

# 2020 Water and Wastewater Rate Study Recommendations

Public Meeting

September 22, 2020



**Tempe**

Making waves in the desert

# Council Priorities and Performance Measures



Safe & Secure  
Communities

- 1.13 – Achieve or exceed Safe Drinking Water Act compliance regulations for water quality 100 percent of the time.



Strong Community  
Connections

- 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.



Sustainable Growth  
& Development

- 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.

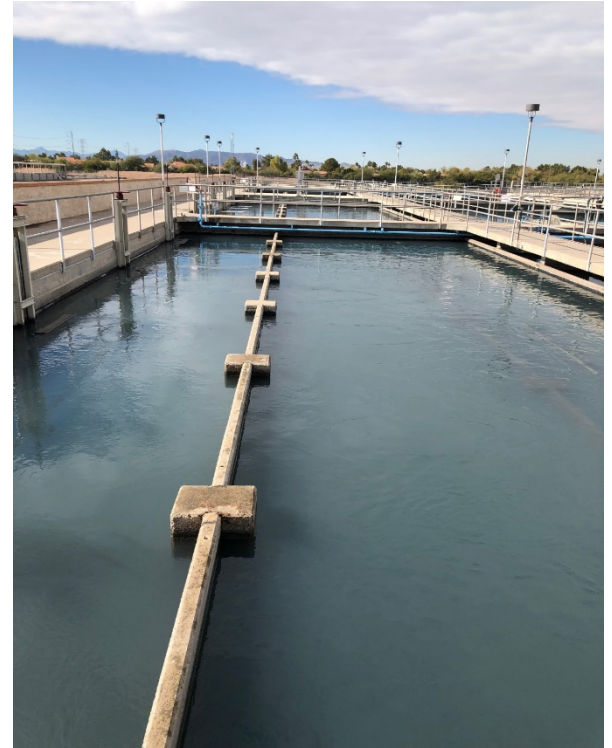


Financial Stability  
& Vitality

- 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.

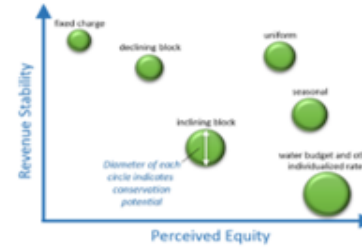
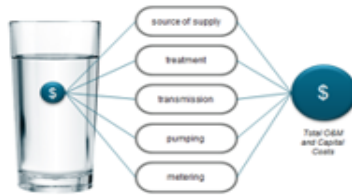
# Background and Assumptions

- 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

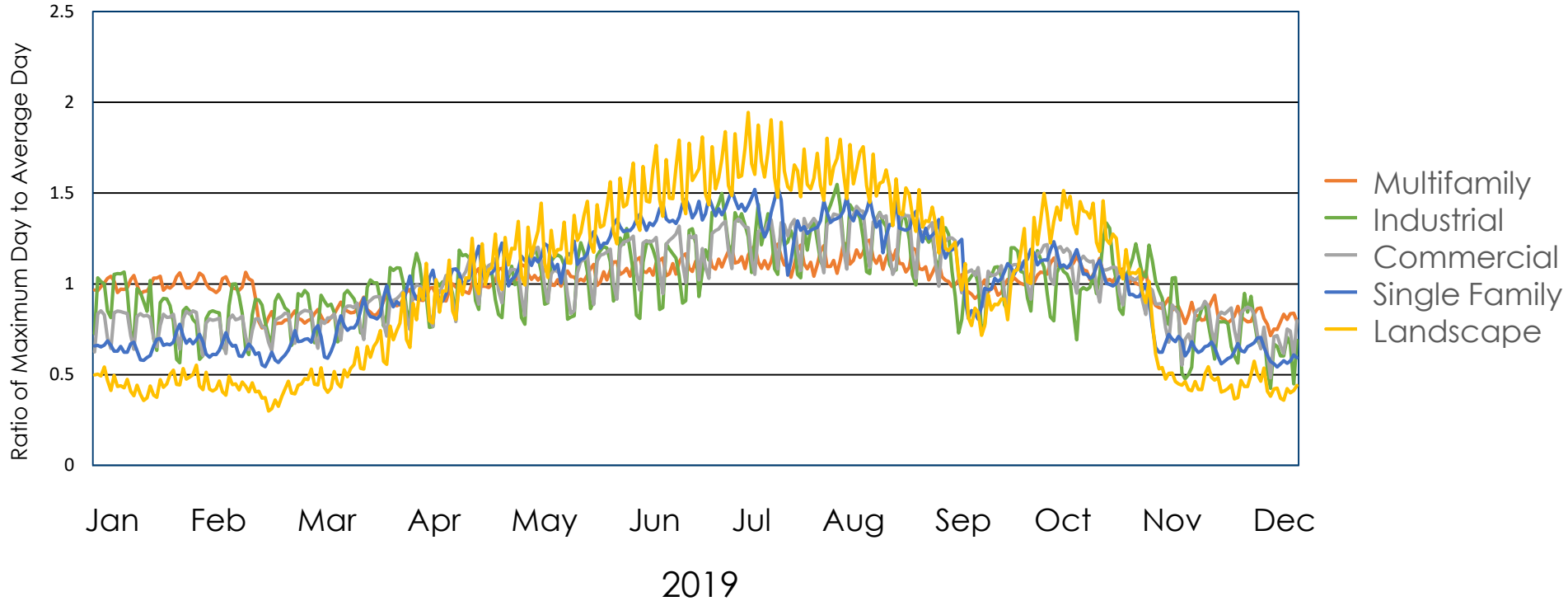
# Large Volume Residential Customer Outreach



