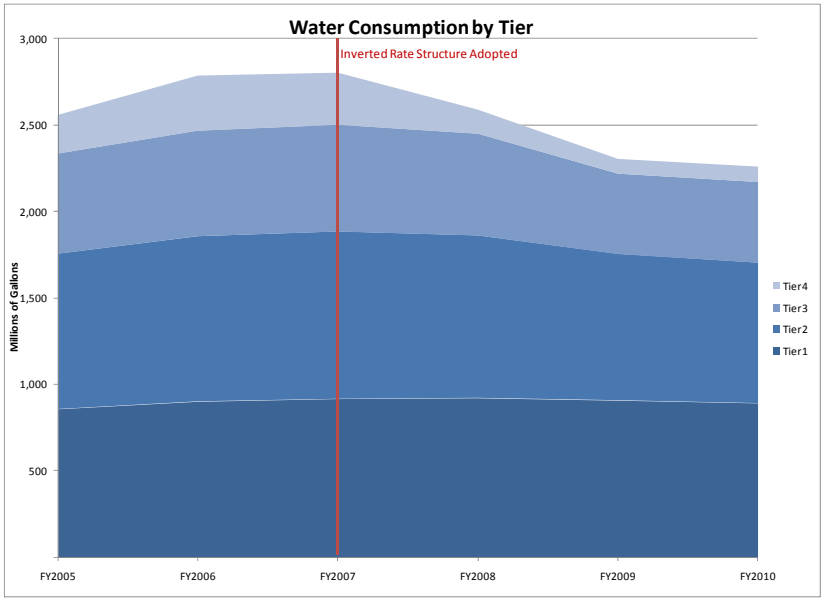
Water & Wastewater Rates - 2010 Update

Introduction

This update and accompanying appendices provide the basis for rate adjustments, and are presented for public information, review, and comment prior to a public hearing on the proposed rates. The report fulfills the requirements of Arizona Revised Statutes (ARS) 9-511.01.

Background



The City of Prescott utilities systems, serving approximately 21,500 water and 17,500 wastewater customers, include infrastructure as old as 120 years. Due primarily to terrain, these systems are as or more complex in configuration and operation than in any other Arizona city. The ages and deterioration of many components throughout the systems, added to the complexity, directly translate to higher capital, operations, and maintenance costs, and in turn, the water and wastewater rates required to fund them.

Each of the City's water and wastewater (sewer) utilities are operated as enterprise funds, meaning that they are effectively separate business units. The only sources of revenue for these individual units are water sales, wastewater charges, and utilities development (impact) fees. No property taxes, fuel taxes, or sales taxes flow into these enterprise funds; and no utilities funds flow out of them for other governmental purposes such as streets, facilities, parks, or public safety.

In 2007 the City adopted an inverted tier water rate structure, also known as a "conservation" rate design, whereby the cost per gallon increases in tiers for higher usage; and implemented an active water conservation program. Together, with the added factor of a recessionary economy, water consumption and the related revenue derived from sales have been significantly reduced (see graph above).

Utilities rate setting is performed periodically, typically at two to three-year intervals, during which capital, maintenance, and operations needs of the systems (costs), as well as revenue

from water sales and wastewater charges, are reviewed in depth. Because the Arizona State Legislature has imposed a two-year moratorium, extending through June 30, 2012, on any adjustments to development (impact) fees intended to recover the capital cost of new capacity in the systems, this update will only address water and wastewater rates and not the development (impact) fees. In general, during the moratorium water and wastewater rates will have to be somewhat higher to offset the cash deficit arising from the frozen impact fees. However, the overall financial effect of the moratorium will be diminished by continuing slow growth, meaning that only a limited number of actual new connections will be made (sold below cost) during the moratorium.

The City contracted with Economists.com to perform an updated rates study which was presented to the City Council in January 2010. Their study was used as the basis for this present update, and is included in Appendix A for reference.

Water and Wastewater Systems Complexity

As mentioned in the background section above, and confirmed by the detailed information below for various smaller municipalities, Prescott's water and wastewater systems are as or more complex in configuration and operation than any others in Arizona. ***The ages and conditions of the City's utilities infrastructure, added to this complexity, are directly driving the funding required to support both ongoing operations, and extensive capital improvements.***

Water Infrastructure Comparison

Location	Miles of Distribution System	Number of Surface Water Treatment Plants	Number of Water Quality Plants / Facilities	Number of High Pressure Stations	Number of Water Tanks / Reservoirs	Number of Pressure Zones	Number of Wells	Number of Booster Stations	Number of Water Connections
Prescott	400+	0	5	1	30	85	7	40	22,043
Flagstaff	415+	1	0	1	12	3	13	4	18,792
Cottonwood	150+	0	1	0	19	24	23	22	11,000
Clarkdale	40+	0	1	0	4	4	3	2	1,780
CV	22	0	0	0	2	2	2	2	520
PV	600	0	0	0	13	25	26	3	17,997
Page	75	0	1	0	2	4	0	1	2,932
Payson	177	0	2	0	12	22	42	12	7,725
Kingman	470+	0	2	0	13	15	17	8	18,519
Sedona	100+	0	2	0	7	7	9	9	6,309
Buckeye	166	1					16	7	9,751

Wastewater Infrastructure Comparison

Location	Number of WWTP's	Miles of Collection System	Number of Lift Stations	Reclaimed Water System	Number of WW Connections
Prescott	2	300+	64	Yes	17,528
Flagstaff	2	270+	0	Yes	18,669
Cottonwood	1	48	5	Yes	5,407
Clarkdale	1	12+	1	Yes	1,081
CV	1	37	0	No	1170
PV	1	240	10	Yes	15,223
Page	1	65	3	Yes	2,610
Payson	1	173+	13	Yes	9307
Kingman	2	200+	2	No	8,888
Sedona	1		16	No	4,800
Buckeye	4	240	3	Yes	9,434

WW = wastewater
WWTP = wastewater treatment plant

Current Rates

Water Rates

The current water rates are comprised of a base rate (flat monthly charge based on meter size) plus a consumption charge, with different rates depending on the quantity of water used in each consumption tier.

