

# City of Goodyear



Report

## Water, Wastewater, and Solid Waste Utility Cost of Service Rate and Fee Study



**CITY OF GOODYEAR, ARIZONA  
2020 WATER, WASTEWATER, AND SOLID WASTE  
UTILITY COST OF SERVICE RATE AND FEE STUDY  
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## Acknowledgements

During the course of this rate study, several City employees expended considerable time and effort in assisting the project team. These employees included the Mayor and Council, Mr. Johnn Gaio, Ms. Amie Gressett, Mr. Doug Sandstrom, Mr. Javier Setovich, Mr. David Ramirez, Mr. Craig Lynch, Ms. Barbara Chappell, Ms. Jacque Behrens, and members of the City's Water Planning Committee. The project team owes a debt of gratitude to the hard work, dedication and professionalism of these individuals, without whom this project would not have been successfully completed.

The project team has relied upon the extensive data supplied by the City. Thus, the integrity of the study is largely dependent upon the accuracy of this financial and volumetric 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 July 2019 the City of Goodyear, Arizona (the “City”) engaged **Willdan** to conduct a water, wastewater, and solid waste utility cost of service rate study and develop a long-term financial plan. The City was interested in evaluating the cost of service for each defined customer class and developing a comprehensive rate plan for Fiscal Year (“FY”) 2020 and beyond. The City utilizes standard governmental accounting procedures for its general and enterprise funds. The Fiscal Year begins on July 1<sup>st</sup> and ends on the following June 30<sup>th</sup>.

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’ and solid waste operations’ current cost of service and revenue requirements
- An estimate of current and forecast accounts, volumes and billing units for the ten year forecast period
- An assessment and evaluation of the known and potential changes occurring within the City’s utility systems including but not limited to CAP water costs and supplemental capital projects
- 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, wastewater, and solid waste known capital improvement needs, as well as a determination of the need for funding capital requirements through the issuance of long-term debt
- The development of a rate structure that would recover the City’s cost of service, ensure equitable, just and reasonable treatment of identified customer classes, and maintain critical financial ratios
- A review of the City’s Non-Rate Fees and Services and recommendations for updates

In conjunction with City staff, the project team evaluated numerous alternative scenarios and rate structures, each of which would enable the City to achieve these objectives while continuing to provide ratepayers with superior quality water, wastewater, and solid waste service. After a series of meetings with City staff, the Water Planning Committee and the City Council, the project team narrowed its recommendations to the alternative

water, wastewater, and solid waste rate designs contained in this study. The analysis and recommendations presented in this study achieve all of the objectives outlined above.

### Water, Wastewater, and Solid Waste Rate Comparison

**Chart ES-1** graphically compares the City’s monthly charges for an average household’s usage of 7,000 gallons of water service and 5,000 gallons of wastewater service to those of other nearby providers in the Phoenix area. Volumes of 7,000 gallons water and 5,000 gallons wastewater were used for the comparison as they represent typical usage levels for an average household in Arizona.

**Chart ES-2** compares the City’s current monthly Residential charge for Residential collection and disposal to those of neighboring municipalities.

The rate data is based on published rates and ordinances posted by each municipality or provider in their rate ordinance or reported on their website. These rates do not include sales tax, activation or other charges beyond the basic minimum and volume charges.

CHART ES-1

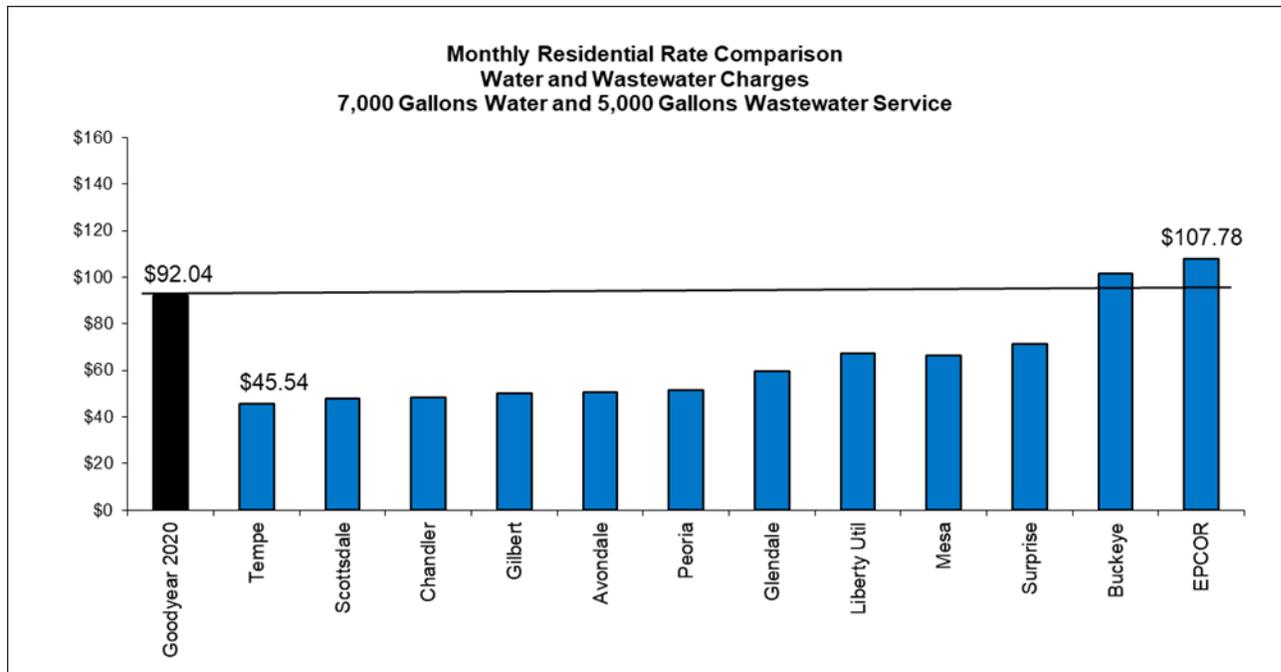
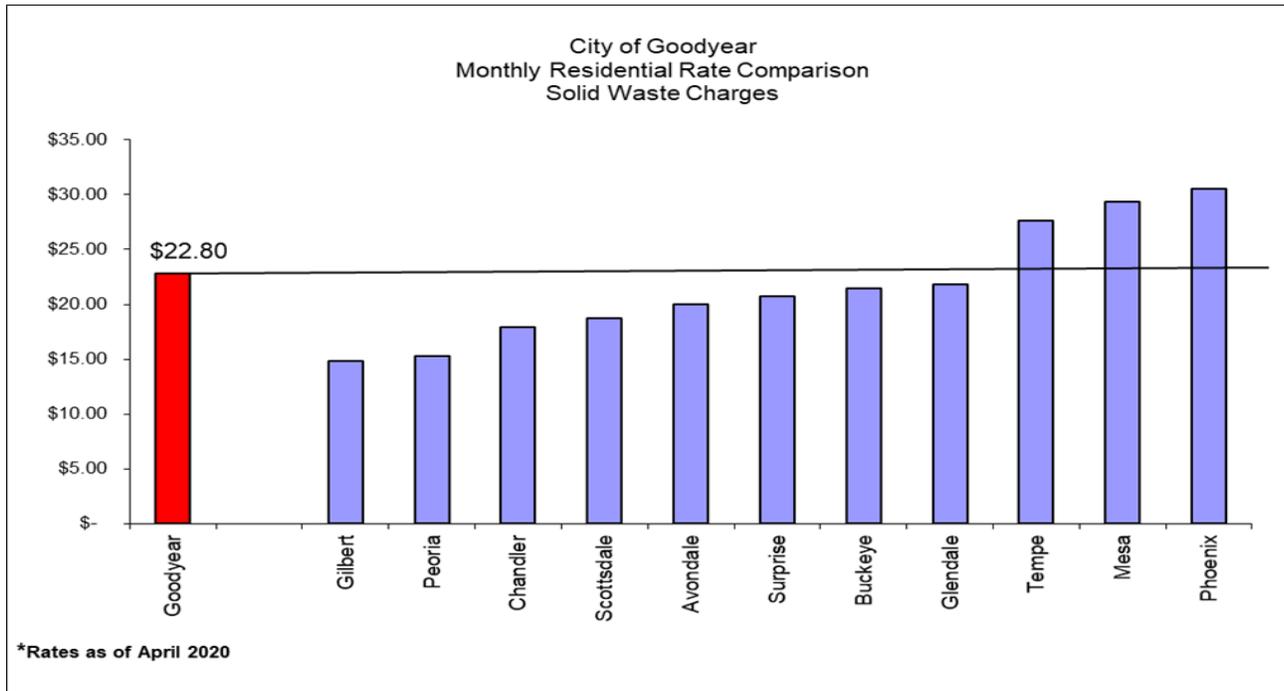


CHART ES-2



### Water, Wastewater, and Solid Waste Customers – Test Year & Ten Year Forecast

**Table ES-3** presents historical and forecast total water and wastewater accounts and classifications. It is important to note that account growth for the City will not be comparable to total population growth, since the City is not the sole provider of water service within its total area.

**Chart ES-4** presents historical and forecast total solid waste accounts and additional containers.

**It must be stressed that if the City does not connect these projected new connections, financial and rate plan assumptions will have to be substantially modified.**

TABLE ES-3

CITY OF GOODYEAR											
FORECAST TOTAL CUSTOMERS											
WATER Customer Classes											
	Residential - City	Residential - County	Multi-Family	Commercial	Church	Industrial	Institutional	Schools	Hydrant	Irrigation	Total
<b>WATER Total Customers</b>											
FY 2016	15,772	-	36	302	18	35	17	29	28	425	16,662
FY 2017	16,437	-	36	306	18	36	16	29	25	435	17,338
FY 2018	17,068	37	36	309	18	36	16	29	38	442	18,029
FY 2019	17,906	88	39	332	20	39	18	30	45	447	18,963
2020	19,138	93	41	378	23	45	22	33	60	449	20,282
2021	19,904	97	43	393	24	47	23	34	62	467	21,094
2022	20,700	101	45	409	25	49	24	35	64	486	21,938
2023	21,528	105	47	425	26	51	25	36	67	505	22,815
2024	22,389	109	49	442	27	53	26	37	70	525	23,727
2025	23,285	113	51	460	28	55	27	38	73	546	24,676
2026	24,216	118	53	478	29	57	28	40	76	568	25,663
2027	25,185	123	55	497	30	59	29	42	79	591	26,690
2028	26,192	128	57	517	31	61	30	44	82	615	27,757
2029	27,240	133	59	538	32	63	31	46	85	640	28,867

FORECAST TOTAL CUSTOMERS											
WASTEWATER Customer Classes											
	Residential - City	Residential - County	Multi-Family	Commercial	Church	Industrial	Institutional	Schools	Perryville Prison	Reclaimed Water	Total
<b>WASTEWATER Total Customers</b>											
FY 2016	16,137	5	36	284	18	25	16	29	1	7	16,556
FY 2017	16,651	5	36	289	18	27	15	29	1	6	17,077
FY 2018	17,671	5	36	292	18	28	15	29	1	7	18,101
FY 2019	18,311	4	40	306	19	29	16	30	1	4	18,760
2020	19,112	5	43	322	20	31	17	30	1	6	19,587
2021	19,878	5	45	323	22	32	18	32	1	6	20,362
2022	20,674	5	47	324	24	33	19	34	1	6	21,167
2023	21,502	5	49	325	26	34	20	37	1	6	22,005
2024	22,363	5	51	326	28	35	21	40	1	6	22,876
2025	23,259	5	53	327	30	36	22	43	1	6	23,782
2026	24,190	5	55	328	32	37	24	46	1	6	24,724
2027	25,159	5	57	329	34	38	26	49	1	6	25,704
2028	26,166	5	59	330	36	39	28	52	1	6	26,722
2029	27,214	5	61	331	38	40	30	55	1	6	27,781

CHART ES-4



### Debt Service and Capital Improvement Plan

A key factor in the development of the City’s long term water, wastewater, and solid waste rate plan is the amount of existing and forecast debt needed to fund capital projects not funded through development fees or other sources such as private sector development agreement financing or grants.

The City has thirteen current water and wastewater debt obligations. The City does not have any solid waste debt obligations.

**Table ES-5** presents a functional summary of the City’s five year water and wastewater Capital Improvement Plan (“CIP”).

TABLE ES-5

CITY OF GOODYEAR	
CAPITAL IMPROVEMENT PLAN	
SCENARIO: 2020 09 24 -- Scenario I -- Status Quo	
<b>WATER CIP Projects</b>	
Adaman Well #3	\$ 2,195,000
CAP Subcontract Capital Charges	4,323,000
Differential Impact Fee Credits	5,943,400
Historic Goodyear Water Replacements	6,365,000
Potable Storage Reservoir Rehabilitation	3,557,000
Treatment Improvements at Site 18	3,264,000
Booster Station Rehabilitation & Replacement Program	2,100,000
Distribution Valve Replacement	2,500,000
Water Meter Replacement	3,890,000
Future Projects	3,763,000
<b>Total Water Projects</b>	<b>40,728,600</b>
<b>WASTEWATER CIP Projects</b>	
Collection System Rehabilitation or Replacements	\$ 8,048,000
Corgett WRF Rehabilitation and Replacement	3,377,000
Differential Impact Fee Credits	2,828,700
Goodyear WRF Rehabilitation and Replacement	4,755,000
Alternative to SAT Site	26,400,000
Brine Disposal	46,995,000
Future Projects	10,578,400
<b>Total</b>	<b>102,982,100</b>
<b>Total CIP 2020 -- 2025</b>	<b>143,710,700</b>

In discussions with City staff, it was determined that the City plans to issue approximately \$215 million in new debt over the ten year forecast period as presented in **Table ES-6**.

TABLE ES-6

CITY OF GOODYEAR			
FORECAST LONG-TERM DEBT REQUIRED TO FUND CIP			
	Water	Wastewater	Total
2020	\$ -	\$ -	\$ -
2021	15,000,000	50,000,000	65,000,000
2022	-	40,000,000	40,000,000
2023	25,000,000	-	25,000,000
2024	-	-	-
2025	20,000,000	20,000,000	40,000,000
2026	-	-	-
2027	10,000,000	20,000,000	30,000,000
2028	-	-	-
2029	5,000,000	10,000,000	15,000,000
<b>Total</b>	<b>75,000,000</b>	<b>140,000,000</b>	<b>215,000,000</b>

**Table ES-7** presents the City's total existing and forecast debt service payments over the next decade.

TABLE ES-7

CITY OF GOODYEAR						
CURRENT AND FORECAST DEBT SERVICE						
SCENARIO: 2020 09 24 -- Scenario I -- Status Quo						
Year	Water		Wastewater		Total	
	Current	Forecast	Current	Forecast		
2020	\$ 5,076,449	\$ -	\$ 5,368,186	\$ -	\$ 10,444,635	
2021	5,823,300	-	3,731,300	-	9,554,600	
2022	5,832,550	1,018,318	3,524,100	3,394,393	13,769,361	
2023	5,857,750	1,018,318	3,531,850	6,109,908	16,517,826	
2024	5,905,050	2,715,515	3,538,450	6,109,908	18,268,922	
2025	5,863,750	2,715,515	3,553,650	6,109,908	18,242,822	
2026	5,866,950	4,073,272	3,563,250	7,467,665	20,971,137	
2027	5,570,450	4,073,272	4,638,150	7,467,665	21,749,537	
2028	5,330,350	4,752,151	4,356,150	8,825,422	23,264,073	
2029	5,332,550	4,752,151	4,352,950	8,825,422	23,263,073	

**Water, Wastewater, and Solid Waste Test Year and Forecast Net Revenue Requirement**

Table ES-8 presents the ten-year forecast for the City’s water and wastewater net revenue requirement to be raised from rates. As the table reveals, the City’s water and wastewater net revenue requirement is increase from \$30,921,310 in FY 2020 to \$64,477,989 in FY 2029. This represents an annual rate of growth of 8.7%.

Table ES-9 presents the ten-year forecast for the City’s solid waste net revenue requirement to be raised from rates. As the table reveals, the City’s solid waste net revenue requirement is increase from \$7,317,516 in FY 2020 to \$13,165,504 in FY 2029. This represents an annual rate of growth of 7.0%.

TABLE ES-8

CITY OF GOODYEAR							
CURRENT AND FORECAST REVENUE REQUIREMENT							
SCENARIO: 2020 09 24 -- Scenario I -- Status Quo							
	Operating Expenses	Capital Outlays	Debt Service	Transfers & Contingencies	Cost of Service	Non-Rate Revenues	Revenue Requirement
<b>TOTAL Revenue Requirement</b>							
2020	\$ 18,422,575	\$ 1,113,500	\$ 10,444,635	\$ 2,898,100	\$ 32,878,810	\$ 1,957,500	\$ 30,921,310
2021	20,188,169	1,872,900	9,554,600	3,631,411	35,247,080	4,130,790	31,116,290
2022	23,065,955	1,276,900	13,769,361	3,858,348	41,970,565	4,212,579	37,757,986
2023	27,188,989	1,279,100	16,517,826	4,088,734	49,074,649	4,280,231	44,794,418
2024	28,526,891	1,884,100	18,268,922	4,340,661	53,020,574	4,355,369	48,665,205
2025	30,554,112	2,005,700	18,242,822	4,619,108	55,421,742	4,432,980	50,988,762
2026	32,172,223	2,591,300	20,971,137	4,907,112	60,641,771	4,513,145	56,128,626
2027	33,846,692	2,533,400	21,749,537	5,191,656	63,321,285	4,595,952	58,725,333
2028	35,728,599	1,617,600	23,264,073	5,480,193	66,090,465	4,661,487	61,428,978
2029	37,676,780	2,415,100	23,263,073	5,790,127	69,145,080	4,728,843	64,416,237

TABLE ES-9

CITY OF GOODYEAR							
FORECAST SOLID WASTE NET REVENUE REQUIREMENT							
	Operating Expenses	Fund Transfers	Capital Outlays	Debt Service	Total Cost of Service	Less Non-Rate Revenues	Net Revenue Requirement
<b>Sanitation Revenue Requirement</b>							
2020	\$ 5,640,014	\$ 1,238,002	\$ 529,300	\$ -	\$ 7,407,316	\$ (89,800)	\$ 7,317,516
2021	6,152,866	1,649,762	243,296	-	8,045,924	(89,800)	7,956,124
2022	7,044,075	1,300,643	408,120	-	8,752,838	(89,800)	8,663,038
2023	7,441,320	1,339,662	-	-	8,780,982	(89,800)	8,691,182
2024	7,862,354	1,379,852	65,998	-	9,308,204	(89,800)	9,218,404
2025	8,308,847	1,421,248	-	-	9,730,094	(89,800)	9,640,294
2026	9,595,645	1,463,885	1,162,832	-	12,222,362	(89,800)	12,132,562
2027	10,137,418	1,507,801	310,608	-	11,955,827	(89,800)	11,866,027
2028	10,712,203	1,553,036	-	-	12,265,238	(89,800)	12,175,438
2029	11,321,923	1,599,627	333,754	-	13,255,304	(89,800)	13,165,504

## Water, Wastewater, and Solid Waste Rate Recommendations

During the course of this engagement the project team met with City staff, the Water Planning committee and the City Council to discuss numerous alternative rate scenarios and rate plans. As a result of these discussions, staff, the Water Planning Committee and the project team settled on the water, wastewater, and solid waste scenarios and rate designs presented in this report. These revenue requirements include all direct and indirect expenditures for operations and maintenance, capital requirements for expansion, repair and replacement, debt service and required reserves. The proposed rate plan is designed to capture sufficient revenues for these purposes as well as coverage of the basic cost of service.

### Water and Wastewater Rate Recommendations – Scenario 1

Under Scenario 1, the City implements a series of annual water and wastewater rate adjustments over the five-year period FY 2021 - FY 2029 to achieve cost of service rates for water and wastewater operations. A full ten-year rate forecast is presented in **Appendix A**.

The projected rate revenues collected are forecast to be sufficient to fund all operating expenses and capital obligations in each of the forecast years. This alternative assumes the following:

- Maintains the current rate design structure for both water and wastewater customer classes
- Rate adjustments are uniformly applied to both base and volume charges
- Water rate adjustments are uniformly applied to all water rate classifications
- Wastewater rate adjustments are uniformly applied to all wastewater rate classifications

**Table ES-10** presents a summary of the water rate plan proposed for the City for the next ten years and **Table ES-11** presents a summary of the wastewater rate plan. **Table ES-12** presents examples of the impact on monthly bills. The recommended rate plan continues the City's policy of implementing water and wastewater rate changes in January of each year.

TABLE ES-10

		Proposed Water Rate Plan					
Scenario: 2020 09 24 -- Scenario I -- Status Quo		Current	Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25
<b>Water Rates</b>							
<b>CAP Water Charge</b>		\$ 0.95	\$ 1.10	\$ 1.25	\$ 1.40	\$ 1.55	\$ 1.70
<b>Monthly Minimum Charge</b>	3/4"	18.54	<b>19.28</b>	19.86	20.46	21.07	21.70
	1"	25.64	<b>26.67</b>	27.47	28.29	29.14	30.01
	1 1/2"	41.46	<b>43.12</b>	44.41	45.74	47.12	48.53
	2"	67.11	<b>69.79</b>	71.89	74.04	76.27	78.55
	3"	77.67	<b>80.78</b>	83.20	85.70	88.27	90.92
	4"	126.65	<b>131.72</b>	135.67	139.74	143.93	148.25
	6"	240.36	<b>249.97</b>	257.47	265.20	273.15	281.35
	8"	240.36	<b>249.97</b>	257.47	265.20	273.15	281.35
<b>Volume Rate Per 1,000 Gal</b>							
<u>Residential - City</u>							
-	6,000	2.15	<b>2.24</b>	2.30	2.37	2.44	2.52
6,001	12,000	4.27	<b>4.44</b>	4.57	4.71	4.85	5.00
12,001	30,000	6.42	<b>6.68</b>	6.88	7.08	7.30	7.51
30,001	Above	10.31	<b>10.72</b>	11.04	11.38	11.72	12.07
<u>Non-Residential</u>							
-	40,000	5.06	<b>5.26</b>	5.42	5.58	5.75	5.92
40,001	100,000	8.10	<b>8.42</b>	8.68	8.94	9.21	9.48
100,001	Above	10.50	<b>10.92</b>	11.25	11.59	11.93	12.29
<u>Irrigation</u>							
-	80,000	7.57	<b>7.87</b>	8.11	8.35	8.60	8.86
80,001	Above	8.71	<b>9.06</b>	9.33	9.61	9.90	10.20

TABLE ES-11

		Proposed Wastewater Rate Plan					
Scenario: 2020 09 24 -- Scenario I -- Status Quo		Current	Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25
<b>Wastewater Rates</b>							
<b>Monthly Minimum Charge</b>	3/4"	\$ 23.78	\$ <b>24.49</b>	\$ 25.23	\$ 25.99	\$ 27.02	\$ 28.11
	1"	36.49	<b>37.58</b>	38.71	39.87	41.47	43.13
	1 1/2"	44.96	<b>46.31</b>	47.70	49.13	51.09	53.14
	2"	87.35	<b>89.97</b>	92.67	95.45	99.27	103.24
	3"	115.22	<b>118.68</b>	122.24	125.90	130.94	136.18
	4"	152.86	<b>157.45</b>	162.17	167.03	173.72	180.66
<b>Volume Rate/1,000 Gal</b>		6.51	<b>6.71</b>	6.91	7.11	7.40	7.69

TABLE ES-12

Impact on Monthly Customer Charges						
<b>Scenario:</b>	2020 09 24 -- Scenario I -- Status Quo					
	Current	Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25
<b>Residential Standard Monthly Bill - 3/4"</b>						
7,000 Gal Wate Total	\$ 98.69	\$ 102.86	\$ 106.76	\$ 110.75	\$ 115.45	\$ 120.28
5,000 Gal WW Increase -- \$		4.17	3.90	3.99	4.69	4.83
Increase -- %		4.2%	3.8%	3.7%	4.2%	4.2%
10,000 Gal Wai Total	114.35	119.48	124.24	129.09	134.66	140.37
5,000 Gal WW Increase -- \$		5.13	4.75	4.85	5.57	5.71
Increase -- %		4.5%	4.0%	3.9%	4.3%	4.2%
20,000 Gal Wai Total	216.30	226.30	235.43	244.75	255.22	265.96
10,000 Gal WW Increase -- \$		10.00	9.13	9.31	10.47	10.74
Increase -- %		4.6%	4.0%	4.0%	4.3%	4.2%
<b>Commercial Standard Monthly Bill - 2"</b>						
25,000 Gal Wai Total	\$ 434.91	\$ 452.93	\$ 469.44	\$ 486.34	\$ 506.01	\$ 526.25
20,000 Gal WW Increase -- \$		18.02	16.51	16.90	19.67	20.24
Increase -- %		4.1%	3.6%	3.6%	4.0%	4.0%
50,000 Gal Wai Total	745.76	777.71	806.89	836.73	871.03	906.29
40,000 Gal WW Increase -- \$		31.95	29.18	29.83	34.30	35.26
Increase -- %		4.3%	3.8%	3.7%	4.1%	4.0%

**NOTE: Includes CAP Water Charges**

### Solid Waste Rate Recommendations

Table ES-13 presents the recommended solid waste rate implementation schedule for the period FY 2021 – FY 2025. The following should be noted about this recommendation:

- The rate design continues the City’s policy of charging a monthly charge for sanitation service.
- The increases are proposed to become effective on January 1 of each fiscal year in the rate plan period.

TABLE ES-13

CITY OF GOODYEAR SOLID WASTE MONTHLY CHARGE SCHEDULE						
	Current	Monthly Charge				
		Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25
<b>Residential</b>						
Total Monthly	\$ 22.80	\$ 19.80	\$ 20.55	\$ 21.40	\$ 22.25	\$ 23.15
Inc/(Dec) -- Dollars		(3.00)	0.75	0.85	0.85	0.90
Inc/(Dec) -- Percent		-13.0%	4.0%	4.0%	4.0%	4.0%
<b>Residential -- Additional</b>						
Residential -- Additional Container	6.26	7.50	7.80	8.11	8.43	8.77
Inc/(Dec) -- Dollars		1.24	0.30	0.31	0.32	0.34
Inc/(Dec) -- Percent		20.0%	4.0%	4.0%	4.0%	4.0%

While this study presents a forecast of rates over the next decade, it is recommended that the City monitor actual growth in accounts and consumption, and update its forecasts annually due to the dynamic nature of growth in the City, and the rapid rate of change within the utility and the City. Periodic reviews will enable the City to assess the need for adjustments to the long-term rate plan.

### Non-Rate Fees and Services Cost Analysis

The City’s Non-Rate Fees have not been reviewed or adjusted over the past 5 years. The City seeks to analyze the cost it incurs in providing each of these services to the associated ratepayer as well as an analysis of what other cities charge for similar fees and services. This will form the basis of the fee recommended to be charged for each service. In order to be properly calculated and implemented, each category of Non-Rate Fees and Services must have its costs calculated according to a basic, generally-accepted methodology. This methodology has been closely followed during the course of this study. The non-rate calculation model contained in **Appendix B** of this report presents the cost calculation methodology in detail and the full Executive Summary of this portion of the study is presented in **Section V** of this report.

*Section I*

## SECTION I

# Introduction and Demographic Profile

## Background



In late 2019 the City of Goodyear, Arizona (the “City”) engaged **Willdan** to conduct a water, wastewater, and solid waste utility cost of service rate study and non-rate fee study. The City was interested in evaluating the cost of service for each defined customer class and developing a comprehensive rate plan for Fiscal Year (“FY”) 2020 and beyond. The City utilizes standard governmental accounting procedures for its general and enterprise funds. The Fiscal Year begins on July 1<sup>st</sup> and ends on the following June 30<sup>th</sup>.

In this study, FY 2020 will also be referred to as the Test Year (“TY”). As noted in the AWWA Manual M1, the selection of a test year is an important starting point for establishing a utility’s revenue

requirements. The test year may be based entirely on historical data, projected data, or, as in this study, “pro forma” which begins with historical costs and then adjusts for those “known and measurable” changes.

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

- A comprehensive analysis and evaluation of the water, wastewater and solid waste operations’ current cost of service and revenue requirements
- An estimate of current and forecast accounts, volumes and billing units for the ten-year forecast period
- An assessment and evaluation of the known and potential changes occurring within the City’s utility systems including but not limited to CAP water costs and supplemental capital projects
- 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, wastewater, and solid waste known capital improvement needs, as well as a determination of the need for funding capital requirements through the issuance of long-term debt
- The development of a rate structure that would recover the City’s cost of service, ensure equitable, just and reasonable treatment of identified customer classes, and maintain critical financial ratios
- An analysis of the existing water rate block structure for overall effectiveness
- A review of the City’s Non-Rate Fees and Services and recommendations for updates

In conjunction with City staff, the project team evaluated numerous alternative scenarios and rate structures, each of which would enable the City to achieve these objectives while continuing to provide ratepayers with superior quality water, wastewater, and solid waste service. After a series of meetings with City staff, the Water Planning Committee and the City Council, the project team narrowed its recommendations to the alternative water, wastewater, and solid waste rate designs contained in this study. The analysis and recommendations presented in this study achieve all of the objectives outlined above.

## 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. Also presents the City’s current rate structures and a demographic profile of the City of Goodyear. This includes a comparison of the City’s water and wastewater charges with other cities in Arizona.

**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 a rate design recommendation for the City to consider which would enable it to meet its revenue requirements over the next decade. Also presents an analysis of the impact of these alternative rate plans on each defined customer class.

**Section V – Non-Rate Fees and Services Cost Analysis** – analyzes the City’s fees and services that are provided to customers who are specifically requesting services or who are violating the utility’s codes.

**Section VI – Solid Waste Service Cost Analysis and Rate Design** – presents the forecast revenue requirement and rate design recommendations for the City’s solid waste collection system.

**Appendix A** – presents a hard copy printout of key worksheets from the Microsoft Excel spreadsheet model developed for the City to calculate water and wastewater current and future revenue requirements. The model automatically generates all calculations based on a set of defined user inputs.

**Appendix B** – presents a hard copy printout of the Non-Rate Revenue Fees and Recommendations model.

**Appendix C** – presents a hard copy printout of key worksheets from the Microsoft Excel spreadsheet model developed for the City to calculate solid waste current and future revenue requirements. The model automatically generates all calculations based on a set of defined user inputs.



### City Leadership

Goodyear, Arizona is a city with a rich, rewarding quality of life and tremendous community spirit, exemplified by two prestigious national awards in 2008 – The All-American City and City Livability awards. Goodyear offers all the advantages of a small community, with all the cultural and entertainment resources that the Phoenix area offers.

Goodyear is strategically located at the base of the Estrella Mountains, in the southwest portion of the Phoenix metro area, just 20 minutes west of downtown Phoenix. Its location on Interstate 10 provides access to Los Angeles to the west, Phoenix and Tucson to the east.

Goodyear is the Spring Training home of the Cleveland Indians and the Cincinnati Reds. The desert vistas, majestic mountains, and master planned communities with lakes, country clubs and golf courses encourage an active outdoor lifestyle that attracts many residents and businesses to Goodyear.

The City operates under a Council-Manager form of government. The Council consists of the Mayor and six council members– all elected at large on a non-partisan ballot. The Mayor and Council serve four year terms. The Mayor has a two term limit and Council a three term limit. Council members serve staggered terms.

