

2020 Water and Wastewater Rate Study Recommendations

September 17, 2020



Tempe

Making waves in the desert

Council Priorities and Performance Measures



Safe & Secure
Communities



Strong Community
Connections



Sustainable Growth
& Development

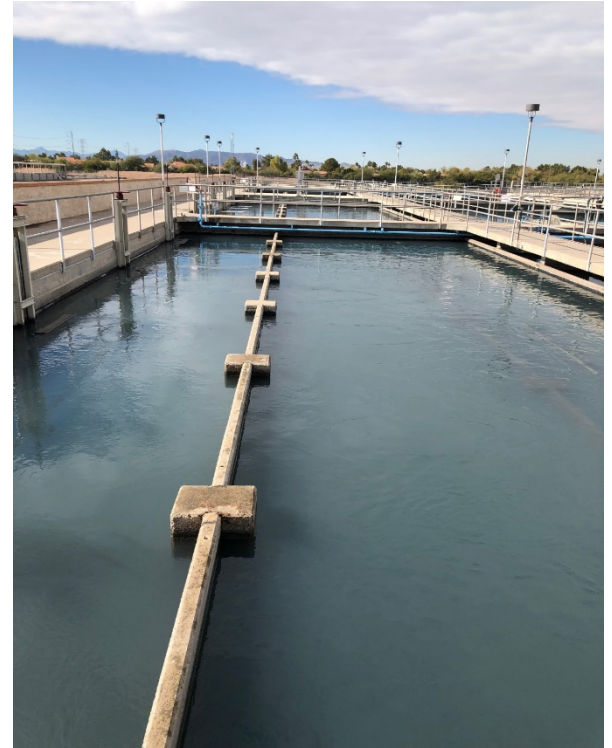


Financial Stability
& Vitality

- 1.13 – Achieve or exceed Safe Drinking Water Act compliance regulations for water quality 100 percent of the time.
- 2.02 – Achieve satisfaction ratings of “Very Satisfied” or “Satisfied” with the “Quality of Customer Service” greater than or equal to the top 10% of the national benchmark cities as measured in the Community Survey.
- 4.03 – Achieve the Council adopted water conservation goal of less than or equal to 110 gallons of residential water use per capita per day.
- 5.01 – Achieve ratings of "Very Satisfied" or "Satisfied" with the "overall level and quality of business services provided by the City of Tempe" greater than or equal to the national benchmark cities as measured in the Business Survey.

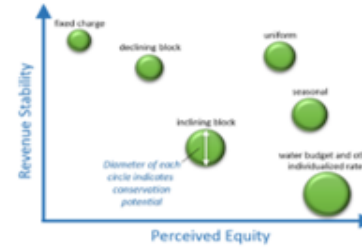
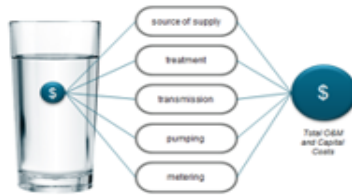
Background and Assumptions

- March 2020 policy guidance
 - Cost-based approach
 - Advanced Metering Infrastructure (AMI)
 - Water conservation and water efficiency
 - Flood irrigation cost recovery





Rate Study Process



Revenue Requirements

- Operating Costs
- Capital Costs
- Financial Policies
 - Debt Coverage
 - Reserves

Cost Allocation

- Evaluate Available Data
- Establish Classes
- Identify Methodology
- Compare Results to Current Revenue

Rate Design

- Evaluate Objectives
- Identify Structures
- Set Parameters
- Customer Impacts

Communication

- Explain Process/Data
- Adjustment Drivers
- National Trends
- Local Practices

Active Stakeholder Participation

Customer Engagement



- Enhance customer input via community stakeholder group
 - Four working sessions
 - Ten members representing multiple customer classifications
- Live public webinar held in June