- 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

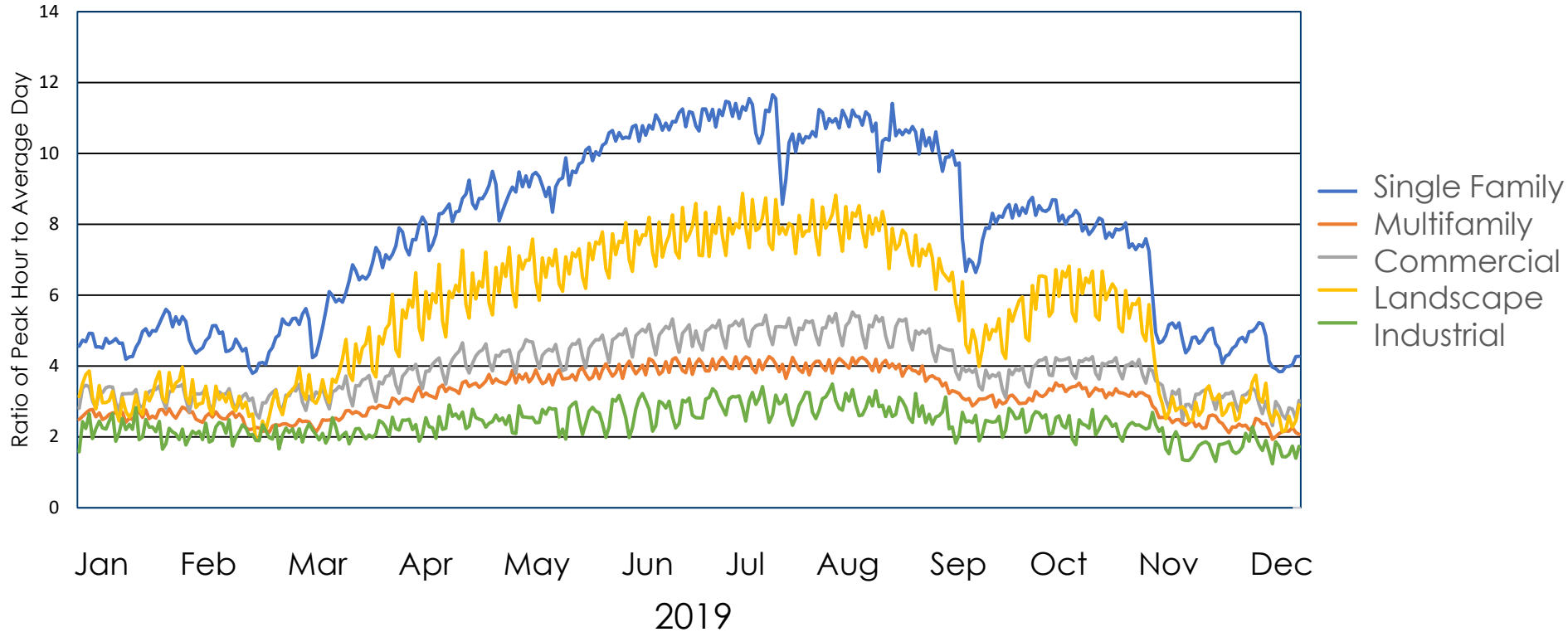


# Maximum Day Water Demand Analysis





# Peak Hour Water Demand Analysis

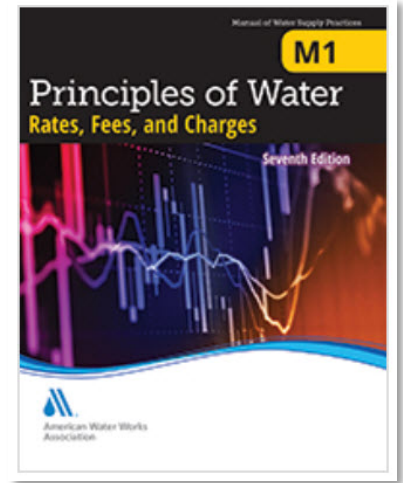




# Rate Study Recommendations



- 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

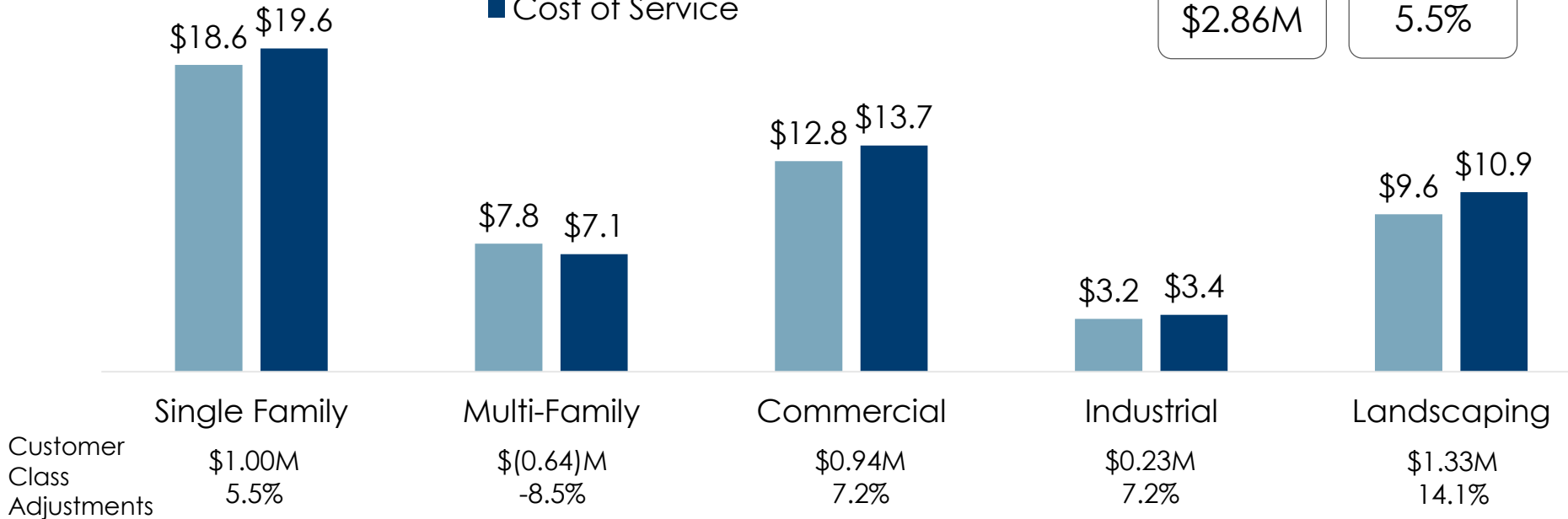