In addition to these rates, a flat charge of $0.65 per 1,000 gallons used is made, with the revenue deposited into the Alternative Water Fund to provide a funding mechanism for new water sources.

Water purveyed outside the City limits is subject to a 39% surcharge for customers in unincorporated Yavapai County, and a 30% surcharge for those in the Town of Chino Valley.

Base Charge

Meter Size	Amount	Meter Size	Amount
5/8	$ 6.60	3	$ 19.20
3/4	7.05	4	28.20
1	7.95	6	50.70
1 1/2	10.20	8	77.70
2	12.90		

Consumption Rate

	Single Family	Multi-Family	Non-Residential
Tier 1	$ 2.86	$ 2.30	$ 2.61
Tier 2	4.30	3.46	3.92
Tier 3	6.45	5.19	5.88
Tier 4	12.90	10.39	11.76

Usage by Tier

				Non-Residential in 1,000 of gallons							
		Single Family	Multi-Family (per unit)	5/8" & 3/4"	1"	1 1/2"	2"	3"	4"	6"	8"
Tier1	First	3,000	1,700	6	15	30	48	96	150	300	480
Tier2	Next	7,000	3,300	22	55	110	176	352	550	1,100	1,760
Tier3	Next	10,000	5,000	32	80	160	256	512	800	1,600	2,560
Tier4	Over	20,000	10,000	60	150	300	480	960	1,500	3,000	4,800

Wastewater

The wastewater charges consist of a base charge (flat monthly fee based on customer class) plus a volume charge based on the average monthly winter consumption.

Base Charge

Residential	12.54
Non-Residential	15.18

Volume charge (per 1,000 gals)

Residential	2.71
Uniform Non-Residential	3.89
Hotel w/dining Facilities	4.18
Industrial Laundry	5.01
Market w/Disposal	5.84
Mortuaries	5.84
Restaurants	6.28

Capital Improvement Plan (CIP)

The CIP used in this update is the minimum required to operate and maintain safe, reliable City water and wastewater systems. Debt financing will be required to provide funding in the amounts and timeframes sufficient to accomplish the projects comprising the CIP. The debt financing assumptions used over the six year period are a 20 year term with interest at 4.5%. The rates recommended in this update reflect the revenue necessary to issue and service the debt while maintaining a minimum 1.3 debt ratio [(operating revenues) - (operating expenses other than depreciation & debt service)] / [debt service] for a public offering of a revenue bond. The following is a summary of the capital needs and anticipated debt issuances by year and fund (see CIP appendix B).

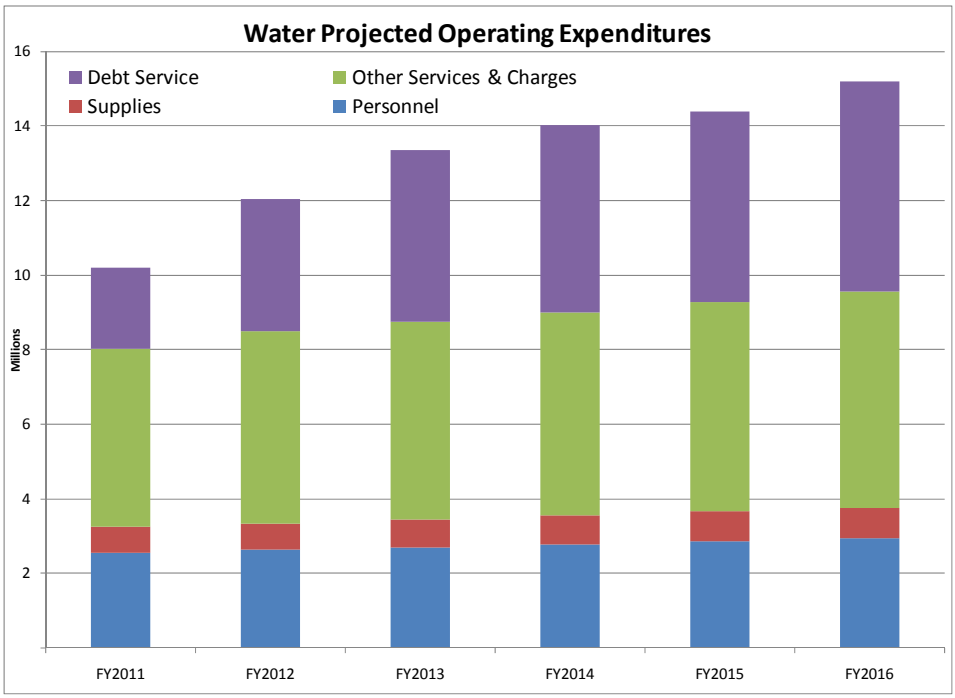
Needed Capital Projects and Anticipated Debt Issues

