

WATER & WASTEWATER ENTERPRISES

Rate Analysis

November 2018



Aspiring. Achieving. Accelerating.

OVERVIEW

- Budget recap-water utility fund operating and capital
- Budget recap-sewer utility fund operating and capital
- Financial Analysis
 - Rate increase
 - Recap of net position policy
- How this impacts the customer
 - Bill comparison
 - Rates relative to other cities and household bills
- Recommendations
 - Rate Increase

WATER NEEDS - INCLUDED IN MODEL

OPERATING COMPONENTS

- Operating Costs
 - water, electricity, chemicals
- Staffing
 - operators, vehicle/ equipment
- Preventative Maintenance

CAPITAL COMPONENTS

- Increased Treatment
- Reservoir Rehabilitation
- System Improvements

SEWER NEEDS-INCLUDED IN MODEL

OPERATING COMPONENTS

- Operating Costs
 - supplies & services
- Staffing
 - operators, vehicle/ equipment
- Preventative Maintenance

CAPITAL COMPONENTS

- WRF upgrades
- Large Diameter Pipe Program
- Lift Station Rehabilitation
- System Improvements

FINANCIAL OVERVIEW



RATE INCREASE HISTORY

Year	Water	Wastewater
2018 Proposed	6.00%	6.00%
2017	6.00%	6.00%
2016	7.50%	6.00%
2015	0%	0%
2014	0%	0%
2013	0%	0%
2012	0%	0%
2011	0%	0%
2010	0%	0%
2009	3.80%	1.76%
2008	3.40%	2.40%

WATER FUND ANALYSIS

1	Water Operating Fund	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23
2	Beginning Working Capital	29,958,015	29,526,336	28,953,122	29,303,971	31,520,895	34,287,063
3							
4	Water Rate Revenue	14,300,668	15,522,517	16,848,761	18,288,319	19,101,783	19,951,431
5	Plus: Growth	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
6	Water Rate Revenue After Growth	14,643,884	15,895,057	17,253,131	18,727,239	19,560,226	20,430,265
7	Pct Change in Water Rates	6.00%	6.00%	6.00%	2.00%	2.00%	2.00%
8	Pct of Year Rate Increase Effective	50%	50%	50%	50%	50%	50%
9	Water Rate Revenue After Growth and Rate Increase	15,083,201	16,371,909	17,770,725	18,914,511	19,755,829	20,634,568
10	Other Revenue	687,860	689,996	689,996	689,996	689,996	689,996
11	Interest Income	447,893	442,894	441,787	456,426	486,935	523,540
12	Total Revenue	16,218,954	17,504,799	18,902,508	20,060,933	20,932,760	21,848,104
13	O&M	(12,743,775)	(15,042,033)	(15,524,932)	(15,817,360)	(16,166,592)	(16,628,234)
14	Debt Service	(36,358)	(35,979)	(26,728)	(26,649)	-	-
15	Capital Outlay	(370,500)	-	-	-	-	-
16	Transfers Out	(3,500,000)	(3,000,000)	(3,000,000)	(2,000,000)	(2,000,000)	(2,000,000)
17	Cash Funded Capital	-	-	-	-	-	-
18	Net Cash Flow	(431,679)	(573,214)	350,849	2,216,924	2,766,168	3,219,870
19							
20	Ending Working Capital	29,526,336	28,953,122	29,303,971	31,520,895	34,287,063	37,506,933
21	Working Capital Reserve	9,557,831	11,281,525	11,643,699	11,863,020	12,124,944	12,471,175
22	Restricted Reserve for Replacement/Refurbishment	19,968,505	17,671,597	17,660,272	19,657,875	22,162,119	25,035,757
23	Percent of Reserve to Depreciable Assets	7%	6%	6%	7%	7%	8%