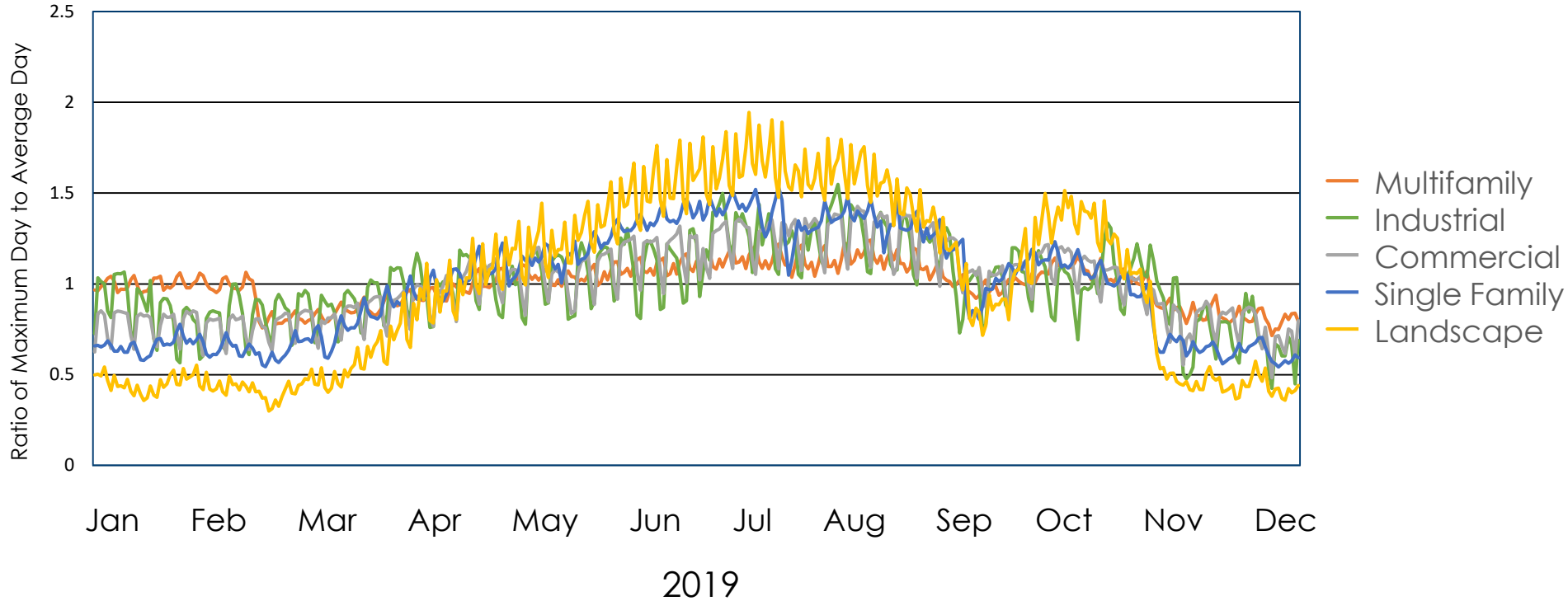
Large Volume Residential Customer Outreach



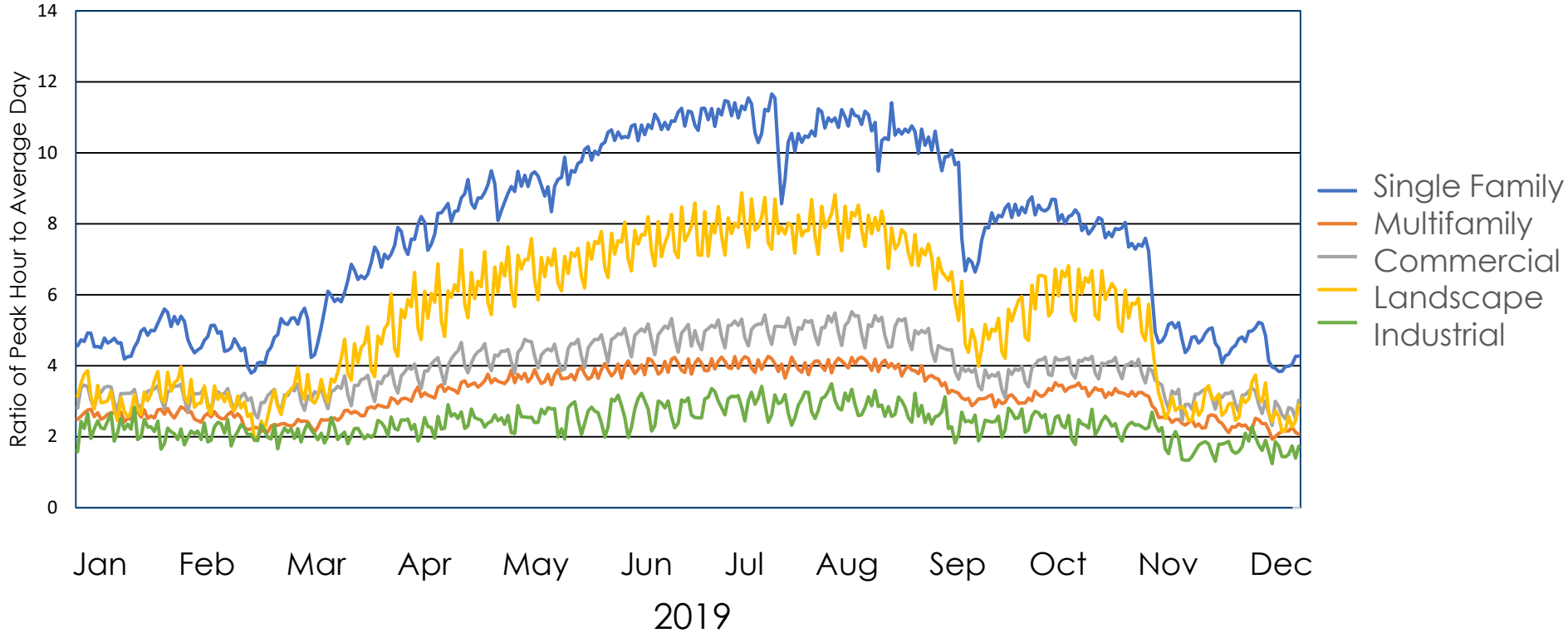
- Approximately 3,346 large volume residential customers (LVRCs) reach Tier 5 water usage for at least one month every year
- 62 customers have enrolled in the Water Efficiency Certification (WEC) Pilot Program
- Pilot program concludes in March 2021