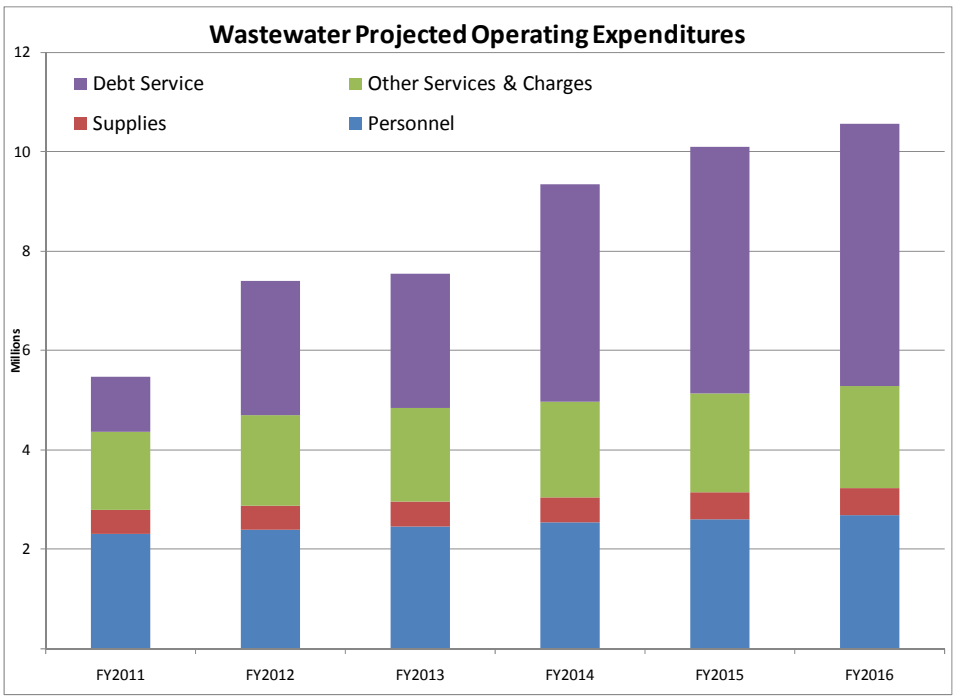
	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Water CIP	$ 30,645,948	$25,865,750	$ 8,371,250	$ 4,176,250	$10,252,250	$ 3,050,250
Wastewater CIP	8,912,961	20,463,000	33,759,000	9,648,000	5,473,000	9,797,000
Total CIP	$ 39,558,909	$46,328,750	$42,130,250	$13,824,250	$15,725,250	$12,847,250
Water Debt	$ 18,238,668	$13,712,000	$ 5,774,000	$ 1,403,000	$ 7,092,000	$ -
Wastewater Debt	35,200,000	-	21,478,000	8,085,000	3,859,000	8,056,000
Total Anticipated Debt Issues **	$ 53,438,668	$13,712,000	$27,252,000	$ 9,488,000	$10,951,000	$ 8,056,000

Note : ** Debt is issued at the beginning of a project even though the expenditures are shown in the year they are projected.

Operating Expenditures

For the purpose of this update, a 3% annual increase in operating expenditures was assumed. Energy (electricity) costs comprise a substantial amount of these expenditures, and will be subject to future increases which cannot be determined at this time. As can be seen from these graphs, the majority of expected growth in expenditures is attributable to the debt service needed to fund the CIP.





Proposed Rates

As discussed earlier the City has seen a reduction in water usage over the last three years. This fact has been taken into account for revenue projection over the six year period covered in the present update. The following rates/increases will be required to generate revenue for operations and maintenance, capital projects, and debt service.

Proposed Water Rates

Monthly Fixed Charge

Meter Size	Meters	Current	3/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015	1/1/2016
5/8" WATER	19,104	6.60	10.60	11.70	12.90	13.50	14.20	14.90
3/4" WATER	17	7.05	11.30	12.40	13.60	14.30	15.00	15.80
1" WATER	1,591	7.95	12.70	14.00	15.40	16.20	17.00	17.90
1 1/2" WATER	283	10.20	16.30	17.90	19.70	20.70	21.70	22.80
2" WATER	442	12.90	20.60	22.70	25.00	26.30	27.60	29.00
3" WATER	49	19.20	30.70	33.80	37.20	39.10	41.10	43.20
4" WATER	28	28.20	45.10	49.60	54.60	57.30	60.20	63.20
6" WATER	13	50.70	81.10	89.20	98.10	103.00	108.20	113.60
8" WATER	3	77.70	124.30	136.70	150.40	157.90	165.80	174.10
TOTAL	21,530							

Water Consumption Charge (per 1,000 gallons)

Residential Single Family

	Current	3/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015	1/1/2016
INCREASE		0%	7%	5%	5%	5%	5%
Tier1	$ 2.86	2.86	3.06	3.21	3.37	3.54	3.72
Tier2	4.30	4.30	4.60	4.83	5.07	5.32	5.59
Tier3	6.45	6.45	6.90	7.25	7.61	7.99	8.39
Tier4	12.90	12.90	13.80	14.49	15.21	15.97	16.77

Residential Multi-Family

	Current	3/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015	1/1/2016
INCREASE		0%	7%	5%	5%	5%	5%
Tier1	$ 2.30	2.30	2.46	2.58	2.71	2.85	2.99
Tier2	3.46	3.46	3.70	3.89	4.08	4.28	4.49
Tier3	5.19	5.19	5.55	5.83	6.12	6.43	6.75
Tier4	10.39	10.39	11.12	11.68	12.26	12.87	13.51