SEWER FUND ANALYSIS

	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23
Sewer Operating Fund						
Beginning Working Capital	12,541,098	13,727,621	16,988,269	20,955,730	25,203,065	29,578,735
Sewer Rate Revenue	9,158,389	9,940,882	10,790,231	11,049,196	11,314,377	11,585,922
Plus: Growth	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
Sewer Rate Revenue After Growth	9,378,190	10,179,463	11,049,196	11,314,377	11,585,922	11,863,984
Pct Change in Sewer Rates	6.00%	6.00%	0.00%	0.00%	0.00%	0.00%
Pct of Year Rate Increase Effective	50%	50%	50%	50%	50%	50%
Sewer Rate Revenue After Growth and Rate Increase	9,659,536	10,484,847	11,049,196	11,314,377	11,585,922	11,863,984
Other Revenue	1,292,900	1,292,900	1,351,826	1,382,353	1,413,614	1,445,624
Interest Income	374,147	404,191	446,262	497,866	562,062	628,807
Total Revenue	11,326,583	12,181,938	12,847,284	13,194,596	13,561,598	13,938,415
O&M	(6,098,451)	(6,175,867)	(6,266,327)	(6,360,295)	(6,529,750)	(6,703,951)
Debt Service	(1,311,234)	(1,245,424)	(1,113,496)	(1,086,966)	(656,178)	(653,073)
Capital Outlay	(230,375)	-	-	-	-	-
Transfers Out	(2,500,000)	(1,500,000)	(1,500,000)	(1,500,000)	(2,000,000)	(2,000,000)
Cash Funded Capital	-	-	-	-	-	-
Net Cash Flow	1,186,523	3,260,648	3,967,461	4,247,335	4,375,670	4,581,391
Ending Working Capital	13,727,621	16,988,269	20,955,730	25,203,065	29,578,735	34,160,126
Working Capital Reserve	4,573,838	4,631,900	4,699,745	4,770,222	4,897,312	5,027,964
Restricted Reserve for Replacement/Refurbishment	9,153,783	12,356,369	16,255,985	20,432,843	24,681,423	29,132,162
Percent of Reserve to Depreciable Assets	3%	4%	5%	7%	8%	9%

CUSTOMER DISCUSSION



RATE COMPARISON BY METER SIZE AND USAGE

EXISTING WATER RATES

Water Rates

Customer Charge per Bill \$ 3.20

Base Charge

Meter Size	Charge per Meter
0.75	\$ 8.00
1	\$ 19.90
1.5	\$ 39.90
2	\$ 63.80
3	\$ 119.70
4	\$ 199.50
6	\$ 399.00
8	\$ 638.30
10	\$ 917.60
Hydrant	\$ 199.50

**Meter Charge for Multi-Family will be based upon a 47% Unit Equivalency Factor applied to the 0.75" Meter Charge times number of units.
Hydrant Meters are charged at the 6" Meter rate.

Flow Charge per 1,000 Gallons

From:	To:	Residential	Non Residential
-	4,000	\$ 1.15	\$ 1.83
5,000	8,000	1.83	1.83
9,000	12,000	2.68	2.68
13,000	And Over	4.20	4.20
Hydrant Usage			4.20

**Usage Blocks for Multi-Family will be based upon a 47% Unit Equivalency Factor applied to the outer range of the block times the number of units.

**Usage Blocks for Non Residential will be expanded, by meter size, based upon AWWA meter equivalency factors.

PROPOSED WATER RATES

Adjusted Baseline

Water Rates

Customer Charge per Bill \$ 3.39

Base Charge

Meter Size	Charge per Meter
0.75	\$ 8.48
1	\$ 21.09
1.5	\$ 42.29
2	\$ 67.62
3	\$ 126.88
4	\$ 211.47
6	\$ 422.94
8	\$ 676.59
10	\$ 972.65
Hydrant	\$ 211.47

**Meter Charge for Multi-Family will be based upon a 47% Unit Equivalency Factor applied to the 0.75" Meter Charge times number of units.

