

# Surprise Stormwater Utility

Water Resource Management  
Department  
London Lacy,  
Storm Water Program Analyst



# Agenda

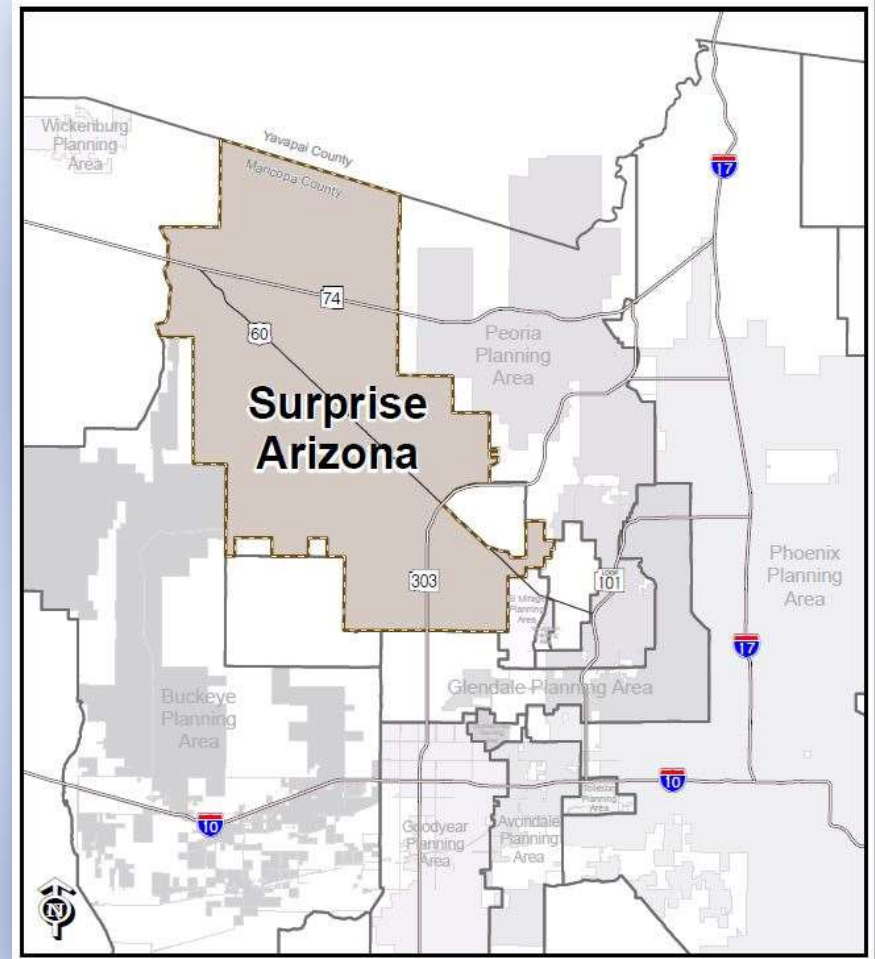


- Stormwater Background
- Funding Options
- Financial Analysis Results
- Comparative rates
- Next Steps

# City of Surprise



- Municipal planning area 300 square miles
- Current City boundary 72 square miles, mostly in the Agua Fria Watershed