The City Manager reports to the Mayor, Council and the Citizens of Goodyear, and is responsible for the day-to-day operations of the City. All changes to the City’s water, wastewater, and solid waste rate structure must be approved by a vote of the Council. **Table I-1** lists current serving City officials.

TABLE I-1

CITY OF GOODYEAR			
CITY OFFICIALS -- JULY 2020			
Mayor and Council		Senior City Staff	
Georgia Lord	<i>Mayor</i>	Julie Arendall	<i>City Manager</i>
Bill Stipp	<i>Vice Mayor</i>	Dan Cotterman	<i>Deputy City Manager</i>
Joe Pizzillo	<i>Council Member</i>	Wynette Reed	<i>Deputy City Manager</i>
Sheri Lauritano	<i>Council Member</i>	Doug Sandstrom	<i>Director of Finance</i>
Wally Campbell	<i>Council Member</i>	Darcie McCracken	<i>City Clerk</i>
Brannon Hampton	<i>Council Member</i>		
Laura Kaino	<i>Council Member</i>		

In addition, the City utilizes various Boards and Commissions to advise Council, including the Water Planning Committee. The Water Planning Committee was involved at several milestones of the study for both informational and review purposes, and provided both input and recommendations.

### Water and Wastewater Current Rates

Table I-2 summarizes the City’s current water, wastewater and effluent (reclaimed water) rates.

TABLE I-2

CITY OF GOODYEAR			
CURRENT WATER AND WASTEWATER RATES			
		Water	Wastewater
<b>Monthly Minimum Charge</b>			
3/4"		\$ 18.54	\$ 23.78
1"		25.64	36.49
1 1/2"		41.46	44.96
2"		67.11	87.35
3"		77.67	115.22
4"		126.65	152.86
6"		240.36	378.70
<b>Volume Rate/1,000 Gal</b>			
<b>Residential - City</b>			
-	6,000	2.15	6.51
6,001	12,000	4.27	6.51
12,001	30,000	6.42	6.51
30,001	Above	10.31	6.51
<b>Multi-Family/Commercial/Industrial</b>			
-	40,000	5.06	6.51
40,001	100,000	8.10	6.51
100,001	Above	10.50	6.51
<b>Irrigation</b>			
-	80,000	7.57	NA
80,001	Above	8.71	NA
<b>Reclaimed Water</b>			
Per 1,00 Gallons		NA	6.38

\* Residential County rates have a 25% premium

All City water accounts are assessed a base charge based on meter size in addition to their inverted block volumetric rate structure. Multi-Family, schools, churches, hydrants and institution accounts are assessed commercial rates. Irrigation customers pay the commercial base rates, but a separate inverted block volumetric rate. Residential-County accounts are located outside of the city limits have base charges that are 25% higher than Residential-City accounts. Water Volume rates for Residential-County customers for all tiers are also charged at 25% higher than City accounts.

Residential wastewater accounts pay a base charge based on meter size as well as a flat volumetric rate. Multi-Family, schools, churches, hydrants and institution accounts are assessed commercial rates which include a base charge based on meter size and a flat volumetric rate. Until July 2015, the Perryville Prison paid the City for sewer services based on a long-standing contractual agreement with the City. Beginning in July 2015, the Prison began paying the commercial volumetric charge.

Treated Effluent, or Reclaimed Water is sold for use in landscape irrigation. The current reclaimed water (effluent) rates include a base charge based on meter size and a flat volumetric charge.

## Current Charges and Comparisons

**Table I-3** compares the City's monthly charges for an average household's usage of 7,000 gallons of water service and 5,000 gallons of wastewater service to those of other nearby providers in the Phoenix area. **Chart I-4** presents the combined average charges graphically. Volumes of 7,000 gallons water and 5,000 gallons wastewater were used for the comparison as they represent typical usage levels for an average household in Arizona. The rate data is based on published rates and ordinances posted by each municipality or provider in their rate ordinance or reported on their website.

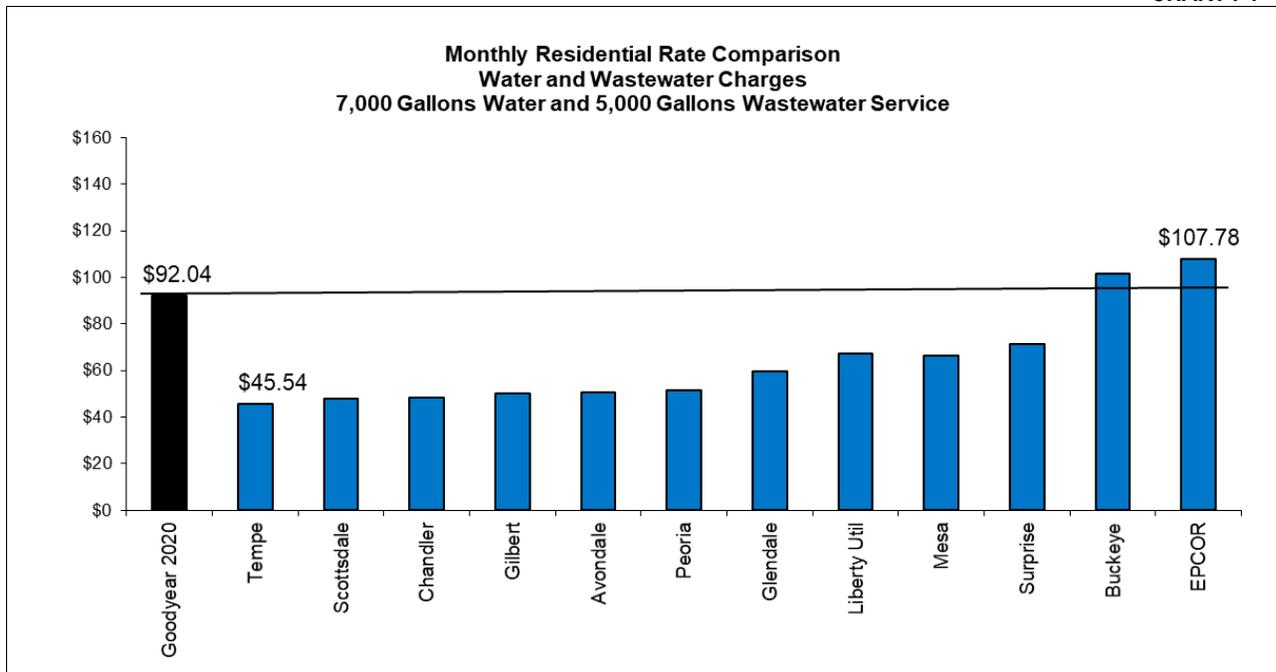
These rates do not include sales tax, activation or other charges beyond the basic minimum and volume charges. Comparisons such as these are for usage charges only. *This type of comparison may have the unintended effect of discriminating against communities who choose to finance system expansions through current rates or revenue bonds, which are included in rates, as opposed to those who utilize general obligation bonds, which are funded through taxes.* All else being equal, a City that primarily or exclusively uses general obligation bonds will have a lower water rate per 1,000 gallons but a higher tax rate.

TABLE I-3

CITY OF GOODYEAR			
MONTHLY RESIDENTIAL CHARGES 7,000 GALLONS WATER; 5,000 GALLONS WASTEWATER			
	Water	Wastewater	Total
<b>CITY OF GOODYEAR</b>	\$ 35.71	\$ 56.33	\$ 92.04
Tempe	26.04	19.50	45.54
Scottsdale	31.20	16.70	47.90
Chandler	21.07	27.32	48.39
Gilbert	25.30	24.73	50.03
Avondale	23.46	27.09	50.55
Peoria	31.44	20.24	51.68
Glendale	29.70	29.95	59.65
Liberty Util	22.04	45.23	67.27
Mesa	42.46	24.01	66.47
Surprise	46.60	24.78	71.38
Buckeye	62.91	38.86	101.77
EPCOR	56.15	51.63	107.78

Source: Citys' Website & municipal websites

CHART I-4



*Section II*

## SECTION II

## Water & Wastewater Test Year and Forecast Volumes



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 Goodyear, water and wastewater records maintained by the City were reviewed for the five year period beginning January 2015. These records provided information on the monthly water volumes distributed system-wide as well as the number of accounts for

each month and the associated revenues. Additionally, these records provided the number of accounts, billing units and revenues by month 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 and discussions with City staff, the project team incorporated the City's 14 currently active water billing rate classifications into 10 distinct customer classes, and the City's 13 active wastewater billing rate classifications into 10 distinct customer classes. 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 rate design recommendation.

### Water and Wastewater Customers – Current Year

The majority of the City’s accounts are Residential-City which are located inside the city limits. The Residential-County customer classes for both water and wastewater are relatively small and are expected to experience little growth during the forecast period. The City’s customer categories from their billing system and the corresponding consolidated rate model customer classes are outlined in **Table II-1**.

TABLE II-1

CITY OF GOODYEAR													
WATER AND WASTEWATER CUSTOMERS													
WATER CUSTOMERS							WASTEWATER CUSTOMERS						
City Classification			Rate Study				City Classification			Rate Study			
1	Residential - City	W1	Residential - City			1	1	Residential - City	WW1	Residential - City			1
2	Residential - County	W2	Residential - County			2	2	Residential - County	WW2	Residential - County			2
3	Multi-Family	W3	Multi-Family - City			3	3	Multi-Family	WW3	Multi-Family - City			3
4	Commercial	W4	Commercial - City	4, 6, 11, 12		4	4	Commercial	WW4	Commercial - City	4, 6, 9, 10		4
5	Church	W5	Church - City			5	5	Church	WW5	Church - City			5
6	Car wash	W6	Industrial - City			7	6	Car wash	WW6	Industrial - City			7
7	Industrial	W7	Hydrant - City	8, 9		7	7	Industrial	WW7	Institutional - City			8
8	Hydrant - POT	W8	Institutional - City			10	8	Institutional	WW8	School - City			11
9	Hydrant - F&D Const	W9	School - City			13	9	Laundry Mat	WW9	Perryville Prison			12
10	Institutional	W10	Irrigation - City			14	10	Multi-Purpose	WW10	Reclaimed Water			13
11	Laundry Mat						11	School					
12	Multi-Purpose						12	Perryville Prison					
13	School						13	Reclaimed Water					
14	Irrigation												

As stated in Section I of this study, the City currently charges an inverted block volume rate to all customers. All water and wastewater accounts are charged a monthly base charge corresponding to water meter size. **Table II-2** presents the distribution of meter sizes within each consolidated customer class as of September 2019.

TABLE II-2

CITY OF GOODYEAR													
WATER ACCOUNTS BY METER SIZE													
Meter Sizes	Residential - City		Residential - County		Multi-Family	Commercial	Church	Industrial	Institutional	Schools	Hydrant	Irrigation	Total
<b>September 2019 - Total Active Water Accounts</b>													
3/4"	16,223	89	-	41	1	6	-	3	-	72			16,435
1"	2,523	1	30	54	7	8	-	3	2	115			2,743
1 1/2"	5	1	-	99	9	5	2	3	-	100			224
2"	-	-	7	148	5	21	-	18	50	141			390
3"	-	-	-	9	-	-	19	3	5	2			38
4"	-	-	3	10	-	3	-	-	2	1			19
6"	-	-	-	9	-	-	-	2	-	9			20
8"	-	-	-	-	-	-	-	-	-	-			-
<b>Total</b>	<b>18,751</b>	<b>91</b>	<b>40</b>	<b>370</b>	<b>22</b>	<b>44</b>	<b>21</b>	<b>32</b>	<b>59</b>	<b>440</b>			<b>19,869</b>
<b>Projected TY Acct Growth</b>	<b>387</b>	<b>2</b>	<b>1</b>	<b>8</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>9</b>			<b>412</b>
<b>Total FY 2020 Accounts</b>	<b>19,138</b>	<b>93</b>	<b>41</b>	<b>378</b>	<b>23</b>	<b>45</b>	<b>22</b>	<b>33</b>	<b>60</b>	<b>449</b>			<b>20,282</b>
<b>September 2019 - Active Accounts by Percentage</b>													
3/4"	86.52%	97.73%	0.00%	10.98%	5.56%	14.63%	0.00%	9.52%	0.00%	16.38%			82.72%
1"	13.45%	1.14%	75.00%	14.63%	33.33%	17.07%	0.00%	9.52%	3.85%	26.05%			13.81%
1 1/2"	0.03%	1.14%	0.00%	26.83%	38.89%	12.20%	8.33%	9.52%	0.00%	22.83%			1.13%
2"	0.00%	0.00%	16.67%	39.94%	22.22%	48.78%	0.00%	57.14%	84.62%	32.01%			1.96%
3"	0.00%	0.00%	0.00%	2.44%	0.00%	0.00%	91.67%	9.52%	7.69%	0.50%			0.19%
4"	0.00%	0.00%	8.33%	2.74%	0.00%	7.32%	0.00%	0.00%	3.85%	0.25%			0.10%
6"	0.00%	0.00%	0.00%	2.44%	0.00%	0.00%	0.00%	4.76%	0.00%	1.99%			0.10%
8"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			0.00%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>			<b>100.00%</b>

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

**Table II-3** presents total water accounts and classifications for the City for the past four years and the forecast growth over the next decade. It is important to note that account growth for the City will not be comparable to total population growth, since the City is not the sole provider of water service within its total area. Growth estimates for TY 2020 include new accounts forecast in FY 2020.

In total, water accounts are forecast to increase from 20,282 in TY 2020 to 28,867 in FY 2029, an average annual increase of 4.0%.

**TABLE II-3**

CITY OF GOODYEAR											
FORECAST TOTAL CUSTOMERS											
WATER Customer Classes											
	Residential - City	Residential - County	Multi-Family	Commercial	Church	Industrial	Institutional	Schools	Hydrant	Irrigation	Total
<b>WATER Total Customers</b>											
FY 2016	15,772	-	36	302	18	35	17	29	28	425	16,662
FY 2017	16,437	-	36	306	18	36	16	29	25	435	17,338
FY 2018	17,068	37	36	309	18	36	16	29	38	442	18,029
FY 2019	17,906	88	39	332	20	39	18	30	45	447	18,963
2020	19,138	93	41	378	23	45	22	33	60	449	20,282
2021	19,904	97	43	393	24	47	23	34	62	467	21,094
2022	20,700	101	45	409	25	49	24	35	64	486	21,938
2023	21,528	105	47	425	26	51	25	36	67	505	22,815
2024	22,389	109	49	442	27	53	26	37	70	525	23,727
2025	23,285	113	51	460	28	55	27	38	73	546	24,676
2026	24,216	118	53	478	29	57	28	40	76	568	25,663
2027	25,185	123	55	497	30	59	29	42	79	591	26,690
2028	26,192	128	57	517	31	61	30	44	82	615	27,757
2029	27,240	133	59	538	32	63	31	46	85	640	28,867
<b>WATER Annual New Customers</b>											
FY 2017	665	-	(0)	4	-	1	(1)	(0)	(3)	11	677
FY 2018	631	37	-	3	0	-	(0)	-	13	6	690
FY 2019	838	51	3	23	2	3	2	1	7	5	935
2020	1,231	5	2	46	3	6	4	3	15	3	1,318
2021	766	4	2	15	1	2	1	1	2	18	812
2022	796	4	2	16	1	2	1	1	2	19	844
2023	828	4	2	16	1	2	1	1	3	19	877
2024	861	4	2	17	1	2	1	1	3	20	912
2025	896	4	2	18	1	2	1	1	3	21	949
2026	931	5	2	18	1	2	1	2	3	22	987
2027	969	5	2	19	1	2	1	2	3	23	1,027
2028	1,007	5	2	20	1	2	1	2	3	24	1,067
2029	1,048	5	2	21	1	2	1	2	3	25	1,110

**Table II-4** presents wastewater accounts and classifications for the City for the past four years and the forecast growth over the next decade. In total, wastewater accounts are forecast to increase from 19,587 in TY 2020 to 27,781 in FY 2029, an average annual increase of 3.96%. It must be stressed that if the City is does not connect these projected new accounts, financial and rate plan assumptions will have to be modified.

TABLE II-4

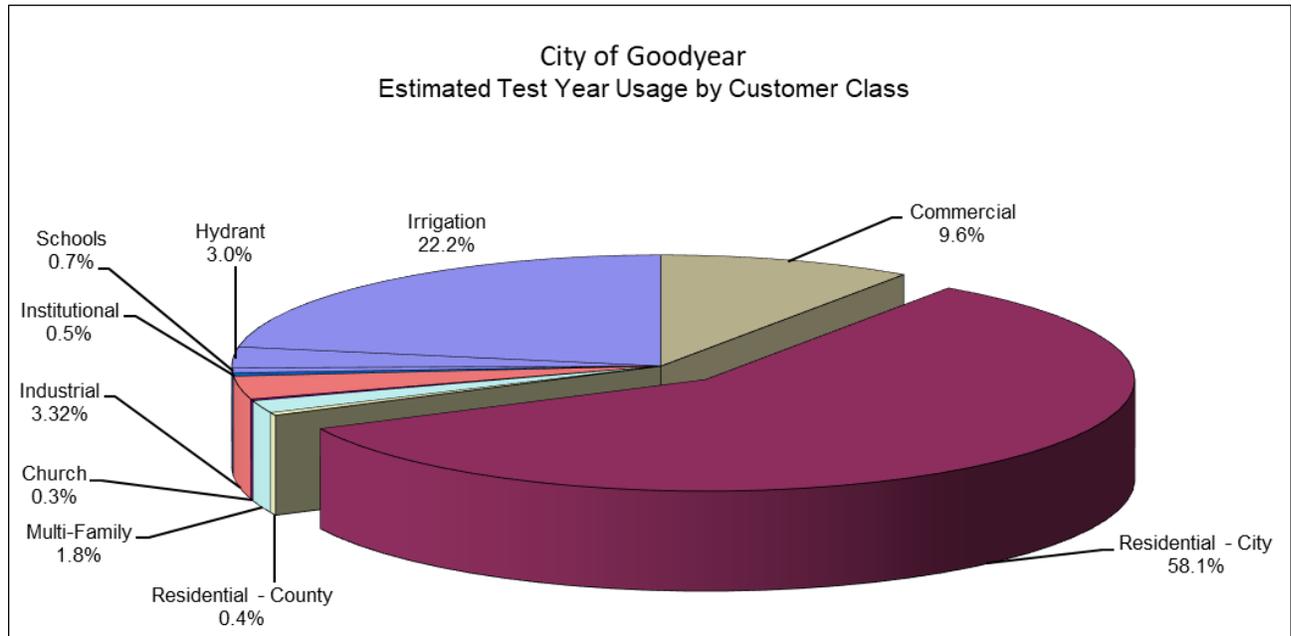
CITY OF GOODYEAR											
FORECAST TOTAL CUSTOMERS											
WASTEWATER Customer Classes											
	Residential - City	Residential - County	Multi-Family	Commercial	Church	Industrial	Institutional	Schools	Perryville Prison	Reclaimed Water	Total
<b>WASTEWATER Total Customers</b>											
FY 2016	16,137	5	36	284	18	25	16	29	1	7	16,556
FY 2017	16,651	5	36	289	18	27	15	29	1	6	17,077
FY 2018	17,671	5	36	292	18	28	15	29	1	7	18,101
FY 2019	18,311	4	40	306	19	29	16	30	1	4	18,760
2020	19,112	5	43	322	20	31	17	30	1	6	19,587
2021	19,878	5	45	323	22	32	18	32	1	6	20,362
2022	20,674	5	47	324	24	33	19	34	1	6	21,167
2023	21,502	5	49	325	26	34	20	37	1	6	22,005
2024	22,363	5	51	326	28	35	21	40	1	6	22,876
2025	23,259	5	53	327	30	36	22	43	1	6	23,782
2026	24,190	5	55	328	32	37	24	46	1	6	24,724
2027	25,159	5	57	329	34	38	26	49	1	6	25,704
2028	26,166	5	59	330	36	39	28	52	1	6	26,722
2029	27,214	5	61	331	38	40	30	55	1	6	27,781
<b>WASTEWATER Annual New Customers</b>											
FY 2017	515	-	(0)	6	-	2	(1)	(0)	-	(1)	521
FY 2018	1,020	-	-	2	0	1	0	-	0	1	1,024
FY 2019	641	(1)	4	15	1	1	0	1	(0)	(3)	659
2020	801	1	3	16	1	2	1	0	-	2	827
2021	766	-	2	1	2	1	1	2	-	-	775
2022	796	-	2	1	2	1	1	2	-	-	805
2023	828	-	2	1	2	1	1	3	-	-	838
2024	861	-	2	1	2	1	1	3	-	-	871
2025	896	-	2	1	2	1	1	3	-	-	906
2026	931	-	2	1	2	1	2	3	-	-	942
2027	969	-	2	1	2	1	2	3	-	-	980
2028	1,007	-	2	1	2	1	2	3	-	-	1,018
2029	1,048	-	2	1	2	1	2	3	-	-	1,059

### Historical and Forecast Water Consumption

Total water system consumption data was analyzed over the same time period as customer data. Forecast consumption for each account class was developed from the historical data provided. In accordance with the AWWA Manual M50, *Water Resource Planning*, a “weather-normalized” forecast was developed to represent consumption patterns anticipated for each customer class using historical data and trends. Changes in consumer behavior in response to changes in pricing and certain rate structures designed to encourage conservation were taken into account in forecasting consumption.

Chart II-5 presents the percentage of total forecast consumption by customer class in the test year. This chart illustrates the relative volume demands of each class, as well as the fact that the Residential- City customer class is the largest user, accounting for **58.1%** of test year billed consumption.

CHART II-5

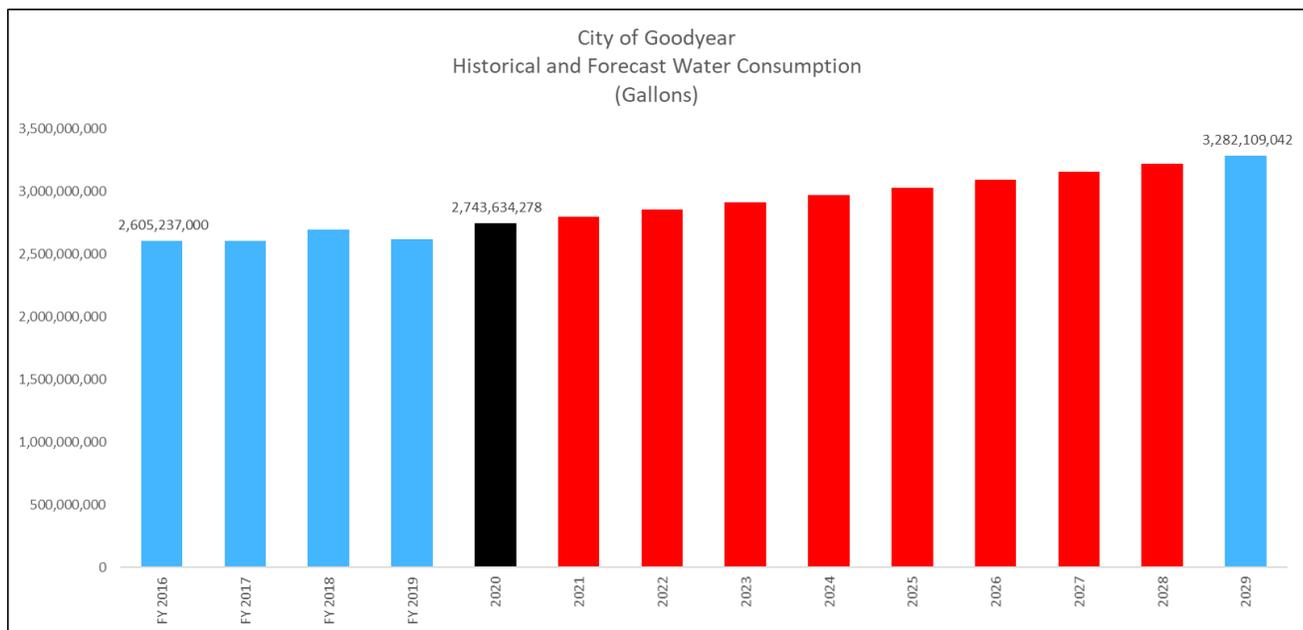


The project team forecasts total consumption of approximately **2,743,634,278** gallons of water in the test year FY 2020. **Table II-6** and **Chart II-7** present projected consumption by rate class for FY 2020 and the ten year forecast period. Forecast volumes include an elasticity factor in conjunction with increasing water rates which assumes slightly reduced consumption per account over the course of the forecast period.

TABLE II-6

CITY OF GOODYEAR											
FORECAST BILLED CONSUMPTION											
WATER Customer Classes											
	Residential -										
	Residential - City	County	Multi-Family	Commercial	Church	Industrial	Institutional	Schools	Hydrant	Irrigation	Total
<b>WATER Historical Volume</b>											
FY 2016	1,487,637,000	-	37,581,000	238,865,000	6,340,000	72,835,000	11,358,000	24,462,000	60,620,000	665,539,000	2,605,237,000
FY 2017	1,515,545,000	-	35,992,000	240,385,000	5,891,000	72,082,000	9,454,000	22,033,000	40,536,000	659,939,000	2,601,857,000
FY 2018	1,547,898,000	4,340,000	38,335,000	243,412,000	5,371,000	78,202,000	21,347,000	18,796,000	55,180,000	683,231,000	2,696,112,000
FY 2019	1,523,460,000	11,029,000	42,045,000	237,030,000	6,739,000	85,272,000	11,457,000	20,492,000	58,359,000	622,561,000	2,618,444,000
<b>WATER Forecast Volume</b>											
2020	1,594,732,131	11,271,396	49,679,700	263,218,768	7,399,727	91,184,318	13,249,238	19,818,000	82,744,000	610,337,000	2,743,634,278
2021	1,626,647,606	11,513,791	50,891,400	268,441,362	7,560,591	93,210,636	13,550,357	20,118,273	84,123,067	622,570,927	2,798,628,010
2022	1,659,174,837	11,751,189	52,074,921	273,905,817	7,875,616	95,193,841	14,139,503	20,414,130	85,479,890	635,235,646	2,855,245,390
2023	1,692,359,136	11,983,886	53,232,141	279,263,388	8,190,640	97,136,573	14,728,649	20,705,760	87,483,325	647,652,803	2,912,736,302
2024	1,726,202,388	12,212,150	54,364,740	284,848,656	8,505,665	99,041,212	15,317,795	20,993,340	89,441,907	660,477,611	2,971,405,464
2025	1,760,744,169	12,436,226	55,474,225	290,648,742	8,820,689	100,909,914	15,906,941	21,277,034	91,358,519	673,687,163	3,031,263,623
2026	1,795,944,685	12,711,364	56,561,955	296,335,348	9,135,714	102,744,639	16,496,087	21,836,956	93,235,749	687,259,615	3,092,262,112
2027	1,831,877,670	12,980,673	57,629,161	302,224,858	9,450,739	104,547,177	17,085,233	22,382,880	95,075,929	701,174,203	3,154,428,521
2028	1,868,501,403	13,244,508	58,676,964	308,305,841	9,765,763	106,319,163	17,674,379	22,915,805	96,881,168	715,411,242	3,217,696,236
2029	1,905,883,559	13,503,189	59,706,385	314,567,371	10,080,788	108,062,100	18,263,525	23,436,619	98,653,384	729,952,121	3,282,109,042

CHART II-7



## 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**.

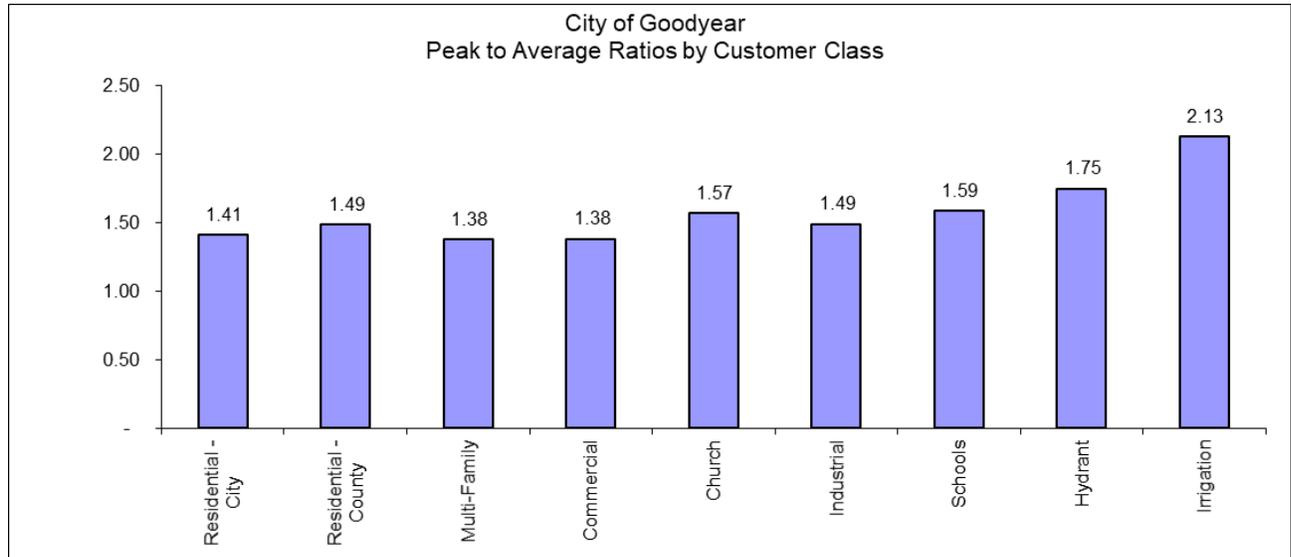
The consumption data by class provided by the City was utilized in the rate model to calculate the peak day factor and peaking factors for individual rate classes.

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 an 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 actual monthly water consumption by customer class for the forecast period based on averaged historical consumption. A general ratemaking rule is that **the higher the peak to average ratio, the higher the unit cost of service for a given customer class**. While this is not an absolute rule, it is a good general indicator as to which customer classes are incurring the

greatest costs to provide service. This principle will be examined more thoroughly in Section III. **Chart II-8** shows peak to average ratio by customer class.

**Chart II-8**



The chart reveals that the highest peak to average ratios are for the Irrigation customer class. The greater cost of service applied to these types of accounts is directly linked to the cost borne by the utility to maintain the capacity to serve these accounts at high demand levels which may fluctuate erratically.

### Historical and Forecast Wastewater Flows

As with billed water consumption, the project team prepared a ten-year forecast of wastewater billing units. Residential City and County customers are billed based on winter average water usage. Effluent and Perryville Prison wastewater is billed on 100% of water usage and all other customer classes are billed on 80% of water usage. Since individual wastewater usage is not metered, it is derived from the water consumption figures for each customer class. The billing unit forecast is derived using anticipated account growth as depicted in Table II-4. The results of the forecast are presented in **Table II-9**.

Two points are notable about this table. First, as with water, these billing units are forecast based on the growth of wastewater accounts and anticipated consumption ratios built into the rate model. These units and ratios were estimated from growth projections of City staff. Secondly, wastewater usage is not subject to the significant fluctuations experienced by water accounts. This is because the water volume fluctuation is largely due to outdoor usage that is not returned to the wastewater system.

The table reveals that wastewater billing units are forecast to increase by an annual average of 2.01% over the forecast period.