Flow Charge per 1,000 Gallons

From:	To:	Residential	Non Residential
-	4,000	\$ 1.21	\$ 1.93
5,000	8,000	\$ 1.93	\$ 1.93
9,000	12,000	\$ 2.84	\$ 2.84
13,000	And Over	\$ 4.45	\$ 4.45
Hydrant Usage			\$ 4.45

**Usage Blocks for Multi-Family will be based upon a 47% Unit Equivalency Factor applied to the outer range of the block times the number of units.

**Usage Blocks for Non Residential will be expanded, by meter size, based upon AWWA meter equivalency factors.

RATE COMPARISON BY METER SIZE AND USAGE

EXISTING WASTEWATER RATES

Wastewater Rates

Customer Charge per Bill \$ 6.50

Base Charge

Volume Charge per 1,000 Gallons

From:	To:	Residential	Non Residential
Base Volume		1.48	1.48

Strength Charge

Total Charge Per 1,000 Gallons

101 Residential	2.34	\$ 3.82	
110 Auto Steam Cleaning	9.65	\$	11.13
111 Bakery Wholesale	6.01	\$	7.49
112 Hospital & Convalescence	1.41	\$	2.89
113 Hotel w/Dining	3.57	\$	5.05
114 Hotel w/o Dining	1.74	\$	3.22
115 Markets with Garbage Disposal	5.41	\$	6.89
116 Mortuaries	5.41	\$	6.89
117 Repair Shop and Service Station	1.40	\$	2.88
118 Restaurant	6.01	\$	7.49
120 Schools & Colleges	0.82	\$	2.30
121 Bars W/O Dining	1.35	\$	2.83
177 Laundromat	0.94	\$	2.42
178 Commercial Laundry	2.65	\$	4.13
179 Car Wash	0.38	\$	1.86
201 Professional Office	0.79	\$	2.27
202 Department Store & Retail	1.01	\$	2.49
301 Multi-Family	2.34	3.82	
302 Mobile Home Park	2.34	3.82	
500 Goodyear Resident	2.34	3.82	

** Billed Wastewater Usage is assumed to be 80% of billed water usage for all customers except laundries and car wash facilities, which are assumed to be billed at 70% of billed water usage.

PROPOSED WASTEWATER RATES

Adjusted Baseline

Wastewater Rates

Customer Charge per Bill \$ 6.89

Base Charge

Volume Charge per 1,000 Gallons

From:	To:	Residential	Non Residential
Base Volume	- 200,000 And Over	1.56	1.56
		\$	1.56

Strength Charge

Total Charge Per 1,000 Gallons

101 Residential		\$ 4.04	
110 Auto Steam Cleaning		\$	11.79
111 Bakery Wholesale		\$	7.93
112 Hospital & Convalescence		\$	3.06
113 Hotel w/Dining		\$	5.35
114 Hotel w/o Dining		\$	3.41
115 Markets with Garbage Disposal		\$	7.30
116 Mortuaries		\$	7.30
117 Repair Shop and Service Station		\$	3.05
118 Restaurant		\$	7.93
120 Schools & Colleges		\$	2.43
121 Bars W/O Dining		\$	2.99
177 Laundromat		\$	2.56
178 Commercial Laundry		\$	4.37
179 Car Wash		\$	1.97
201 Professional Office		\$	2.40
202 Department Store & Retail		\$	2.63
301 Multi-Family		4.04	
302 Mobile Home Park		4.04	
500 Goodyear Resident		4.04	

** Billed Wastewater Usage is assumed to be 80% of billed water usage for all customers except laundries and car wash facilities, which are be billed at 70% of billed water usage and multi-family apartments which are billed at 100% of billed water usage.