Maximum Day Water Demand Analysis



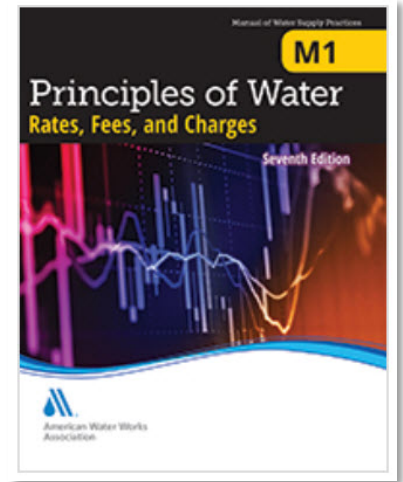
Peak Hour Water Demand Analysis



Rate Study Recommendations



- The water utility requires 5.5 percent revenue increases, annually, over the next 10 years.
 - A single revenue increase will be recommended to Council for adoption.
 - Revenue requirements will be reviewed each year.
- The wastewater utility does not require a revenue increase at this time.
- The flood irrigation program requires a 9.7 percent revenue increase
 - Required to maintain 50 percent cost recovery.



Cost Allocation Adjustments

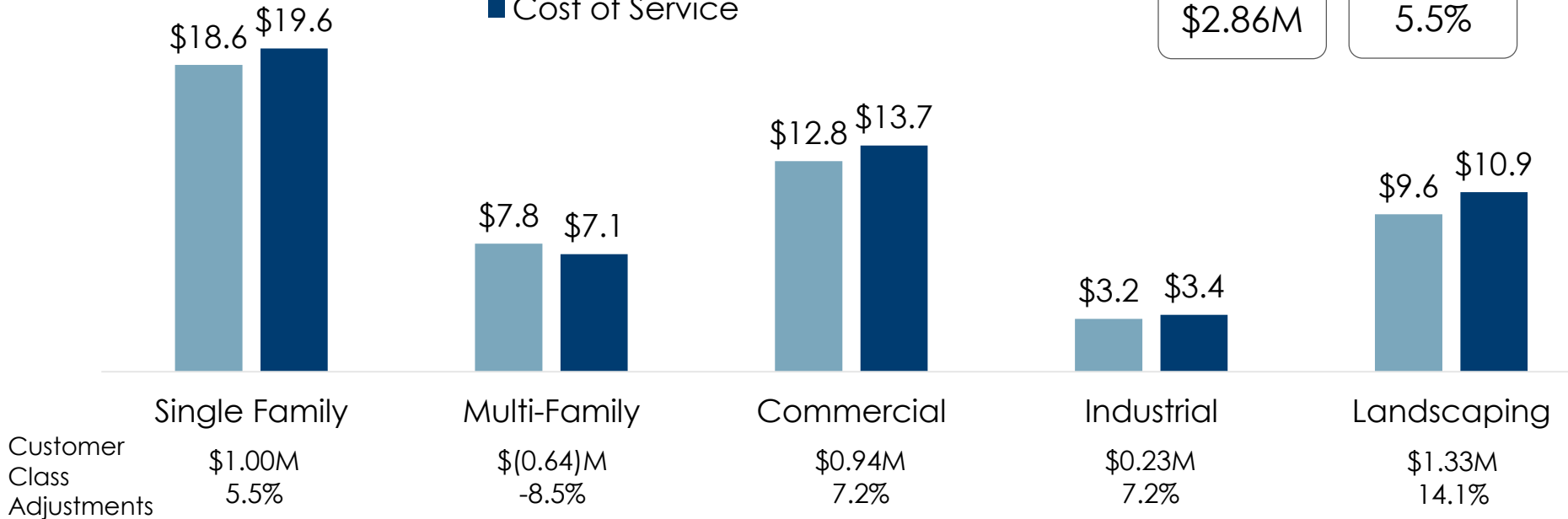


■ Current Revenue
■ Cost of Service

Overall Adjustment

\$2.86M

5.5%



Monthly Service Charge



Meter Size	Current Fixed Monthly Service Charge	Recommended Fixed Monthly Service Charge
5/8"	\$11.50	\$13.15
3/4"	\$15.70	\$14.85
1"	\$23.50	\$22.15
1.5"	\$41.60	\$47.00
2"	\$67.90	\$91.60
3"	\$154.00	\$207.25
4"	\$302.00	\$298.70
6"	\$599.00	\$1,148.55
8"	\$1,400.00	\$2,004.35