Non-Residential

	Current	3/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015	1/1/2016
INCREASE		0%	7%	5%	5%	5%	5%
Tier1	$ 2.61	2.61	2.79	2.93	3.08	3.23	3.39
Tier2	3.92	3.92	4.19	4.40	4.62	4.85	5.09
Tier3	5.88	5.88	6.29	6.60	6.93	7.28	7.64
Tier4	11.76	11.76	12.58	13.21	13.87	14.56	15.29

Alt-Water Consumption Charge (per 1,000 gallons)

	Current	3/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015	1/1/2016
All Tiers	0.65	0.70	0.80	0.85	0.90	0.95	1.00

In addition to the monthly fixed and consumption charges, an alternative water sources fee ("Alt-Water Consumption Charge" in the table above) is assessed to all City of Prescott water customers. Revenues from this fee are restricted to defray expenses of the City associated with obtaining alternative water sources in order to comply with the groundwater laws of the State.

Proposed Wastewater Rates

Residential	Current	3/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015	1/1/2016
INCREASE		15%	15%	15%	10%	5%	5%
Monthly Base	$ 12.54	$ 14.42	$ 16.58	$ 19.07	$ 20.98	$ 22.03	$ 23.13
Volume Charge	2.71	3.12	3.59	4.13	4.54	4.77	5.01
Non-Residential	**Current**	**3/1/2011**	**1/1/2012**	**1/1/2013**	**1/1/2014**	**1/1/2015**	**1/1/2016**
INCREASE		10%	10%	10%	10%	5%	5%
Monthly Base	$ 15.18	$ 16.70	$ 18.37	$ 20.21	$ 22.23	$ 23.34	$ 24.51
Volume Charge							
Uniform Non-Residential	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Bar w/o Dining Facilities	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Car Wash	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Dept/Retail Stores	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Hospital/Convalescent	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Hotel w/Dining Facilities	4.18	4.28	4.71	5.18	5.70	5.99	6.29
Hotel w/o Dining Facilities	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Laundromat	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Markets w/Garbage Disposal	5.84	5.84	5.84	5.84	5.84	5.99	6.29
Mortuaries	5.84	5.84	5.84	5.84	5.84	5.99	6.29
Professional Offices	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Repair shops/Service Stat	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Restaurants	6.28	6.28	6.28	6.28	6.28	6.28	6.29
Schools and Colleges	3.89	4.28	4.71	5.18	5.70	5.99	6.29

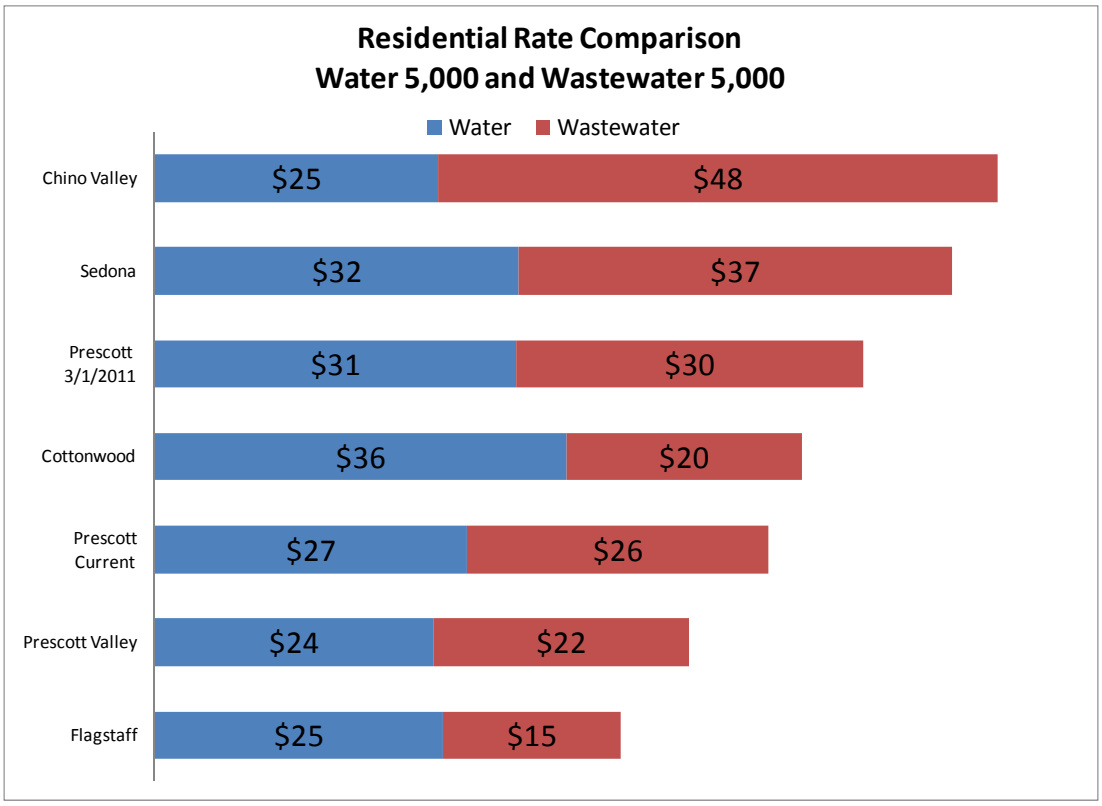
Following are examples of the proposed rates for four different customers.