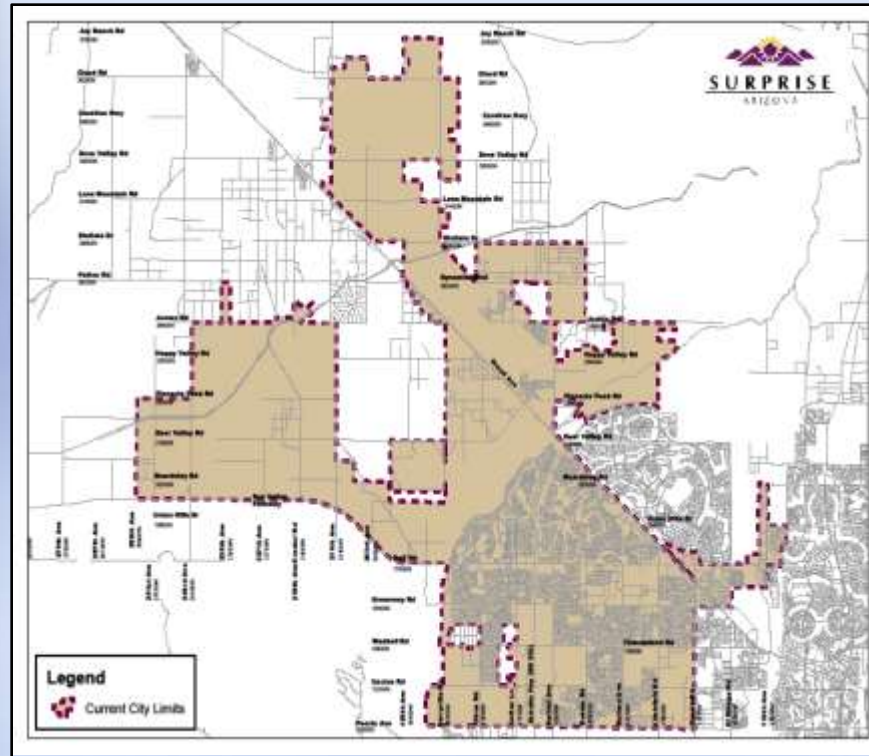
# City Stormwater System



- Stormwater conveyance is provided by
  - Streets
  - Pipes
  - Box culverts
  - Open channels
  - Other conveyance
- Stormwater is conveyed to
  - Retention basins
  - Parks
  - Washes
- The system is made up of
  - 605 miles of streets
  - 143+ miles of storm drains, culverts, & other facilities



# Stormwater Problem Areas



Localized  
Flooding



# Water Quality Regulations



- 1972 Clean Water Act
  - National (EPA) Pollutant Discharge Elimination System (NPDES) Permit Requirements
  - Administered by the AZ Department of Environmental Quality (ADEQ)
  - AZPDES requirements as a Municipal Separate Storm Sewer System (MS4)
  - City Stormwater Management Plan (SWMP)
- City Ordinance 2012-06, adopted 5/8/2012, resulted in
  - City Code Section Chapter 58 (current stormwater program)

# Funding Options Evaluation



	Sufficient \$		Fair & Equitable \$	\$ Dedicated to Stormwater	Reliable \$
	Operations	Capital			
General Fund	●	●	●	●	●
Special Assessments	●	◐	●	●	◐
Special Fees	◐	●	●	●	●
Impact Fees	●	◐	●	●	●
Conventional Debt	●	●	●	●	●
Special Grants & Loans	●	◐	●	●	●
Utility Rates	●	●	●	●	●

● = Yes    ● = No    ◐ = Partial

# The Utility Concept

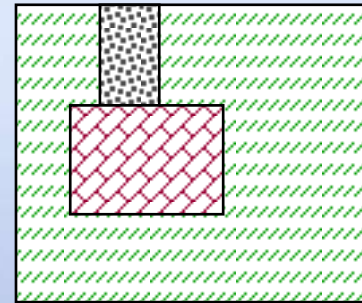


- Stand-alone entity within City government (usually an enterprise or special revenue fund)
- Financially self-sufficient
- Revenues reliable; dedicated for stormwater management
- Revenues can secure debt
- Well suited to meet regulatory pressures (e.g., NPDES)
- Accountable to public (reporting requirements)
- Equitable cost recovery (rate structure)



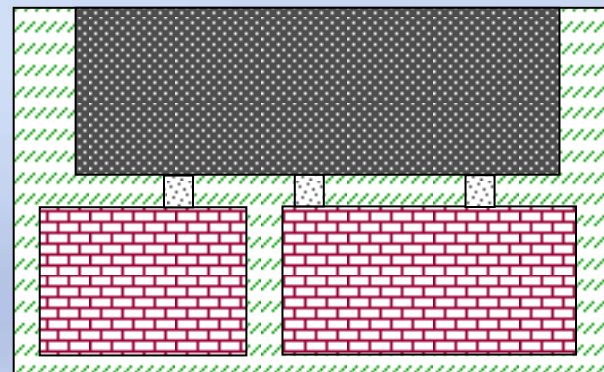
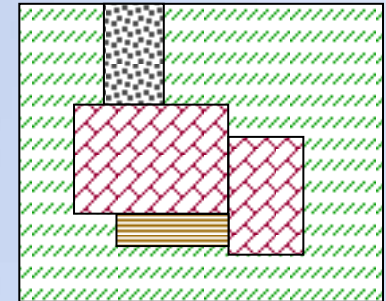
# Proposed Rate Structure