IMPACT TO CUSTOMERS

Water					
Usage	Old Bill	New Bill	\$ Increase	% Increase	
0	\$ 11.20	\$ 11.87	\$ 0.67	5.98%	
1	\$ 12.35	\$ 13.08	\$ 0.73	5.91%	
2	\$ 13.50	\$ 14.29	\$ 0.79	5.85%	
3	\$ 14.65	\$ 15.50	\$ 0.85	5.80%	
4	\$ 15.80	\$ 16.71	\$ 0.91	5.76%	
5	\$ 17.63	\$ 18.64	\$ 1.01	5.73%	
6	\$ 19.46	\$ 20.57	\$ 1.11	5.70%	
7	\$ 21.29	\$ 22.50	\$ 1.21	5.68%	
8	\$ 23.12	\$ 24.43	\$ 1.31	5.67%	
9	\$ 25.80	\$ 27.27	\$ 1.47	5.70%	
10	\$ 28.48	\$ 30.11	\$ 1.63	5.72%	
11	\$ 31.16	\$ 32.95	\$ 1.79	5.74%	
12	\$ 33.84	\$ 35.79	\$ 1.95	5.76%	
13	\$ 38.04	\$ 40.24	\$ 2.20	5.78%	
14	\$ 42.24	\$ 44.69	\$ 2.45	5.80%	
15	\$ 46.44	\$ 49.14	\$ 2.70	5.81%	
16	\$ 50.64	\$ 53.59	\$ 2.95	5.83%	
17	\$ 54.84	\$ 58.04	\$ 3.20	5.84%	
18	\$ 59.04	\$ 62.49	\$ 3.45	5.84%	
19	\$ 63.24	\$ 66.94	\$ 3.70	5.85%	
20	\$ 67.44	\$ 71.39	\$ 3.95	5.86%	
21	\$ 71.64	\$ 75.84	\$ 4.20	5.86%	
22	\$ 75.84	\$ 80.29	\$ 4.45	5.87%	
23	\$ 80.04	\$ 84.74	\$ 4.70	5.87%	
24	\$ 84.24	\$ 89.19	\$ 4.95	5.88%	
25	\$ 88.44	\$ 93.64	\$ 5.20	5.88%	

Sewer					
Usage	Old Bill	New Bill	\$ Increase	% Increase	
0	\$ 6.50	\$ 6.89	\$ 0.39	6.00%	
1	\$ 10.32	\$ 10.93	\$ 0.61	5.91%	
2	\$ 14.14	\$ 14.97	\$ 0.83	5.87%	
3	\$ 17.96	\$ 19.01	\$ 1.05	5.85%	
4	\$ 21.78	\$ 23.05	\$ 1.27	5.83%	
5	\$ 25.60	\$ 27.09	\$ 1.49	5.82%	
6	\$ 29.42	\$ 31.13	\$ 1.71	5.81%	
7	\$ 33.24	\$ 35.17	\$ 1.93	5.81%	
8	\$ 37.06	\$ 39.21	\$ 2.15	5.80%	
9	\$ 40.88	\$ 43.25	\$ 2.37	5.80%	
10	\$ 44.70	\$ 47.29	\$ 2.59	5.79%	
11	\$ 48.52	\$ 51.33	\$ 2.81	5.79%	
12	\$ 52.34	\$ 55.37	\$ 3.03	5.79%	
13	\$ 56.16	\$ 59.41	\$ 3.25	5.79%	
14	\$ 59.98	\$ 63.45	\$ 3.47	5.79%	
15	\$ 63.80	\$ 67.49	\$ 3.69	5.78%	
16	\$ 67.62	\$ 71.53	\$ 3.91	5.78%	
17	\$ 71.44	\$ 75.57	\$ 4.13	5.78%	
18	\$ 75.26	\$ 79.61	\$ 4.35	5.78%	
19	\$ 79.08	\$ 83.65	\$ 4.57	5.78%	
20	\$ 82.90	\$ 87.69	\$ 4.79	5.78%	
21	\$ 86.72	\$ 91.73	\$ 5.01	5.78%	
22	\$ 90.54	\$ 95.77	\$ 5.23	5.78%	
23	\$ 94.36	\$ 99.81	\$ 5.45	5.78%	
24	\$ 98.18	\$ 103.85	\$ 5.67	5.78%	
25	\$ 102.00	\$ 107.89	\$ 5.89	5.77%	