TABLE II-9

CITY OF GOODYEAR											
FORECAST WASTEWATER BILLING UNITS											
WASTEWATER Customer Classes											
	Residential - City	Residential - County	Multi-Family	Commercial	Church	Industrial	Institutional	Schools	Perryville Prison	Reclaimed Water	Total
<b>WASTEWATER Test Year Billing Units</b>											
FY 2016	1,033,919,550	372,160	30,064,800	183,594,400	5,072,000	49,507,200	9,064,800	19,569,600	203,943,000	752,000	1,535,859,510
FY 2017	1,065,440,409	360,290	28,793,600	184,124,000	4,712,870	47,460,900	9,353,600	17,626,400	186,537,000	9,178,000	1,553,587,069
FY 2018	1,099,039,190	272,400	30,668,000	190,940,710	4,295,600	49,195,500	9,584,000	15,036,800	273,810,530	2,182,000	1,675,024,730
FY 2019	1,096,702,770	369,597	35,772,270	178,200,800	5,385,600	59,520,000	8,884,600	16,148,200	209,113,000	843,000	1,610,939,837
2020	1,056,159,611	447,249	39,694,529	181,708,312	5,479,200	48,885,034	9,385,800	14,867,800	208,179,000	843,000	1,565,649,535
<b>WASTEWATER Forecast Billing Units</b>											
2021	1,077,296,600	456,867	40,662,688	185,313,635	5,598,313	49,971,368	9,599,114	15,093,070	211,648,650	859,898	1,596,500,203
2022	1,098,838,743	466,287	41,608,332	189,085,923	5,831,576	51,034,589	10,016,466	15,315,027	215,062,338	877,390	1,628,136,671
2023	1,120,816,049	475,521	42,532,961	192,784,425	6,064,839	52,076,111	10,433,819	15,533,813	220,102,861	894,541	1,661,714,941
2024	1,143,229,767	484,578	43,437,918	196,640,114	6,298,102	53,097,211	10,851,172	15,749,560	225,030,537	912,254	1,695,731,214
2025	1,166,106,107	493,470	44,324,406	200,644,098	6,531,365	54,099,045	11,268,525	15,962,392	229,852,620	930,500	1,730,212,528
2026	1,189,418,714	504,387	45,193,512	204,569,743	6,764,628	55,082,664	11,685,877	16,382,455	234,575,619	949,246	1,765,126,846
2027	1,213,216,420	515,073	46,046,220	208,635,460	6,997,891	56,049,027	12,103,230	16,792,016	239,205,401	968,465	1,800,529,204
2028	1,237,471,596	525,542	46,883,424	212,833,356	7,231,154	56,999,011	12,520,583	17,191,826	243,747,276	988,129	1,836,391,898
2029	1,262,229,060	535,807	47,705,940	217,155,891	7,464,417	57,933,421	12,937,936	17,582,550	248,206,068	1,008,213	1,872,759,301



*Section III*

## SECTION III

## Water & Wastewater Forecast Revenue Requirement



In this section of the water and wastewater rate study and long-term financial plan, the City's test year and forecast water and wastewater utility revenue requirements are developed. The test year consists of the City's fiscal year, July 1, 2019 through June 30, 2020.

The estimates presented in this section are based on the City's water and wastewater budgets for FY 2020, as well as a forecast of the City's future capital improvements and debt obligations.

The City's water and wastewater utilities are enterprise funds, and as such, are financed solely through

related rates and fees. 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 connection 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. These non-rate revenues will be discussed in detail in Section V of this report.

As is typical for publicly owned utilities, Goodyear'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.

The following specific items are included in the City's revenue requirements raised from rates:

***Operating Expenses***

***Operating Transfers***

***Capital Outlays Funded from Rates***

***Debt service -- Current***

***Debt Service – Forecast***

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 forecast will be thoroughly detailed in this section of the report. These assumptions, particularly those associated with the City’s capital expenditure budget, are critical to the development of both the revenue requirement and the ultimate rate recommendations. The project team discussed these assumptions with City staff and considers all to be consistent with staff recommendations.

As the first step of this section, the current and forecast Operating Costs, Capital Outlays and Debt Service will be examined. Non-rate revenues will be subtracted from the total to yield the net revenue requirement.

Budgeted expenditures for the City’s water and wastewater operations are reflected in City’s Fund 620 - Wastewater (Sewer) Fund Summary and Fund 600 - Water Fund Summary and FY 2020 budget documents.

### Operating Expenses and Capital Outlays – Test Year

Table III-1 summarizes the test year FY 2020 operating costs and capital outlays net of transfers and debt service for City of Goodyear.

TABLE III-1

CITY OF GOODYEAR		
TEST YEAR OPERATING EXPENSES		
SCENARIO:	2020 09 24 -- Scenario I -- Status Quo	FY 2020 Budget
<i>Department Code</i>		
<b>WATER OPERATING EXPENDITURES</b>		
	CAP Water Costs	\$ 3,517,174
AD	Administration	728,800
M	Maintenance	518,400
D	Distribution	2,436,600
P	Production	3,621,600
WQ	Water Quality	220,700
WR	Water Resources	858,800
OD	Other Departments	152,400
DS	Debt Service (fees)	5,000
WTP	Surface Water Treatment Plant	1
	<b>SUB-TOTAL</b>	<b>\$ 12,059,475</b>
<b>WASTEWATER OPERATING EXPENDITURES</b>		
AD	Administration	\$ 756,200
M	Maintenance	678,300
C	Collections	1,275,200
E	Environment	763,900
R	Reclamation	877,200
CT	Corgett	224,600
GR	Goodyear	1,346,700
RV	Rainbow Valley	277,600
OD	Other Departments	160,400
DS	Debt Service (fees)	3,000
	<b>SUB-TOTAL</b>	<b>\$ 6,363,100</b>
<b>Total Operating Expenses</b>		<b>\$ 18,422,575</b>
<b>Water Capital Outlays</b>		574,400
<b>WW Capital Outlays</b>		539,100
<b>Total Operating Expenses and Capital Outlays</b>		<b>\$ 19,536,075</b>

As the Table III-1 shows, total operating costs and capital outlays in the test year are **\$19,536,075**. Debt Service payments for principal and interest were subtracted from Operating expenses and will be included separately in the Debt Service expense section. Minor debt administration expenses were retained in the water and wastewater operating expenses.

The following is notable about the operating expenses shown:

- Operating Expenses capture the primary operating costs associated with the day to day management of the water and wastewater utility.
- The City's Water Operating Budget is comprised of 6 functional areas: Administration, Distribution, Production, Water Quality, Maintenance, and Water Resources.
- The City's Wastewater Operating Budget is comprised of 8 functional areas: Administration, Maintenance, Collections, Environmental Quality, Reclamation, Corgett, Goodyear, and Rainbow Valley.
- Expenses in each functional area are then separated into five expense categories: Personnel, Contractual Services, Commodities, Capital Outlays, and Other Departmental.
- Personnel Services include salaries, benefits and insurance for the water and wastewater utility staff. Allocations and projected additions of personnel to the functional areas of the utility were made based on input from Utility staff in order to allocate personnel costs.
- Contractual Services expenditures include costs for utilities, maintenance services, professional consulting fees, laboratory fees, City's attorney and other contractual service providers plus charges for dues, memberships, training and special permit fees.
- Commodities expenditures cover those costs as they relate to utility assets including, but not limited to, utilities, automotive costs, general office supplies, computer hardware and software, chemicals, water purchases, generators, meters, and maintenance expenditures for wells, booster pumps and treatment facilities.
- "Transfers Out" to the City's General Fund for general overhead reimbursement for services such as human resources, finance and payroll, etc. are listed separately in both the Water and Wastewater budgets.
- Capital Outlays include capital equipment and project expenditures not listed in the Capital Improvement Plan ("CIP").

### Operating Expenses and Capital Outlays – Ten Year Forecast

Table III-2 presents the project team’s ten-year forecast of the City’s operating costs under the long-term rate plan for Scenario 1. FY 2020 budgeted expenditures reflect the proposed water and wastewater budgets adopted in June 2019. All subsequent years in the forecast period were forecast according to the assumptions noted below. 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:

- Salaries are forecast to increase at an annual rate of 5.0% in accordance with the City’s compensation policy and structure.
- As the City’s infrastructure expands, additions to Water personnel are projected over the forecast period. These additions will be primarily in the areas of Water Distribution and Water Quality.
- Similarly, additions to Wastewater personnel are projected over the forecast period, primarily in the areas of Wastewater Collection and Reclamation.
- Most operating costs are expected to increase at an annual rate of 2.0% - 3.0%, which is approximately equivalent to the rate of inflation.
- Certain expenses are forecast to increase at above-inflation rates, to reflect the rapid rate of increase of these costs. These expenses include workers compensation, Medicare and insurance.
- Certain expenses will increase at higher rates to reflect the forecast growth in accounts and volumes. These expenses include maintenance and system repairs.

Table III-2 reveals that water-related operating expenses, transfers and capital outlays are forecast to increase from the test year total of \$13,788,875 to **\$30,096,086** by FY 2029. This represents an annual average increase of **9.1%**. Wastewater-related operating costs and capital outlays are expected to increase from the test year total of \$8,645,300 to **\$15,785,921** by FY 2029. This represents an average annual increase of **8.3%**.

TABLE III-2

CITY OF GOODYEAR										
Forecast Operating and Capital Outlays										
SCENARIO:	2020 09 24 -- Scenario I -- Status Quo									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>WATER</b>										
CAP Water	\$ 3,517,174	\$ 4,187,112	\$ 4,354,596	\$ 4,710,501	\$ 4,919,857	\$ 5,192,019	\$ 5,464,181	\$ 5,715,408	\$ 6,092,248	\$ 6,448,152
Personnel	3,175,500	3,218,900	3,599,359	3,991,492	4,238,427	4,502,461	4,784,924	5,087,261	5,411,042	5,757,971
Operating	5,366,801	6,063,949	7,709,889	10,417,500	10,713,391	11,758,628	12,351,935	12,976,805	13,634,764	14,327,812
Transfers	1,190,300	1,840,280	1,965,990	2,088,119	2,216,564	2,351,648	2,486,542	2,607,450	2,721,177	2,844,251
Capital Outlays	539,100	1,153,800	518,000	765,600	1,305,700	883,500	1,729,100	963,600	793,100	717,900
<b>Total</b>	<b>13,788,875</b>	<b>16,464,041</b>	<b>18,147,834</b>	<b>21,973,212</b>	<b>23,393,939</b>	<b>24,688,256</b>	<b>26,816,682</b>	<b>27,350,524</b>	<b>28,652,330</b>	<b>30,096,086</b>
<b>WASTEWATER</b>										
Personnel	\$ 2,989,500	\$ 2,890,800	\$ 3,394,445	\$ 3,873,191	\$ 4,261,154	\$ 4,499,634	\$ 4,752,580	\$ 5,020,969	\$ 5,305,855	\$ 5,608,368
Operating	3,373,600	3,827,408	4,007,665	4,196,305	4,394,063	4,601,370	4,818,603	5,046,249	5,284,691	5,534,477
Transfers	1,707,800	1,791,132	1,892,359	2,000,615	2,124,097	2,267,459	2,420,570	2,584,206	2,759,016	2,945,876
Capital Outlays	574,400	719,100	758,900	513,500	578,400	1,122,200	862,200	1,569,800	824,500	1,697,200
<b>Total</b>	<b>8,645,300</b>	<b>9,228,440</b>	<b>10,053,369</b>	<b>10,583,611</b>	<b>11,357,713</b>	<b>12,490,663</b>	<b>12,853,952</b>	<b>14,221,224</b>	<b>14,174,062</b>	<b>15,785,921</b>
<b>Water/WW Total</b>	<b>22,434,175</b>	<b>25,692,480</b>	<b>28,201,203</b>	<b>32,556,823</b>	<b>34,751,652</b>	<b>37,178,919</b>	<b>39,670,634</b>	<b>41,571,748</b>	<b>42,826,392</b>	<b>45,882,007</b>

## Water Resources and Recharge

The City’s current water supply is sourced from 12 active groundwater wells. However, Arizona groundwater rules require sustainable pumping and/or groundwater replenishment. This may be accomplished in a number of ways including, but not limited to, the purchase of replenishment water through the Central Arizona Groundwater Replenishment District (“CAGR”), or annual storage and recovery of Central Arizona Project (“CAP”). The less expensive of these alternatives is the purchase of CAP water for groundwater replenishment. However, the City is not currently able to treat and deliver its CAP water directly, so it must be delivered to CAP owned and operated recharge facilities with 20-year permits. Using their allotment for groundwater recharge, the CAP water is utilized in the City’s calculation of long-term storage credits to offset replenishment obligations.

The City’s quantity of CAP water taken in recent years to meet recharge requirements has increased to **17,742** acre feet in FY 2020 at a current cost of approximately **\$3,517,174**. The projected cost for CAP water is forecast to increase to approximately **\$6,448,152** in FY 2029. These totals are displayed on Table III-2. The City has the opportunity to purchase additional CAP water in excess of their current demand to recharge and bank for long term storage credits for drought protection and emergencies. However, at this time and for purposes of the base scenario, the City has decided to maintain CAP water purchases at the demand level and defer the purchase of “Free Agent” CAP water due to the cost.

## Existing Debt Service

As shown in Table III-3, the City currently has thirteen outstanding water and wastewater bonds.

TABLE III-3

CITY OF GOODYEAR														
CURRENT DEBT SERVICE														
SCENARIO: 2020 09 24 – Scenario 1 – Status Quo														
Debt Service														
	1 Series	2 Series	3 Series	4 Series	5 Series	6 Series	7 Series	8 Series	9 Series	10 Series	11 Series	12 Series	13 Series	
	GO Refunding 2019	GO Refunding 2016	GO Refunding 2014	GO Refunding 2010	GO Build America Bonds 2010	Revenue 2016	Revenue 2016 (WIFA)*	Revenue 2011	Revenue 2010	Refunding 2009	WIFA Loan #3*	Series 2020 – Water	Series 2020 – Wastewater	Total Debt Service
<b>WATER Debt Service</b>														
2020	\$ 24,300	\$ 1,224,200	\$ 1,014,500	\$ 78,800	\$ -	\$ 451,300	\$ 327,700	\$ 971,300	\$ 840,600	\$ 7,600	\$ -	\$ 136,149	\$ -	\$ 5,076,449
2021	42,100	2,020,500	-	223,600	-	450,300	341,400	968,700	840,600	7,600	-	928,500	-	5,823,300
2022	43,400	2,103,200	-	222,000	-	446,200	-	972,300	1,140,600	7,600	-	897,250	-	5,832,550
2023	43,800	2,182,500	-	221,900	-	444,800	-	974,300	1,140,600	7,600	-	842,250	-	5,857,750
2024	44,200	2,231,000	-	221,600	-	448,200	-	972,900	1,139,800	7,600	-	839,750	-	5,905,050
2025	44,500	2,197,400	-	222,700	-	446,200	-	969,700	1,138,400	7,600	-	837,250	-	5,863,750
2026	44,500	2,200,900	-	223,500	-	444,000	-	975,900	1,135,800	7,600	-	834,750	-	5,866,950
2027	143,100	1,061,000	-	223,400	-	446,600	-	970,100	1,136,400	7,600	-	1,582,250	-	5,570,450
2028	143,200	817,300	-	223,100	-	443,800	-	972,100	1,141,000	7,600	-	1,582,250	-	5,330,350
2029	143,000	821,200	-	222,400	-	445,800	-	973,100	1,139,200	7,600	-	1,580,250	-	5,332,550
<b>WASTEWATER Debt Service</b>														
2020	\$ 416,800	\$ 1,128,700	\$ 2,572,100	\$ 125,400	\$ -	\$ 11,600	\$ 622,500	\$ 87,300	\$ -	\$ 14,200	\$ 339,600	\$ -	\$ 49,986	\$ 5,368,186
2021	722,000	1,209,000	-	355,600	-	11,600	648,200	86,100	-	14,200	339,600	-	345,000	3,731,300
2022	745,100	1,229,900	-	353,000	-	-	-	84,700	-	14,200	339,700	-	757,500	3,524,100
2023	752,500	1,141,800	-	352,900	-	-	-	83,100	-	14,200	338,100	-	849,250	3,531,850
2024	758,900	1,156,400	-	352,400	-	-	-	86,700	-	14,200	339,600	-	830,250	3,538,450
2025	764,400	1,145,500	-	354,100	-	-	-	85,100	-	14,200	339,600	-	850,750	3,553,650
2026	764,200	1,137,900	-	355,100	-	-	-	83,500	-	14,200	339,600	-	868,750	3,563,250
2027	2,459,600	1,188,600	-	355,200	-	-	-	86,700	-	14,200	339,600	-	194,250	4,638,150
2028	2,459,300	912,100	-	354,700	-	-	-	84,500	-	14,200	339,600	-	191,750	4,356,150
2029	2,457,200	916,400	-	353,800	-	-	-	82,500	-	14,200	339,600	-	189,250	4,352,950
<b>TOTAL Debt Service</b>														
2020	\$ 441,100	\$ 2,352,900	\$ 3,586,600	\$ 204,200	\$ -	\$ 462,900	\$ 950,200	\$ 1,058,600	\$ 840,600	\$ 21,800	\$ 339,600	\$ 136,149	\$ 49,986	\$ 10,444,635
2021	764,100	3,229,500	-	579,200	-	461,900	989,600	1,054,800	840,600	21,800	339,600	928,500	345,000	9,554,600
2022	788,500	3,333,100	-	575,000	-	446,200	-	1,057,000	1,140,600	21,800	339,700	897,250	757,500	9,356,650
2023	796,300	3,324,300	-	574,800	-	444,800	-	1,057,400	1,140,600	21,800	338,100	842,250	849,250	9,389,600
2024	803,100	3,387,400	-	574,000	-	448,200	-	1,059,600	1,139,800	21,800	339,600	839,750	830,250	9,443,500
2025	808,900	3,342,900	-	576,800	-	446,200	-	1,054,800	1,138,400	21,800	339,600	837,250	850,750	9,417,400
2026	808,700	3,338,800	-	578,600	-	444,000	-	1,059,400	1,135,800	21,800	339,600	834,750	868,750	9,430,200
2027	2,602,700	2,249,600	-	578,600	-	446,600	-	1,056,800	1,136,400	21,800	339,600	1,582,250	194,250	10,208,600
2028	2,602,500	1,729,400	-	577,800	-	443,800	-	1,056,600	1,141,000	21,800	339,600	1,582,250	191,750	9,686,500
2029	2,600,200	1,737,600	-	576,200	-	445,800	-	1,055,600	1,139,200	21,800	339,600	1,580,250	189,250	9,685,500

### Capital Improvement Plan

Capital improvements are commonly defined as “expenditures to acquire or improve long term assets such as land, facilities, equipment or infrastructure.” These expenditures typically are for improvements exceeding \$50,000 and for assets having an anticipated life of five years or more. Recommendations for the water system included approximately \$40,728,600 of water system improvements over the next five years, and recommendations for the wastewater system included approximately \$102,982,100 of wastewater system improvements over the next five years. (These totals did not include expenditures for items such as line oversizing for new development, or one time and ongoing budget Supplementals which are already included in the Capital Outlay portion of the rate model and forecast.) The City has multiple funding sources for improvements depending upon the nature of the improvements. Following the principle that “growth pays for growth,” developer contributions and impact fees have historically been used when available to fund infrastructure for new development, and the City expects to continue this practice whenever possible.

A functional breakdown of the five-year CIP is presented in **Table III-4**.

**TABLE III-4**

CITY OF GOODYEAR	
CAPITAL IMPROVEMENT PLAN	
SCENARIO: 2020 09 24 -- Scenario I -- Status Quo	
<b>WATER CIP Projects</b>	
Adaman Well #3	\$ 2,195,000
CAP Subcontract Capital Charges	4,323,000
Differential Impact Fee Credits	5,943,400
Historic Goodyear Water Replacements	6,365,000
Potable Storage Reservoir Rehabilitation	3,557,000
Treatment Improvements at Site 18	3,264,000
Booster Station Rehabilitation & Replacement Program	2,100,000
Distribution Valve Replacement	2,500,000
Water Meter Replacement	3,890,000
Future Projects	<u>3,763,000</u>
<b>Total Water Projects</b>	<b>40,728,600</b>
<b>WASTEWATER CIP Projects</b>	
Collection System Rehabilitation or Replacements	\$ 8,048,000
Corgett WRF Rehabilitation and Replacement	3,377,000
Differential Impact Fee Credits	2,828,700
Goodyear WRF Rehabilitation and Replacement	4,755,000
Alternative to SAT Site	26,400,000
Brine Disposal	46,995,000
Future Projects	<u>10,578,400</u>
<b>Total</b>	<b>102,982,100</b>
<b>Total CIP 2020 -- 2025</b>	<b>143,710,700</b>

### Forecast Debt Service

A key factor in the development of the City’s long term water and wastewater rate plan is the amount of additional debt forecast to be issued by the City to fund capital projects not funded through development fees or other sources such as private sector development agreement financing or grants.

The debt forecast to be issued by the City is assumed to be the same for each of the rate design scenarios examined in this study, and is assumed to be for a 20-year term at an interest rate of 3.0%. Forecast debt to be issued is presented in **Table III-5**. **Table III-6** presents the City’s total debt service payments over the next decade.

**Changes in any of these assumptions may require significant changes to the funding assumptions for the CIP and to the rate plan.**

TABLE III-5

<b>CITY OF GOODYEAR FORECAST LONG-TERM DEBT REQUIRED TO FUND CIP</b>			
	<b>Water</b>	<b>Wastewater</b>	<b>Total</b>
2020	\$ -	\$ -	\$ -
2021	15,000,000	50,000,000	65,000,000
2022	-	40,000,000	40,000,000
2023	25,000,000	-	25,000,000
2024	-	-	-
2025	20,000,000	20,000,000	40,000,000
2026	-	-	-
2027	10,000,000	20,000,000	30,000,000
2028	-	-	-
2029	<u>5,000,000</u>	<u>10,000,000</u>	<u>15,000,000</u>
<b>Total</b>	<b>75,000,000</b>	<b>140,000,000</b>	<b>215,000,000</b>

TABLE III-6

<b>CITY OF GOODYEAR CURRENT AND FORECAST DEBT SERVICE</b>						
<b>SCENARIO:</b> 2020 09 24 -- Scenario I -- Status Quo						
Year	<b>Water</b>		<b>Wastewater</b>		<b>Total</b>	
	<b>Current</b>	<b>Forecast</b>	<b>Current</b>	<b>Forecast</b>		
2020	\$ 5,076,449	\$ -	\$ 5,368,186	\$ -	<b>\$ 10,444,635</b>	
2021	5,823,300	-	3,731,300	-	<b>9,554,600</b>	
2022	5,832,550	1,018,318	3,524,100	3,394,393	<b>13,769,361</b>	
2023	5,857,750	1,018,318	3,531,850	6,109,908	<b>16,517,826</b>	
2024	5,905,050	2,715,515	3,538,450	6,109,908	<b>18,268,922</b>	
2025	5,863,750	2,715,515	3,553,650	6,109,908	<b>18,242,822</b>	
2026	5,866,950	4,073,272	3,563,250	7,467,665	<b>20,971,137</b>	
2027	5,570,450	4,073,272	4,638,150	7,467,665	<b>21,749,537</b>	
2028	5,330,350	4,752,151	4,356,150	8,825,422	<b>23,264,073</b>	
2029	5,332,550	4,752,151	4,352,950	8,825,422	<b>23,263,073</b>	

### Non-Rate Revenues

Although rate revenues constitute the majority of the revenue received by the City for water and wastewater service, a certain amount of revenue is accrued from non-rate sources. These revenues include other general fees, surcharges, development charges, and service revenues. These non-rate revenues are subtracted from the overall budget to determine the revenue requirement to be raised from rates.

Most non-rate revenues are conservatively forecast to remain stable during the next ten years. The most significant exception is revenues from special contracts. **Table III-7** presents forecast non-rate revenues by year over the next decade under Scenario 1. Further detail on non-rate revenues is presented in Section V of this report.

TABLE III-7

CITY OF GOODYEAR				
FORECAST NON-RATE REVENUES				
SCENARIO:				
2020 09 24 -- Scenario I -- Status Quo				
	Water	Wastewater	Total Water & WW	
2020	\$ 1,811,900	\$ 145,600	\$ 1,957,500	
2021	3,470,900	659,890	4,130,790	
2022	3,537,260	675,319	4,212,579	
2023	3,589,021	691,210	4,280,231	
2024	3,642,334	713,035	4,355,369	
2025	3,697,247	735,732	4,432,980	
2026	3,753,808	759,337	4,513,145	
2027	3,812,065	783,887	4,595,952	
2028	3,852,068	809,418	4,661,487	
2029	3,892,872	835,971	4,728,843	

### Net Revenue Requirement

**Table III-8** presents the City’s net revenue requirement to be raised from rates in the test year FY 2020. As the table reveals, the net revenue requirement to be raised from rates for water service is \$17,053,424, and for wastewater service is \$13,867,886. The total revenue requirement is **\$30,921,310**.

TABLE III-8

CITY OF GOODYEAR			
TEST YEAR NET REVENUE REQUIREMENT			
SCENARIO: 2020 09 24 -- Scenario I -- Status Quo			
	Water	Wastewater	Total
<b>Budgeted Expenditures:</b>			
Operating Expenditures	\$ 12,059,475	\$ 6,363,100	\$ 18,422,575
Capital Outlays	539,100	574,400	1,113,500
Debt Service	<u>5,076,449</u>	<u>5,368,186</u>	<u>10,444,635</u>
<b>Sub-Total Budget Expenditures</b>	<b>17,675,024</b>	<b>12,305,686</b>	<b>29,980,710</b>
<b>Transfers and Contingencies</b>	<b>1,190,300</b>	<b>1,707,800</b>	<b>2,898,100</b>
<b>Total Cost of Service</b>	<b>18,865,324</b>	<b>14,013,486</b>	<b>32,878,810</b>
Less: Non-Rate Revenues	1,811,900	145,600	1,957,500
<b>Net Revenue Requirement to be Raised from Rates</b>	<b>17,053,424</b>	<b>13,867,886</b>	<b>30,921,310</b>

Table III-9 presents the ten year forecast for the City’s net revenue requirement to be raised from rates under Scenario 1. As the table reveals, the City’s net revenue requirement is forecast to increase from \$30,921,310 in FY 2020 to \$64,477,989 in FY 2029. This represents an annual rate of growth of 8.7%.

TABLE III-9

CITY OF GOODYEAR								
CURRENT AND FORECAST NET REVENUE REQUIREMENT								
SCENARIO: 2020 09 24 -- Scenario I -- Status Quo								
	Operating Expenses	Capital Outlays	Debt Service	Transfers & Contingencies	Total Cost of Service	Less Non-Rate Revenues	Net Revenue Requirement	
<b>WATER Revenue Requirement</b>								
2020	\$ 12,059,475	\$ 539,100	\$ 5,076,449	\$ 1,190,300	\$ 18,865,324	\$ 1,811,900	\$ 17,053,424	
2021	13,469,961	1,153,800	5,823,300	1,840,280	22,287,341	3,470,900	18,816,441	
2022	15,663,844	518,000	6,850,868	1,965,990	24,998,702	3,537,260	21,461,442	
2023	19,119,493	765,600	6,876,068	2,088,119	28,849,280	3,589,021	25,260,260	
2024	19,871,674	1,305,700	8,620,565	2,216,564	32,014,503	3,642,334	28,372,169	
2025	21,453,108	883,500	8,579,265	2,351,648	33,267,521	3,697,247	29,570,273	
2026	22,601,040	1,729,100	9,940,222	2,486,542	36,756,904	3,753,808	33,003,096	
2027	23,779,474	963,600	9,643,722	2,607,450	36,994,246	3,812,065	33,182,181	
2028	25,138,053	793,100	10,082,501	2,721,177	38,734,831	3,852,068	34,882,762	
2029	26,533,935	717,900	10,084,701	2,844,251	40,180,787	3,892,872	36,287,915	
<b>WASTEWATER Revenue Requirement</b>								
2020	\$ 6,363,100	\$ 574,400	\$ 5,368,186	\$ 1,707,800	\$ 14,013,486	\$ 145,600	\$ 13,867,886	
2021	6,718,208	719,100	3,731,300	1,791,132	12,959,740	659,890	12,299,850	
2022	7,402,110	758,900	6,918,493	1,892,359	16,971,862	675,319	16,296,544	
2023	8,069,496	513,500	9,641,758	2,000,615	20,225,369	691,210	19,534,158	
2024	8,655,217	578,400	9,648,358	2,124,097	21,006,071	713,035	20,293,036	
2025	9,101,004	1,122,200	9,663,558	2,267,459	22,154,221	735,732	21,418,489	
2026	9,571,183	862,200	11,030,915	2,420,570	23,884,867	759,337	23,125,530	
2027	10,067,218	1,569,800	12,105,815	2,584,206	26,327,039	783,887	25,543,152	
2028	10,590,546	824,500	13,181,572	2,759,016	27,355,634	809,418	26,546,216	
2029	11,142,845	1,697,200	13,178,372	2,945,876	28,964,293	835,971	28,128,322	
<b>TOTAL Revenue Requirement</b>								
2020	\$ 18,422,575	\$ 1,113,500	\$ 10,444,635	\$ 2,898,100	\$ 32,878,810	\$ 1,957,500	\$ 30,921,310	
2021	20,188,169	1,872,900	9,554,600	3,631,411	35,247,080	4,130,790	31,116,290	
2022	23,065,955	1,276,900	13,769,361	3,858,348	41,970,565	4,212,579	37,757,986	
2023	27,188,989	1,279,100	16,517,826	4,088,734	49,074,649	4,280,231	44,794,418	
2024	28,526,891	1,884,100	18,268,922	4,340,661	53,020,574	4,355,369	48,665,205	
2025	30,554,112	2,005,700	18,242,822	4,619,108	55,421,742	4,432,980	50,988,762	
2026	32,172,223	2,591,300	20,971,137	4,907,112	60,641,771	4,513,145	56,128,626	
2027	33,846,692	2,533,400	21,749,537	5,191,656	63,321,285	4,595,952	58,725,333	
2028	35,728,599	1,617,600	23,264,073	5,480,193	66,090,465	4,661,487	61,428,978	
2029	37,676,780	2,415,100	23,263,073	5,790,127	69,145,080	4,728,843	64,416,237	

Detailed calculations are presented in the rate model contained in Appendix A of this report.

## Water Utility Cost Functionalization, Classification and Allocation

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:

*Supply/Treatment* – the process by which raw water is obtained and 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 City staff. The results of the allocation process for the test year are presented in **Table III-10**. The rate model presented in Appendix A includes a detailed listing of the allocations by line item.

TABLE III-10

CITY OF GOODYEAR			
TEST YEAR WATER COST FUNCTIONALIZATION			
SCENARIO: 2020 09 24 – Scenario I – Status Quo			
TY 2020			
Function	Revenue Requirement	Percent	
CAP Water	\$ 3,179,371	18.6%	
Treatment	6,837,570	40.1%	
Distribution	4,913,995	28.8%	
Administration	1,793,087	10.5%	
Customer	329,402	1.9%	
<b>Total</b>	<b>17,053,424</b>	<b>100.0%</b>	

### 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 (p.12), 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. Previous engineering studies have calculated the City’s peak to average capacity factor at 1.7.