■ Current Revenue  
■ Cost of Service

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



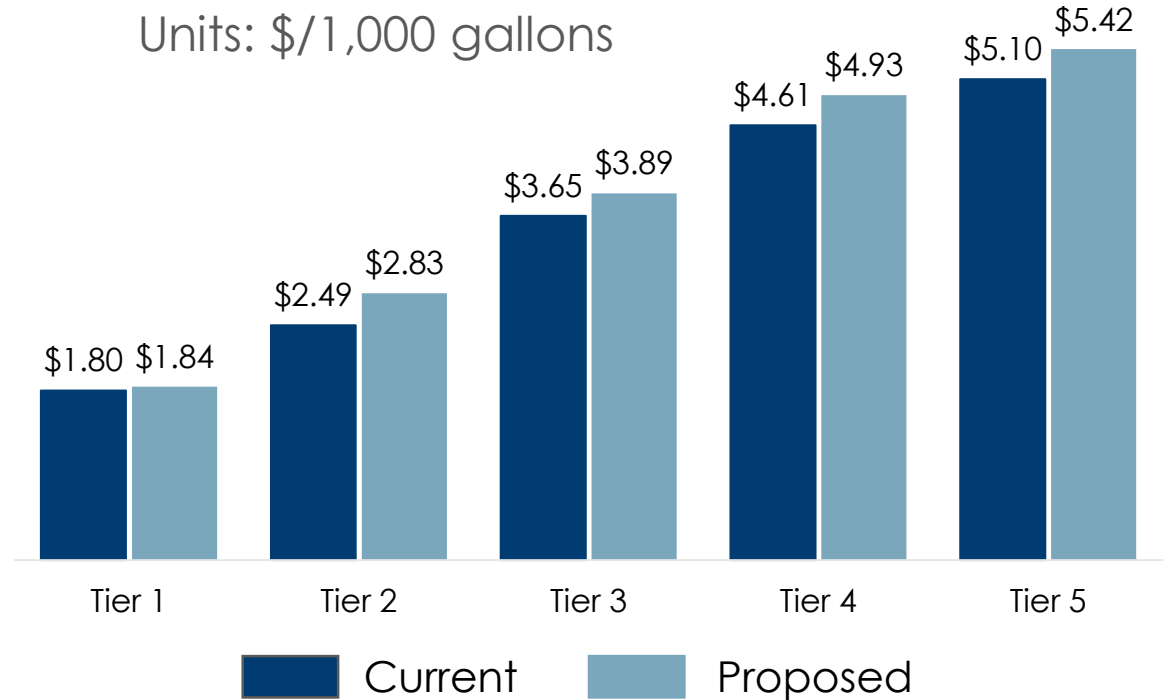
Customer Classification	Current Rate (\$/1,000 gal)	Calculated Rate (\$/1,000 gal)
Multi-Family	\$2.51	\$2.05
Commercial	\$2.59	\$2.65
Industrial	\$2.63	\$2.77
Landscaping	\$3.51	\$3.96
Construction	\$4.07	\$4.07