- \$X.XX per Equivalent Dwelling Unit (EDU)
- One EDU = 3,420 square feet of impervious surface area
  - SFRs: One EDU each
  - Non-SFRs: impervious area / 3,420 s.f. = # of EDUs
  - Agriculture: same as Non-SFRs plus chargeable pervious area charged at 10%



**SFR #1**  
2,000 sq ft of  
impervious =  
1 EDU

**SFR #2**  
3,500 sq ft of  
impervious =  
1 EDU



**Non-SFR  
(other)**  
10,260 sq ft  
impervious /  
3,420 sq ft =  
3 EDUs

# Measuring Impervious Area

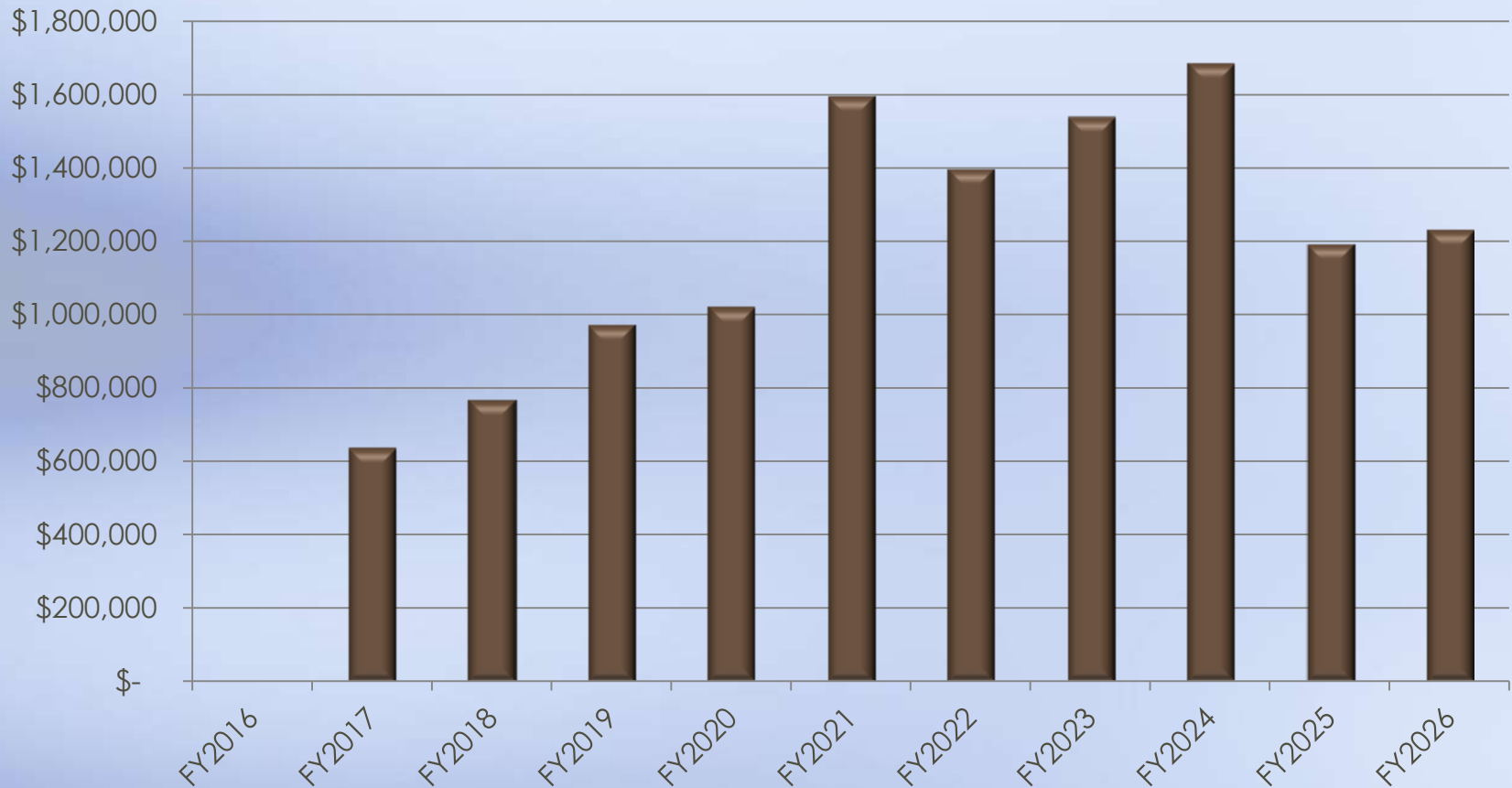