The peak to average factor is calculated by dividing the volume on the peak day of the year by the average daily volume. This means that facilities designed to meet maximum-day requirements, such as the treatment and distribution functions, are allocated 58.82% (1/1.70) to base, and 41.18% 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 ratemaking practice to allocate these costs on an indirect basis to service characteristics. The rate model in Appendix A provides the detailed allocations of costs 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 GOODYEAR			
TEST YEAR WATER COST CLASSIFICATION			
SCENARIO: 2020 09 24 -- Scenario I -- Status Quo			
Function	TY 2020 Revenue Requirement	Percent	
Base	\$ 9,824,640	57.61%	
Maximum Day	6,877,248	40.33%	
Customer	351,537	2.06%	
<b>Total</b>	<b>17,053,424</b>	<b>100.0%</b>	



### 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 water utility costs for test year 2020 by customer classes are presented in **Table III-12**. The water utility costs by customer class for the entire forecast period under Scenario 1 are summarized in **Table III-13**. Overall cost calculations are presented in detail in the rate model contained in Appendix A.

TABLE III-12

CITY OF GOODYEAR			
TEST YEAR WATER COST ALLOCATION			
SCENARIO: 2020 09 24 -- Scenario I -- Status Quo			
Function	TY 2020 Revenue Requirement	Percent	
CAP Water Costs	\$ 3,517,174	20.6%	
Residential - City	7,023,396	41.2%	
Residential - County	52,021	0.3%	
Multi-Family	205,840	1.2%	
Commercial	1,097,209	6.4%	
Church	35,786	0.2%	
Industrial	412,589	2.4%	
Institutional	67,688	0.4%	
Schools	96,576	0.6%	
Hydrant	447,760	2.6%	
Irrigation	4,097,386	24.0%	
<b>Total</b>	<b>17,053,424</b>	<b>100.0%</b>	

TABLE III-13

CITY OF GOODYEAR													
FORECAST WATER COST ALLOCATION													
SCENARIO: 2020 09 24 -- Scenario I -- Status Quo													
Year	Residential - City	Residential - County	Multi-Family	Commercial	Church	Industrial	Institutional	Schools	Hydrant	Irrigation	CAP Water Costs	Total	
2020	\$ 7,023,396	\$ 52,021	\$ 205,840	\$ 1,097,209	\$ 35,786	\$ 412,589	\$ 67,688	\$ 96,576	\$ 447,760	\$ 4,097,386	\$ 3,517,174	\$ 17,053,424	
2021	7,588,745	56,302	223,470	1,185,846	38,747	446,982	73,365	103,896	482,446	4,429,530	4,187,112	18,816,441	
2022	8,874,317	65,867	262,016	1,386,488	46,245	523,055	87,715	120,800	561,707	5,178,637	4,354,597	21,461,442	
2023	10,661,497	79,103	315,328	1,664,280	56,619	628,351	107,564	144,250	676,798	6,215,969	4,710,501	25,260,260	
2024	12,167,803	90,182	360,206	1,898,800	65,759	716,596	125,118	163,587	773,958	7,090,303	4,919,857	28,372,169	
2025	12,646,212	93,573	374,534	1,974,235	69,478	743,975	132,386	168,940	805,549	7,369,371	5,192,019	29,570,273	
2026	14,285,477	105,918	422,814	2,228,664	79,665	838,691	151,996	191,978	910,213	8,323,499	5,464,181	33,003,096	
2027	14,245,216	105,750	421,221	2,222,443	80,567	834,446	153,914	192,407	907,551	8,303,258	5,715,408	33,182,181	
2028	14,929,982	110,873	440,710	2,329,703	85,537	871,995	163,601	202,423	950,284	8,705,408	6,092,248	34,882,762	
2029	15,472,922	114,853	455,667	2,415,324	89,706	900,569	171,765	210,360	983,250	9,025,346	6,448,153	36,287,915	

### Wastewater Utility Cost Functionalization and Allocation

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 in **Table III-14**. The rate model in Appendix A presents a detailed listing of the cost allocations by line item. As with the water utility, these percentages are not forecast to change significantly during the next ten years.

TABLE III-14

CITY OF GOODYEAR			
TEST YEAR WASTEWATER COST FUNCTIONALIZATION			
SCENARIO: 2020 09 24 -- Scenario I -- Status Quo			
Function		TY 2020 Revenue Requirement	Percent
Treatment	\$	4,478,530	32.3%
Collection		5,886,533	42.4%
Administration		2,260,566	16.3%
Customer		374,172	2.7%
Reclaimed Water		<u>868,086</u>	<u>6.3%</u>
<b>Total</b>		<b>13,867,886</b>	<b>100.0%</b>

### 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 are summarized in **Table III-15**. The rate model in Appendix A presents a detailed listing of the cost calculations by line item.

TABLE III-15

CITY OF GOODYEAR		
TEST YEAR WASTEWATER COST ALLOCATION		
SCENARIO: 2020 09 24 -- Scenario I -- Status Quo		
Function	TY 2020 Revenue Requirement	Percent
Residential - City	\$ 9,489,666	68.4%
Residential - County	3,948	0.0%
Multi-Family	341,245	2.5%
Commercial	1,564,964	11.3%
Church	47,425	0.3%
Industrial	419,753	3.0%
Institutional	80,844	0.6%
Schools	128,132	0.9%
Perryville Prison	1,784,546	12.9%
Reclaimed Water	7,363	0.1%
<b>Total</b>	<b>13,867,886</b>	<b>100.0%</b>

The wastewater utility costs by customer class for the entire forecast period under Scenario 1 are summarized in **Table III-16**. Overall cost calculations are presented in detail in the rate model contained in Appendix A.

TABLE III-16

CITY OF GOODYEAR											
FORECAST WASTEWATER COST ALLOCATION											
SCENARIO: 2020 09 24 -- Scenario I -- Status Quo											
Year	Residential - City	Residential - County	Multi-Family	Commercial	Church	Industrial	Institutional	Schools	Perryville Prison	Reclaimed Water	Total
2020	\$ 9,489,666	\$ 3,948	\$ 341,245	\$ 1,564,964	\$ 47,425	\$ 419,753	\$ 80,844	\$ 128,132	\$ 1,784,546	\$ 7,363	\$ 13,867,886
2021	8,439,512	3,501	302,493	1,381,249	42,006	371,211	71,577	112,627	1,569,163	6,512	12,299,850
2022	11,148,395	4,642	404,891	1,842,587	57,155	496,041	97,651	149,422	2,087,104	8,655	16,296,544
2023	13,337,346	5,558	487,509	2,212,174	69,976	596,260	119,785	178,511	2,516,666	10,374	19,534,158
2024	13,855,731	5,760	506,372	2,294,701	73,938	618,287	126,704	184,140	2,616,646	10,758	20,293,036
2025	14,619,665	6,063	534,518	2,421,832	79,329	651,661	136,107	193,104	2,764,864	11,346	21,418,489
2026	15,777,005	6,555	577,202	2,614,757	87,009	702,730	149,501	209,905	2,988,619	12,248	23,125,530
2027	17,414,926	7,246	637,636	2,890,967	97,563	775,337	167,889	233,264	3,304,787	13,536	25,543,152
2028	18,103,749	7,527	661,284	3,003,624	102,704	803,099	176,924	243,290	3,429,952	14,063	26,546,216
2029	19,185,810	7,969	699,202	3,184,175	110,165	848,188	189,985	258,570	3,629,356	14,903	28,128,322

## Reclaimed Water Rate

Reclaimed water refers to the use of treated effluent, and recharge refers to the practice of storing renewable surface water (underground) for recovery later during periods of reduced water supply. As a member of the Central Arizona Groundwater Replenishment District (“CAGRDR”), the City’s Water Resource Plan includes the development and operation of multiple Water Reclamation Facilities (“WRF”) for effluent reuse and recharge. City’s recharge program is subject to numerous requirements and guidelines put forth in Arizona’s Assured Water (“AWS”) Rules and the Groundwater Replenishment District Act, including the ongoing process of obtaining and maintaining many permits. The direct cost of these permits as well as the indirect costs of the man-hours required to complete the applications and related documentation are significant factors in calculating the annual cost of these programs.

The City is required to replenish the aquifer for excess groundwater used through the utilization of reusable water supplies. Through these actions, the City acquires recharge credits. While the City reduces its reliance on groundwater through the use of treated effluent, it must still meet the remainder of its replenishment obligation through other means or pay CAGRDR per acre-foot for the unmet portion of its replenishment obligation. Among the options available to the City are the following:

- Use of reclaimed water for recharge in areas of groundwater pumping
- Use of reclaimed water to reduce groundwater pumping through the use of treated effluent for construction water, turf and landscape irrigation and industrial purposes
- Use of the City’s allocation of CAP water for long term storage credits

While the golf courses, parks and other areas irrigated with reclaimed water are directly served by the utility, in practice, the full cost of these functions are not typically passed through to the users. As noted in the AWWA Water Reuse Rates and Charges 2000 and 2007 Survey Results, published by the AWWA Water Reuse Committee:

“Reclaimed water has become a key resource to provide sustainable water supplies to meet...future planning requirements. However, the pricing and recovery of costs associated with reclaimed water has been an obstacle for many utilities. Generally speaking, if reclaimed water rates were set at the cost of service, they would be higher than potable water rates due to the increased treatment required as well as the cost of a secondary distribution system. Obviously, this would not encourage the use of reclaimed water by a utility’s customers. Rates are generally set at a much lower rate than the full cost of service; therefore costs will usually not be recovered through reclaimed water rates.

Customers receiving reclaimed water do not receive a greater benefit from reclaimed water than they would by receiving potable water unless the non-implementation of reclaimed water use will result in potable water restrictions through regulation, conservation, drought, etc. .... However, reclaimed water benefits a utility’s existing water customers by deferring, reducing or eliminating the need to develop new sources of supply in the future. .... Additionally, a utility’s existing wastewater customers benefit if no or fewer upgrades are needed for the system to meet regulatory requirements because of reuse standards. This can defer, reduce or eliminate the need to develop additional treatment capacity.”

Market research indicates the maximum rate at which to set reclaimed water is the utility’s current potable water rate.

*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. The most significant impact on rates will be the amount of debt that will be required to fund the capital improvement plan.

The water and wastewater rate plans recommended to the City were also developed in accordance with the City's

input, financial policies and goals. Among these financial policies and goals was the following:

*“Enterprise Funds should be self-sufficient. They should include a sufficient un-appropriated fund balance to absorb fluctuations in annual revenue. Wherever possible, enterprise funds should be charged directly for “overhead” services, rather than using an indirect service transfer. Provision should also be made for interdepartmental charges for services such as solid waste disposal (landfill) and vehicle repair, when this is practical. Operational revenue should be great enough to cover capital costs and replacement.”*

During the course of this engagement the project team met with City staff, the Water Planning committee and the City Council to discuss numerous alternative rate scenarios and rate plans. As a result of these discussions, staff, the Water Planning Committee and the project team settled on the rate design scenario contained in this section. As noted in the previous section, these revenue requirements include all direct and indirect expenditures for operations and maintenance, capital requirements for expansion, repair and replacement, debt service and required reserves. The proposed rate plan is designed to capture sufficient revenues for these purposes as well as coverage of the basic cost of service.

In accordance with City policies, it is recommended that rate changes continue to be implemented in January of each year.

## Proposed Rate Plan

Under the proposed rate plan, the City implements a series of annual water and wastewater rate adjustments over the period FY 2021 - FY 2029 to achieve cost of service rates for water and wastewater operations. The projected rate revenues collected are forecast to be sufficient to fund all operating expenses and capital obligations in each of the forecast years. This plan assumes the following:

- Maintains the current rate design structure for both water and wastewater customer classes
- Rate adjustments are uniformly applied to both base and volume charges
- Water rate adjustments are uniformly applied to all water rate classifications
- Wastewater rate adjustments are uniformly applied to all wastewater rate classifications

**Table IV-1** presents a summary of the water rate plan proposed for the City under this plan for the next ten years and **Table IV-2** presents a summary of the wastewater rate plan. **Table IV-3** presents examples of the impact on monthly bills. The recommended rate plan continues the City's policy of implementing water and wastewater rate changes in January of each year.

TABLE IV-1

		Proposed Water Rate Plan					
Scenario: 2020 09 24 -- Scenario I -- Status Quo			Effective	Effective	Effective	Effective	Effective
Water Rates		Current	Jan-21	Jan-22	Jan-23	Jan-24	Jan-25
<b>CAP Water Charge</b>		\$ 0.95	\$ 1.10	\$ 1.25	\$ 1.40	\$ 1.55	\$ 1.70
<b>Monthly Minimum Charge</b>	3/4"	18.54	<b>19.28</b>	19.86	20.46	21.07	21.70
	1"	25.64	<b>26.67</b>	27.47	28.29	29.14	30.01
	1 1/2"	41.46	<b>43.12</b>	44.41	45.74	47.12	48.53
	2"	67.11	<b>69.79</b>	71.89	74.04	76.27	78.55
	3"	77.67	<b>80.78</b>	83.20	85.70	88.27	90.92
	4"	126.65	<b>131.72</b>	135.67	139.74	143.93	148.25
	6"	240.36	<b>249.97</b>	257.47	265.20	273.15	281.35
	8"	240.36	<b>249.97</b>	257.47	265.20	273.15	281.35
<b>Volume Rate Per 1,000 Gal</b>							
<u>Residential - City</u>							
-	6,000	2.15	<b>2.24</b>	2.30	2.37	2.44	2.52
6,001	12,000	4.27	<b>4.44</b>	4.57	4.71	4.85	5.00
12,001	30,000	6.42	<b>6.68</b>	6.88	7.08	7.30	7.51
30,001	Above	10.31	<b>10.72</b>	11.04	11.38	11.72	12.07
<u>Non-Residential</u>							
-	40,000	5.06	<b>5.26</b>	5.42	5.58	5.75	5.92
40,001	100,000	8.10	<b>8.42</b>	8.68	8.94	9.21	9.48
100,001	Above	10.50	<b>10.92</b>	11.25	11.59	11.93	12.29
<u>Irrigation</u>							
-	80,000	7.57	<b>7.87</b>	8.11	8.35	8.60	8.86
80,001	Above	8.71	<b>9.06</b>	9.33	9.61	9.90	10.20

TABLE IV-2

		Proposed Wastewater Rate Plan					
Scenario: 2020 09 24 -- Scenario I -- Status Quo			Effective	Effective	Effective	Effective	Effective
Wastewater Rates		Current	Jan-21	Jan-22	Jan-23	Jan-24	Jan-25
Monthly Minimum Charge	3/4"	\$ 23.78	\$ <b>24.49</b>	\$ 25.23	\$ 25.99	\$ 27.02	\$ 28.11
	1"	36.49	<b>37.58</b>	38.71	39.87	41.47	43.13
	1 1/2"	44.96	<b>46.31</b>	47.70	49.13	51.09	53.14
	2"	87.35	<b>89.97</b>	92.67	95.45	99.27	103.24
	3"	115.22	<b>118.68</b>	122.24	125.90	130.94	136.18
	4"	152.86	<b>157.45</b>	162.17	167.03	173.72	180.66
Volume Rate/1,000 Gal		6.51	<b>6.71</b>	6.91	7.11	7.40	7.69

TABLE IV-3

Impact on Monthly Customer Charges						
<b>Scenario:</b>	2020 09 24 -- Scenario I -- Status Quo					
	Current	Effective Jan-21	Effective Jan-22	Effective Jan-23	Effective Jan-24	Effective Jan-25
<b>Residential Standard Monthly Bill - 3/4"</b>						
7,000 Gal Wate Total	\$ 98.69	\$ 102.86	\$ 106.76	\$ 110.75	\$ 115.45	\$ 120.28
5,000 Gal WW Increase -- \$		4.17	3.90	3.99	4.69	4.83
Increase -- %		4.2%	3.8%	3.7%	4.2%	4.2%
10,000 Gal Wai Total	114.35	119.48	124.24	129.09	134.66	140.37
5,000 Gal WW Increase -- \$		5.13	4.75	4.85	5.57	5.71
Increase -- %		4.5%	4.0%	3.9%	4.3%	4.2%
20,000 Gal Wai Total	216.30	226.30	235.43	244.75	255.22	265.96
10,000 Gal WW Increase -- \$		10.00	9.13	9.31	10.47	10.74
Increase -- %		4.6%	4.0%	4.0%	4.3%	4.2%
<b>Commercial Standard Monthly Bill - 2"</b>						
25,000 Gal Wai Total	\$ 434.91	\$ 452.93	\$ 469.44	\$ 486.34	\$ 506.01	\$ 526.25
20,000 Gal WW Increase -- \$		18.02	16.51	16.90	19.67	20.24
Increase -- %		4.1%	3.6%	3.6%	4.0%	4.0%
50,000 Gal Wai Total	745.76	777.71	806.89	836.73	871.03	906.29
40,000 Gal WW Increase -- \$		31.95	29.18	29.83	34.30	35.26
Increase -- %		4.3%	3.8%	3.7%	4.1%	4.0%
<b>NOTE: Includes CAP Water Charges</b>						

Appendix A presents pages from the rate model that summarize both the rate recommendations and forecast net revenues under this alternative by year over the forecast period.

While this study presents a forecast of rates over the next decade, it is recommended that the City monitor actual growth in accounts and consumption, and update its forecasts annually due to the dynamic nature of growth in the City, and the rapid rate of change within the utility and the City. Periodic reviews will enable the City to assess the need for adjustments to the long-term rate plan.

Table IV-4 presents the forecast water and wastewater revenues by rate class under the proposed rate design.

TABLE IV-4

CITY OF GOODYEAR FORECAST REVENUES UNDER PROPOSED RATES							
	2020	2021	2022	2023	2024	2025	
<b>1 WATER Revenues</b>							
<u>Water Rate Revenue</u>							
W.0 CAP Water	\$ 2,446,407	\$ 2,833,611	\$ 3,319,223	\$ 3,822,966	\$ 4,345,680	\$ 4,887,913	
W.1 Residential - City	9,636,747	10,423,940	11,110,433	11,777,704	12,486,170	13,238,734	
W.2 Residential - County	80,201	86,693	92,239	97,502	102,972	108,659	
W.3 Multi-Family	472,385	578,564	613,240	646,207	680,304	715,579	
W.4 Commercial	2,345,550	2,482,049	2,628,637	2,766,176	2,912,405	3,067,687	
W.5 Church	58,827	62,616	67,556	72,366	77,403	82,678	
W.6 Industrial	877,368	928,776	983,120	1,033,984	1,086,612	1,141,075	
W.7 Institutional	110,963	117,531	127,024	136,286	145,989	156,152	
W.8 Schools	163,004	171,755	180,923	189,438	198,269	207,428	
W.9 Hydrant	-	-	-	-	-	-	
W.10 Irrigation	5,229,978	5,524,745	5,844,129	6,142,822	6,458,580	6,792,073	
	<u>21,421,430</u>	<u>23,210,280</u>	<u>24,966,523</u>	<u>26,685,449</u>	<u>28,494,386</u>	<u>30,397,979</u>	
Non-Rate Revenues	<u>1,811,900</u>	<u>3,470,900</u>	<u>3,537,260</u>	<u>3,589,021</u>	<u>3,642,334</u>	<u>3,697,247</u>	
<b>Total Revenues</b>	<b>23,233,330</b>	<b>26,681,180</b>	<b>28,503,783</b>	<b>30,274,470</b>	<b>32,136,720</b>	<b>34,095,226</b>	
		14.8%	6.8%	6.2%	6.2%	6.1%	
<b>WASTEWATER Revenues</b>							
<u>Wastewater Rate Revenue</u>							
WW.1 Residential - City	12,608,784	13,261,815	14,060,034	14,907,775	15,873,100	16,996,981	
WW.2 Residential - County	5,360	5,570	5,817	6,072	6,362	6,700	
WW.5 Multi-Family	267,530	281,025	296,471	312,444	330,320	350,860	
WW.6 Commercial	1,413,880	1,471,971	1,542,539	1,615,501	1,699,550	1,798,533	
WW.5 Church	46,773	49,786	54,070	58,566	63,543	69,176	
WW.6 Industrial	341,330	357,569	376,421	395,932	417,839	443,093	
WW.7 Institutional	-	-	-	-	-	-	
WW.8 Schools	124,237	130,621	138,051	146,819	156,610	167,806	
WW.9 Perryville Prison	1,339,458	1,395,056	1,460,083	1,539,133	1,627,469	1,728,837	
WW.10 Reclaimed Water	7,116	7,401	7,742	8,094	8,500	8,977	
	<u>16,154,469</u>	<u>16,960,814</u>	<u>17,941,229</u>	<u>18,990,336</u>	<u>20,183,293</u>	<u>21,570,963</u>	
Non-Rate Revenues	<u>145,600</u>	<u>659,890</u>	<u>675,319</u>	<u>691,210</u>	<u>713,035</u>	<u>735,732</u>	
<b>Total Revenues</b>	<b>16,300,069</b>	<b>17,620,704</b>	<b>18,616,547</b>	<b>19,681,547</b>	<b>20,896,327</b>	<b>22,306,695</b>	
		8.1%	5.7%	5.7%	6.2%	6.7%	
<b>TOTAL REVENUES</b>	<b>39,533,399</b>	<b>44,301,884</b>	<b>47,120,330</b>	<b>49,956,016</b>	<b>53,033,048</b>	<b>56,401,921</b>	
		12.1%	6.4%	6.0%	6.2%	6.4%	



## SECTION V

## Non-Rate Fees and Services Cost Analysis



The project team also has been engaged by the City of Goodyear, AZ ("City") to update its schedule of Non-Rate Fees and Services related to its water and wastewater utilities. As is common for all utilities, the City maintains a schedule of fees and charges for services that are offered in addition to basic monthly water and wastewater service. Unlike utility rates, which are charged to all active ratepayers, these fees are only charged to those customers who specifically request the associated service or who are violating the utility's codes. These fees are generally known as Non-Rate Fees and Services.

The City's Non-Rate Fees have not been reviewed or adjusted in the past 5 years. The City seeks an analysis of the cost it incurs in providing each of these services to the associated ratepayer, as well as an analysis of the fees other cities charge for similar services. This information will form the basis of the fee recommended to be charged for each service.

In this analysis, each category of Non-Rate Fees and Services has its costs calculated according to a basic, generally-accepted methodology. This methodology has been closely followed during the course of this study. The non-rate revenue calculation model contained in **Appendix B** of this report presents the cost calculation methodology in detail.

### Cost Calculation Methodology

In order to develop a cost estimate for each of the categories of Non-Rate Fees and Services, the Project Team utilized the following approach:

1. City staff expended considerable time and effort fulfilling the requests of the Project Team. All requests were complied with in an efficient, professional manner. The Project Team owes a debt of gratitude to the professionalism and diligence of City staff for their assistance in this endeavor.
2. The Project Team divided the data and analysis for each service into four categories: Labor, Materials, Vehicle Costs, and Other. Labor includes the time devoted by clerical, field and administrative personnel in completing the associated service. Materials include the specific items required by each service. Vehicles include the capital and operating costs of City vehicles required for the service. Other costs include specific items not assigned to any of the other categories.

- Each cost was reviewed, calculated and incorporated into the non-rate fees and services cost calculation model presented in Appendix B. The total cost for each service represents the sum of the individual category costs.

### Current Non-Rate Fees and Services

Table V-1 below presents the City’s current schedule for each category of Non-Rate Fees and Services.

Table V-1

CITY OF GOODYEAR NON-RATE FEES AND SERVICES CALCULATION MODEL		
Fee Code	Description	Current Fee
	Late Payment Fee	1.50%
RC	Returned Check Fee	50.00
SD	Security Deposit - Resid	200.00
	Security Deposit - Non Resid	250.00
CC	Cross Connection-Backflow	9.00
CF	Same Day New Account	50.00
CN	Activation Fee - Next Day	60.00
DN	Disconnect Notice - Water	18.00
RF	Admin Fee (Shut off)	50.00
TO	Same Day Reinstatement	50.00
WA	Water Audit Fee	54.00
FV	Field Visit	55.00
LH	Hydrant Connection	150.00
MT	Meter Tampering	65.00

## Non-Rate Fees and Services Analysis General Assumptions

Subsequent to meetings with City staff and a full review of the City's data, the Project Team made a series of general assumptions that are applicable to the Non-Rate Fee calculations. All fees for services are calculated as a minimum charge with labor and materials in excess of the minimum being charged at actual City time and expense. Additional assumptions are as follows:

- Personnel were separated by position into the following categories: Clerical/Specialist/Manager; Field Specialist/Manager; and Professional.
- The total cost of each service included in this analysis is primarily based on the Fully Burdened Hourly Rates (FBHRs) that were determined for City personnel directly involved in providing services. The FBHRs include not only personnel salary and benefits, but also any costs that are reasonably ascribable to personnel such as operating costs applicable to fee operations, departmental support, supervision, administration overhead, internal service costs, and indirect City-wide overhead costs.
- An important factor in determining the fully burdened rate is in the calculation of productive hours for personnel. This calculation takes the available workable hours in a year of 2,080 and adjusts to account for an average calculated or anticipated hours' employees are involved in non-billable activities such as paid vacation, sick leave, emergency leave, holidays, and other considerations as necessary. Dividing the full cost by the number of productive hours provides the FBHR.
- Clerical/Specialist/Manager time charged is averaged to \$55.18 per hour during business hours and \$82.76 after business hours.
- Field/Field Specialist/Manager time charged is averaged to \$83.15 per hour during business hours and \$124.72 after business hours.
- Material used to provide the services are priced at retail cost with no City discounts passed through.
- Average miles per trip are calculated differently based on the type of fee:
  - For Non-Rate Fees the average miles per trip are calculated to be 15, based on the size of the City's service territory.
  - When a fee is collected and there is a route involved (i.e. Disconnect and Reconnect Fees), the mileage is decreased to 5 miles to reflect a portion of the total miles.
- Gasoline cost for City vehicles is estimated to be \$0.21 per mile based on average gas prices.
- City utility vehicles are assumed to cost an average of \$30,000, have a lifespan of 75,000 miles. Operating costs per mile are calculated to be  $(\$30,000/75,000+0.10) = \$0.50$  per mile.

## Summary Result and Non-Service Fee Recommendations

**Table V-2** presents Non-Rate Service Fee comparisons with various Arizona cities. Comparison data is based on information from each city's website.

TABLE V-2

CITY OF GOODYEAR NON-RATE FEES AND SERVICES CALCULATION MODEL		FY 2020									
Goodyear Current Fee		Non-Rate Revenue Comparison									Tempe
		Avondale	Buckeye	Gilbert	Glendale	Mesa	Peoria	Scottsdale	Surprise		
<b>Late Payment Fee</b>											
Total	1.50%	1.50%	1.50%	1.50%	1.50%	2% or \$5.00 whichever is greater	1.5% or \$2.00 whichever is greater	1.5% or \$5.00 whichever is greater	1.50%	1.00%	
<b>Returned Check Fee</b>											
Total	50.00	25.00	35.00	25.00	27.96	25.00	30.00	25.00	25.00	25.00	
<b>Security Deposit Fee</b>											
Residential	200.00	\$175 Living at Property Paid in Full. \$200 Living at Property. Billed in Installments.\$250.00 Not living at property.	175.00	200.00	200.00	Water \$100.00 Sewer - \$50.00 Refuse - \$60.00	225.00	2 months average bill	3 times W and WW base	150.00	
Commercial	250.00	300.00	500.00	\$200 or average two month bill, whichever is higher	Up to 1.5" meter \$250; over 2" \$300	Water \$100.00 Sewer - \$50.00 Refuse - \$60.00	225.00		3 times base water + \$75 ww	300.00	
<b>Cross Connection-Backflow</b>											
Total	9.00										
<b>Activation Fee - Same Day</b>											
Total	50.00	100.00	100.00	\$30.00	76.73	45.00	50.00	30.00	75.00	30.00	
<b>Activation Fee - Next Day</b>											
Total	60.00	60.00	60.00	15.00	-	27.00			60.00		
<b>Disconnect Notice - Water</b>											
Total	18.00	60.00	15.00	25.00	1.17	3.00	51.00	55.00	12.00	15.00	
<b>Admin Fee (Shut off)</b>											
Total	50.00	-	-	-	-	11.00	-	-	-	-	
<b>Same Day Reinstatement</b>											
Total	50.00	-	100.00	75.00	-	45.00	50.00	-	-	\$30 next day	
<b>Water Audit Fee</b>											
Total	54.00	-	-	-	-	-	-	-	-	-	
<b>Field Visit</b>											
Total	55.00	-	50.00		23.60	45.00	50.00		32.00		
<b>Hydrant Connection - Install</b>											
Total	150.00	\$1,000 Deposit \$50 Installation	\$1,500 Deposit \$150 Installation	\$1,000 Deposit \$173.95 Installation	\$1,693.55 Deposit; \$95.06 Installation	\$1,500 Deposit \$150 Installation	\$2,320 Deposit \$50 Installation	\$750 Deposit 1" \$1,500 3" \$140 Installation	\$500 Deposit \$100 Installation	-	
<b>Meter Tampering</b>											
Total	65.00	100.00	200.00	100.00	76.73	100.00	75.00	500.00	75.00	100.00	

Tables V-3 presents the Project Team’s recommended Non-Rate Fees and Service and the basis for recommendation.

TABLE V-3

CITY OF GOODYEAR NON-RATE FEES AND SERVICES CALCULATION MODEL					
Fee Code	Description	Proposed Fee	Current Fee	Cost of Service and Basis for Recommendation	Percent Increase
	Late Payment Fee	1.50%	1.50%	Comps	0.0%
RC	Returned Check Fee	\$ 52.50	\$ 50.00	\$ 76.38	5.0%
SD	Security Deposit - Resid	200.00	200.00	203.34	0.0%
	Security Deposit - Non Resid	375.00	250.00	856.87	50.0%
CC	Cross Connection-Backflow	13.50	9.00	13.79	50.0%
CF	Same Day New Account	75.00	50.00	121.22	50.0%
CN	Activation Fee - Next Day	75.00	60.00	121.22	25.0%
DN	Disconnect Notice - Water	27.00	18.00	28.59	50.0%
RF	Admin Fee (Shut off)	50.00	50.00	50.77	0.0%
TO	Same Day Reinstatement	75.00	50.00	209.07	50.0%
WA	Water Audit Fee	81.00	54.00	211.23	50.0%
FV	Field Visit	82.50	55.00	176.95	0.0%
LH	Hydrant Connection	150.00	150.00	305.13	0.0%
MT	Meter Tampering	97.50	65.00	135.37	50.0%

It is recommended that the City update Labor and Equipment costs annually.



## SECTION VI

## Solid Waste Cost of Service and Rate Design



This section of the Rate Study and Long-Term Financial Forecast focuses on the City's solid waste and recycling services which are managed and funded through the Solid Waste Operating Fund. Using current and projected costs and accounts as a base, the cost of service and revenues by customer class are developed for the forecast period FY 2020 -- FY 2029. The forecast includes recommendations for rate adjustments designed to enable the utility to recover sufficient revenues to recover projected operating and capital expenses.

As with the water and wastewater utility, these recommended rates are designed to only recover the cost of service, and are based on national ratemaking standards.

The City's solid waste operations consist primarily of:

- Residential collection of refuse and recycling

The majority of these services and revenues are based on set monthly fees, but approximately 1.6% of revenues in the Solid Waste Operating Fund are derived from special service fees including those from additional containers, customer service admin fees, other miscellaneous fees, and investment income.