Note: sewer rate calculations do not include 80% return factor

MONTHLY BILL CALCULATOR



Residential	Gallons Billed	Current	Proposed
Water	<input type="text" value="9"/>		
Base Fee <input meter"="" type="text" value="3/4"/> <input type="button" value="v"/>		\$ 11.20	\$ 11.87
Volume Charge		14.60	15.40
Sub-Total		25.80	27.27
Sewer (Winter Average)	<input type="text" value="6"/>		
Base Fee		\$ 6.50	\$ 6.89
Volume Charge on 80%	<input type="text" value="5"/>	19.10	20.20
Sub-Total		25.60	27.09
Sanitation		20.00	20.00
Environmental Fee		1.00	1.00
Taxes		2.37	2.51
Total		\$ 54.77	\$ 57.87

Total Bill Change	\$ 3.10
% Bill Change	5.7%
Note: sewer rate calculation includes 80% return factor	



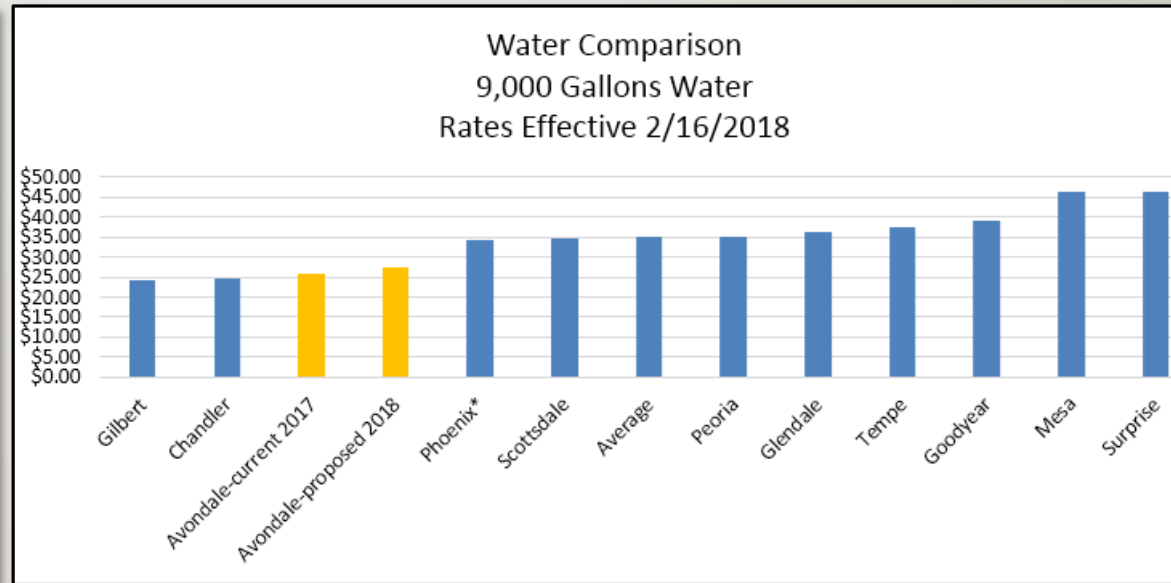
WATER VALLEY-WIDE RATE COMPARISON

9,000 GALLONS/MONTH

City /Town	Water Rate
Gilbert	24.35
Chandler	24.75
Avondale-current 2017	25.80
Avondale-proposed 2018	27.27
Phoenix*	34.36
Scottsdale	34.55
Average	34.96
Peoria	35.00
Glendale	36.42
Tempe	37.56
Goodyear	39.06
Mesa	46.33
Surprise	46.41