# Key Financial Assumptions



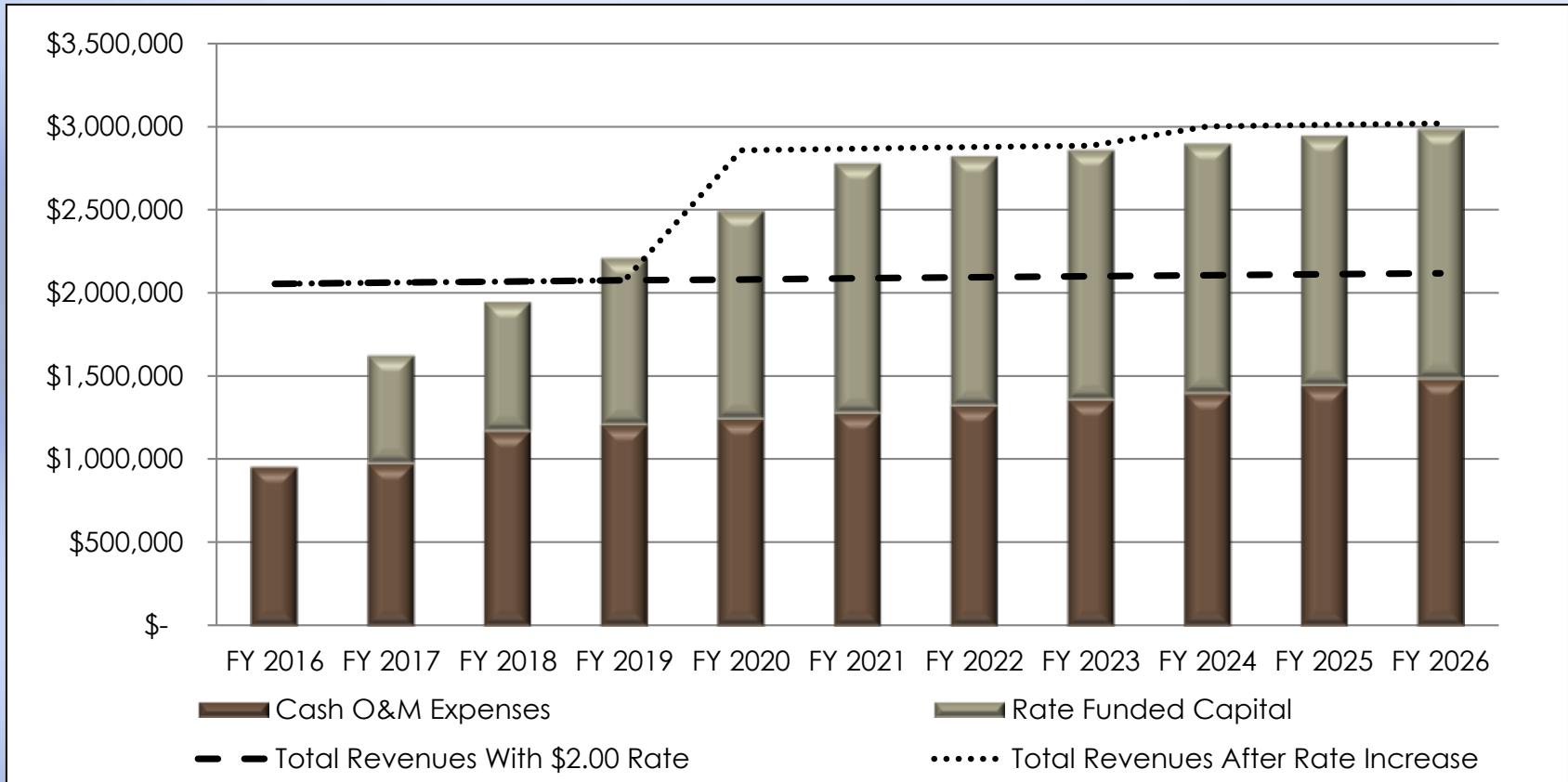
- Study period FY2016 – FY2026
- Annual customer growth: 271 new EDUs per year (0.31%)
- Annual cost escalation
  - General: 3.00%
  - Construction: 3.16%
  - Labor: 3.00%
  - Benefits: 3.00%
- Fiscal policy targets
  - Operating fund balance: 60 days of budgeted operating expenses (\$157K in 2016)
  - Capital fund balance: 2.00% of capital assets (assumed \$200K in 2016)
- Most future operational needs budgeted to begin in FY2016
  - Stormwater operator and stormwater inspector expenses begin in FY2018