**Table VI-1** presents the City's current rate schedule for solid waste services. Residential customers have their refuse collected twice a week and are assessed a flat fee of \$22.80 per month for weekly collection and disposal of one 95 or 65 gallon trash container and one 95 or 65 gallon recycling container. The flat Residential rate includes the cost of recycling, collection of bulk trash, and brush pickup in addition to regular trash collection.

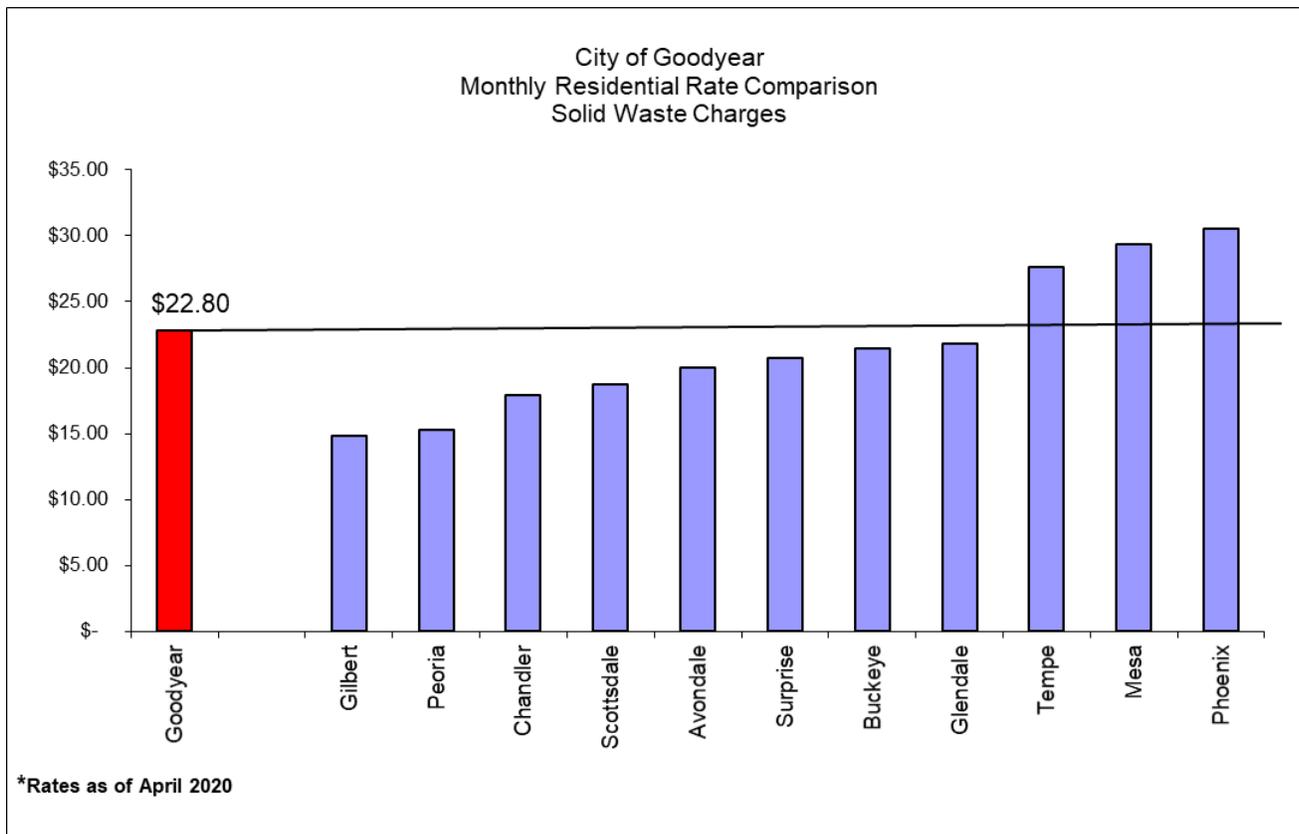
TABLE VI-1

CITY OF GOODYEAR	
CURRENT SOLID WASTE RATES	
*Rates do not include sales tax	
<u>Residential Monthly Fees</u>	
<b>Two Time Weekly Pick-Up Trash</b>	\$ 22.80
Includes:	
a) one time weekly recycling pick-up	
b) unlimited brush pick up	
c) one time weekly bulk pick-up	

**Chart VI-2** compares the City’s current monthly Residential charge for Residential collection and disposal to those of neighboring municipalities. The table reveals that the City’s rates are comparable to, or lower than, most other cities in the region.

The rate data is based on published rates and ordinances posted by each municipality in their rate ordinance. These rates do not include sales tax, activation or other charges.

CHART VI-2



### Solid Waste Current and Forecast Accounts

**Table VI-3** presents the total residential customers and additional containers in the test year, TY 2020. There are 30,941 residential customers in the City. The Table reveals that around 2.4% of residential customers requested an additional container.

**TABLE VI-3**

CITY OF GOODYEAR		
FY 2020 SOLID WASTE CUSTOMERS		
Container Size	Customers	Percent
Residential 95/65 Gallon Container	30,941	97.6%
Residential -- Additional	776	2.4%
<b>Grand Total</b>	<b>31,717</b>	<b>100.0%</b>

**Chart VI-4** represent the ten-year growth forecast for solid waste accounts and additional containers. The average growth rate of 3% closely mirrors the expected growth in water and wastewater customers. This is to be expected, as both water/wastewater and solid waste services are primarily household-based.

**CHART VI-4**



### Current and Forecast Revenue Requirement

The City contracts with a private company for once per week curbside collection of refuse and recycling to residential customers. The current contract, signed in 2019, is a seven-year agreement. The contract has provisions for several annual adjustments, such as Consumer Price increases and fuel adjustments.

Total charges to be paid by the City for collection of refuse and recycling in FY 2020 are \$3,839,406, and are expected to increase to \$6,657,118 in FY 2029.

Table VI-5 presents the City’s FY 2020 Solid Waste budget summary:

TABLE VI-5

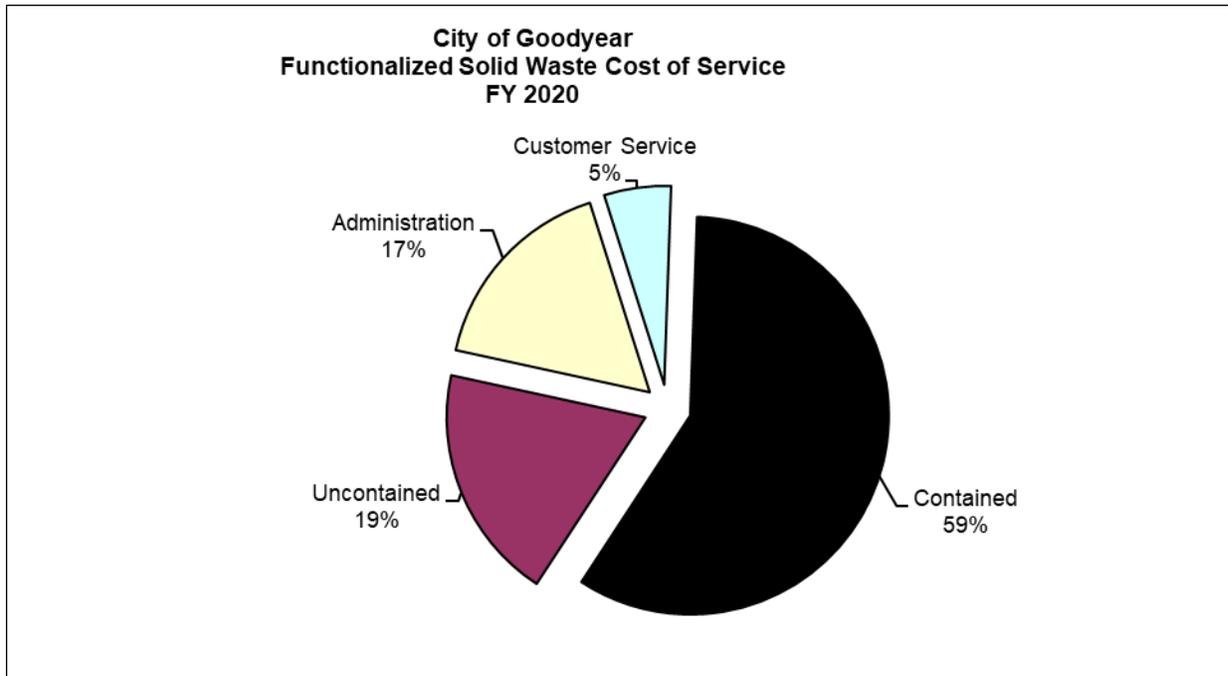
CITY OF GOODYEAR	
BUDGET OPERATING EXPENSES SOLID WASTE BUDGET SUMMARY	
Test Year 2020	
<b>Personnel/Operating</b>	
Administration	\$ 1,294,507
Contained Waste Pickup	3,839,406
Container Maintenance	506,101
<b>Total Operating Expense</b>	<b>5,640,014</b>
Capital Outlays	529,300
Transfers	1,238,002
Debt Service	-
<b>Total Cost of Service</b>	<b>7,407,316</b>
Non-Rate Revenue	(89,800)
<b>Revenue Requirement</b>	<b>7,317,516</b>

The largest cost elements of the Solid Waste Fund are the contractual services for contained waste pickup. The Solid Waste Fund has other expenses which are largely for administration and container maintenance. In FY 2020 there are transfers of \$1,238,002 budgeted in transfers for the Utility’s General and Administrative reimbursement to the General Fund.

The forecast assumes most expenses increase by an inflation rate of 2-3%, and assumes Contractual services costs for contained waste pickup increase by the associated growth of volumes or accounts plus inflation. A greater inflation factor was applied for insurance costs. The City Solid Waste Fund does not maintain any outstanding debt at present and the City currently has no plans for major solid waste-related capital improvements during the forecast period which would require future debt.

Chart VI-6 below presents the solid waste fund’s functionalized revenue requirement for the test year FY 2020.

CHART VI-6



The City’s ten-year forecast of the solid waste fund’s revenue requirement is presented in **Table VI-7**. All calculations are supported by the rate model summaries presented in Appendix C of this rate study.

TABLE VI-7

CITY OF GOODYEAR							
FORECAST SOLID WASTE NET REVENUE REQUIREMENT							
	Operating Expenses	Fund Transfers	Capital Outlays	Debt Service	Total Cost of Service	Less Non-Rate Revenues	Net Revenue Requirement
<b>Sanitation Revenue Requirement</b>							
2020	\$ 5,640,014	\$ 1,238,002	\$ 529,300	\$ -	\$ 7,407,316	\$ (89,800)	\$ 7,317,516
2021	6,152,866	1,649,762	243,296	-	8,045,924	(89,800)	7,956,124
2022	7,044,075	1,300,643	408,120	-	8,752,838	(89,800)	8,663,038
2023	7,441,320	1,339,662	-	-	8,780,982	(89,800)	8,691,182
2024	7,862,354	1,379,852	65,998	-	9,308,204	(89,800)	9,218,404
2025	8,308,847	1,421,248	-	-	9,730,094	(89,800)	9,640,294
2026	9,595,645	1,463,885	1,162,832	-	12,222,362	(89,800)	12,132,562
2027	10,137,418	1,507,801	310,608	-	11,955,827	(89,800)	11,866,027
2028	10,712,203	1,553,036	-	-	12,265,238	(89,800)	12,175,438
2029	11,321,923	1,599,627	333,754	-	13,255,304	(89,800)	13,165,504

### Proposed Rate Plan

Table VI-8 presents the recommended solid waste rate implementation schedule. Table VI-9 presents forecast solid waste revenues and expenses. The following should be noted about this recommendation:

- The rate design continues the City’s policy of charging a monthly charge for sanitation service.
- The increases are proposed to become effective on January 1 of each fiscal year in the rate plan period.

TABLE VI-8

CITY OF GOODYEAR SOLID WASTE MONTHLY CHARGE SCHEDULE										
	Current	Monthly Charge								
		Effective Jan-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
<b>Residential</b>										
Total Monthly	\$ 22.80	\$ 19.80	\$ 20.55	\$ 21.40	\$ 22.25	\$ 23.15	\$ 25.85	\$ 26.90	\$ 28.00	\$ 29.10
Inc/(Dec) -- Dollars		(3.00)	0.75	0.85	0.85	0.90	2.70	1.05	1.10	1.10
Inc/(Dec) -- Percent		-13.0%	4.0%	4.0%	4.0%	4.0%	12.0%	4.0%	4.0%	4.0%
<b>Residential -- Additional</b>										
Residential -- Additional Container	6.26	7.50	7.80	8.11	8.43	8.77	9.12	9.48	9.86	10.25
Inc/(Dec) -- Dollars		1.24	0.30	0.31	0.32	0.34	0.35	0.36	0.38	0.39
Inc/(Dec) -- Percent		20.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%

TABLE VI-9

CITY OF GOODYEAR FORECAST SOLID WASTE REVENUES AND EXPENSES										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Residential	7,691,982	6,440,725	6,203,925	6,641,975	7,112,802	7,614,989	8,153,762	8,727,456	9,351,927	10,020,082
Residential -- Additional	\$ 831,792	\$ 1,865,562	\$ 1,793,677	\$ 1,919,904	\$ 2,064,354	\$ 2,215,928	\$ 2,707,400	\$ 3,382,473	\$ 3,629,427	\$ 3,888,324
Non-Rate Revenues	89,800	89,800	89,800	89,800	89,800	89,800	89,800	89,800	89,800	89,800
<b>Total</b>	<b>8,613,575</b>	<b>8,396,087</b>	<b>8,087,402</b>	<b>8,651,679</b>	<b>9,266,956</b>	<b>9,920,717</b>	<b>10,950,961</b>	<b>12,199,728</b>	<b>13,071,154</b>	<b>13,998,206</b>
Operating Expenses										
Contained Waste Pickup	3,839,406	4,148,465	4,401,097	4,669,158	4,953,468	5,255,174	5,575,204	5,914,680	6,274,949	6,657,118
Administration	1,294,507	1,554,001	2,118,944	2,217,996	2,322,759	2,433,625	3,307,963	3,469,208	3,640,132	3,821,402
Container Maintenance	506,101	450,400	524,034	554,166	586,127	620,048	712,478	753,530	797,121	843,404
	5,640,014	6,152,866	7,044,075	7,441,320	7,862,354	8,308,847	9,595,645	10,137,418	10,712,203	11,321,923
Debt Service	-	-	-	-	-	-	-	-	-	-
Transfers	1,238,002	1,649,762	1,300,643	1,339,662	1,379,852	1,421,248	1,463,885	1,507,801	1,553,036	1,599,627
Capital Outlays	529,300	243,296	408,120	-	65,998	-	1,162,832	310,608	-	333,754
<b>Total Cost of Service</b>	<b>7,407,316</b>	<b>8,045,924</b>	<b>8,752,838</b>	<b>8,780,982</b>	<b>9,308,204</b>	<b>9,730,094</b>	<b>12,222,362</b>	<b>11,955,827</b>	<b>12,265,238</b>	<b>13,255,304</b>
<b>Net Revenues</b>	<b>1,206,259</b>	<b>350,163</b>	<b>(665,436)</b>	<b>(129,304)</b>	<b>(41,248)</b>	<b>190,623</b>	<b>(1,271,400)</b>	<b>243,901</b>	<b>805,916</b>	<b>742,902</b>
Ending Fund Balance	4,558,400	4,908,563	4,243,127	4,113,823	4,072,575	4,263,198	2,991,797	3,235,699	4,041,614	4,784,517

## Notes on Rate Recommendations

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

- Actual growth in accounts and consumed volumes is less than (or significantly greater than) forecast
- Capital improvement plan funding costs increase significantly due to the rising cost of materials or other factors
- An unforeseen event impacts the City, such as an extended recession, natural catastrophe or terrorist attack
- Increases or decreases in interest rates, coverage requirements or reserve requirements for municipal long-term debt.
- City 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 by the City at this time.

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

*Appendix A*



# City of Goodyear

## 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**

2020  
2025

**Total Net Revenues Available for Contingency**

**Debt Service**

**Total Revenues**

**Debt Coverage**

■ Water ■ Sewer ■ Combined Projections

Future Debt Term: 20

Water Future Bond Issues		
	Alternative	Proposed
2020		\$ -
2021		\$ 15,000,000
2022		\$ -
2023		\$ 25,000,000
2024		\$ -
2025		\$ 20,000,000
2026		\$ -
2027		\$ 10,000,000
2028		\$ -
2029		\$ 5,000,000

Sewer Future Bond Issues		
	Alternative	Proposed
2020		\$ -
2021		\$ 50,000,000
2022		\$ 40,000,000
2023		\$ -
2024		\$ -
2025		\$ 20,000,000
2026		\$ -
2027		\$ 20,000,000
2028		\$ -
2029		\$ 10,000,000

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Water Rate Adjustments</b>										
Meter Charge	0.00%	4.00%	3.00%	3.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%
Volume Charge	0.00%	4.00%	3.00%	3.00%	3.00%	3.00%	3.00%	2.00%	2.00%	2.00%
<b>Sewer Rate Adjustments</b>										
Base Charge	0.00%	3.00%	3.00%	3.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Volume Charge	0.00%	3.00%	3.00%	3.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
	Residential									
	Non-Residential									

Debt Coverage										
Water	2.20	2.27	1.87	1.62	1.42	1.47	1.35	1.45	1.42	1.46
WW	1.85	2.92	1.62	1.20	1.27	1.37	1.29	1.27	1.26	1.35
Total	2.02	2.52	1.75	1.38	1.34	1.42	1.32	1.35	1.33	1.40

<div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 0 auto; width: 80%;"> <b>CITY OF GOODYEAR WATER/WASTEWATER COST OF SERVICE MODEL</b> </div>											
	<b>Current</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>

**City Rate Plan**  
**Scen: 2020 09 24 -- Scenario I -- Status Quo**

**1 Water Monthly Rates and Charges**

**Water Rate and Charges**

<b>W0 CAP Water</b>	Usage Charge per 1,000 Gal	\$	0.85	\$	0.95	\$	1.10	\$	1.25	\$	1.40	\$	1.55	\$	1.70	\$	1.77	\$	1.81	\$	1.89	\$	1.96
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**W1 Residential - City**

**Monthly Minimum Charge**

		3/4"	\$	17.49	\$	18.54	\$	19.28	\$	19.86	\$	20.46	\$	21.07	\$	21.70	\$	22.35	\$	22.80	\$	23.26	\$	23.72
		1"		24.19		25.64		26.67		27.47		28.29		29.14		30.01		30.91		31.53		32.16		32.80
		1 1/2"		39.11		41.46		43.12		44.41		45.74		47.12		48.53		49.99		50.99		52.01		53.05
		2"		63.31		67.11		69.79		71.89		74.04		76.27		78.55		80.91		82.53		84.18		85.86
		3"		77.67		77.67		80.78		83.20		85.70		88.27		90.92		93.64		95.52		97.43		99.37
		4"		126.65		126.65		131.72		135.67		139.74		143.93		148.25		152.69		155.75		158.86		162.04
		6"		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53
		8"		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53

**Volume Rate/1,000 Gal**

	6,000	2.03	2.15	2.24	2.30	2.37	2.44	2.52	2.59	2.64	2.70	2.75
	12,000	4.03	4.27	4.44	4.57	4.71	4.85	5.00	5.15	5.25	5.36	5.46
	12,001	6.06	6.42	6.68	6.88	7.08	7.30	7.51	7.74	7.90	8.05	8.21
	30,001	9.73	10.31	10.72	11.04	11.38	11.72	12.07	12.43	12.68	12.93	13.19
	Above											

**W2 Residential - County**

**Monthly Minimum Charge**

	3/4"	\$	21.86	\$	23.18	\$	24.10	\$	24.83	\$	25.57	\$	26.34	\$	27.13	\$	27.94	\$	28.50	\$	29.07	\$	29.65
	1"		30.24		32.05		33.33		34.33		35.36		36.42		37.52		38.64		39.41		40.20		41.01
	1 1/2"		48.89		51.83		53.90		55.51		57.18		58.90		60.66		62.48		63.73		65.01		66.31
	2"		79.14		83.89		87.24		89.86		92.56		95.33		98.19		101.14		103.16		105.22		107.33
	3"		97.09		97.09		100.97		104.00		107.12		110.33		113.64		117.05		119.39		121.78		124.22
	4"		158.31		158.31		164.65		169.58		174.67		179.91		185.31		190.87		194.69		198.58		202.55
	6"		300.45		300.45		312.47		321.84		331.50		341.44		351.69		362.24		369.48		376.87		384.41
	8"		300.45		300.45		312.47		321.84		331.50		341.44		351.69		362.24		369.48		376.87		384.41

**Volume Rate/1,000 Gal**

	6,000	2.54	2.69	2.80	2.88	2.97	3.05	3.15	3.24	3.30	3.37	3.44
	12,000	5.04	5.34	5.55	5.72	5.89	6.07	6.25	6.44	6.56	6.70	6.83
	12,001	7.58	8.03	8.35	8.60	8.85	9.12	9.39	9.68	9.87	10.07	10.27
	30,001	12.16	12.89	13.40	13.81	14.22	14.65	15.09	15.54	15.85	16.17	16.49
	Above											

**W3 Multi-Family**

**Monthly Minimum Charge**

	3/4"	\$	17.49	\$	18.54	\$	19.28	\$	19.86	\$	20.46	\$	21.07	\$	21.70	\$	22.35	\$	22.80	\$	23.26	\$	23.72
	1"		24.19		25.64		26.67		27.47		28.29		29.14		30.01		30.91		31.53		32.16		32.80
	1 1/2"		39.11		41.46		43.12		44.41		45.74		47.12		48.53		49.99		50.99		52.01		53.05
	2"		63.31		67.11		69.79		71.89		74.04		76.27		78.55		80.91		82.53		84.18		85.86
	3"		77.67		77.67		80.78		83.20		85.70		88.27		90.92		93.64		95.52		97.43		99.37
	4"		126.65		126.65		131.72		135.67		139.74		143.93		148.25		152.69		155.75		158.86		162.04
	6"		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53
	8"		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53

**Volume Rate/1,000 Gal**

	40,000	4.91	5.06	5.26	5.42	5.58	5.75	5.92	6.10	6.22	6.35	6.47
	100,000	7.86	8.10	8.42	8.68	8.94	9.21	9.48	9.77	9.96	10.16	10.36
	100,001	10.19	10.50	10.92	11.25	11.59	11.93	12.29	12.66	12.91	13.17	13.43
	Above											

<div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 0 auto; width: 80%;"> <b>CITY OF GOODYEAR</b>  <b>WATER/WASTEWATER COST OF SERVICE MODEL</b> </div>											
	<b>Current</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>

**City Rate Plan**  
**Scen: 2020 09 24 -- Scenario I -- Status Quo**

**W4 Commercial**

**Monthly Minimum Charge**

	3/4"	\$	17.49	\$	18.54	\$	19.28	\$	19.86	\$	20.46	\$	21.07	\$	21.70	\$	22.35	\$	22.80	\$	23.26	\$	23.72
	1"		24.19		25.64		26.67		27.47		28.29		29.14		30.01		30.91		31.53		32.16		32.80
	1 1/2"		39.11		41.46		43.12		44.41		45.74		47.12		48.53		49.99		50.99		52.01		53.05
	2"		63.31		67.11		69.79		71.89		74.04		76.27		78.55		80.91		82.53		84.18		85.86
	3"		77.67		77.67		80.78		83.20		85.70		88.27		90.92		93.64		95.52		97.43		99.37
	4"		126.65		126.65		131.72		135.67		139.74		143.93		148.25		152.69		155.75		158.86		162.04
	6"		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53
	8"		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53

**Volume Rate/1,000 Gal**

	-	40,000	4.91	5.06	5.26	5.42	5.58	5.75	5.92	6.10	6.22	6.35	6.47
	40,001	100,000	7.86	8.10	8.42	8.68	8.94	9.21	9.48	9.77	9.96	10.16	10.36
	100,001	Above	10.19	10.50	10.92	11.25	11.59	11.93	12.29	12.66	12.91	13.17	13.43

**W5 Church**

**Monthly Minimum Charge**

	3/4"	\$	17.49	\$	18.54	\$	19.28	\$	19.86	\$	20.46	\$	21.07	\$	21.70	\$	22.35	\$	22.80	\$	23.26	\$	23.72
	1"		24.19		25.64		26.67		27.47		28.29		29.14		30.01		30.91		31.53		32.16		32.80
	1 1/2"		39.11		41.46		43.12		44.41		45.74		47.12		48.53		49.99		50.99		52.01		53.05
	2"		63.31		67.11		69.79		71.89		74.04		76.27		78.55		80.91		82.53		84.18		85.86
	3"		77.67		77.67		80.78		83.20		85.70		88.27		90.92		93.64		95.52		97.43		99.37
	4"		126.65		126.65		131.72		135.67		139.74		143.93		148.25		152.69		155.75		158.86		162.04
	6"		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53
	8"		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53

**Volume Rate/1,000 Gal**

	-	40,000	4.91	5.06	5.26	5.42	5.58	5.75	5.92	6.10	6.22	6.35	6.47
	40,001	100,000	7.86	8.10	8.42	8.68	8.94	9.21	9.48	9.77	9.96	10.16	10.36
	100,001	Above	10.19	10.50	10.92	11.25	11.59	11.93	12.29	12.66	12.91	13.17	13.43

**W6 Industrial**

**Monthly Minimum Charge**

	3/4"	\$	17.49	\$	18.54	\$	19.28	\$	19.86	\$	20.46	\$	21.07	\$	21.70	\$	22.35	\$	22.80	\$	23.26	\$	23.72
	1"		24.19		25.64		26.67		27.47		28.29		29.14		30.01		30.91		31.53		32.16		32.80
	1 1/2"		39.11		41.46		43.12		44.41		45.74		47.12		48.53		49.99		50.99		52.01		53.05
	2"		63.31		67.11		69.79		71.89		74.04		76.27		78.55		80.91		82.53		84.18		85.86
	3"		77.67		77.67		80.78		83.20		85.70		88.27		90.92		93.64		95.52		97.43		99.37
	4"		126.65		126.65		131.72		135.67		139.74		143.93		148.25		152.69		155.75		158.86		162.04
	6"		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53
	8"		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53

**Volume Rate/1,000 Gal**

	-	40,000	4.91	5.06	5.26	5.42	5.58	5.75	5.92	6.10	6.22	6.35	6.47
	40,001	100,000	7.86	8.10	8.42	8.68	8.94	9.21	9.48	9.77	9.96	10.16	10.36
	100,001	Above	10.19	10.50	10.92	11.25	11.59	11.93	12.29	12.66	12.91	13.17	13.43

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

**City Rate Plan**  
**Scen: 2020 09 24 -- Scenario I -- Status Quo**

**W7 Institutional**

**Monthly Minimum Charge**

	3/4*	\$	17.49	\$	18.54	\$	19.28	\$	19.86	\$	20.46	\$	21.07	\$	21.70	\$	22.35	\$	22.80	\$	23.26	\$	23.72
	1*		24.19		25.64		26.67		27.47		28.29		29.14		30.01		30.91		31.53		32.16		32.80
	1 1/2*		39.11		41.46		43.12		44.41		45.74		47.12		48.53		49.99		50.99		52.01		53.05
	2*		63.31		67.11		69.79		71.89		74.04		76.27		78.55		80.91		82.53		84.18		85.86
	3*		77.67		77.67		80.78		83.20		85.70		88.27		90.92		93.64		95.52		97.43		99.37
	4*		126.65		126.65		131.72		135.67		139.74		143.93		148.25		152.69		155.75		158.86		162.04
	6*		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53
	8*		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53

**Volume Rate/1,000 Gal**

	-	40,000	4.91	5.06	5.26	5.42	5.58	5.75	5.92	6.10	6.22	6.35	6.47
	40,001	100,000	7.86	8.10	8.42	8.68	8.94	9.21	9.48	9.77	9.96	10.16	10.36
	100,001	Above	10.19	10.50	10.92	11.25	11.59	11.93	12.29	12.66	12.91	13.17	13.43

**W8 Schools**

**Monthly Minimum Charge**

	3/4*	\$	17.49	\$	18.54	\$	19.28	\$	19.86	\$	20.46	\$	21.07	\$	21.70	\$	22.35	\$	22.80	\$	23.26	\$	23.72
	1*		24.19		25.64		26.67		27.47		28.29		29.14		30.01		30.91		31.53		32.16		32.80
	1 1/2*		39.11		41.46		43.12		44.41		45.74		47.12		48.53		49.99		50.99		52.01		53.05
	2*		63.31		67.11		69.79		71.89		74.04		76.27		78.55		80.91		82.53		84.18		85.86
	3*		77.67		77.67		80.78		83.20		85.70		88.27		90.92		93.64		95.52		97.43		99.37
	4*		126.65		126.65		131.72		135.67		139.74		143.93		148.25		152.69		155.75		158.86		162.04
	6*		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53
	8*		240.36		240.36		249.97		257.47		265.20		273.15		281.35		289.79		295.58		301.50		307.53

**Volume Rate/1,000 Gal**

	-	40,000	4.91	5.06	5.26	5.42	5.58	5.75	5.92	6.10	6.22	6.35	6.47
	40,001	100,000	7.86	8.10	8.42	8.68	8.94	9.21	9.48	9.77	9.96	10.16	10.36
	100,001	Above	10.19	10.50	10.92	11.25	11.59	11.93	12.29	12.66	12.91	13.17	13.43



<div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 0 auto; width: 80%;"> <b>CITY OF GOODYEAR</b>  <b>WATER/WASTEWATER COST OF SERVICE MODEL</b> </div>											
	<b>Current</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>

**City Rate Plan**  
**Scen: 2020 09 24 -- Scenario I -- Status Quo**

**2 Wastewater Monthly Rates and Charges**

**Residential - City**

**Monthly Minimum Charge**

	3/4"	\$	23.31	\$	23.78	\$	24.49	\$	25.23	\$	25.99	\$	27.02	\$	28.11	\$	29.23	\$	30.40	\$	31.61	\$	32.88
	1"		37.44		36.49		37.58		38.71		39.87		41.47		43.13		44.85		46.65		48.51		50.45
	1 1/2"		44.08		44.96		46.31		47.70		49.13		51.09		53.14		55.26		57.47		59.77		62.16
	2"		85.64		87.35		89.97		92.67		95.45		99.27		103.24		107.37		111.66		116.13		120.77
	3"		115.22		115.22		118.68		122.24		125.90		130.94		136.18		141.62		147.29		153.18		159.31
	4"		152.86		152.86		157.45		162.17		167.03		173.72		180.66		187.89		195.41		203.22		211.35
	6"		378.70		378.70		390.06		401.76		413.82		430.37		447.58		465.49		484.11		503.47		523.61
	8"		378.70		378.70		390.06		401.76		413.82		430.37		447.58		465.49		484.11		503.47		523.61

**Volume Rate/1,000 Gal**

	Above		6.38		6.51		6.71		6.91		7.11		7.40		7.69		8.00		8.32		8.65		9.00
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**Residential - County**