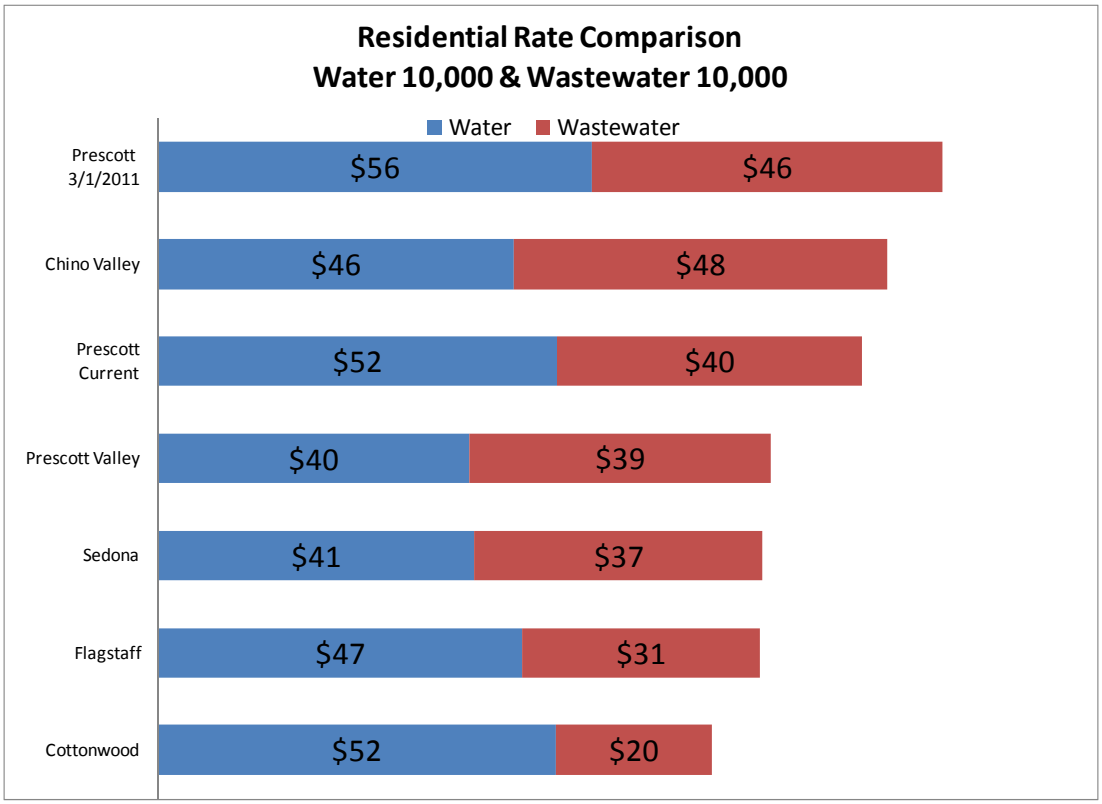
Water and Wastewater Bill Comparison

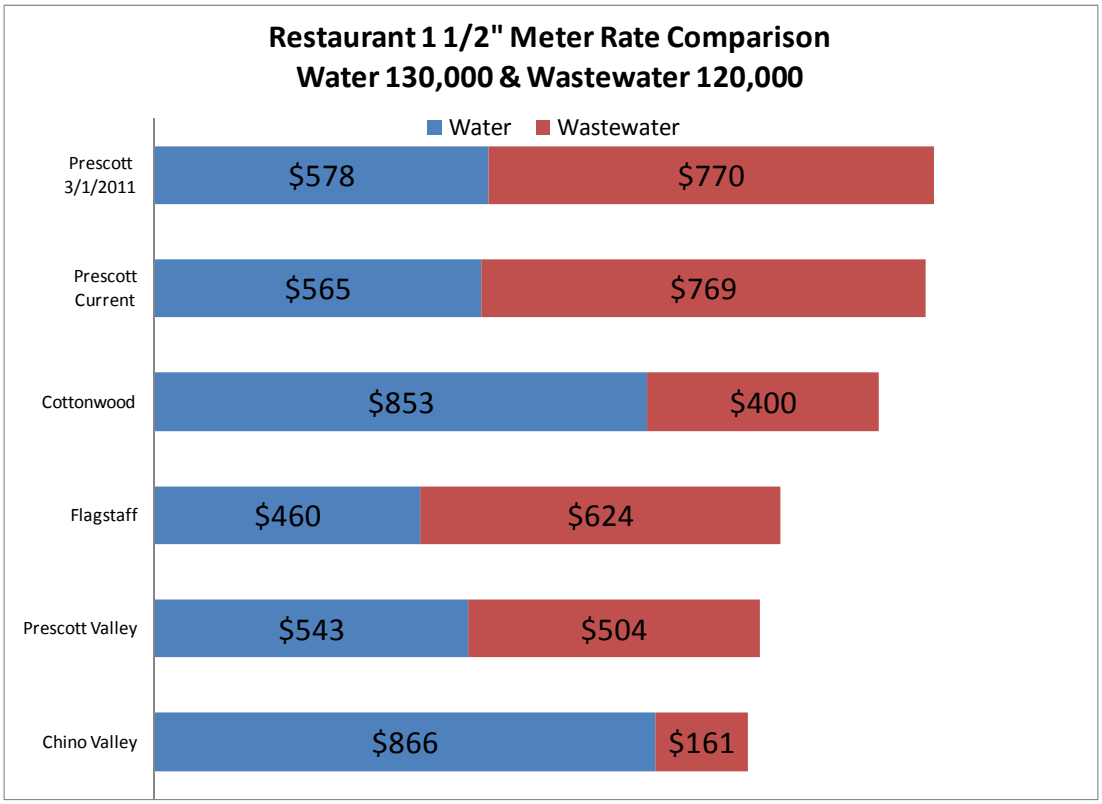
	Usage	Current	3/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015	1/1/2016
Residential								
Water	5,000	27.03	31.28	34.08	36.44	38.25	40.21	42.24
Wastewater	5,000	26.09	30.02	34.53	39.72	43.68	45.88	48.18
Total		53.12	61.30	68.61	76.16	81.93	86.09	90.42
% Inc.			15.4%	11.9%	11.0%	7.6%	5.1%	5.0%
Water	25,000	190.53	195.78	211.08	222.54	233.75	245.56	257.94
Wastewater	15,000	53.19	61.22	70.43	81.02	89.08	93.58	98.28
Total		243.72	257.00	281.51	303.56	322.83	339.14	356.22
% Inc.			5.4%	9.5%	7.8%	6.3%	5.1%	5.0%
Non-Residential								
Restaurant 1 1/2" Meter								
Water	130,000	565.00	577.60	624.60	658.10	692.10	727.10	763.50
Wastewater	120,000	768.78	770.30	771.97	773.81	775.83	776.94	779.31
Total		1,333.78	1,347.90	1,396.57	1,431.91	1,467.93	1,504.04	1,542.81
% Inc.			1.1%	3.6%	2.5%	2.5%	2.5%	2.6%
School/College 4" Meter								
Water	450,000	1,888.20	1,927.60	2,085.10	2,196.60	2,310.30	2,427.20	2,548.70
Wastewater	124,000	497.54	547.42	602.41	662.53	729.03	766.10	804.47
Total		2,385.74	2,475.02	2,687.51	2,859.13	3,039.33	3,193.30	3,353.17
% Inc.			3.7%	8.6%	6.4%	6.3%	5.1%	5.0%