# Summary of Capital Needs



- Capital costs through FY2026 total \$12.05 million
- All costs are planned to be rate funded (no debt)

# Financial Analysis Summary



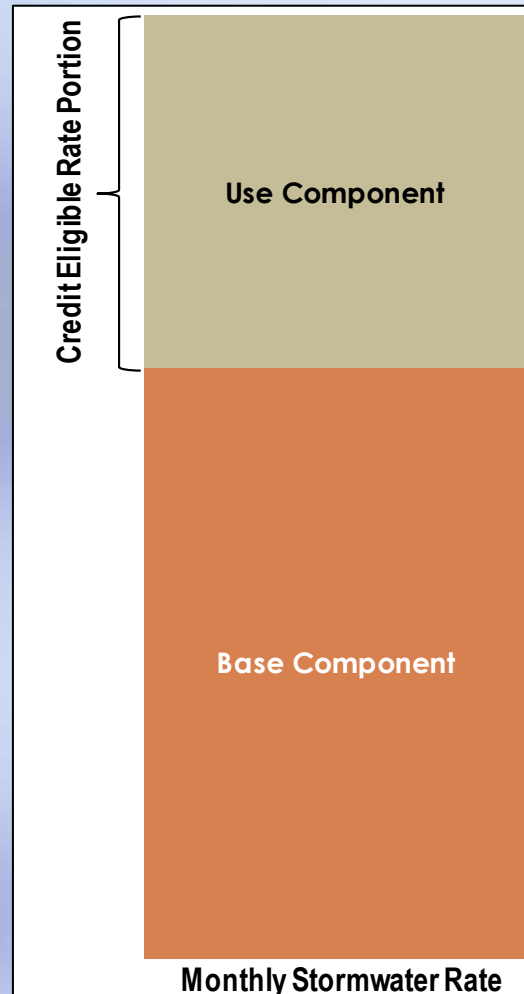
Stormwater Rates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Proposed Increases		0.00%	0.00%	0.00%	37.50%	0.00%	0.00%	0.00%	3.75%	0.00%	0.00%
<b>Monthly Rate per EDU</b>	<b>\$ 2.00</b>	<b>\$ 2.00</b>	<b>\$ 2.00</b>	<b>\$ 2.00</b>	<b>\$ 2.75</b>	<b>\$ 2.75</b>	<b>\$ 2.75</b>	<b>\$ 2.75</b>	<b>\$ 2.85</b>	<b>\$ 2.85</b>	<b>\$ 2.85</b>
Change from Previous Year		\$ -	\$ -	\$ -	\$ 0.75	\$ -	\$ -	\$ -	\$ 0.10	\$ -	\$ -