**Monthly Minimum Charge**

	3/4"	29.14	29.73	30.62	31.54	32.48	33.78	35.13	36.54	38.00	39.52	41.10
	1"	46.80	45.61	46.98	48.39	49.84	51.84	53.91	56.07	58.31	60.64	63.07
	1 1/2"	55.10	56.20	57.89	59.62	61.41	63.87	66.42	69.08	71.84	74.72	77.70
	2"	107.05	109.19	112.46	115.84	119.31	124.08	129.05	134.21	139.58	145.16	150.97
	3"	144.03	144.03	148.35	152.80	157.38	163.68	170.22	177.03	184.11	191.48	199.14
	4"	191.08	191.08	196.81	202.71	208.79	217.14	225.83	234.86	244.26	254.03	264.19
	6"	473.38	473.38	487.58	502.20	517.27	537.96	559.48	581.86	605.13	629.34	654.51
	8"	473.38	473.38	487.58	502.20	517.27	537.96	559.48	581.86	605.13	629.34	654.51

**Volume Rate/1,000 Gal**

	Above		7.98		8.14		8.38		8.63		8.89		9.25		9.62		10.00		10.40		10.82		11.25
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**Multi-Family**

**Monthly Minimum Charge**

	3/4"	23.31	23.78	24.49	25.23	25.99	27.02	28.11	29.23	30.40	31.61	32.88
	1"	37.44	36.49	37.58	38.71	39.87	41.47	43.13	44.85	46.65	48.51	50.45
	1 1/2"	44.08	44.96	46.31	47.70	49.13	51.09	53.14	55.26	57.47	59.77	62.16
	2"	85.64	87.35	89.97	92.67	95.45	99.27	103.24	107.37	111.66	116.13	120.77
	3"	115.22	115.22	118.68	122.24	125.90	130.94	136.18	141.62	147.29	153.18	159.31
	4"	152.86	152.86	157.45	162.17	167.03	173.72	180.66	187.89	195.41	203.22	211.35
	6"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61
	8"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61

**Volume Rate/1,000 Gal**

	Above		6.38		6.51		6.71		6.91		7.11		7.40		7.69		8.00		8.32		8.65		9.00
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<b>CITY OF GOODYEAR</b>											
<b>WATER/WASTEWATER COST OF SERVICE MODEL</b>											
	<b>Current</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>

**City Rate Plan**  
**Scen: 2020 09 24 -- Scenario I -- Status Quo**

<b>Commercial</b>											
<u>Monthly Minimum Charge</u>											
3/4"	23.31	23.78	24.49	25.23	25.99	27.02	28.11	29.23	30.40	31.61	32.88
1"	37.44	36.49	37.58	38.71	39.87	41.47	43.13	44.85	46.65	48.51	50.45
1 1/2"	44.08	44.96	46.31	47.70	49.13	51.09	53.14	55.26	57.47	59.77	62.16
2"	85.64	87.35	89.97	92.67	95.45	99.27	103.24	107.37	111.66	116.13	120.77
3"	115.22	115.22	118.68	122.24	125.90	130.94	136.18	141.62	147.29	153.18	159.31
4"	152.86	152.86	157.45	162.17	167.03	173.72	180.66	187.89	195.41	203.22	211.35
6"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61
8"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61

<u>Volume Rate/1,000 Gal</u>												
-	Above	6.38	6.51	6.71	6.91	7.11	7.40	7.69	8.00	8.32	8.65	9.00

<b>Church</b>											
<u>Monthly Minimum Charge</u>											
3/4"	23.31	23.78	24.49	25.23	25.99	27.02	28.11	29.23	30.40	31.61	32.88
1"	37.44	36.49	37.58	38.71	39.87	41.47	43.13	44.85	46.65	48.51	50.45
1 1/2"	44.08	44.96	46.31	47.70	49.13	51.09	53.14	55.26	57.47	59.77	62.16
2"	85.64	87.35	89.97	92.67	95.45	99.27	103.24	107.37	111.66	116.13	120.77
3"	115.22	115.22	118.68	122.24	125.90	130.94	136.18	141.62	147.29	153.18	159.31
4"	152.86	152.86	157.45	162.17	167.03	173.72	180.66	187.89	195.41	203.22	211.35
6"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61
8"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61

<u>Volume Rate/1,000 Gal</u>												
-	Above	6.38	6.51	6.71	6.91	7.11	7.40	7.69	8.00	8.32	8.65	9.00

<b>Industrial</b>											
<u>Monthly Minimum Charge</u>											
3/4"	23.31	23.78	24.49	25.23	25.99	27.02	28.11	29.23	30.40	31.61	32.88
1"	37.44	36.49	37.58	38.71	39.87	41.47	43.13	44.85	46.65	48.51	50.45
1 1/2"	44.08	44.96	46.31	47.70	49.13	51.09	53.14	55.26	57.47	59.77	62.16
2"	85.64	87.35	89.97	92.67	95.45	99.27	103.24	107.37	111.66	116.13	120.77
3"	115.22	115.22	118.68	122.24	125.90	130.94	136.18	141.62	147.29	153.18	159.31
4"	152.86	152.86	157.45	162.17	167.03	173.72	180.66	187.89	195.41	203.22	211.35
6"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61
8"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61

<u>Volume Rate/1,000 Gal</u>												
-	Above	6.38	6.51	6.71	6.91	7.11	7.40	7.69	8.00	8.32	8.65	9.00

<b>CITY OF GOODYEAR</b>											
<b>WATER/WASTEWATER COST OF SERVICE MODEL</b>											
	<b>Current</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>

**City Rate Plan**  
**Scen: 2020 09 24 -- Scenario I -- Status Quo**

Institutional												
<b>Monthly Minimum Charge</b>												
3/4"	23.31	23.78	24.49	25.23	25.99	27.02	28.11	29.23	30.40	31.61	32.88	
1"	37.44	36.49	37.58	38.71	39.87	41.47	43.13	44.85	46.65	48.51	50.45	
1 1/2"	44.08	44.96	46.31	47.70	49.13	51.09	53.14	55.26	57.47	59.77	62.16	
2"	85.64	87.35	89.97	92.67	95.45	99.27	103.24	107.37	111.66	116.13	120.77	
3"	115.22	115.22	118.68	122.24	125.90	130.94	136.18	141.62	147.29	153.18	159.31	
4"	152.86	152.86	157.45	162.17	167.03	173.72	180.66	187.89	195.41	203.22	211.35	
6"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61	
8"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61	
<b>Volume Rate/1,000 Gal</b>												
-	Above	6.38	6.51	6.71	6.91	7.11	7.40	7.69	8.00	8.32	8.65	9.00
Schools												
<b>Monthly Minimum Charge</b>												
3/4"	23.31	23.78	24.49	25.23	25.99	27.02	28.11	29.23	30.40	31.61	32.88	
1"	37.44	36.49	37.58	38.71	39.87	41.47	43.13	44.85	46.65	48.51	50.45	
1 1/2"	44.08	44.96	46.31	47.70	49.13	51.09	53.14	55.26	57.47	59.77	62.16	
2"	85.64	87.35	89.97	92.67	95.45	99.27	103.24	107.37	111.66	116.13	120.77	
3"	115.22	115.22	118.68	122.24	125.90	130.94	136.18	141.62	147.29	153.18	159.31	
4"	152.86	152.86	157.45	162.17	167.03	173.72	180.66	187.89	195.41	203.22	211.35	
6"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61	
8"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61	
<b>Volume Rate/1,000 Gal</b>												
-	Above	6.38	6.51	6.71	6.91	7.11	7.40	7.69	8.00	8.32	8.65	9.00

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

**City Rate Plan**  
**Scen: 2020 09 24 -- Scenario I -- Status Quo**

**Perryville Prison**

**Monthly Minimum Charge**

3/4"	-	-	-	-	-	-	-	-	-	-	-
1"	-	-	-	-	-	-	-	-	-	-	-
1 1/2"	-	-	-	-	-	-	-	-	-	-	-
2"	-	-	-	-	-	-	-	-	-	-	-
3"	-	-	-	-	-	-	-	-	-	-	-
4"	-	-	-	-	-	-	-	-	-	-	-
6"	-	-	-	-	-	-	-	-	-	-	-
8"	-	-	-	-	-	-	-	-	-	-	-

**Volume Rate/1,000 Gal**

-	Above	6.38	6.51	6.71	6.91	7.11	7.40	7.69	8.00	8.32	8.65	9.00
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**Reclaimed Water**

**Monthly Minimum Charge**

3/4"	23.31	23.78	24.49	25.23	25.99	27.02	28.11	29.23	30.40	31.61	32.88
1"	37.44	36.49	37.58	38.71	39.87	41.47	43.13	44.85	46.65	48.51	50.45
1 1/2"	44.08	44.96	46.31	47.70	49.13	51.09	53.14	55.26	57.47	59.77	62.16
2"	85.64	87.35	89.97	92.67	95.45	99.27	103.24	107.37	111.66	116.13	120.77
3"	115.22	115.22	118.68	122.24	125.90	130.94	136.18	141.62	147.29	153.18	159.31
4"	152.86	152.86	157.45	162.17	167.03	173.72	180.66	187.89	195.41	203.22	211.35
6"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61
8"	378.70	378.70	390.06	401.76	413.82	430.37	447.58	465.49	484.11	503.47	523.61

**Volume Rate/1,000 Gal**

-	Above	6.38	6.51	6.71	6.91	7.11	7.40	7.69	8.00	8.32	8.65	9.00
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<div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 0 auto; width: 80%;"> <b>CITY OF GOODYEAR WATER/WASTEWATER COST OF SERVICE MODEL</b> </div>											
	<b>Current</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>

**City Rate Plan**  
**Scen: 2020 09 24 -- Scenario I -- Status Quo**

**3 Residential Monthly Charges -- WATER**

**7,000 Gallons**

<u>City</u>																						
Total	\$	33.70	\$	35.71	\$	37.14	\$	38.25	\$	39.40	\$	40.58	\$	41.80	\$	43.05	\$	43.91	\$	44.79	\$	45.69
Dollar Inc		2.01		1.43		1.11		1.15		1.18		1.22		1.25		0.86		0.88		0.90		
Percent Inc		6.0%		4.0%		3.0%		3.0%		3.0%		3.0%		3.0%		2.0%		2.0%		2.0%		

**10,000 Gallons**

<u>City</u>												
Total	45.79	48.52	50.46	51.97	53.53	55.14	56.79	58.50	59.67	60.86	62.08	
Dollar Inc	2.73	1.94	1.51	1.56	1.61	1.65	1.70	1.17	1.19	1.22		
Percent Inc	6.0%	4.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%			

**20,000 Gallons**

<u>City</u>											
Total	102.33	108.42	112.76	116.14	119.62	123.21	126.91	130.72	133.33	136.00	138.72
Dollar Inc	6.09	4.34	3.38	3.48	3.59	3.70	3.81	2.61	2.67	2.72	
Percent Inc	6.0%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%		

**30,000 Gallons**

<u>City</u>											
Total	162.93	172.62	179.52	184.91	190.46	196.17	202.06	208.12	212.28	216.53	220.86
Dollar Inc	9.69	6.90	5.39	5.55	5.71	5.89	6.06	4.16	4.25	4.33	
Percent Inc	5.9%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%		

**4 Commercial Monthly Charges -- WATER**

**25,000 Gallons**

<u>City -- 2" Meter</u>											
Total	186.06	193.61	201.35	207.40	213.62	220.03	226.63	233.42	238.09	242.86	247.71
Dollar Inc	7.55	7.74	6.04	6.22	6.41	6.60	6.80	4.67	4.76	4.86	
Percent Inc	4.1%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%		

**50,000 Gallons**

<u>City -- 2" Meter</u>											
Total	338.31	350.51	364.53	375.47	386.73	398.33	410.28	422.59	431.04	439.66	448.46
Dollar Inc	12.20	14.02	10.94	11.26	11.60	11.95	12.31	8.45	8.62	8.79	
Percent Inc	3.6%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%		

<b>CITY OF GOODYEAR</b>											
<b>WATER/WASTEWATER COST OF SERVICE MODEL</b>											
	<b>Current</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>

**City Rate Plan**  
**Scen: 2020 09 24 -- Scenario I -- Status Quo**

**5 Residential Monthly Charges -- WASTEWATER**

**5,000 Gallons**

<u>City</u>																						
Total	\$	55.21	\$	56.33	\$	58.02	\$	59.76	\$	61.55	\$	64.02	\$	66.58	\$	69.24	\$	72.01	\$	74.89	\$	77.88
Dollar Inc		1.12		1.69		1.74		1.79		2.46		2.56		2.66		2.77		2.88		3.00		3.00
Percent Inc		2.0%		3.0%		3.0%		3.0%		4.0%		4.0%		4.0%		4.0%		4.0%		4.0%		4.0%

**10,000 Gallons**

<u>City</u>												
Total	87.11	88.88	91.55	94.29	97.12	101.01	105.05	109.25	113.62	118.16	122.89	
Dollar Inc	1.77	2.67	2.75	2.83	3.88	4.04	4.20	4.37	4.54	4.73		
Percent Inc	2.0%	3.0%	3.0%	3.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%		

**15,000 Gallons**

<u>City</u>												
Total	119.01	121.43	125.07	128.83	132.69	138.00	143.52	149.26	155.23	161.44	167.89	
Dollar Inc	2.42	3.64	3.75	3.86	5.31	5.52	5.74	5.97	6.21	6.46		
Percent Inc	2.0%	3.0%	3.0%	3.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%		

**20,000 Gallons**

<u>City</u>												
Total	150.91	153.98	158.60	163.36	168.26	174.99	181.99	189.27	196.84	204.71	212.90	
Dollar Inc	3.07	4.62	4.76	4.90	6.73	7.00	7.28	7.57	7.87	8.19		
Percent Inc	2.0%	3.0%	3.0%	3.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%		

**6 Commercial Monthly Charges -- WASTEWATER**

**20,000 Gallons**

**NOTE: 80% of Water Usage**

<u>City</u>																						
Total	\$	213.24	\$	217.55	\$	224.08	\$	230.80	\$	237.72	\$	247.23	\$	257.12	\$	267.41	\$	278.10	\$	289.23	\$	300.80
Dollar Inc		4.31		6.53		6.72		6.92		9.51		9.89		10.28		10.70		11.12		11.57		11.57
Percent Inc		2.0%		3.0%		3.0%		3.0%		4.0%		4.0%		4.0%		4.0%		4.0%		4.0%		4.0%

**40,000 Gallons**

<u>City</u>												
Total	340.84	347.75	358.18	368.93	380.00	395.20	411.00	427.44	444.54	462.32	480.82	
Dollar Inc	6.91	10.43	10.75	11.07	15.20	15.81	16.44	17.10	17.78	18.49		
Percent Inc	2.0%	3.0%	3.0%	3.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%		



<b>CITY OF GOODYEAR WATER/WASTEWATER COST OF SERVICE MODEL</b>											
	Current	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Forecast Summary</b>											
<b>Scenario: 2020 09 24 -- Scenario I -- Status Quo</b>											
<b>3 Revenues and Expenses</b>											
Water Rate Revenues	\$ 21,421,430	\$ 23,210,280	\$ 24,966,523	\$ 26,685,449	\$ 28,494,386	\$ 30,397,979	\$ 32,297,167	\$ 33,991,890	\$ 35,600,744	\$ 37,344,328	
WW Rate Revenues	16,154,469	16,960,814	17,941,229	18,990,336	20,183,293	21,570,963	23,053,618	24,638,878	26,333,085	28,144,811	
Non-Rate Revenues	1,957,500	4,130,790	4,212,579	4,280,231	4,355,369	4,432,980	4,513,145	4,595,952	4,661,487	4,728,843	
<b>Total Revenues</b>	<b>39,533,399</b>	<b>44,301,884</b>	<b>47,120,330</b>	<b>49,956,016</b>	<b>53,033,048</b>	<b>56,401,921</b>	<b>59,863,930</b>	<b>63,226,720</b>	<b>66,595,316</b>	<b>70,217,983</b>	
				6.4%	6.0%	6.2%	6.4%	6.1%	5.6%	5.3%	5.4%
Operating Expenses	18,422,575	20,188,169	23,065,955	27,188,989	28,526,891	30,554,112	32,172,223	33,846,692	35,728,599	37,676,780	
Net Revenues for Transfers,Capital Outlays and Debt Service	21,110,824	24,113,715	24,054,376	22,767,028	24,506,156	25,847,809	27,691,708	29,380,029	30,866,717	32,541,202	
Capital Outlays	1,113,500	1,646,900	1,276,900	1,279,100	1,884,100	2,005,700	2,591,300	2,533,400	1,617,600	2,415,100	
Capital Outlays -Repair & Replacement	-	226,000	-	-	-	-	-	-	-	-	
Total Operating Expense/Capital Outlays	19,536,075	22,061,069	24,342,855	28,468,089	30,410,991	32,559,812	34,763,523	36,380,092	37,346,199	40,091,880	
Net Revenues Available for Debt Service	19,997,324	22,240,815	22,777,476	21,487,928	22,622,056	23,842,109	25,100,408	26,846,629	29,249,117	30,126,102	
Current Debt Service	10,444,635	9,554,600	9,356,650	9,389,600	9,443,500	9,417,400	9,430,200	10,208,600	9,686,500	9,685,500	
Future Debt Service	-	-	4,412,711	7,128,226	8,825,422	8,825,422	11,540,937	11,540,937	13,577,573	13,577,573	
Total Debt Service	10,444,635	9,554,600	13,769,361	16,517,826	18,268,922	18,242,822	20,971,137	21,749,537	23,264,073	23,263,073	
Net Revenues for Transfers	9,552,689	12,686,215	9,008,114	4,970,102	4,353,134	5,599,286	4,129,271	5,097,092	5,985,044	6,863,029	
Total Transfers	2,898,100	3,631,411	3,858,348	4,088,734	4,340,661	4,619,108	4,907,112	5,191,656	5,480,193	5,790,127	
<b>Total Cost of Service</b>	<b>32,878,810</b>	<b>35,247,080</b>	<b>41,970,565</b>	<b>49,074,649</b>	<b>53,020,574</b>	<b>55,421,742</b>	<b>60,641,771</b>	<b>63,321,285</b>	<b>66,090,465</b>	<b>69,145,080</b>	
<b>Net Revenues for Contingencies</b>	<b>6,654,589</b>	<b>9,054,803</b>	<b>5,149,766</b>	<b>881,367</b>	<b>12,473</b>	<b>980,179</b>	<b>(777,841)</b>	<b>(94,564)</b>	<b>504,851</b>	<b>1,072,903</b>	
Percent of COS	20.2%	25.7%	12.3%	1.8%	0.0%	1.8%	-1.3%	-0.1%	0.8%	1.6%	
Days of Expenses	74	94	45	7	0	6	(5)	(1)	3	6	
<b>Ending Fund Balance</b>	<b>\$ 38,220,789</b>	<b>\$ 47,275,592</b>	<b>\$ 52,425,358</b>	<b>\$ 53,306,725</b>	<b>\$ 53,319,198</b>	<b>\$ 54,299,377</b>	<b>\$ 53,521,536</b>	<b>\$ 53,426,972</b>	<b>\$ 53,931,824</b>	<b>\$ 55,004,726</b>	
Days of Fund Balance	424	490	456	396	367	358	322	308	298	290	
Debt Coverage (excludes Capital Outlays and G/F Transfers)	2.02	2.52	1.75	1.38	1.34	1.42	1.32	1.35	1.33	1.40	
Goal is 1.60 and Minimum is 1.20											

<b>CITY OF GOODYEAR</b>										
<b>WATER/WASTEWATER COST OF SERVICE MODEL</b>										
<b>Current</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>

**Forecast Summary**

**Scenario: 2020 09 24 -- Scenario I -- Status Quo**

**5 Total Accounts**

Water Accounts

Total Accounts	20,282	21,094	21,938	22,815	23,727	24,676	25,663	26,690	27,757	28,867
New Accounts	-	812	844	877	912	949	987	1,027	1,067	1,110
Avg. Annual Growth Rate		4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%

Wastewater Accounts

Total Accounts	19,587	20,362	21,167	22,005	22,876	23,782	24,724	25,704	26,722	27,781
New Accounts	-	775	805	838	871	906	942	980	1,018	1,059
Avg. Annual Growth Rate		3.96%	3.95%	3.96%	3.96%	3.96%	3.96%	3.96%	3.96%	3.96%

**6 Annual Volume**

Water Volume

Residential - City	1,594,732,131	1,626,647,606	1,659,174,837	1,692,359,136	1,726,202,388	1,760,744,169	1,795,944,685	1,831,877,670	1,868,501,403	1,905,883,559
Residential - County	11,271,396	11,513,791	11,751,189	11,983,886	12,212,150	12,436,226	12,711,364	12,980,673	13,244,508	13,503,189
Multi-Family	49,679,700	50,891,400	52,074,921	53,232,141	54,364,740	55,474,225	56,561,955	57,629,161	58,676,964	59,706,385
Commercial	263,218,768	268,441,362	273,905,817	279,263,388	284,848,656	290,648,742	296,335,348	302,224,858	308,305,841	314,567,371
Church	7,399,727	7,560,591	7,875,616	8,190,640	8,505,665	8,820,689	9,135,714	9,450,739	9,765,763	10,080,788
Industrial	91,184,318	93,210,636	95,193,841	97,136,573	99,041,212	100,909,914	102,744,639	104,547,177	106,319,163	108,062,100
Institutional	13,249,238	13,550,357	14,139,503	14,728,649	15,317,795	15,906,941	16,496,087	17,085,233	17,674,379	18,263,525
Schools	19,818,000	20,118,273	20,414,130	20,705,760	20,993,340	21,277,034	21,836,956	22,382,880	22,915,805	23,436,619
Hydrant	82,744,000	84,123,067	85,479,890	87,483,325	89,441,907	91,358,519	93,235,749	95,075,929	96,881,168	98,653,384
Irrigation	610,337,000	622,570,927	635,235,646	647,652,803	660,477,611	673,687,163	687,259,615	701,174,203	715,411,242	729,952,121
Total System	2,743,634,278	2,798,628,010	2,855,245,390	2,912,736,302	2,971,405,464	3,031,263,623	3,092,262,112	3,154,428,521	3,217,696,236	3,282,109,042

Wastewater Billing Units

Residential - City	1,056,159,611	1,077,296,600	1,098,838,743	1,120,816,049	1,143,229,767	1,166,106,107	1,189,418,714	1,213,216,420	1,237,471,596	1,262,229,060
Residential - County	447,249	456,867	466,287	475,521	484,578	493,470	504,387	515,073	525,542	535,807
Multi-Family	39,694,529	40,662,688	41,608,332	42,532,961	43,437,918	44,324,406	45,193,512	46,046,220	46,883,424	47,705,940
Commercial	181,708,312	185,313,635	189,085,923	192,784,425	196,640,114	200,644,098	204,569,743	208,635,460	212,833,356	217,155,891
Church	5,479,200	5,598,313	5,831,576	6,064,839	6,298,102	6,531,365	6,764,628	6,997,891	7,231,154	7,464,417
Industrial	48,885,034	49,971,368	51,034,589	52,076,111	53,097,211	54,099,045	55,082,664	56,049,027	56,999,011	57,933,421
Institutional	9,385,800	9,599,114	10,016,466	10,433,819	10,851,172	11,268,525	11,685,877	12,103,230	12,520,583	12,937,936
Schools	14,867,800	15,093,070	15,315,027	15,533,813	15,749,560	15,962,392	16,382,455	16,792,016	17,191,826	17,582,550
Perryville Prison	208,179,000	211,648,650	215,062,338	220,102,861	225,030,537	229,852,620	234,575,619	239,205,401	243,747,276	248,206,068
Reclaimed Water	843,000	859,898	877,390	894,541	912,254	930,500	949,246	968,465	988,129	1,008,213
Total System	1,565,649,535	1,596,500,203	1,628,136,671	1,661,714,941	1,695,731,214	1,730,212,528	1,765,126,846	1,800,529,204	1,836,391,898	1,872,759,301

<b>CITY OF GOODYEAR</b> <b>WATER/WASTEWATER COST OF SERVICE MODEL</b>											
	Current	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029

**Water Summary**  
**Scen: 2020 09 24 -- Scenario I -- Status Quo**

**1 Water Monthly Rates and Charges**

**Residential - City**

**Monthly Minimum Charge**

3/4"	\$ 17.49	\$ 18.54	\$ 19.28	\$ 19.86	\$ 20.46	\$ 21.07	\$ 21.70	\$ 22.35	\$ 22.80	\$ 23.26	\$ 23.72
1"	24.19	25.64	26.67	27.47	28.29	29.14	30.01	30.91	31.53	32.16	32.80
1 1/2"	39.11	41.46	43.12	44.41	45.74	47.12	48.53	49.99	50.99	52.01	53.05
2"	63.31	67.11	69.79	71.89	74.04	76.27	78.55	80.91	82.53	84.18	85.86
3"	77.67	77.67	80.78	83.20	85.70	88.27	90.92	93.64	95.52	97.43	99.37
4"	126.65	126.65	131.72	136.67	139.74	143.93	148.25	152.69	155.75	158.86	162.04
6"	240.36	240.36	249.97	257.47	265.20	273.15	281.35	289.79	295.58	301.50	307.53
8"	240.36	240.36	249.97	257.47	265.20	273.15	281.35	289.79	295.58	301.50	307.53

**Volume Rate/1,000 Gal**

-	6,000	2.03	2.15	2.24	2.30	2.37	2.44	2.52	2.59	2.64	2.70	2.75
6,001	12,000	4.03	4.27	4.44	4.57	4.71	4.85	5.00	5.15	5.25	5.36	5.46
12,001	30,000	6.06	6.42	6.68	6.88	7.08	7.30	7.51	7.74	7.90	8.05	8.21
30,001	Above	9.73	10.31	10.72	11.04	11.38	11.72	12.07	12.43	12.68	12.93	13.19

**Commercial**

**Monthly Minimum Charge**

3/4"	17.49	18.54	19.28	19.86	20.46	21.07	21.70	22.35	22.80	23.26	23.72
1"	24.19	25.64	26.67	27.47	28.29	29.14	30.01	30.91	31.53	32.16	32.80
1 1/2"	39.11	41.46	43.12	44.41	45.74	47.12	48.53	49.99	50.99	52.01	53.05
2"	63.31	67.11	69.79	71.89	74.04	76.27	78.55	80.91	82.53	84.18	85.86
3"	77.67	77.67	80.78	83.20	85.70	88.27	90.92	93.64	95.52	97.43	99.37
4"	126.65	126.65	131.72	136.67	139.74	143.93	148.25	152.69	155.75	158.86	162.04
6"	240.36	240.36	249.97	257.47	265.20	273.15	281.35	289.79	295.58	301.50	307.53
8"	240.36	240.36	249.97	257.47	265.20	273.15	281.35	289.79	295.58	301.50	307.53

**Volume Rate Per 1,000 Gal - Commercial**

-	40,000	4.91	5.06	5.26	5.42	5.58	5.75	5.92	6.10	6.22	6.35	6.47
40,001	100,000	7.86	8.10	8.42	8.68	8.94	9.21	9.48	9.77	9.96	10.16	10.36
100,001	Above	10.19	10.50	10.92	11.25	11.59	11.93	12.29	12.66	12.91	13.17	13.43

**2.1 Residential Monthly Charge**

7,000 Gallons	Total	\$ 33.70	\$ 35.71	\$ 37.14	\$ 38.25	\$ 39.40	\$ 40.58	\$ 41.80	\$ 43.05	\$ 43.91	\$ 44.79	\$ 45.69
	Dollar Inc		2.01	1.43	1.11	1.15	1.18	1.22	1.25	0.86	0.88	0.90
	Percent Inc		6.0%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%
10,000 Gallons	Total	45.79	48.52	50.46	51.97	53.53	55.14	56.79	58.50	59.67	60.86	62.08
	Dollar Inc		2.73	1.94	1.51	1.56	1.61	1.65	1.70	1.17	1.19	1.22
	Percent Inc		6.0%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%
20,000 Gallons	Total	102.33	108.42	112.76	116.14	119.62	123.21	126.91	130.72	133.33	136.00	138.72
	Dollar Inc		6.09	4.34	3.38	3.48	3.59	3.70	3.81	2.61	2.67	2.72
	Percent Inc		6.0%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%
30,000 Gallons	Total	162.93	172.62	179.52	184.91	190.46	196.17	202.06	208.12	212.28	216.53	220.86
	Dollar Inc		9.69	6.90	5.39	5.55	5.71	5.89	6.06	4.16	4.25	4.33
	Percent Inc		5.9%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	2.0%	2.0%

<b>CITY OF GOODYEAR</b>											
<b>WATER/WASTEWATER COST OF SERVICE MODEL</b>											
	<b>Current</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>

**Water Summary**

**Scen:** 2020 09 24 -- Scenario I -- Status Quo

**2.2 Commercial Monthly Charge**

Volume	Size	Current	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
10,000 Gallons	3/4"	\$ 66.59	\$ 69.14	\$ 71.91	\$ 74.06	\$ 76.28	\$ 78.57	\$ 80.93	\$ 83.36	\$ 85.03	\$ 86.73	\$ 88.46
	1"	73.29	76.24	79.29	81.67	84.12	86.64	89.24	91.92	93.76	95.63	97.54
	1 1/2"	88.21	92.06	95.74	98.61	101.57	104.62	107.76	110.99	113.21	115.48	117.79
	2"	112.41	117.71	122.42	126.09	129.87	133.77	137.78	141.92	144.75	147.65	150.60
	3"	126.77	128.27	133.40	137.40	141.52	145.77	150.14	154.65	157.74	160.90	164.11
	4"	175.75	177.25	184.34	189.87	195.57	201.43	207.48	213.70	217.97	222.33	226.78
	6"	289.46	290.96	302.60	311.68	321.03	330.66	340.58	350.79	357.81	364.97	372.27
	8"	289.46	290.96	302.60	311.68	321.03	330.66	340.58	350.79	357.81	364.97	372.27
20,000 Gallons	3/4"	\$ 115.69	\$ 119.74	\$ 124.53	\$ 128.27	\$ 132.11	\$ 136.08	\$ 140.16	\$ 144.36	\$ 147.25	\$ 150.20	\$ 153.20
	1"	122.39	126.84	131.91	135.87	139.95	144.15	148.47	152.92	155.98	159.10	162.28
	1 1/2"	137.31	142.66	148.37	152.82	157.40	162.12	166.99	172.00	175.44	178.95	182.52
	2"	161.51	168.31	175.04	180.29	185.70	191.27	197.01	202.92	206.98	211.12	215.34
	3"	175.87	178.31	186.02	191.61	197.35	203.27	209.37	215.65	219.97	224.37	228.85
	4"	224.85	227.85	236.96	244.07	251.40	258.94	266.71	274.71	280.20	285.80	291.52
	6"	338.56	341.56	355.22	365.88	376.86	388.16	399.81	411.80	420.04	428.44	437.01
	8"	338.56	341.56	355.22	365.88	376.86	388.16	399.81	411.80	420.04	428.44	437.01
50,000 Gallons	3/4"	\$ 292.49	\$ 301.94	\$ 314.02	\$ 323.44	\$ 333.14	\$ 343.14	\$ 353.43	\$ 364.03	\$ 371.31	\$ 378.74	\$ 386.31
	1"	299.19	309.04	321.40	331.04	340.97	351.20	361.74	372.59	380.04	387.65	395.40
	1 1/2"	314.11	324.86	337.85	347.99	358.43	369.18	380.26	391.67	399.50	407.49	415.64
	2"	338.31	350.51	364.53	375.47	386.73	398.33	410.28	422.59	431.04	439.66	448.46
	3"	352.67	361.07	375.51	386.78	398.38	410.33	422.64	435.32	444.03	452.91	461.97
	4"	401.65	410.05	426.45	439.25	452.42	466.00	479.98	494.37	504.26	514.35	524.63
	6"	515.36	523.76	544.71	561.05	577.88	595.22	613.08	631.47	644.10	656.98	670.12
	8"	515.36	523.76	544.71	561.05	577.88	595.22	613.08	631.47	644.10	656.98	670.12