# 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+

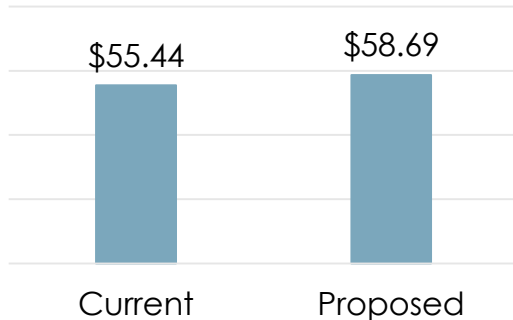


# Single Family Monthly Bill Impact

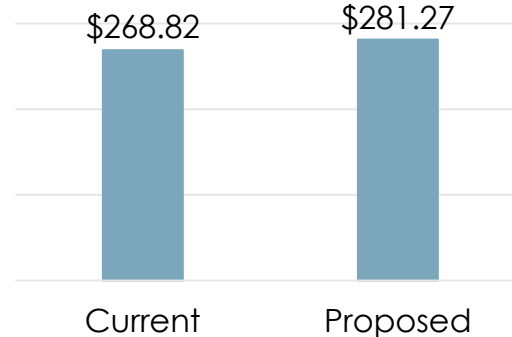


5/8" Meter, 10,000 gallons water,  
7,000 gallons wastewater

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

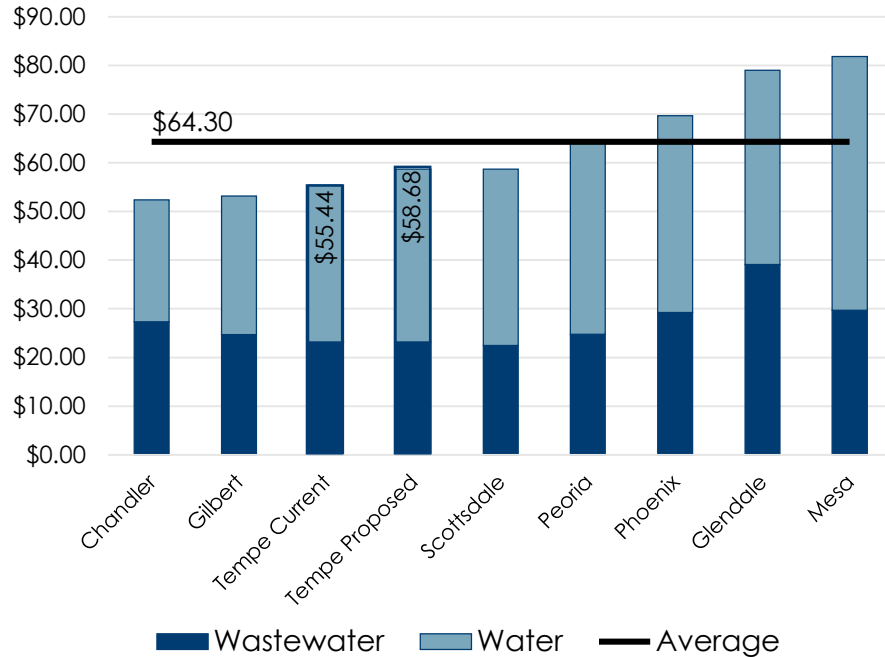


% Change: 4.60%  
Total Fixed Change: -\$1.35  
Metered Volume Change: \$13.80  
Total Change: \$12.45