Rate Comparisons with Other Municipalities

The first two of the following graphs are for residential users with different levels of water consumption and wastewater generation; the third graph is for a restaurant.







Conclusion

In summary, the inverted tier water rate structure the Council adopted in 2007 has done what it was designed to do, as evidenced by reduced consumption both in the upper tiers and overall. Accomplishment of infrastructure repair and rehabilitation, ongoing operations and maintenance, and, where applicable, providing new capacity to support reasonable future growth, all require adequate financial resources within the water and wastewater enterprise funds. ***The increases identified in this report were anticipated in the previous rate studies, and are still needed to assure that the City's highly complex and aged water and wastewater systems are rehabilitated and improved to provide adequate, safe, and reliable utilities services.***

Appendix A

City of Prescott

Water and Wastewater

2010 Rate Study Update

Council Presentation

January 2010

City of Prescott
Current Water Rate Structure

Water Rates Effective 1/1/2010*

Monthly Fixed Charges

Meter Size	Amount
5/8"	$ 6.60
3/4"	7.05
1"	7.95
1 1/2"	10.20
2"	12.90

Residential (rate per 1,000 gallons)

Single Family	
First 3,000	$ 2.86
Next 7,000	4.30
Next 10,000	6.45
Over 20,000	12.90

Multi-Family (Per Unit)	
First 1,700	$ 2.30
Next 3,300	3.46
Next 5,000	5.19
Over 10,000	10.39

Non-Residential (Per Unit)	
Block 1	$ 2.61
Block 2	3.92
Block 3	5.88
Block 4	11.76

Alternate Water Resources Fee	**0.65**

*Rates for Customers in the Town of Chino Valley - Add 30% to the above rates
*Rates for Customers Outside City Limits - Add 39% to the above rates