# Surprise Stormwater Utility



RATE STRUCTURE	
<u>Classification</u>	<u>Rate</u>
Single Family Residential (SFR)	1 EDU
RV Park (@ SFR Rate)	Based on # of Pads
Commercial/Industrial	# EDUs = Impervious Area / 3420 s.f.
Schools/Churches	# EDUs = Impervious Area / 3420 s.f.
Agriculture	# Impervious Area / 3420 s.f. + farmed area x 10% / 3420 s.f.
Undeveloped Land	Exempt

# Commercial Rate Credits



- Commercial customers are eligible for credits of up to 38% of the monthly rate
  - Base component includes expenses that do not change regardless of onsite mitigation
  - Use component includes expenses that decrease with onsite mitigation
- Credits are not available for Residential customers

# Commercial Rate Credits



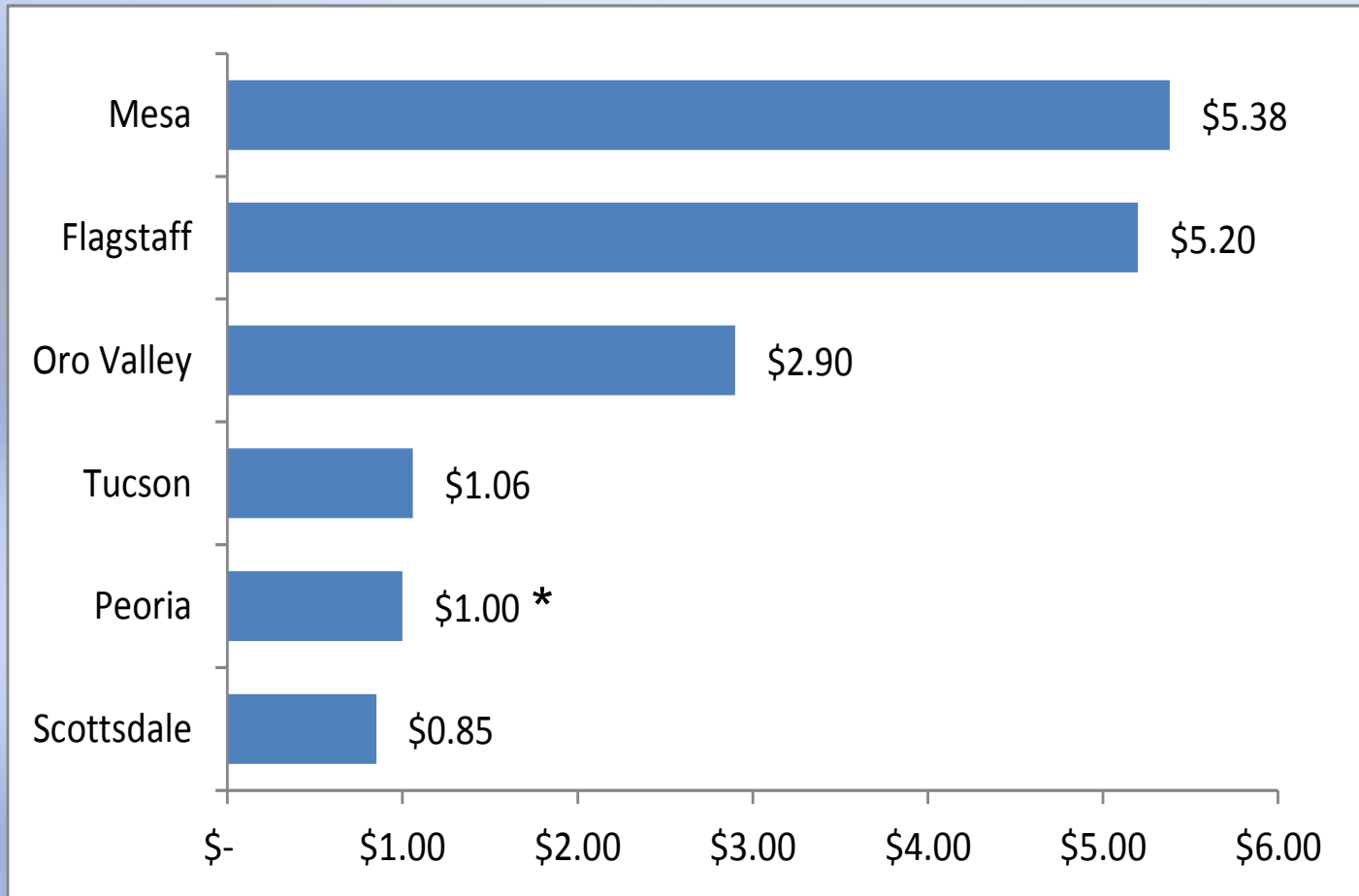
## Commercial Credits

- Customers are eligible for credits of up to 38% of the monthly rate
  - Base Component includes expenses that do not change regardless of onsite mitigation
  - Use component includes expenses that decrease with onsite mitigation
- Customers will be able to apply for reductions

COMMERCIAL CREDITS	
<u>Category</u>	<u>Reduction</u>
Above Standard Improvements – In Place or New Installation	Up to 25% Credit* <small>*Breakdown TBD</small>
Participate in City Sponsored Stormwater Education	13% Credit



# Comparative Rates



*Per account basis*

*Impervious basis*

*Impervious basis*

*Water meter size basis*

*Per account basis*

*Per account basis*

\* Peoria is considering transitioning to an impervious basis

# Questions & Discussion

# Financial Analysis Summary



Revenue Requirement	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
<b>Revenues</b>						
Rate Revenues Under Existing Rates	\$ 2,053,731	\$ 2,059,711	\$ 2,065,691	\$ 2,071,672	\$ 2,077,652	\$ 2,083,632
Non-Rate Revenues	0	2,744	2,802	3,366	2,030	3,575