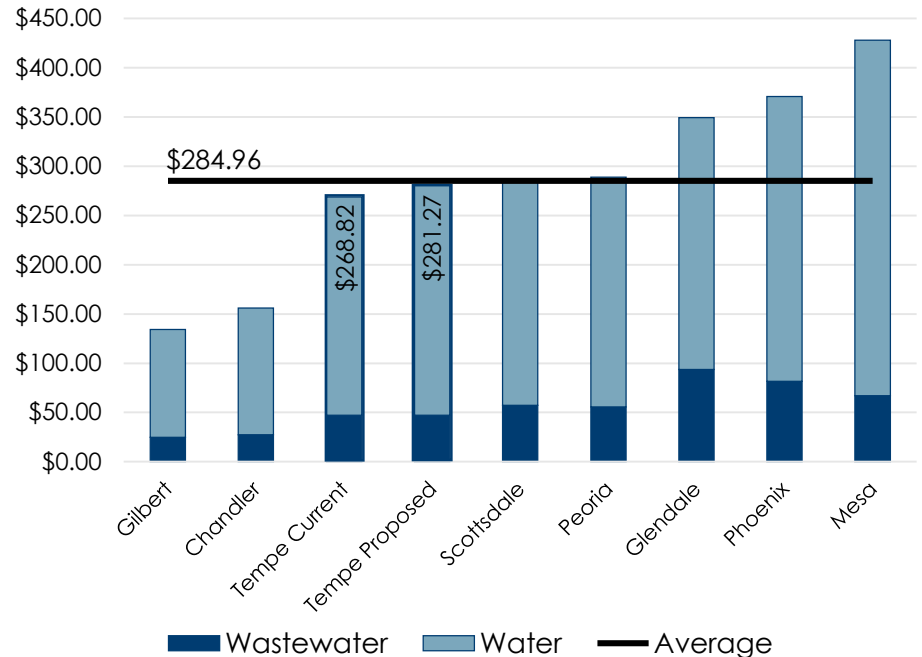
# Single Family Monthly Bill Comparison



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



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

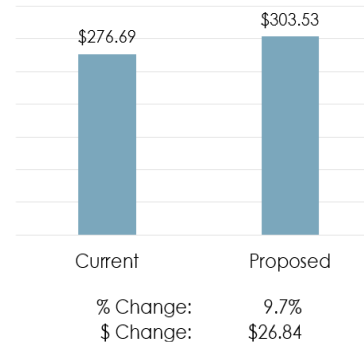


# Flood Irrigation Program Revenue Requirements and Impacts

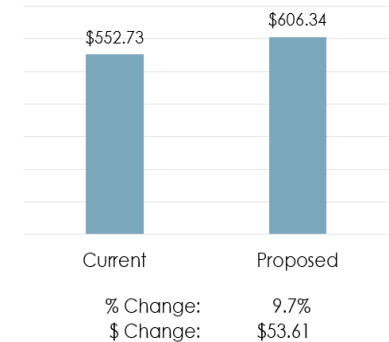


	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Adjustment Factor:	9.7%	2.2%	2.2%	2.2%	2.2%
<b>Revenue</b>					
Flood Irrigation Revenue	\$329,100	\$336,340	\$343,706	\$351,096	\$358,644
Transfer in from GF	\$119,573	\$122,204	\$124,880	\$127,565	\$130,307
<b>Total Revenue</b>	<b>\$448,673</b>	<b>\$458,544</b>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