**3 Total Accounts**

	Current	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Total Accounts</b>		<b>20,282</b>	<b>21,094</b>	<b>21,938</b>	<b>22,815</b>	<b>23,727</b>	<b>24,676</b>	<b>25,663</b>	<b>26,690</b>	<b>27,757</b>	<b>28,867</b>
New Accounts			812	844	877	912	949	987	1,027	1,067	1,110
Avg. Annual Growth Rate			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%

<b>CITY OF GOODYEAR</b>											
<b>WATER/WASTEWATER COST OF SERVICE MODEL</b>											
	<b>Current</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>

**Water Summary**

**Scen: 2020 09 24 -- Scenario I -- Status Quo**

<b>4 Annual Water Consumption</b>											
W.1	Residential - City	1,594,732,131	1,626,647,606	1,659,174,837	1,692,359,136	1,726,202,388	1,760,744,169	1,795,944,685	1,831,877,670	1,868,501,403	1,905,883,559
W.2	Residential - County	11,271,396	11,513,791	11,751,189	11,983,886	12,212,150	12,436,226	12,711,364	12,980,673	13,244,508	13,503,189
W.3	Multi-Family	49,679,700	50,891,400	52,074,921	53,232,141	54,364,740	55,474,225	56,561,955	57,629,161	58,676,984	59,706,385
W.4	Commercial	263,218,768	268,441,362	273,905,817	279,263,388	284,848,656	290,648,742	296,335,348	302,224,858	308,305,841	314,567,371
W.5	Church	7,399,727	7,560,591	7,875,616	8,190,640	8,505,665	8,820,689	9,135,714	9,450,739	9,765,763	10,080,788
W.6	Industrial	91,184,318	93,210,636	95,193,841	97,136,573	99,041,212	100,909,914	102,744,639	104,547,177	106,319,163	108,062,100
W.7	Institutional	13,249,238	13,550,357	14,139,503	14,728,649	15,317,795	15,906,941	16,496,087	17,085,233	17,674,379	18,263,525
W.8	Schools	19,818,000	20,118,273	20,414,130	20,705,760	20,993,340	21,277,034	21,836,956	22,382,880	22,915,805	23,436,619
W.9	Hydrant	82,744,000	84,123,067	85,479,890	87,483,325	89,441,907	91,358,519	93,235,749	95,075,929	96,881,168	98,653,384
W.10	Irrigation	610,337,000	622,570,927	635,235,646	647,652,803	660,477,611	673,687,163	687,259,615	701,174,203	715,411,242	729,952,121
	<b>Total System</b>	<b>2,743,634,278</b>	<b>2,798,628,010</b>	<b>2,855,245,390</b>	<b>2,912,736,302</b>	<b>2,971,405,464</b>	<b>3,031,263,623</b>	<b>3,092,262,112</b>	<b>3,154,428,521</b>	<b>3,217,696,236</b>	<b>3,282,109,042</b>

<b>5 Revenues and Expenses -- CASH BASIS</b>											
<b>Water Revenues</b>											
<b>Water Rate Revenue</b>											
W.0	CAP Water	\$ 2,446,407	\$ 2,833,611	\$ 3,319,223	\$ 3,822,966	\$ 4,345,680	\$ 4,887,913	\$ 5,347,037	\$ 5,635,912	\$ 5,931,287	\$ 6,298,914
W.1	Residential - City	9,636,747	10,423,940	11,110,433	11,777,704	12,486,170	13,238,734	14,037,607	14,825,167	15,570,096	16,354,326
W.2	Residential - County	80,201	86,693	92,239	97,502	102,972	108,659	115,234	121,568	127,388	133,379
W.3	Multi-Family	472,385	578,564	613,240	646,207	680,304	715,579	752,081	786,024	816,931	848,510
W.4	Commercial	2,345,550	2,482,049	2,628,637	2,766,176	2,912,405	3,067,687	3,228,571	3,385,177	3,530,531	3,683,035
W.5	Church	58,827	62,616	67,556	72,366	77,403	82,678	88,200	93,592	98,646	103,865
W.6	Industrial	877,368	928,776	983,120	1,033,984	1,086,612	1,141,075	1,197,447	1,250,634	1,298,073	1,346,562
W.7	Institutional	110,963	117,531	127,024	136,286	145,989	156,152	166,794	177,201	186,978	197,074
W.8	Schools	163,004	171,755	180,923	189,438	198,269	207,428	220,202	232,475	243,743	255,260
W.9	Hydrant	-	-	-	-	-	-	-	-	-	-
W.10	Irrigation	5,229,978	5,524,745	5,844,129	6,142,822	6,458,580	6,792,073	7,143,994	7,484,140	7,797,062	8,123,402
		21,421,430	23,210,280	24,966,523	26,685,449	28,494,386	30,397,979	32,297,167	33,991,890	35,600,744	37,344,328
	Non-Rate Revenues	1,811,900	3,470,900	3,537,260	3,589,021	3,642,334	3,697,247	3,753,808	3,812,065	3,852,068	3,892,872
	<b>Total Revenues</b>	<b>23,233,330</b>	<b>26,681,180</b>	<b>28,503,783</b>	<b>30,274,470</b>	<b>32,136,720</b>	<b>34,095,226</b>	<b>36,050,975</b>	<b>37,803,956</b>	<b>39,452,812</b>	<b>41,237,200</b>
			14.8%	6.8%	6.2%	6.2%	6.1%	5.7%	4.9%	4.4%	4.5%

<b>CITY OF GOODYEAR</b> <b>WATER/WASTEWATER COST OF SERVICE MODEL</b>											
	Current	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029

**Water Summary**  
**Scen: 2020 09 24 -- Scenario I -- Status Quo**

**Water Cost of Service**

**CAP Water Costs**

CAP Commodity Cost Calculation		3,517,174	4,187,112	4,354,596	4,710,501	4,919,857	5,192,019	5,464,181	5,715,408	6,092,248	6,448,152
Free Agent CAP Water Cost Calculation		-	-	-	-	-	-	-	-	-	-
<b>Total CAP Water Costs</b>		<b>3,517,174</b>	<b>4,187,112</b>	<b>4,354,596</b>	<b>4,710,501</b>	<b>4,919,857</b>	<b>5,192,019</b>	<b>5,464,181</b>	<b>5,715,408</b>	<b>6,092,248</b>	<b>6,448,152</b>

**Budget Code**

P Personnel		\$ 3,175,500	\$ 3,218,900	\$ 3,599,359	\$ 3,991,492	\$ 4,238,427	\$ 4,502,461	\$ 4,784,924	\$ 5,087,261	\$ 5,411,042	\$ 5,757,971
CN Contractuals		3,053,200	3,568,200	2,914,509	3,058,342	3,209,786	3,369,275	3,537,204	3,714,061	3,900,245	4,096,332
CM Commodities		2,156,200	2,335,300	2,202,518	2,333,741	2,473,240	2,621,593	2,779,335	2,947,113	3,125,459	3,315,165
CO Capital Outlays		-	-	-	-	-	-	-	-	-	-
OD Other Departmental		152,400	155,448	160,111	164,915	169,862	174,958	180,207	185,613	191,181	196,917
DS Debt Service		5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
WTP Surface Water Treatment Plant		1	1	2,427,751	4,855,502	4,855,502	5,587,802	5,850,190	6,125,017	6,412,879	6,714,398
0 #N/A		-	-	-	-	-	-	-	-	-	-
0 #N/A		-	-	-	-	-	-	-	-	-	-
0 #N/A		-	-	-	-	-	-	-	-	-	-
0 #N/A		-	-	-	-	-	-	-	-	-	-
0 #N/A		-	-	-	-	-	-	-	-	-	-
0 #N/A		-	-	-	-	-	-	-	-	-	-
0 #N/A		-	-	-	-	-	-	-	-	-	-
<b>Total</b>		<b>8,542,301</b>	<b>9,282,849</b>	<b>11,309,248</b>	<b>14,408,992</b>	<b>14,951,818</b>	<b>16,261,089</b>	<b>17,136,859</b>	<b>18,064,066</b>	<b>19,045,805</b>	<b>20,085,783</b>

**Department Code**

AD Administration		\$ 728,800	\$ 706,600	\$ 738,485	\$ 772,111	\$ 807,595	\$ 845,062	\$ 884,648	\$ 926,500	\$ 970,776	\$ 1,017,648
M Maintenance		518,400	529,400	562,176	597,255	634,821	675,072	718,219	764,496	814,145	867,447
D Distribution		2,436,600	2,536,900	2,876,623	3,224,275	3,422,612	3,633,515	3,857,755	4,096,239	4,349,744	4,619,371
P Production		3,621,600	4,158,500	3,280,889	3,459,927	3,649,649	3,850,759	4,063,967	4,290,093	4,529,944	4,784,480
WQ Water Quality		220,700	289,500	311,516	335,380	361,272	389,379	419,897	453,051	489,076	528,241
WR Water Resources		858,800	901,500	946,696	994,627	1,045,504	1,099,543	1,156,976	1,218,057	1,283,059	1,352,282
OD Other Departments		152,400	155,448	160,111	164,915	169,862	174,958	180,207	185,613	191,181	196,917
DS Debt Service		5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
WTP Surface Water Treatment Plant		1	1	2,427,751	4,855,502	4,855,502	5,587,802	5,850,190	6,125,017	6,412,879	6,714,398
0 #N/A		-	-	-	-	-	-	-	-	-	-
<b>Total</b>		<b>8,542,301</b>	<b>9,282,849</b>	<b>11,309,248</b>	<b>14,408,992</b>	<b>14,951,818</b>	<b>16,261,089</b>	<b>17,136,859</b>	<b>18,064,066</b>	<b>19,045,805</b>	<b>20,085,783</b>

**Total Operating Expenses**

**Net Revenues for Transfers, Capital Outlays and Debt Service**

**Capital Outlays**

**Debt Service**

Debt Service -- Current		5,076,449	5,823,300	5,832,550	5,857,750	5,905,050	5,863,750	5,866,950	5,570,450	5,330,350	5,332,550
Debt Service -- Future		-	-	1,018,318	1,018,318	2,715,515	2,715,515	4,073,272	4,073,272	4,752,151	4,752,151
<b>Total Debt Service</b>		<b>5,076,449</b>	<b>5,823,300</b>	<b>6,850,868</b>	<b>6,876,068</b>	<b>8,620,565</b>	<b>8,579,265</b>	<b>9,940,222</b>	<b>9,643,722</b>	<b>10,082,501</b>	<b>10,084,701</b>

**Net Revenues for Transfers**

**Total Transfers**

**Total Cost of Service**

**Net Revenues for Contingencies**

Percent of COS		18.8%	16.5%	12.3%	4.7%	0.4%	2.4%	-2.0%	2.1%	1.8%	2.6%
Days of Expenses		85	72	51	18	1	9	(7)	8	7	10

**Ending Fund Balance**

Days of Fund Balance		\$ 22,676,306	\$ 27,070,145	\$ 30,575,226	\$ 32,000,415	\$ 32,122,632	\$ 32,950,338	\$ 32,244,409	\$ 33,054,119	\$ 33,772,100	\$ 34,828,514
		439	443	446	405	366	362	320	326	318	316

**Debt Coverage**

		2.20	2.27	1.87	1.62	1.42	1.47	1.35	1.45	1.42	1.46
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<div style="border: 1px solid white; display: inline-block; padding: 5px;"> <b>CITY OF GOODYEAR WATER/WASTEWATER COST OF SERVICE MODEL</b> </div>											
	Current	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029

**Wastewater Summary**

Scen: 2020 09 24 -- Scenario I -- Status Quo

**1 Wastewater Monthly Rates and Charges**

**Residential - City**

Monthly Minimum Charge	\$	23.31	\$	23.78	\$	24.49	\$	25.23	\$	25.99	\$	27.02	\$	28.11	\$	29.23	\$	30.40	\$	31.61	\$	32.88
Volume Rate/1,000 Gal		6.38		6.51		6.71		6.91		7.11		7.40		7.69		8.00		8.32		8.65		9.00

**Commercial**

**Monthly Minimum Charge**

3/4"	\$	23.31	\$	23.78	\$	24.49	\$	25.23	\$	25.99	\$	27.02	\$	28.11	\$	29.23	\$	30.40	\$	31.61	\$	32.88
1"		37.44		36.49		37.58		38.71		39.87		41.47		43.13		44.85		46.65		48.51		50.45
1 1/2"		44.08		44.96		46.31		47.70		49.13		51.09		53.14		55.26		57.47		59.77		62.16
2"		85.64		87.35		89.97		92.67		95.45		99.27		103.24		107.37		111.66		116.13		120.77
3"		115.22		115.22		118.68		122.24		125.90		130.94		136.18		141.62		147.29		153.18		159.31
4"		152.86		152.86		157.45		162.17		167.03		173.72		180.66		187.89		195.41		203.22		211.35
6"		378.70		378.70		390.06		401.76		413.82		430.37		447.58		465.49		484.11		503.47		523.61
8"		378.70		378.70		390.06		401.76		413.82		430.37		447.58		465.49		484.11		503.47		523.61

**Volume Rate Per 1,000 Gal - Commercial**

-	\$	6.38	\$	6.51	\$	6.71	\$	6.91	\$	7.11	\$	7.40	\$	7.69	\$	8.00	\$	8.32	\$	8.65	\$	9.00
- Above		6.38		6.51		6.71		6.91		7.11		7.40		7.69		8.00		8.32		8.65		9.00

**2.1 Residential Monthly Charge**

5,000 Gallons		Total	\$	55.21	\$	56.33	\$	58.02	\$	59.76	\$	61.55	\$	64.02	\$	66.58	\$	69.24	\$	72.01	\$	74.89	\$	77.88
		Dollar Inc		1.12		1.69		1.74		1.79		2.46		2.56		2.66		2.77		2.88		3.00		3.00
		Percent Inc		2.0%		3.0%		3.0%		3.0%		4.0%		4.0%		4.0%		4.0%		4.0%		4.0%		4.0%
10,000 Gallons		Total		87.11		88.88		91.55		94.29		97.12		101.01		105.05		109.25		113.62		118.16		122.89
		Dollar Inc		1.77		2.67		2.75		2.83		3.88		4.04		4.20		4.37		4.54		4.73		4.73
		Percent Inc		2.0%		3.0%		3.0%		3.0%		4.0%		4.0%		4.0%		4.0%		4.0%		4.0%		4.0%
20,000 Gallons		Total		150.91		153.98		158.60		163.36		168.26		174.99		181.99		189.27		196.84		204.71		212.90
		Dollar Inc		3.07		4.62		4.76		4.90		6.73		7.00		7.28		7.57		7.87		8.19		8.19
		Percent Inc		2.0%		3.0%		3.0%		3.0%		4.0%		4.0%		4.0%		4.0%		4.0%		4.0%		4.0%
30,000 Gallons		Total		214.71		219.08		225.65		232.42		239.39		248.97		258.93		269.29		280.06		291.26		302.91
		Dollar Inc		4.37		6.57		6.77		6.97		9.58		9.96		10.36		10.77		11.20		11.65		11.65
		Percent Inc		2.0%		3.0%		3.0%		3.0%		4.0%		4.0%		4.0%		4.0%		4.0%		4.0%		4.0%

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

**Wastewater Summary**

**Scen: 2020 09 24 -- Scenario I -- Status Quo**

**2.2 Commercial Monthly Charge**

<b>10,000 Gallons</b>												
	3/4"	\$ 87.11	\$ 88.88	\$ 91.55	\$ 94.29	\$ 97.12	\$ 101.01	\$ 105.05	\$ 109.25	\$ 113.62	\$ 118.16	\$ 122.89
	1"	101.24	101.59	104.64	107.78	111.01	115.45	120.07	124.87	129.87	135.06	140.46
	1 1/2"	107.88	110.06	113.36	116.76	120.27	125.08	130.08	135.28	140.69	146.32	152.17
	2"	149.44	152.45	157.02	161.73	166.59	173.25	180.18	187.39	194.88	202.68	210.78
	3"	179.02	180.32	185.73	191.30	197.04	204.92	213.12	221.64	230.51	239.73	249.32
	4"	216.66	217.96	224.50	231.23	238.17	247.70	257.61	267.91	278.63	289.77	301.36
	6"	442.50	443.80	457.11	470.83	484.95	504.35	524.52	545.51	567.33	590.02	613.62
	8"	442.50	443.80	457.11	470.83	484.95	504.35	524.52	545.51	567.33	590.02	613.62
<b>20,000 Gallons</b>												
	3/4"	\$ 150.91	\$ 153.98	\$ 158.60	\$ 163.36	\$ 168.26	\$ 174.99	\$ 181.99	\$ 189.27	\$ 196.84	\$ 204.71	\$ 212.90
	1"	165.04	166.69	171.69	176.84	182.15	189.43	197.01	204.89	213.09	221.61	230.47
	1 1/2"	171.68	175.16	180.41	185.83	191.40	199.06	207.02	215.30	223.91	232.87	242.18
	2"	213.24	217.55	224.08	230.80	237.72	247.23	257.12	267.41	278.10	289.23	300.80
	3"	242.82	245.42	252.78	260.37	268.18	278.90	290.06	301.66	313.73	326.28	339.33
	4"	280.46	283.06	291.55	300.30	309.31	321.68	334.55	347.93	361.85	376.32	391.37
	6"	506.30	508.90	524.17	539.89	556.09	578.33	601.47	625.52	650.55	676.57	703.63
	8"	506.30	508.90	524.17	539.89	556.09	578.33	601.47	625.52	650.55	676.57	703.63
<b>50,000 Gallons</b>												
	3/4"	\$ 342.31	\$ 349.28	\$ 359.76	\$ 370.55	\$ 381.67	\$ 396.93	\$ 412.81	\$ 429.32	\$ 446.50	\$ 464.36	\$ 482.93
	1"	356.44	361.99	372.85	384.04	395.56	411.38	427.83	444.95	462.74	481.25	500.50
	1 1/2"	363.08	370.46	381.57	393.02	404.81	421.00	437.84	455.36	473.57	492.52	512.22
	2"	404.64	412.85	425.24	437.99	451.13	469.18	487.94	507.46	527.76	548.87	570.83
	3"	434.22	440.72	453.94	467.56	481.59	500.85	520.88	541.72	563.39	585.92	609.36
	4"	471.86	478.36	492.71	507.49	522.72	543.63	565.37	587.99	611.50	635.97	661.40
	6"	697.70	704.20	725.33	747.09	769.50	800.28	832.29	865.58	900.20	936.21	973.66
	8"	697.70	704.20	725.33	747.09	769.50	800.28	832.29	865.58	900.20	936.21	973.66

<b>CITY OF GOODYEAR WATER/WASTEWATER COST OF SERVICE MODEL</b>											
	Current	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Wastewater Summary</b>											
<b>Scen: 2020 09 24 -- Scenario I -- Status Quo</b>											
<b>3</b>	<b>Total Accounts</b>										
Total Accounts	19,587	20,362	21,167	22,005	22,876	23,782	24,724	25,704	26,722	27,781	
New Accounts		775	805	838	871	906	942	980	1,018	1,059	
Avg. Annual Growth Rate		3.96%	3.95%	3.96%	3.96%	3.96%	3.96%	3.96%	3.96%	3.96%	
<b>4</b>	<b>Annual Wastewater Billing Units</b>										
WW.1 Residential - City	1,056,159,611	1,077,296,600	1,098,838,743	1,120,816,049	1,143,229,767	1,166,106,107	1,189,418,714	1,213,216,420	1,237,471,596	1,262,229,060	
WW.2 Residential - County	447,249	456,867	466,287	475,521	484,578	493,470	504,387	515,073	525,542	535,807	
WW.3 Multi-Family	39,694,529	40,662,688	41,608,332	42,532,961	43,437,918	44,324,406	45,193,512	46,046,220	46,883,424	47,705,940	
WW.4 Commercial	181,708,312	185,313,635	189,085,923	192,784,425	196,640,114	200,644,098	204,569,743	208,635,460	212,833,356	217,155,891	
WW.5 Church	5,479,200	5,598,313	5,831,576	6,064,839	6,298,102	6,531,365	6,764,628	6,997,891	7,231,154	7,464,417	
WW.6 Industrial	48,885,034	49,971,368	51,034,589	52,076,111	53,097,211	54,099,045	55,082,664	56,049,027	56,999,011	57,933,421	
WW.7 Institutional	9,385,600	9,589,114	10,016,466	10,433,819	10,851,172	11,268,525	11,685,877	12,103,230	12,520,583	12,937,936	
WW.8 Schools	14,867,800	15,093,070	15,315,027	15,533,813	15,749,560	15,962,392	16,382,455	16,792,016	17,191,826	17,582,550	
WW.9 Perryville Prison	208,179,000	211,648,650	215,062,338	220,102,861	225,030,537	229,852,620	234,575,619	239,205,401	243,747,276	248,206,068	
WW.10 Reclaimed Water	843,000	859,898	877,390	894,541	912,254	930,500	949,246	968,465	988,129	1,008,213	
<b>Total System</b>	<b>1,565,649,535</b>	<b>1,596,500,203</b>	<b>1,628,136,671</b>	<b>1,661,714,941</b>	<b>1,695,731,214</b>	<b>1,730,212,528</b>	<b>1,765,126,846</b>	<b>1,800,529,204</b>	<b>1,836,391,898</b>	<b>1,872,759,301</b>	
<b>5</b>	<b>Revenues and Expenses – CASH BASIS</b>										
<b>Wastewater Revenues</b>											
<b>Wastewater Rate Revenue</b>											
WW.1 Residential - City	12,608,784	13,261,815	14,060,034	14,907,775	15,873,100	16,996,981	18,201,661	19,494,004	20,879,599	22,366,235	
WW.2 Residential - County	5,360	5,570	5,817	6,072	6,362	6,700	7,075	7,467	7,876	8,304	
WW.5 Multi-Family	267,530	281,025	296,471	312,444	330,320	350,860	372,379	394,924	418,546	443,297	
WW.6 Commercial	1,413,880	1,471,971	1,542,539	1,615,501	1,699,550	1,798,533	1,902,102	2,012,219	2,129,220	2,253,459	
WW.5 Church	46,773	49,786	54,070	58,566	63,543	69,176	75,158	81,508	88,245	95,391	
WW.6 Industrial	341,330	357,569	376,421	395,932	417,839	443,093	469,557	497,288	526,347	556,799	
WW.7 Institutional	-	-	-	-	-	-	-	-	-	-	
WW.8 Schools	124,237	130,621	138,051	146,819	156,610	167,806	181,268	195,454	210,401	226,152	
WW.9 Perryville Prison	1,339,458	1,395,056	1,460,083	1,539,133	1,627,469	1,728,837	1,834,935	1,945,997	2,062,265	2,183,988	
WW.10 Reclaimed Water	7,116	7,401	7,742	8,094	8,500	8,977	9,483	10,018	10,585	11,186	
	16,154,469	16,960,814	17,941,229	18,990,336	20,183,293	21,570,963	23,053,618	24,638,878	26,333,085	28,144,811	
Non-Rate Revenues	145,600	659,890	675,319	691,210	713,035	735,732	759,337	783,887	809,418	835,971	
<b>Total Revenues</b>	<b>16,300,069</b>	<b>17,620,704</b>	<b>18,616,547</b>	<b>19,681,547</b>	<b>20,896,327</b>	<b>22,306,695</b>	<b>23,812,955</b>	<b>25,422,765</b>	<b>27,142,504</b>	<b>28,980,782</b>	
		8.1%	5.7%	5.7%	6.2%	6.7%	6.8%	6.8%	6.8%	6.8%	

<b>CITY OF GOODYEAR</b>											
<b>WATER/WASTEWATER COST OF SERVICE MODEL</b>											
	<b>Current</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>

**Wastewater Summary**  
**Scen: 2020 09 24 -- Scenario I -- Status Quo**

**Wastewater Cost of Service**

**Budget Code**

P	Personnel	\$ 2,989,500	\$ 2,890,800	\$ 3,394,445	\$ 3,873,191	\$ 4,261,154	\$ 4,499,634	\$ 4,752,580	\$ 5,020,969	\$ 5,305,855	\$ 5,608,368
CN	Contractuals	2,355,900	2,694,800	2,823,298	2,957,815	3,098,884	3,246,815	3,401,880	3,564,431	3,734,745	3,913,217
CM	Commodities	854,300	966,000	1,012,852	1,061,918	1,113,400	1,167,413	1,224,056	1,283,461	1,345,729	1,411,007
CO	Capital Outlays	-	-	-	-	-	-	-	-	-	-
OD	Other Departmental	160,400	163,608	168,516	173,572	178,779	184,142	189,667	195,357	201,217	207,254
DS	Debt Service	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
0	#N/A	-	-	-	-	-	-	-	-	-	-
<b>Total</b>		<b>6,363,100</b>	<b>6,718,208</b>	<b>7,402,110</b>	<b>8,069,496</b>	<b>8,655,217</b>	<b>9,101,004</b>	<b>9,571,183</b>	<b>10,067,218</b>	<b>10,590,546</b>	<b>11,142,845</b>

**Department Code**

AD	Administration	\$ 756,200	\$ 755,000	\$ 789,305	\$ 825,470	\$ 863,617	\$ 903,878	\$ 946,395	\$ 991,321	\$ 1,038,821	\$ 1,089,073
M	Maintenance	678,300	663,800	704,687	748,413	795,220	845,350	899,065	956,654	1,018,425	1,084,721
C	Collections	1,275,200	1,291,800	1,459,824	1,636,186	1,815,143	1,905,582	2,000,520	2,100,183	2,204,783	2,314,570
E	Environment	763,900	672,500	713,417	757,086	803,742	853,613	906,941	963,996	1,025,062	1,090,458
R	Reclamation	877,200	960,300	1,244,340	1,490,582	1,638,526	1,720,124	1,805,793	1,895,735	1,990,163	2,089,302
CT	Corgett	224,600	313,500	329,233	345,725	363,045	381,235	400,327	420,369	441,395	463,455
GR	Goodyear	1,346,700	1,515,700	1,591,751	1,671,469	1,755,193	1,843,116	1,935,406	2,032,282	2,133,913	2,240,547
RV	Rainbow Valley	277,600	379,000	398,037	417,993	438,952	460,963	484,068	508,322	533,767	560,465
OD	Other Departments	160,400	163,608	168,516	173,572	178,779	184,142	189,667	195,357	201,217	207,254
DS	Debt Service	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
<b>Total</b>		<b>6,363,100</b>	<b>6,718,208</b>	<b>7,402,110</b>	<b>8,069,496</b>	<b>8,655,217</b>	<b>9,101,004</b>	<b>9,571,183</b>	<b>10,067,218</b>	<b>10,590,546</b>	<b>11,142,845</b>

**Total Operating Expenses 6,363,100 6,718,208 7,402,110 8,069,496 8,655,217 9,101,004 9,571,183 10,067,218 10,590,546 11,142,845**

**Net Revenues for Transfers,Capital Outlays and Debt Service 9,936,969 10,902,496 11,214,437 11,612,051 12,241,111 13,205,691 14,241,773 15,355,547 16,551,958 17,837,937**

**Capital Outlays 574,400 719,100 758,900 513,500 578,400 1,122,200 862,200 1,569,800 824,500 1,697,200**

**Debt Service**

Debt Service -- Current	5,368,186	3,731,300	3,524,100	3,531,850	3,538,450	3,553,650	3,563,250	4,638,150	4,356,150	4,352,950
Debt Service -- Future	-	-	3,394,393	6,109,908	6,109,908	6,109,908	7,467,665	7,467,665	8,825,422	8,825,422
<b>Total Debt Service</b>	<b>5,368,186</b>	<b>3,731,300</b>	<b>6,918,493</b>	<b>9,641,758</b>	<b>9,648,358</b>	<b>9,663,558</b>	<b>11,030,915</b>	<b>12,105,815</b>	<b>13,181,572</b>	<b>13,178,372</b>

**Net Revenues for Transfers 3,994,383 6,452,096 3,537,044 1,456,793 2,014,353 2,419,933 2,348,657 1,679,932 2,545,886 2,962,365**

**Total Transfers 1,707,800 1,791,132 1,892,359 2,000,615 2,124,097 2,267,459 2,420,570 2,584,206 2,759,016 2,945,876**

**Total Cost of Service 14,013,486 12,959,740 16,971,862 20,225,369 21,006,071 22,154,221 23,884,867 26,327,039 27,355,634 28,964,293**

<b>Net Revenues for Contingencies</b>	<b>2,286,583</b>	<b>4,660,964</b>	<b>1,644,685</b>	<b>(543,822)</b>	<b>(109,744)</b>	<b>152,474</b>	<b>(71,912)</b>	<b>(904,274)</b>	<b>(213,130)</b>	<b>16,489</b>
Percent of COS	14.0%	26.5%	8.8%	-2.8%	-0.5%	0.7%	-0.3%	-3.6%	-0.8%	0.1%
Days of Expenses	76	167	45	(13)	(2)	3	(1)	(16)	(4)	0

<b>Ending Fund Balance</b>	<b>\$ 15,544,483</b>	<b>\$ 20,205,447</b>	<b>\$ 21,850,132</b>	<b>\$ 21,306,310</b>	<b>\$ 21,196,566</b>	<b>\$ 21,349,040</b>	<b>\$ 21,277,127</b>	<b>\$ 20,372,853</b>	<b>\$ 20,159,723</b>	<b>\$ 20,176,212</b>
Days of Fund Balance	405	569	470	385	368	352	325	282	269	254

**Debt Coverage (excludes Debt, Cap Outlays, G/F Transfers) 1.85 2.92 1.62 1.20 1.27 1.37 1.29 1.27 1.26 1.35**

Intellectual Property of Willdan Group Inc. - Not to be used without express written permission

**CITY OF GOODYEAR  
WATER/WASTEWATER COST OF SERVICE MODEL**

Current      2020      2021      2022      2023      2024      2025      2026      2027      2028      2029