Metered Volume Charges For Other Customer Classifications



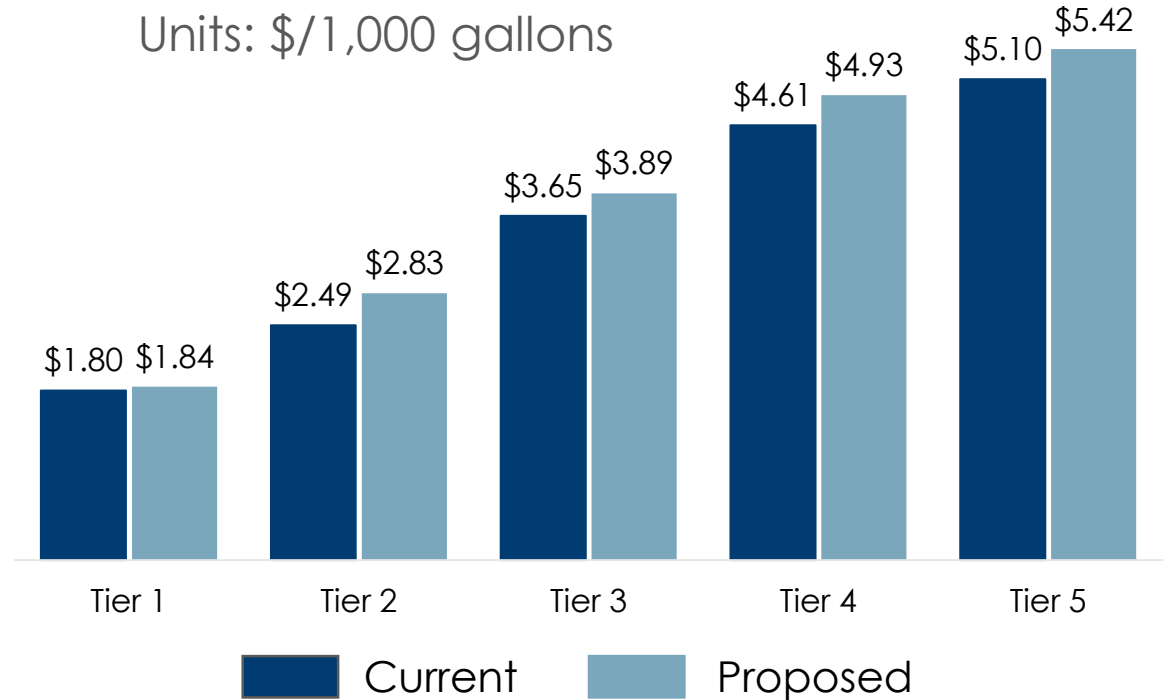
Customer Classification	Current Rate (\$/1,000 gal)	Calculated Rate (\$/1,000 gal)
Multi-Family	\$2.51	\$2.05
Commercial	\$2.59	\$2.65
Industrial	\$2.63	\$2.77
Landscaping	\$3.51	\$3.96
Construction	\$4.07	\$4.07

Single Family Metered Volume Charges



Units: \$/1,000 gallons

	Tier Size (in 1,000 gal)
Tier 1	0-6
Tier 2	7-12
Tier 3	13-20
Tier 4	21-40
Tier 5	40+

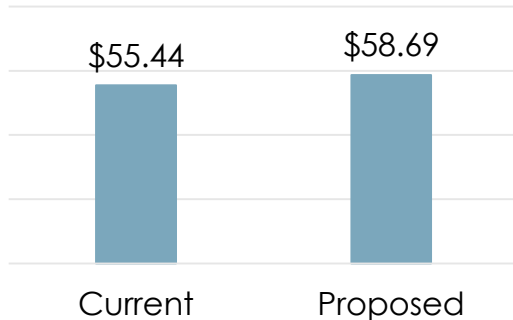


Single Family Monthly Bill Impact

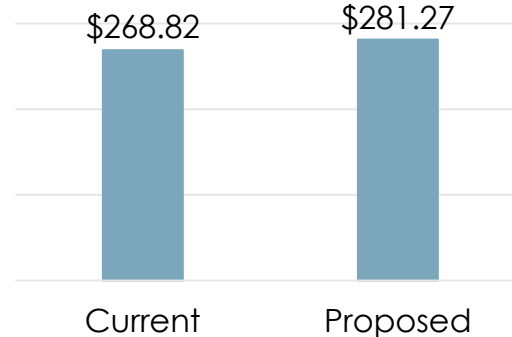


5/8" Meter, 10,000 gallons water,
7,000 gallons wastewater

1" Meter, 50,000 gallons water,
20,000 gallons wastewater



% Change: 5.90%
Total Fixed Change: \$1.65
Metered Volume Change: \$1.60
Total Change: \$3.25