City of Prescott
Current Wastewater Rate Structure

Wastewater Rates Effective Jan 2010

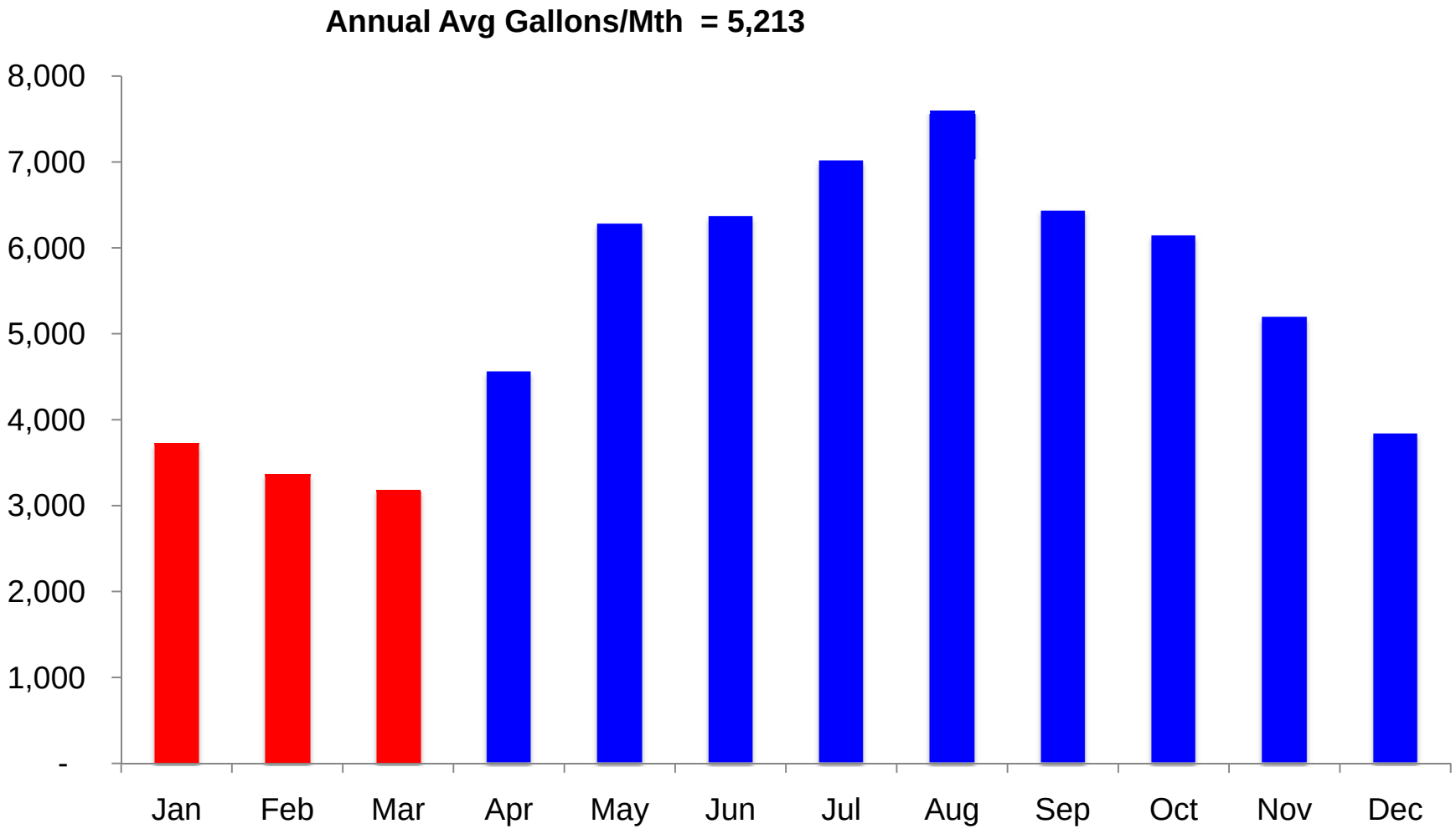
Service Charge - Fixed Rate		
Residential	$	12.54

Classification	Per 1000 Gallons
Residential	2.71
Uniform Non-Residential	3.89
Bar w/o Dining Facilities	3.89
Car Wash	3.89
Dept/Retail Stores	3.89
Hospital/Convalescent	3.89
Hotel w Dining Facilities	4.18
Hotel w/o Dining Facilities	3.89
Laundry, Industrial	5.01

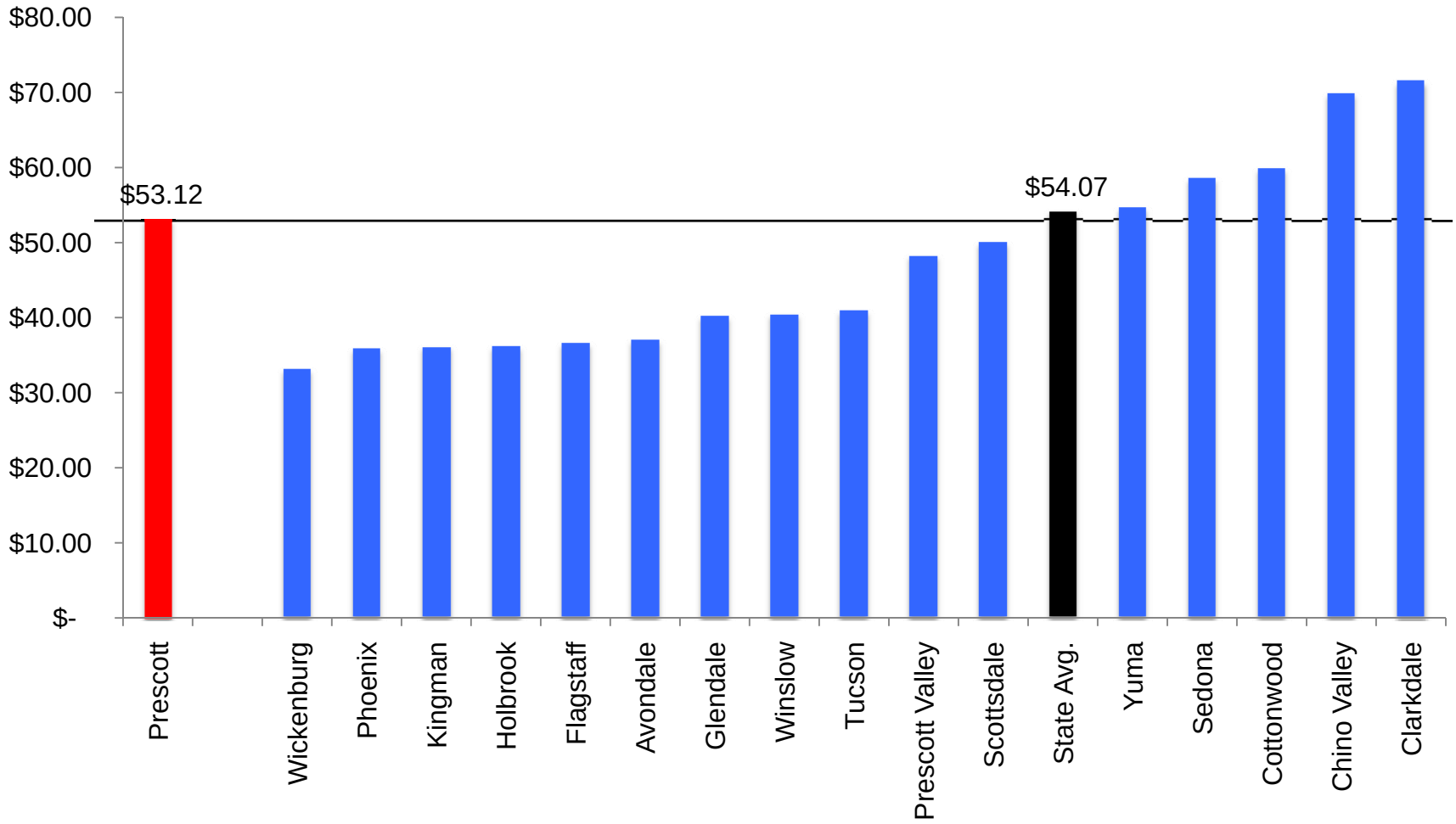
Classification	Per 1000 Gallons
Laundromat	3.89
Laundry, Commercial	3.89
Markets w Garbage Disposal	5.84
Mortuaries	5.84
Professional Offices	3.89
Repair Shops/Service Stations	3.89
Restaurants	6.28
Schools and Colleges	3.89