**Revenue Summary**

**Scen: 2020 09 24 -- Scenario I -- Status Quo**

**1 Water Monthly Rates and Charges**

Water Rate Revenue

W.0	CAP Water	\$ 2,446,407	\$ 2,833,611	\$ 3,319,223	\$ 3,822,966	\$ 4,345,680	\$ 4,887,913	\$ 5,347,037	\$ 5,635,912	\$ 5,931,287	\$ 6,298,914
W.1	Residential - City	9,636,747	10,423,940	11,110,433	11,777,704	12,486,170	13,238,734	14,037,607	14,825,167	15,570,096	16,354,326
W.2	Residential - County	80,201	86,693	92,239	97,502	102,972	108,659	115,234	121,568	127,398	133,379
W.3	Multi-Family	472,385	578,564	613,240	646,207	680,304	715,579	752,081	786,024	816,931	848,510
W.4	Commercial	2,345,550	2,482,049	2,628,637	2,766,176	2,912,405	3,067,687	3,228,571	3,385,177	3,530,531	3,683,035
W.5	Church	58,827	62,616	67,556	72,366	77,403	82,678	88,200	93,592	98,646	103,865
W.6	Industrial	877,368	928,776	983,120	1,033,984	1,086,612	1,141,075	1,197,447	1,250,634	1,298,073	1,346,562
W.7	Institutional	110,963	117,531	127,024	136,286	145,989	156,152	166,794	177,201	186,978	197,074
W.8	Schools	163,004	171,755	180,923	189,438	198,269	207,428	220,202	232,475	243,743	255,260
W.9	Hydrant	-	-	-	-	-	-	-	-	-	-
W.10	Irrigation	5,229,978	5,524,745	5,844,129	6,142,822	6,458,580	6,792,073	7,143,994	7,484,140	7,797,062	8,123,402
		21,421,430	23,210,280	24,966,523	26,685,449	28,494,386	30,397,979	32,297,167	33,991,890	35,600,744	37,344,328
	Non-Rate Revenues	1,811,900	3,470,900	3,537,260	3,589,021	3,642,334	3,697,247	3,753,808	3,812,065	3,852,068	3,892,872
	<b>Total Revenues</b>	<b>23,233,330</b>	<b>26,681,180</b>	<b>28,503,783</b>	<b>30,274,470</b>	<b>32,136,720</b>	<b>34,095,226</b>	<b>36,050,975</b>	<b>37,803,956</b>	<b>39,452,812</b>	<b>41,237,200</b>
			14.8%	6.8%	6.2%	6.2%	6.1%	5.7%	4.9%	4.4%	4.5%

**5 Revenues and Expenses -- CASH BASIS**

Wastewater Rate Revenue

WW.1	Residential - City	12,608,784	13,261,815	14,060,034	14,907,775	15,873,100	16,996,981	18,201,661	19,494,004	20,879,599	22,366,235
WW.2	Residential - County	5,360	5,570	5,817	6,072	6,362	6,700	7,075	7,467	7,876	8,304
WW.5	Multi-Family	267,530	281,025	296,471	312,444	330,320	350,860	372,379	394,924	418,546	443,297
WW.6	Commercial	1,413,880	1,471,971	1,542,539	1,615,501	1,699,550	1,798,533	1,902,102	2,012,219	2,129,220	2,253,459
WW.5	Church	46,773	49,786	54,070	58,566	63,543	69,176	75,158	81,508	88,245	95,391
WW.6	Industrial	341,330	357,569	376,421	395,932	417,839	443,093	469,557	497,288	526,347	556,799
WW.7	Institutional	-	-	-	-	-	-	-	-	-	-
WW.8	Schools	124,237	130,621	138,051	146,819	156,610	167,806	181,268	195,454	210,401	226,152
WW.9	Perryville Prison	1,339,458	1,395,056	1,460,083	1,539,133	1,627,469	1,728,837	1,834,935	1,945,997	2,062,265	2,183,988
WW.10	Reclaimed Water	7,116	7,401	7,742	8,094	8,500	8,977	9,483	10,018	10,585	11,186
		16,154,469	16,960,814	17,941,229	18,990,336	20,183,293	21,570,963	23,053,618	24,638,878	26,333,085	28,144,811
	Non-Rate Revenues	145,600	659,890	675,319	691,210	713,035	735,732	759,337	783,887	809,418	835,971
	<b>Total Revenues</b>	<b>16,300,069</b>	<b>17,620,704</b>	<b>18,616,547</b>	<b>19,681,547</b>	<b>20,896,327</b>	<b>22,306,695</b>	<b>23,812,955</b>	<b>25,422,765</b>	<b>27,142,504</b>	<b>28,980,782</b>
			8.1%	5.7%	5.7%	6.2%	6.7%	6.8%	6.8%	6.8%	6.8%
	<b>TOTAL REVENUES</b>	<b>39,533,399</b>	<b>44,301,884</b>	<b>47,120,330</b>	<b>49,956,016</b>	<b>53,033,048</b>	<b>56,401,921</b>	<b>59,863,930</b>	<b>63,226,720</b>	<b>66,595,316</b>	<b>70,217,983</b>
			12.1%	6.4%	6.0%	6.2%	6.4%	6.1%	5.6%	5.3%	5.4%



CITY OF GOODYEAR		NON-RATE FEES AND SERVICES CALCULATION MODEL		FEE:	Activation Fee-Next Day
<b>I LABOR</b>					
<u>Clerical Time -- Minutes</u>					
Original Call Setup					15
Develop Workorder					15
Issue Workorder and Follow up					-
Total					30
			<u>Per Hour</u>		
Total Cost	\$	55.18		\$	27.59
<u>Field Personnel Time -- Minutes</u>					
Process Workorder					15
Pull Parts					-
Drive to Site					10
Do Work					15
Return from Site					10
Close Out Workorder					15
Overhead/Stocking of Parts					-
Total					65
			<u>Per Hour</u>		
Cost Per Hour	\$	83.15		\$	90.08
<b>Total Labor</b>				\$	117.67
<b>II MATERIALS</b>					
M eter				\$	-
Radio Read Transponder				\$	-
Gaskets (2)				\$	-
Tools -- Lock/Key/Wrench				\$	-
<b>Total Materials</b>				\$	-
<b>III VEHICLES</b>					
Number of Trucks					1
Average Miles Per Round Trip					5.00
Gasoline Cost Per Mile				\$	0.21
Operating/Capital Cost Per Mile				\$	0.50
<b>Total Vehicles</b>				\$	3.55
<b>IV OTHER</b>					
Cost				\$	-
Cost				\$	-
Cost				\$	-
<b>Total Other</b>				\$	-
<b>TOTAL COST</b>				\$	121.22

CITY OF GOODYEAR		NON-RATE FEES AND SERVICES CALCULATION MODEL		FEE:	Activation Fee-Same Day
<b>I LABOR</b>					
<u>Clerical Time -- Minutes</u>					
Original Call Setup					15
Develop Workorder					15
Issue Workorder and Follow up					-
Total					30
			<u>Per Hour</u>		
Total Cost	\$	55.18		\$	27.59
<u>Field Personnel Time -- Minutes</u>					
Process Workorder					15
Pull Parts					-
Drive to Site					10
Do Work					15
Return from Site					10
Close Out Workorder					15
Overhead/Stocking of Parts					-
Total					65
			<u>Per Hour</u>		
Cost Per Hour	\$	83.15		\$	90.08
<b>Total Labor</b>				\$	117.67
<b>II MATERIALS</b>					
Administration Fee	\$				-
Radio Read Transponder	\$				-
Gaskets (2)	\$				-
Tools -- Lock/Key/Wrench	\$				-
<b>Total Materials</b>	\$				-
<b>III VEHICLES</b>					
Number of Trucks					1
Average Miles Per Round Trip					5.00
Gasoline Cost Per Mile	\$				0.21
Operating/Capital Cost Per Mile	\$				0.50
<b>Total Vehicles</b>	\$				3.55
<b>IV OTHER</b>					
Cost	\$				-
Cost	\$				-
Cost	\$				-
<b>Total Other</b>	\$				-
<b>TOTAL COST</b>	\$				121.22

CITY OF GOODYEAR		NON-RATE FEES AND SERVICES CALCULATION MODEL		FEE:	Admin Shut-Off Fee
<b>I LABOR</b>					
<u>Clerical Time -- Minutes</u>					
Original Call Setup					5
Develop Workorder					5
Issue Workorder					-
Total					10
		<u>Per Hour</u>			
Total Cost	\$	55.18		\$	9.20
<u>Field Personnel Time -- Minutes</u>					
Process Workorder					15
Pull Parts					15
Drive to Site					-
Do Work - Pull Meter/Sleeve					-
Return from Site					-
Close Out Workorder					-
Overhead/Stocking of Parts					-
Total					30
		<u>Per Hour</u>			
Cost Per Hour	\$	83.15		\$	41.57
<b>Total Labor</b>				<b>\$</b>	<b>50.77</b>
<b>II MATERIALS</b>					
M eter				\$	-
Radio Read Transponder				\$	-
Gaskets (2)				\$	-
Tools -- Lock/Key/Wrench				\$	-
<b>Total Materials</b>				<b>\$</b>	<b>-</b>
<b>III VEHICLES</b>					
Number of Trucks					-
Average Miles Per Round Trip					5.00
Gasoline Cost Per Mile				\$	0.40
Operating/Capital Cost Per Mile				\$	0.50
<b>Total Vehicles</b>				<b>\$</b>	<b>-</b>
<b>IV OTHER</b>					
Cost				\$	-
Cost				\$	-
Cost				\$	-
<b>Total Other</b>				<b>\$</b>	<b>-</b>
<b>TOTAL COST</b>				<b>\$</b>	<b>50.77</b>

CITY OF GOODYEAR		NON-RATE FEES AND SERVICES CALCULATION MODEL		FEE: <b>Cross Connection</b>	
<b>I LABOR</b>					
Clerical Time -- Minutes					
Review documentation and prepare letter to be sent of customer requiring inspection					60
Review certification documentation, inspector and machine calibration					60
Issue Certification and follow up as necessary					<u>60</u>
Total					180
			<u>Per Hour</u>		
Total Cost	\$	55.18		\$	165.53
Field Personnel Time -- Minutes					
Process Workorder					-
Pull Parts					-
Drive to Site					-
Do Work					-
Return from Site					-
Close Out Workorder					-
Overhead/Stocking of Parts					<u>-</u>
Total					-
			<u>Per Hour</u>		
Cost Per Hour	\$	83.15		\$	-
<b>Total Labor</b>				\$	<b>165.53</b>
<b>II MATERIALS</b>					
				\$	-
				\$	-
				\$	-
				\$	-
				\$	<u>-</u>
<b>Total Materials</b>				\$	<b>-</b>
<b>III VEHICLES</b>					
Number of Trucks					-
Average Miles Per Round Trip					-
Gasoline Cost Per Mile				\$	-
Operating/Capital Cost Per Mile				\$	<u>-</u>
<b>Total Vehicles</b>				\$	<b>-</b>
<b>IV OTHER</b>					
Cost				\$	-
Cost				\$	-
Cost				\$	<u>-</u>
<b>Total Other</b>				\$	<b>-</b>
<b>TOTAL ANNUAL COST PER CUSTOMER</b>				\$	<b>165.53</b>
<b>MONTHLY CHARGE</b>				\$	<b>13.79</b>

CITY OF GOODYEAR		NON-RATE FEES AND SERVICES CALCULATION MODEL		FEE:	Security Deposit-Water WW Non-Resid
IV OTHER					
Average Bill - 58,000 Gallons					
<b>Water</b>					
Minimum Charge - 2" Meter	\$	63.31			
0 -- 40,000 (per 000)		4.91			
40,001 -- 100,000		7.86			
101,001 -- Above		10.19			
58,000 Billing Units					
Total Water			\$		401.19
<b>Wastewater</b>					
Service Fee - 2" Meter	\$	85.64			
Volume Charge -- All Usage		6.38			
58,000 Billing Units				\$	<u>455.68</u>
Total Monthly Bill			\$		856.87
<b>TOTAL COST</b>				\$	<b>856.87</b>

CITY OF GOODYEAR		NON-RATE FEES AND SERVICES CALCULATION MODEL		FEE:	Security Deposit - W_WW Resid
<b>IV OTHER</b>					
Average Bill -- 6,900 Gallons					
<b>Water</b>					
Minimum Charge	\$	17.49			
0 -- 6,000 (per 000)	\$	2.03			
6,001 -- 12,000	\$	4.03			
Average Bill -- 7,000 Gal					
Total Water			\$		33.70
<b>Wastewater</b>					
Service Fee	\$	23.31			
Volume Charge -- All Usage (per 000)	\$	6.38			
Average Bill -- 7,000 Gal			\$		<u>67.97</u>
Total Monthly Bill			\$		101.67
<b>2 Months Total</b>			\$		<b>203.34</b>
<b>TOTAL COST</b>				\$	<b>203.34</b>

CITY OF GOODYEAR NON-RATE FEES AND SERVICES CALCULATION MODEL		FEE:	Disconnect Notice
<b>I LABOR</b>			
<u>Clerical Time -- Minutes</u>			
Review cycle list for disconnect and evaluate status for each customer			10
If evaluated as disconnect generate Disconnect Notice			5
Customer contact for payment arrangement or extension			15
Total			30
	<u>Per Hour</u>		
Total Cost	\$ 55.18	\$	27.59
 <u>Field Personnel Time -- Minutes</u>			
Process Workorder			
Technical Assessment, System Inspection			-
Drive to Site			-
Do Work			-
Return from Site			-
Close Out Workorder			-
Overhead/Stocking of Parts			-
Total			-
	<u>Per Hour</u>		
Cost Per Hour	\$ 83.15	\$	-
<b>Total Labor</b>		<b>\$</b>	<b>27.59</b>
 <b>II MATERIALS</b>			
Disconnect Notice Mailing		\$	1.00
Radio Read Transponder		\$	-
Gaskets (2)		\$	-
Tools -- Lock/Key/Wrench		\$	-
<b>Total Materials</b>		<b>\$</b>	<b>1.00</b>
 <b>III VEHICLES</b>			
Number of Trucks			-
Average Miles Per Round Trip			15.00
Gasoline Cost Per Mile		\$	0.40
Operating/Capital Cost Per Mile		\$	0.50
<b>Total Vehicles</b>		<b>\$</b>	<b>-</b>
 <b>IV OTHER</b>			
Cost		\$	-
Cost		\$	-
Cost		\$	-
<b>Total Other</b>		<b>\$</b>	<b>-</b>
<b>TOTAL COST</b>		<b>\$</b>	<b>28.59</b>

CITY OF GOODYEAR		NON-RATE FEES AND SERVICES CALCULATION MODEL		FEE:	Field Visit
<b>I LABOR</b>					
<u>Clerical Time -- Minutes</u>					
Original Call Setup					-
Develop Workorder					-
Issue Workorder					-
Total					-
		<u>Per Hour</u>			
Total Cost	\$	55.18		\$	-
<u>Field Personnel Time -- Minutes</u>					
Process Workorder					120
Pull Parts					-
Drive to Site					-
Do Work					-
Return from Site					-
Close Out Workorder					-
Overhead/Stocking of Parts					-
Total					120
		<u>Per Hour</u>			
Cost Per Hour	\$	83.15		\$	166.30
<b>Total Labor</b>				<b>\$</b>	<b>166.30</b>
<b>II MATERIALS</b>					
M eter				\$	-
Radio Read Transponder				\$	-
Gaskets (2)				\$	-
Tools -- Lock/Key/Wrench				\$	-
<b>Total Materials</b>				<b>\$</b>	<b>-</b>
<b>III VEHICLES</b>					
Number of Trucks					1.00
Average Miles Per Round Trip					15.00
Gasoline Cost Per Mile				\$	0.21
Operating/Capital Cost Per Mile				\$	0.50
<b>Total Vehicles</b>				<b>\$</b>	<b>10.65</b>
<b>IV OTHER</b>					
Cost				\$	-
Cost				\$	-
Cost				\$	-
<b>Total Other</b>				<b>\$</b>	<b>-</b>
<b>TOTAL COST</b>				<b>\$</b>	<b>176.95</b>

CITY OF GOODYEAR		NON-RATE FEES AND SERVICES CALCULATION MODEL		FEE: Hydrant Connection	
<b>I LABOR</b>					
Clerical Time -- Minutes					
Original Call Setup					30
Application processing and fee collection					15
Close out Workorder					15
Total					60
			<u>Per Hour</u>		
Total Cost	\$	55.18		\$	55.18
Field Personnel Time -- Minutes					
Process Workorder/contact customer					15
Pull and load meter					15
Drive to Site					30
Install Meter					30
Return from Site					30
Process Close Out of Workorder					15
Clean up and Re-Stock Meter					30
Total					165
			<u>Per Hour</u>		
Cost Per Hour	\$	83.15		\$	228.66
<b>Total Labor</b>				\$	<b>283.83</b>
<b>II MATERIALS</b>					
M eter	\$	-			-
Radio Read Transponder	\$	-			-
Gaskets (2)	\$	-			-
Tools -- Lock/Key/Wrench	\$	-			-
<b>Total Materials</b>	\$	-			-
<b>III VEHICLES</b>					
Number of Trucks					2.00
Average Miles Per Round Trip					15.00
Gasoline Cost Per Mile	\$	0.21			
Operating/Capital Cost Per Mile	\$	0.50			
<b>Total Vehicles</b>	\$	21.30			
<b>IV OTHER</b>					
Cost	\$	-			-
Cost	\$	-			-
Cost	\$	-			-
<b>Total Other</b>	\$	-			-
<b>TOTAL COST</b>				\$	<b>305.13</b>

CITY OF GOODYEAR

NON-RATE FEES AND SERVICES CALCULATION MODEL

FEE: **Late Charge**

IV OTHER

Avondale	1.50%
Buckeye	1.50%
Gilbert	1.50%
Glendale	1.50%
Mesa	2% or \$5.00 whichever is greater
Peoria	1.5% or \$2.00 whichever is greater
Scottsdale	1.5% or \$5.00 whichever is greater
Surprise	1.50%
Tempe	<u>1.00%</u>
Average of Others	1.50%

CITY OF GOODYEAR		FEE: Meter Tampering	
NON-RATE FEES AND SERVICES CALCULATION MODEL			
<b>I LABOR</b>			
<u>Clerical Time -- Minutes</u>			
Original Call Setup			-
Develop Workorder			-
Issue Workorder and Follow up			-
Total			-
		<u>Per Hour</u>	
Total Cost	\$	55.18	\$ -
<u>Field Personnel Time -- Minutes</u>			
Process Workorder			15
Pull Parts			-
Drive to Site			30
Do Work			15
Return from Site			30
Close Out Workorder			-
Overhead/Stocking of Parts			-
Total			90
		<u>Per Hour</u>	
Cost Per Hour	\$	83.15	\$ 124.72
<b>Total Labor</b>			<b>\$ 124.72</b>
<b>II MATERIALS</b>			
M eter	\$		-
Radio Read Transponder	\$		-
Gaskets (2)	\$		-
Tools -- Lock/Key/Wrench	\$		-
<b>Total Materials</b>	\$		<b>-</b>
<b>III VEHICLES</b>			
Number of Trucks			1.00
Average Miles Per Round Trip			15.00
Gasoline Cost Per Mile	\$		0.21
Operating/Capital Cost Per Mile	\$		0.50
<b>Total Vehicles</b>	\$		<b>10.65</b>
<b>IV OTHER</b>			
Cost	\$		-
Cost	\$		-
Cost	\$		-
<b>Total Other</b>	\$		<b>-</b>
<b>TOTAL COST</b>	\$		<b>135.37</b>

CITY OF GOODYEAR		NON-RATE FEES AND SERVICES CALCULATION MODEL		FEE:	Returned Check Fee
<b>I LABOR</b>					
Clerical Time -- Minutes					
Manual Processing of Bank documents - all Departments					15
Develop Workorder and Prepare Notification					15
Issue Notification and follow up					15
Total					45
			Per Hour		
Total Cost	\$	55.18		\$	41.38
Field Personnel Time -- Minutes					
Process Workorder					-
Pull Parts					-
Drive to Site					-
Do Work					-
Return from Site					-
Close Out Workorder					-
Overhead/Stocking of Parts					-
Total					-
			Per Hour		
Cost Per Hour	\$	83.15		\$	-
<b>Total Labor</b>				\$	<b>41.38</b>
<b>II MATERIALS</b>					
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
<b>Total Materials</b>				\$	<b>-</b>
<b>III VEHICLES</b>					
Number of Trucks					-
Average Miles Per Round Trip					-
Gasoline Cost Per Mile				\$	-
Operating/Capital Cost Per Mile				\$	-
<b>Total Vehicles</b>				\$	<b>-</b>
<b>IV OTHER</b>					
Bank Charge Per Returned Check				\$	35.00
Cost				\$	-
Cost				\$	-
<b>Total Other</b>				\$	<b>35.00</b>
<b>TOTAL COST</b>				\$	<b>76.38</b>

CITY OF GOODYEAR		NON-RATE FEES AND SERVICES CALCULATION MODEL		FEE: Same Day Reinstatement	
<b>I LABOR</b>					
<u>Clerical Time -- Minutes</u>					
Original Call Setup				20	
Develop Workorder				10	
Issue Workorder				20	
Total				<u>50</u>	
			<u>Per Hour</u>		
Total Cost	\$	55.18		\$	45.98
<u>Field Personnel Time -- Minutes</u>					
Process Workorder				10	
Pull Parts				-	
Drive to Site				30	
Do Work				30	
Return from Site				30	
Close Out Workorder				10	
Overhead/Stocking of Parts				-	
Total				<u>110</u>	
			<u>Per Hour</u>		
Cost Per Hour	\$	83.15		\$	152.44
<b>Total Labor</b>				\$	<b>198.42</b>
<b>II MATERIALS</b>					
M eter	\$			-	
Radio Read Transponder	\$			-	
Gaskets (2)	\$			-	
Tools -- Lock/Key/Wrench	\$			-	
<b>Total Materials</b>	\$			-	
<b>III VEHICLES</b>					
Number of Trucks				1.00	
Average Miles Per Round Trip				15.00	
Gasoline Cost Per Mile	\$			0.21	
Operating/Capital Cost Per Mile	\$			<u>0.50</u>	
<b>Total Vehicles</b>	\$			<b>10.65</b>	
<b>IV OTHER</b>					
Cost	\$			-	
Cost	\$			-	
Cost	\$			-	
<b>Total Other</b>	\$			-	
<b>TOTAL COST</b>				\$	<b>209.07</b>

CITY OF GOODYEAR		NON-RATE FEES AND SERVICES CALCULATION MODEL		FEE: <b>Water Audit Fee</b>	
<b>I LABOR</b>					
<u>Clerical Time -- Minutes</u>					
Original Call and prepare Workorder					30
Develop Workorder					-
Close out Workorder					15
Total					45
			<u>Per Hour</u>		
Total Cost	\$	55.18		\$	41.38
<u>Field Personnel Time -- Minutes</u>					
Process Workorder					15
Pull Parts					-
Drive to Site					30
Do Work					30
Return from Site					30
Close Out Workorder					15
Overhead/Stocking of Parts					-
Total					120
			<u>Per Hour</u>		
Cost Per Hour	\$	83.15		\$	166.30
<b>Total Labor</b>				\$	207.68
<b>II MATERIALS</b>					
M eter				\$	-
Radio Read Transponder				\$	-
Gaskets (2)				\$	-
Tools -- Lock/Key/Wrench				\$	-
<b>Total Materials</b>				\$	-
<b>III VEHICLES</b>					
Number of Trucks					1.00
Average Miles Per Round Trip					5.00
Gasoline Cost Per Mile				\$	0.21
Operating/Capital Cost Per Mile				\$	0.50
<b>Total Vehicles</b>				\$	3.55
<b>IV OTHER</b>					
Cost				\$	-
Cost				\$	-
Cost				\$	-
<b>Total Other</b>				\$	-
<b>TOTAL COST</b>				\$	211.23



**CITY OF GOODYEAR  
SOLID WASTE MONTHLY CHARGE SCHEDULE**

	Number Containers	Pickups/ Week	Monthly Charge										
			Prior	Effective Jan-20	Effective Jan-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
<b>Scen: 2020 08 12 -- Scenario I</b>													
<b>Residential</b>													
Monthly Charge	1	1	\$ 22.80	\$ 17.80	\$ 15.50	\$ 16.10	\$ 16.75	\$ 17.40	\$ 18.10	\$ 18.80	\$ 19.55	\$ 20.35	\$ 21.15
<b>Residential -- Uncontained</b>													
Monthly Charge	1	0.25	-	5.00	4.30	4.45	4.65	4.85	5.05	7.05	7.35	7.65	7.95
<b>Residential -- Additional</b>													
Monthly Charge	1	1	6.26	6.26	7.50	7.80	8.11	8.43	8.77	9.12	9.48	9.86	10.25

<b>Forecast Period</b> <b>2020 -- 2029</b>	<b>CITY OF GOODYEAR</b> <b>SOLID WASTE COST OF SERVICE MODEL</b>									
<b>Total Expense:</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>

**Forecast SB -- Basic Summary Solid Waste Financial Data**  
**Scen: 2020 08 12 -- Scenario I**

**I Total Accounts**

<u>Accounts</u>	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Residential -- Recycle	30,941	31,869	32,825	33,810	34,824	35,869	36,945	38,053	39,195	40,371
Residential -- Additional	776	799	823	848	873	899	926	954	982	1,012
Residential -- Contained	30,941	31,869	32,825	33,810	34,824	35,869	36,945	38,053	39,195	40,371
Residential -- Uncontained	30,941	31,869	32,825	33,810	34,824	35,869	36,945	38,053	39,195	40,371
4 Cubic Yard	-	-	-	-	-	-	-	-	-	-
6 Cubic Yard	-	-	-	-	-	-	-	-	-	-
8 Cubic Yard	-	-	-	-	-	-	-	-	-	-
10 Cubic Yard	-	-	-	-	-	-	-	-	-	-
Total Residential Contained and Additional	31,717	32,668	33,648	34,658	35,697	36,768	37,871	39,007	40,177	41,383
New Accts	-	951	980	1,010	1,039	1,071	1,103	1,136	1,171	1,205
Percent Increase	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

**2 Fund Balance, Revenues and Expenses**

Beginning of TY Fund Balance										
TY Transfer/Use										
<b>Revised Beginning Fund Balance</b>	<b>\$3,352,141</b>	4,558,400	4,908,563	4,243,127	4,113,823	4,072,575	4,263,198	2,991,797	3,235,699	4,041,614

**Revenues and Expenses -- CASH BASIS**

<u>User Revenue</u>	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Residential -- Contained	\$ 7,691,982	\$ 6,440,725	\$ 6,203,925	\$ 6,641,975	\$ 7,112,802	\$ 7,614,989	\$ 8,153,762	\$ 8,727,456	\$ 9,351,927	\$ 10,020,082
Residential -- Uncontained	773,530	1,800,599	1,718,389	1,839,264	1,978,003	2,123,445	2,608,317	3,276,363	3,515,792	3,766,614
Residential -- Additional	58,262	64,963	75,288	80,640	86,351	92,484	99,083	106,109	113,635	121,710
Residential -- Recycle	-	-	-	-	-	-	-	-	-	-
4 Cubic Yard	-	-	-	-	-	-	-	-	-	-
6 Cubic Yard	-	-	-	-	-	-	-	-	-	-
8 Cubic Yard	-	-	-	-	-	-	-	-	-	-
10 Cubic Yard	-	-	-	-	-	-	-	-	-	-
Special Service Fee Revenues	-	-	-	-	-	-	-	-	-	-
Non-Rate Revenues	<u>89,800</u>	<u>89,800</u>	<u>89,800</u>	<u>89,800</u>						
<b>Total</b>	<b>8,613,575</b>	<b>8,396,087</b>	<b>8,087,402</b>	<b>8,651,679</b>	<b>9,266,956</b>	<b>9,920,717</b>	<b>10,950,961</b>	<b>12,199,728</b>	<b>13,071,154</b>	<b>13,998,206</b>
Percent Increase		-2.5%	-3.7%	7.0%	7.1%	7.1%	10.4%	11.4%	7.1%	7.1%

<b>Forecast Period</b> <b>2020 -- 2029</b>	<b>CITY OF GOODYEAR</b> <b>SOLID WASTE COST OF SERVICE MODEL</b>									
<b>Total Expense:</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>

**Forecast SB -- Basic Summary Solid Waste Financial Data**  
**Scen: 2020 08 12 -- Scenario I**

**Solid Waste Cost of Service:**

**Operating Expenses**

Contained Waste Pickup	3,839,406	4,148,465	4,401,097	4,669,158	4,953,468	5,255,174	5,575,204	5,914,680	6,274,949	6,657,118
Administration	1,294,507	1,554,001	2,118,944	2,217,996	2,322,759	2,433,625	3,307,963	3,469,208	3,640,132	3,821,402
Container Maintenance	506,101	450,400	524,034	554,166	586,127	620,048	712,478	753,530	797,121	843,404
<b>Total</b>	<b>5,640,014</b>	<b>6,152,866</b>	<b>7,044,075</b>	<b>7,441,320</b>	<b>7,862,354</b>	<b>8,308,847</b>	<b>9,595,645</b>	<b>10,137,418</b>	<b>10,712,203</b>	<b>11,321,923</b>

Net Revenues for Transfers, Capital Outlays and Debt Service	2,973,561	2,243,221	1,043,327	1,210,359	1,404,601	1,611,870	1,355,316	2,062,311	2,358,951	2,676,283
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**Debt Service**

Existing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Forecast	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>-</b>									

Net Revenues for Transfers, Capital Outlays	2,973,561	2,243,221	1,043,327	1,210,359	1,404,601	1,611,870	1,355,316	2,062,311	2,358,951	2,676,283
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Transfers	1,238,002	1,649,762	1,300,643	1,339,662	1,379,852	1,421,248	1,463,885	1,507,801	1,553,036	1,599,627
Capital Outlays	529,300	243,296	408,120	-	65,998	-	1,162,832	310,608	-	333,754
<b>Total</b>	<b>1,767,302</b>	<b>1,893,058</b>	<b>1,708,763</b>	<b>1,339,662</b>	<b>1,445,850</b>	<b>1,421,248</b>	<b>2,626,717</b>	<b>1,818,409</b>	<b>1,553,036</b>	<b>1,933,381</b>

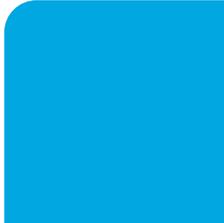
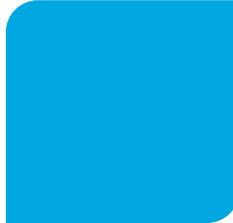
<b>Total Cost of Service</b>	<b>7,407,316</b>	<b>8,045,924</b>	<b>8,752,838</b>	<b>8,780,982</b>	<b>9,308,204</b>	<b>9,730,094</b>	<b>12,222,362</b>	<b>11,955,827</b>	<b>12,265,238</b>	<b>13,255,304</b>
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<b>Net Revenues</b>	<b>1,206,259</b>	<b>350,163</b>	<b>(665,436)</b>	<b>(129,304)</b>	<b>(41,248)</b>	<b>190,623</b>	<b>(1,271,400)</b>	<b>243,901</b>	<b>805,916</b>	<b>742,902</b>
Percent of COS	16.3%	4.4%	-7.6%	-1.5%	-0.4%	2.0%	-10.4%	2.0%	6.6%	5.6%

<b>Ending Fund Balance</b>	<b>\$ 4,558,400</b>	<b>\$ 4,908,563</b>	<b>\$ 4,243,127</b>	<b>\$ 4,113,823</b>	<b>\$ 4,072,575</b>	<b>\$ 4,263,198</b>	<b>\$ 2,991,797</b>	<b>\$ 3,235,699</b>	<b>\$ 4,041,614</b>	<b>\$ 4,784,517</b>
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One Day Operating Expenditures (Op.Exp)	15,452	16,857	19,299	20,387	21,541	22,764	26,289	27,774	29,349	31,019
Days of Operating Expenditures	295	291	220	202	189	187	114	117	138	154

Fund Balance Goal Days	60	927,126	1,011,430	1,157,930	1,223,231	1,292,442	1,365,838	1,577,366	1,666,425	1,760,910	1,861,138
Over (Short) of Requirement		3,631,274	3,897,133	3,085,197	2,890,593	2,780,133	2,897,360	1,414,431	1,569,274	2,280,704	2,923,378



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