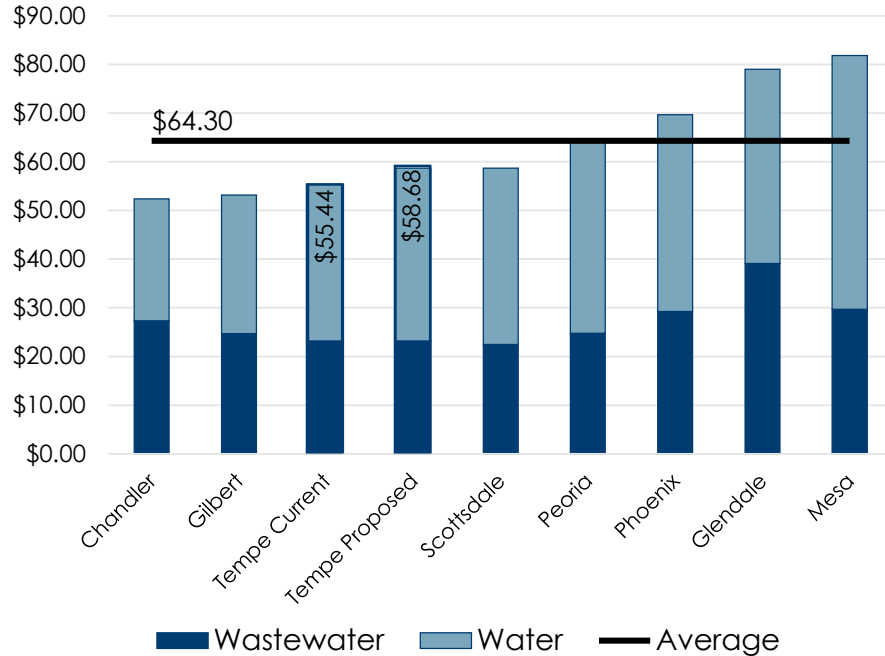


% Change: 4.60%
Total Fixed Change: -\$1.35
Metered Volume Change: \$13.80
Total Change: \$12.45