<b>Total Revenues</b>	<b>\$ 2,053,731</b>	<b>\$ 2,062,455</b>	<b>\$ 2,068,494</b>	<b>\$ 2,075,037</b>	<b>\$ 2,079,682</b>	<b>\$ 2,087,207</b>
<b>Expenses</b>						
Cash Operating Expenses	\$ 953,711	\$ 974,138	\$ 1,170,058	\$ 1,208,636	\$ 1,242,727	\$ 1,277,840
Existing Debt Service	-	-	-	-	-	-
New Debt Service	-	-	-	-	-	-
Rate Funded Capital	-	650,000	775,000	1,000,000	1,250,000	1,500,000
Additions Required to Meet Operating Fund Balance	-	-	-	-	-	-
<b>Total Expenses</b>	<b>\$ 953,711</b>	<b>\$ 1,624,138</b>	<b>\$ 1,945,058</b>	<b>\$ 2,208,636</b>	<b>\$ 2,492,727</b>	<b>\$ 2,777,840</b>
<b>Net Surplus (Deficiency)</b>	<b>\$ 1,100,020</b>	<b>\$ 438,317</b>	<b>\$ 123,435</b>	<b>\$ (133,599)</b>	<b>\$ (413,045)</b>	<b>\$ (690,633)</b>
Additions to Meet Coverage	-	-	-	-	-	-
<b>Total Surplus (Deficiency)</b>	<b>\$ 1,100,020</b>	<b>\$ 438,317</b>	<b>\$ 123,435</b>	<b>\$ (133,599)</b>	<b>\$ (413,045)</b>	<b>\$ (690,633)</b>
<b>% of Rate Revenue</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>6.45%</b>	<b>19.88%</b>	<b>33.15%</b>
<b>Annual Rate Adjustment</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>37.50%</b>	<b>0.00%</b>
<b>Cumulative Annual Rate Adjustment</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>37.50%</b>	<b>37.50%</b>
Rate Revenues After Rate Increase	\$ 2,053,731	\$ 2,059,711	\$ 2,065,691	\$ 2,071,672	\$ 2,856,771	\$ 2,864,994
Additional Taxes from Rate Increase	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Cash Flow After Rate Increase</b>	<b>1,100,020</b>	<b>438,317</b>	<b>123,435</b>	<b>(133,599)</b>	<b>366,074</b>	<b>90,729</b>
Coverage After Rate Increases	n/a	n/a	n/a	n/a	n/a	n/a
Sample Residential Monthly Bill	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.75	\$ 2.75
Monthly Average Increase (\$)	\$ 2.00	\$ -	\$ -	\$ -	\$ 0.75	\$ -