1/2 Acre Lot  
Semi Annual Fee

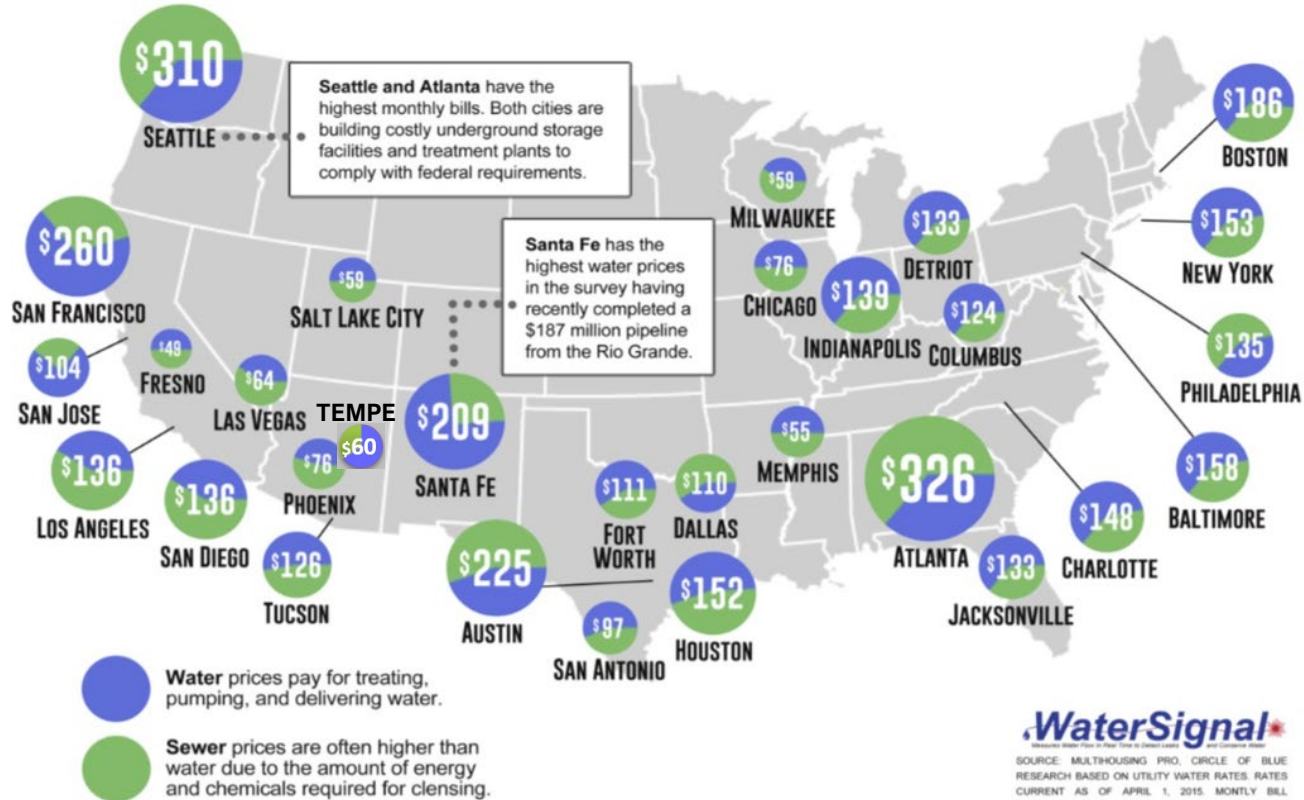


1 Acre Lot  
Semi Annual Fee





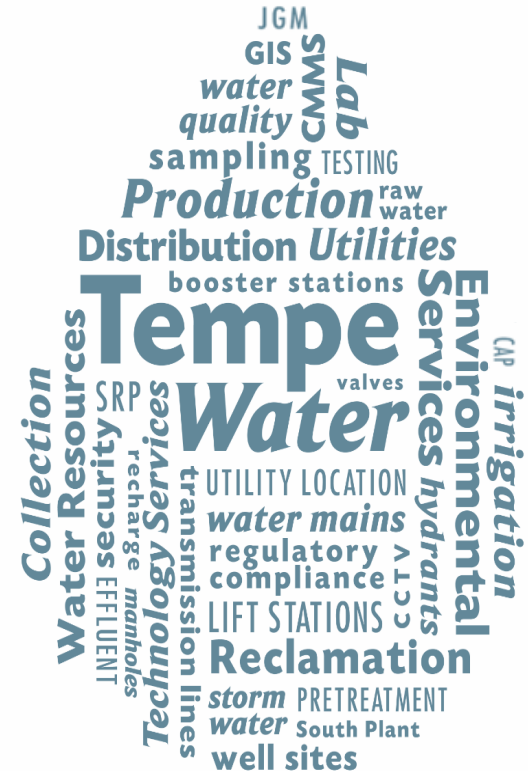
# National Utility Rates Comparison



# Summary of Recommendations



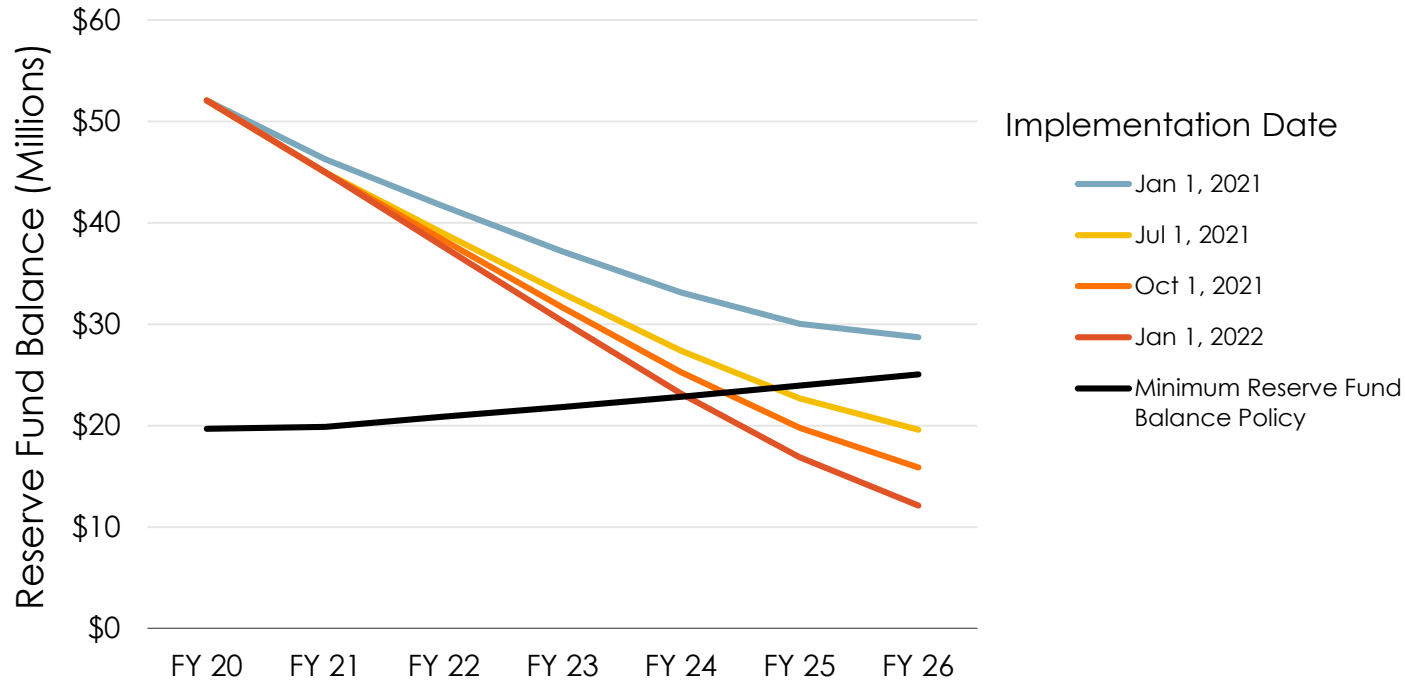
- 5.5 percent annual water revenue increase
- Adjust proportional cost recovery for each customer classification