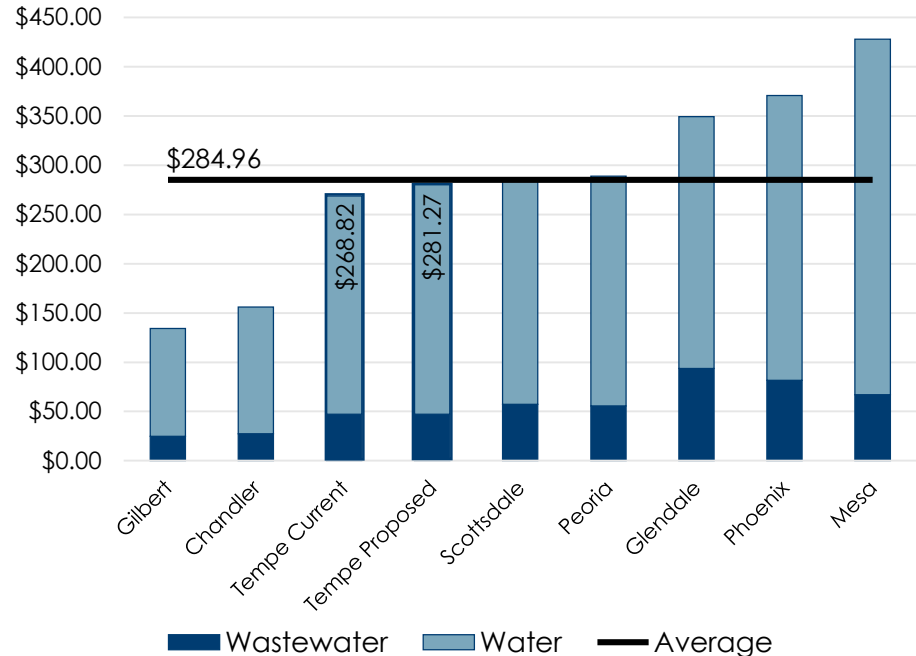
Single Family Monthly Bill Comparison



5/8" Meter, 10,000 gallons water, 7,000 gallons wastewater



1" Meter, 50,000 gallons water, 20,000 gallons wastewater

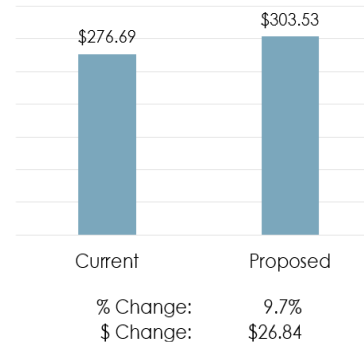


Flood Irrigation Program Revenue Requirements and Impacts

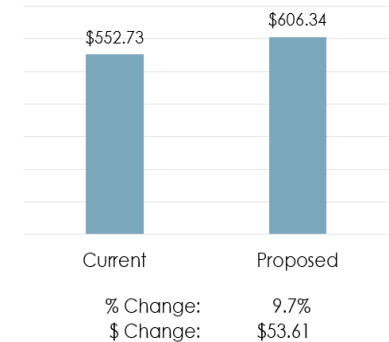


	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Adjustment Factor:	9.7%	2.2%	2.2%	2.2%	2.2%
Revenue					
Flood Irrigation Revenue	\$329,100	\$336,340	\$343,706	\$351,096	\$358,644
Transfer in from GF	\$119,573	\$122,204	\$124,880	\$127,565	\$130,307
Total Revenue	\$448,673	\$458,544	\$468,586	\$478,661	\$488,952
Cost Recovery:	50.0%	50.0%	50.0%	50.0%	50.0%
Expenses					
Capital Expenses	\$261,597	\$261,597	\$261,597	\$261,597	\$261,597
Operating Costs	\$635,948	\$655,027	\$674,677	\$694,918	\$715,765
Total Expenses	\$897,545	\$916,624	\$936,274	\$956,515	\$977,362

