662	4,377,749	4,849,213	5,106,522	5,364,912	5,636,377	5,814,970	6,099,225	6,292,484	6,600,081
WW.2 Quail Ridge	41,342	43,823	47,128	48,183	49,147	50,130	50,212	51,133	51,216	52,155
WW.5 Drain Water	91,806	95,244	101,216	106,277	111,591	117,170	123,029	129,180	135,639	142,421
	4,142,811	4,516,816	4,997,557	5,260,983	5,525,650	5,803,677	5,988,211	6,279,538	6,479,339	6,794,658
Non-Rate Revenues	13,900	13,900	13,900	13,900	13,900	13,900	13,900	13,900	13,900	13,900
Total Revenues	4,156,711	4,530,716	5,011,457	5,274,883	5,539,550	5,817,577	6,002,111	6,293,438	6,493,239	6,808,558

Wastewater Cost of Service

Cost Center Code

1 Water Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2 Wastewater Expenses	2,837,835	2,984,627	3,148,251	3,258,264	3,436,909	3,558,232	3,753,525	3,887,472	4,101,254	4,249,322
Total	2,837,835	2,984,627	3,148,251	3,258,264	3,436,909	3,558,232	3,753,525	3,887,472	4,101,254	4,249,322

Budget Code

100 Personnel Svcs	\$ 1,233,925	\$ 1,326,655	\$ 1,434,297	\$ 1,486,336	\$ 1,604,941	\$ 1,664,078	\$ 1,794,958	\$ 1,862,181	\$ 2,006,839	\$ 2,083,291
200 Building & Grounds Exp	463,015	477,376	492,193	507,478	523,248	539,518	556,306	573,626	591,498	609,940
300 Supply Expense	556,300	577,189	598,915	621,513	645,020	669,476	694,920	721,396	748,948	777,622
700 Vehicle Expense	96,193	99,079	102,051	105,113	108,266	111,514	114,860	118,305	121,855	125,510
400 Operations Expense	366,590	377,588	388,915	400,583	412,600	424,978	437,728	450,859	464,385	478,317
500 Professional Services	56,312	58,002	59,742	61,534	63,380	65,281	67,240	69,257	71,335	73,475
600 Miscellaneous Expense	65,500	68,739	72,139	75,708	79,454	83,386	87,513	91,846	96,394	101,168
Total	2,837,835	2,984,627	3,148,251	3,258,264	3,436,909	3,558,232	3,753,525	3,887,472	4,101,254	4,249,322

Total Operating Expenses

	2,837,835	2,984,627	3,148,251	3,258,264	3,436,909	3,558,232	3,753,525	3,887,472	4,101,254	4,249,322
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Capital Outlays

	101,909	103,438	104,989	106,564	108,162	109,785	111,432	113,103	114,800	116,522
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Debt Service

Debt Service -- Current	1,116,617	1,380,214	1,521,897	1,148,145	1,147,862	1,149,243	1,147,736	1,149,290	1,150,342	1,150,578
Debt Service -- Future	-	-	-	-	171,400	171,400	171,400	171,400	171,400	171,400
Total Debt Service	1,116,617	1,380,214	1,521,897	1,148,145	1,319,262	1,320,643	1,319,136	1,320,690	1,321,742	1,321,978

Net Revenues for Contingencies & Transfers

	100,349	62,438	236,320	761,910	675,217	828,918	818,018	972,174	955,444	1,120,736
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Total Contingencies & Transfers

	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
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Total Cost of Service

	4,176,361	4,588,279	4,895,137	4,632,973	4,984,334	5,108,660	5,304,093	5,441,264	5,657,796	5,807,822
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Net Revenues	(19,651)	(57,562)	116,320	641,910	555,217	708,918	698,018	852,174	835,444	1,000,736
Percent of COS	-0.5%	-1.3%	2.3%	12.2%	10.0%	12.2%	11.6%	13.5%	12.9%	14.7%

Debt Coverage

Excludes Debt, Cap Outlays, G/F Transfers	1.18	1.12	1.22	1.76	1.59	1.71	1.70	1.82	1.81	1.94
All Inclusive	0.98	0.96	1.08	1.56	1.42	1.54	1.53	1.65	1.63	1.76



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