- Adjust monthly service charge to increase fixed cost recovery
- 9.7 percent flood irrigation revenue increase
  - Required to maintain 50 percent cost recovery.
- No change required in wastewater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



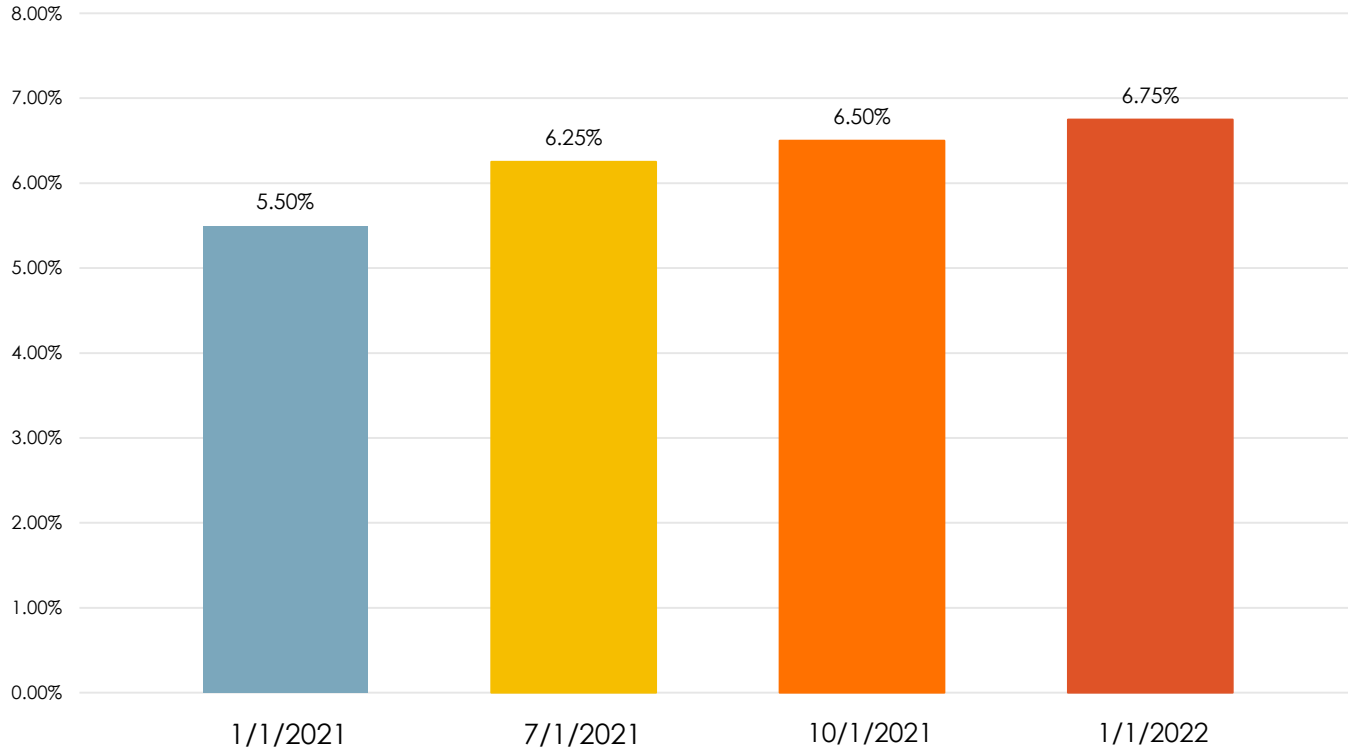
# Impact of Delaying Water Revenue Increase on Minimum Reserve Fund Balance