Taxes are not included in computations

* Phoenix seasonal charges have been averaged

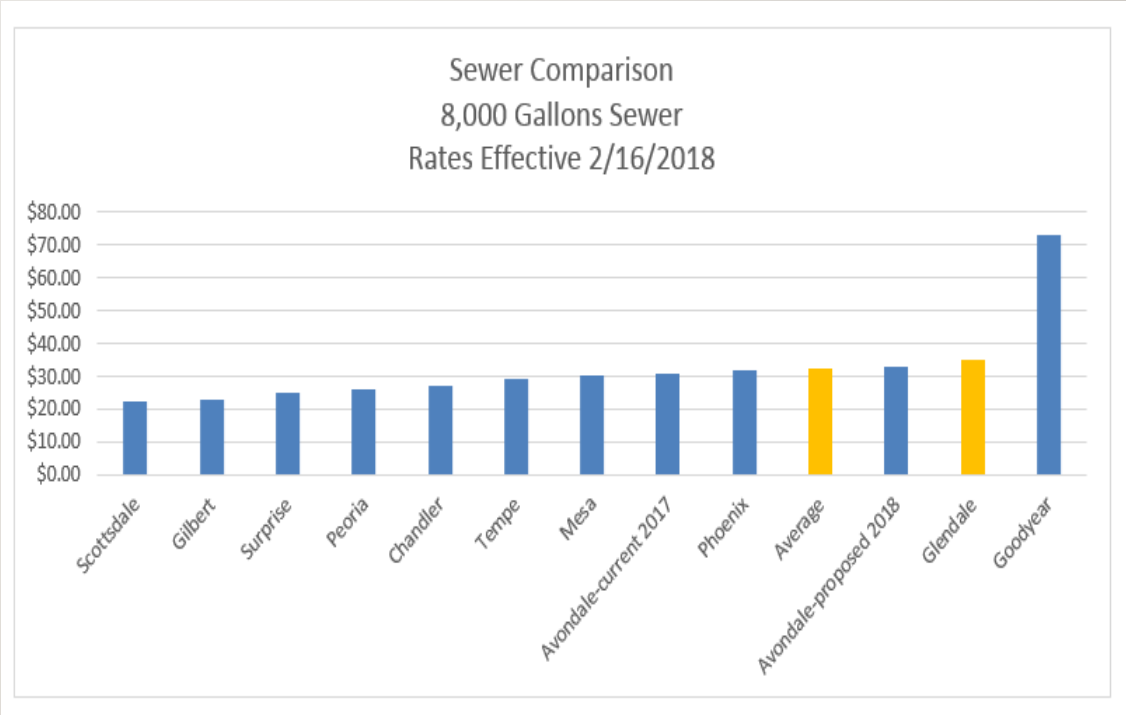


WASTEWATER VALLEY-WIDE RATE COMPARISON

8,000 GALLONS/MONTH

City /Town	Sewer Rate
Scottsdale	22.19
Gilbert	22.84
Surprise	24.78
Peoria	26.26
Chandler	27.32
Tempe	29.44
Mesa	30.49
Avondale-current 2017	30.95
Phoenix	31.96
Average	32.17
Avondale-proposed 2018	32.75
Glendale	34.83
Goodyear	72.85

Taxes are not included in computations
 Computations include return factor where applicable
 Average computation excludes Avondale proposed 2018 rate



TIMELINE

- November 6, 2017 - Notice of Intent (NOI)
- December 17, 2017 – Post written report on Website
- December 20, 2017 – Publish the City’s NOI including date, time, and place of public hearing in newspaper
- January 16, 2018 – Public Hearing
- February 20, 2018 – New Rates Effective

RECOMMENDATIONS

Adopt resolution authorizing a notice of intent to increase water and wastewater user charges and set a public hearing on the proposed increases.

QUESTIONS?