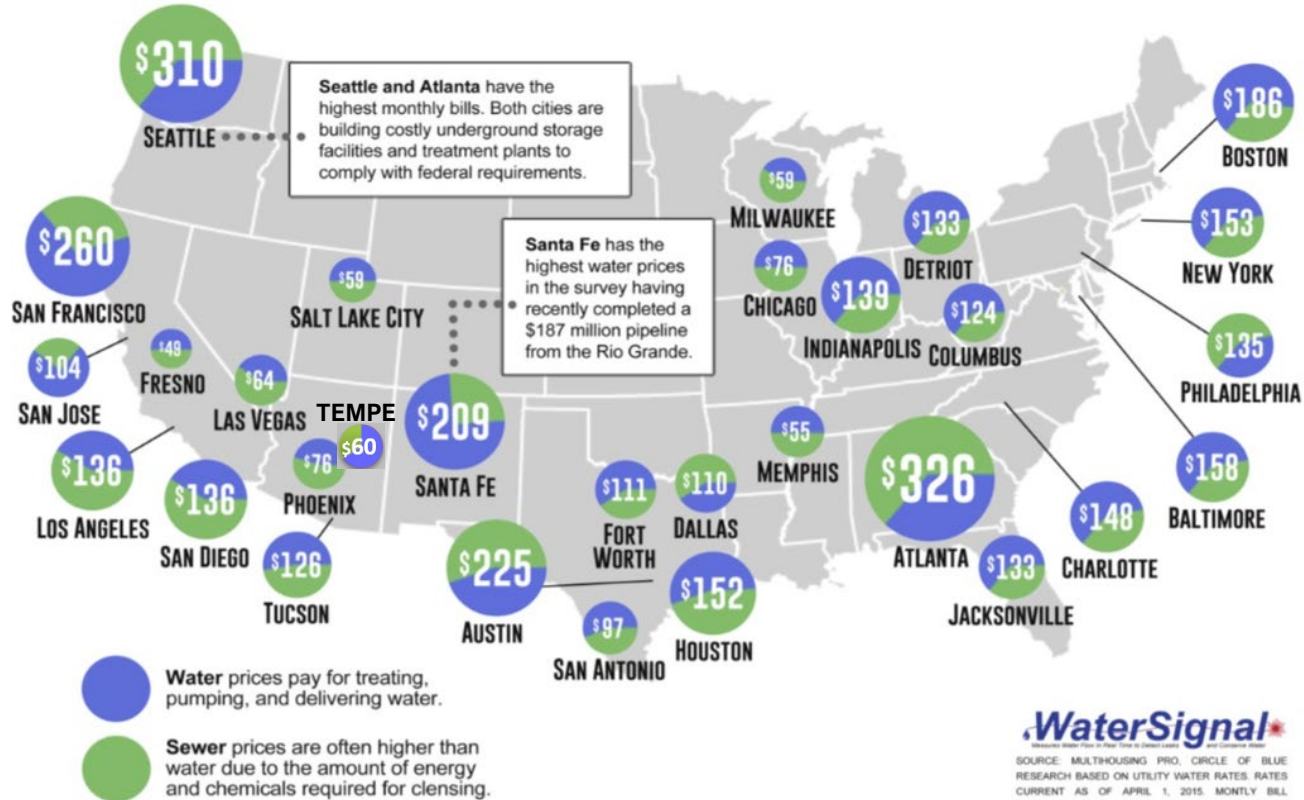
1/2 Acre Lot
Semi Annual Fee



1 Acre Lot
Semi Annual Fee



National Utility Rates Comparison



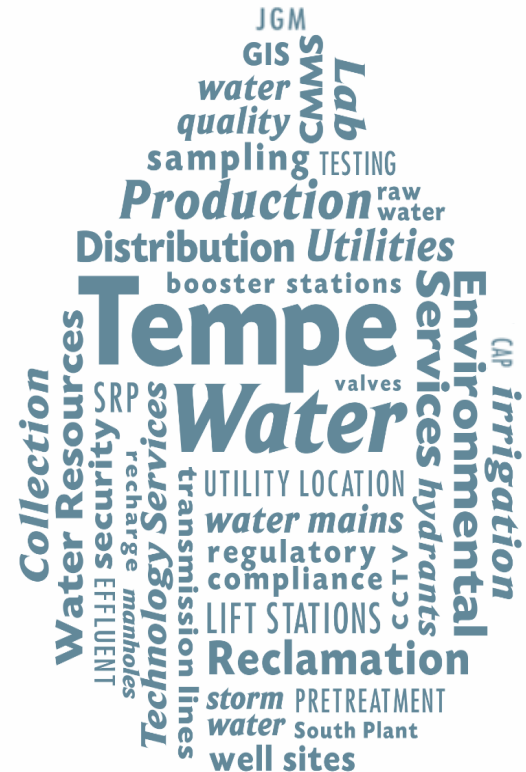
WaterSignal
Measures Water Flow in Real Time to Detect Leaks and Control Water

SOURCE: MULTHOUSING PRO. CIRCLE OF BLUE RESEARCH BASED ON UTILITY WATER RATES. RATES CURRENT AS OF APRIL 1, 2015. MONTHLY BILL CALCULATED FOR A FAMILY OF FOUR USING 100 GALLONS PER PERSON PER DAY.

Summary of Recommendations



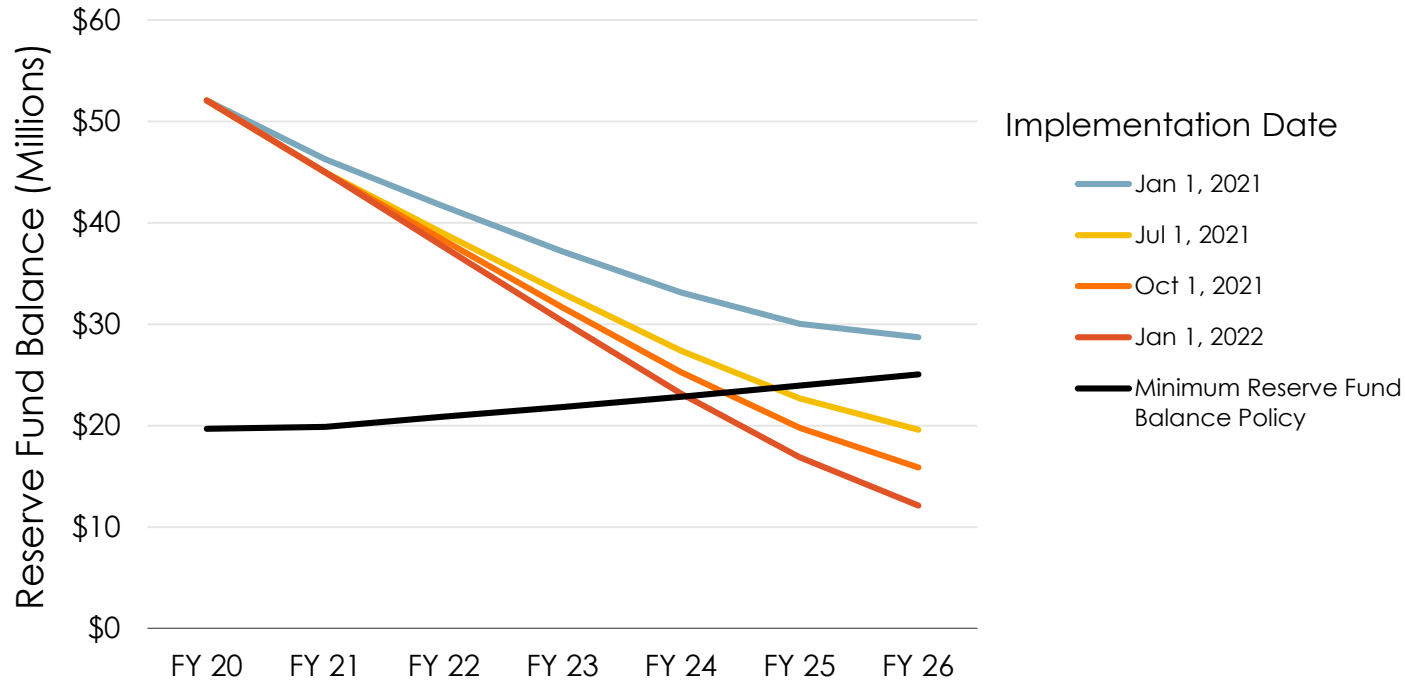
- 5.5 percent annual water revenue increase
- Adjust proportional cost recovery for each customer classification
- Adjust monthly service charge to increase fixed cost recovery
- 9.7 percent flood irrigation revenue increase
 - Required to maintain 50 percent cost recovery.
- No change required in wastewater revenue at this time