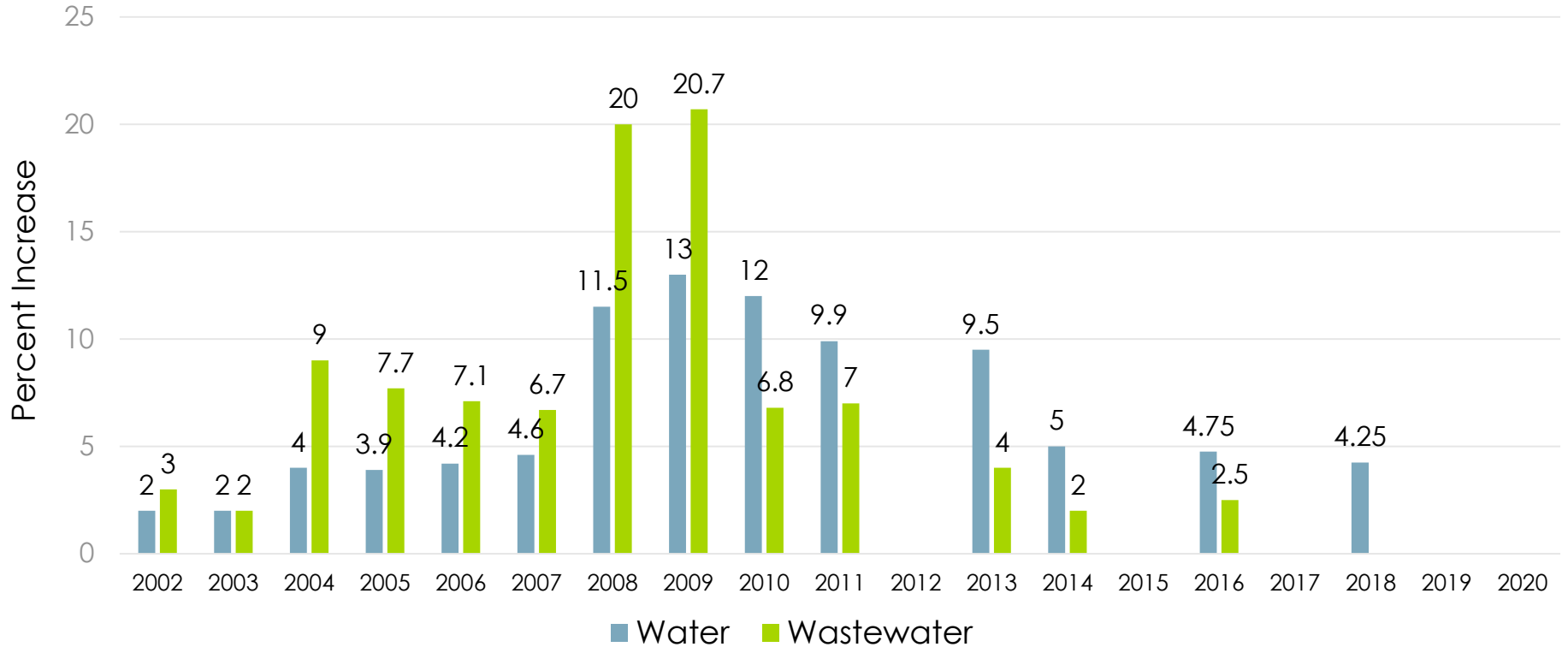
An annual 5.5 percent revenue increase is required, starting in January 2021, to meet forecasted expenses and stay at or above the utility's minimum reserve fund balance



# Future Revenue Increases to Maintain Minimum Reserve Fund Balance Policy



# Historical Revenue Increases



# Next Steps



- Public outreach
  - Public meeting (live webinar)
  - Neighborhood Advisory Commission
  - 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