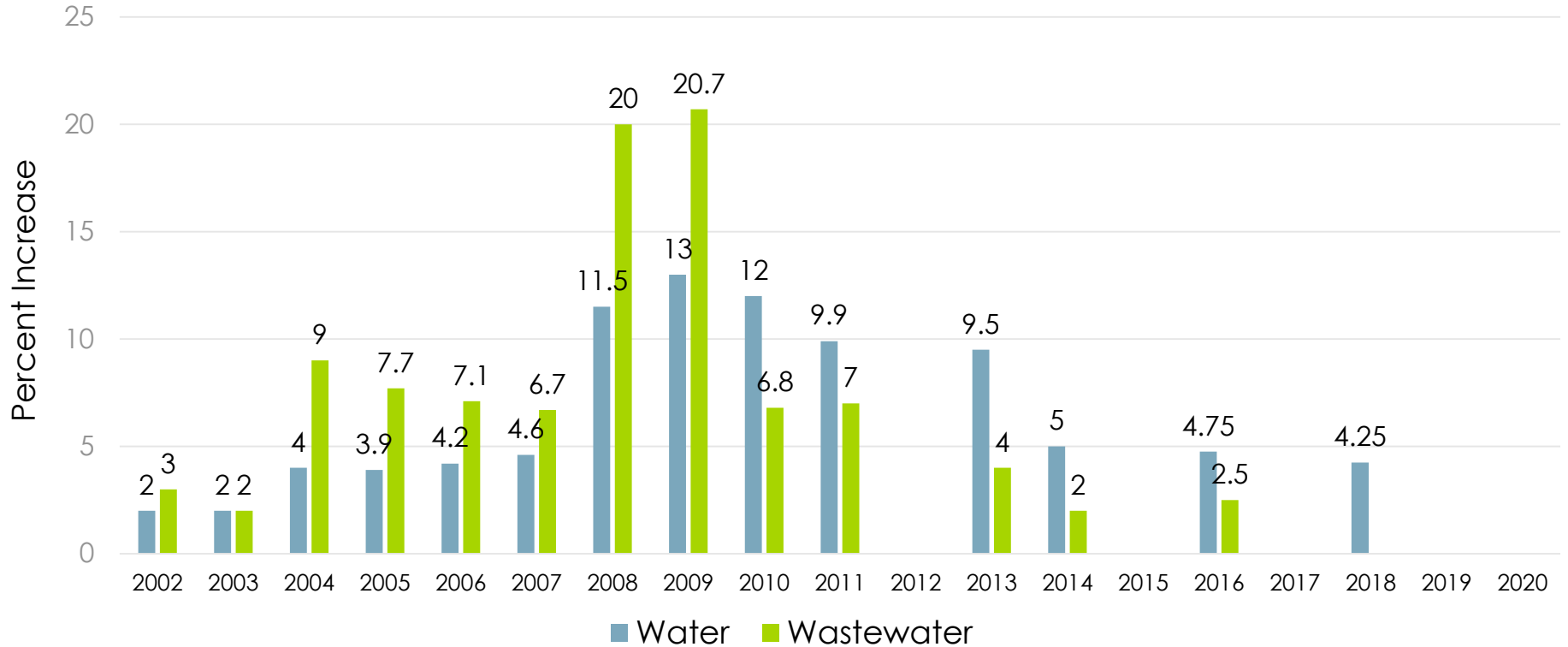
Impact of Delaying Water Revenue Increase



An annual 5.5 percent revenue increase is required, starting in January 2021, to meet forecasted expenses and stay at or above the utility's minimum reserve fund balance



Historical Revenue Increases



Next Steps



- Public outreach
 - Public meeting (live webinar)
 - Neighborhood Advisory and Sustainability Commissions
 - Website, Tempe Today, Wrangler News, social media
- December 3, 2020, Regular Council Meeting, to consider rate adoption
- If adopted as recommended, rate changes would become effective January 4, 2021