*** Wastewater rates are based on average monthly water consumption during winter months**

Residential Usage by Account Per Month – Last 12 Mths



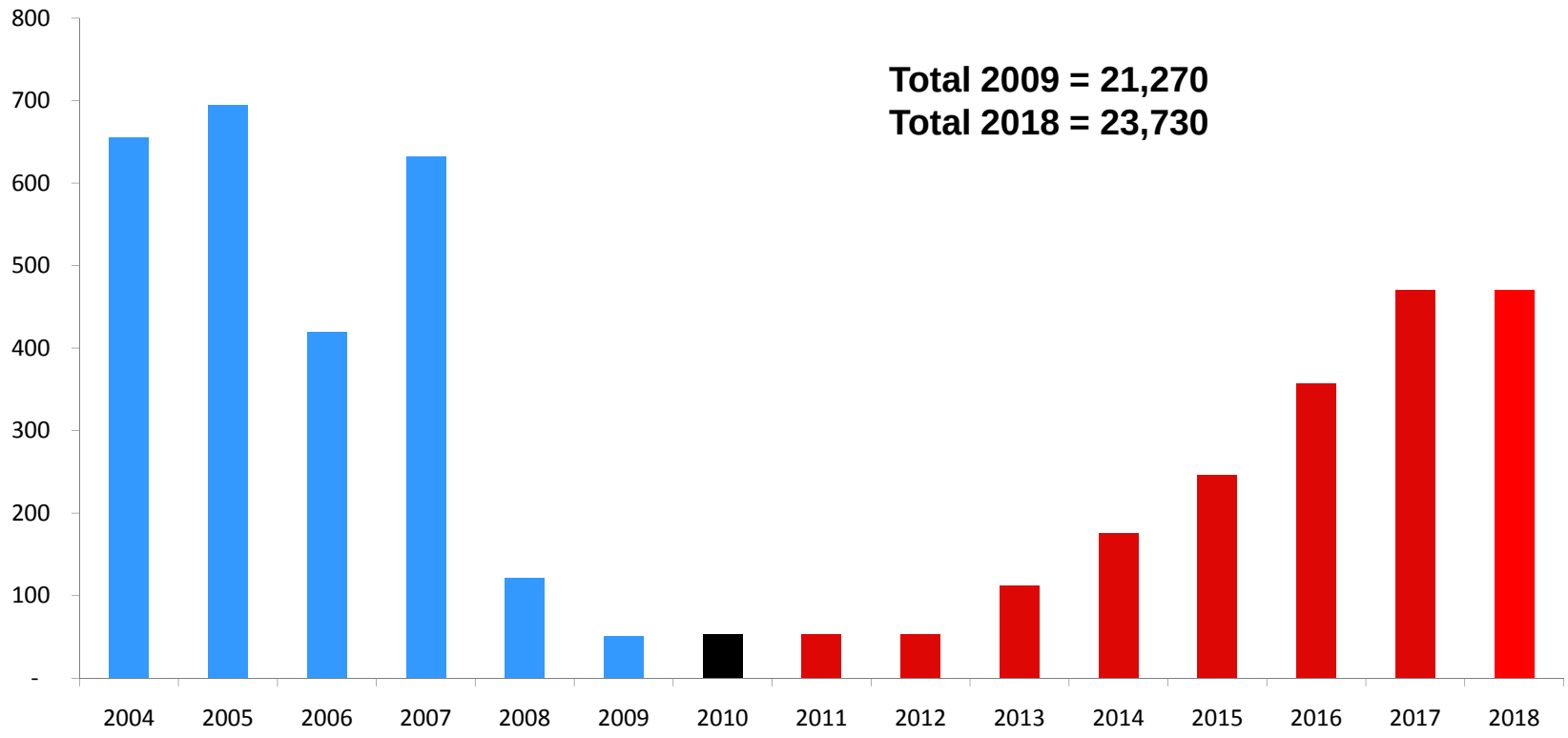
Water and WW Rate Comparison (5,000 Gals Water; 5,000 Gals WW)



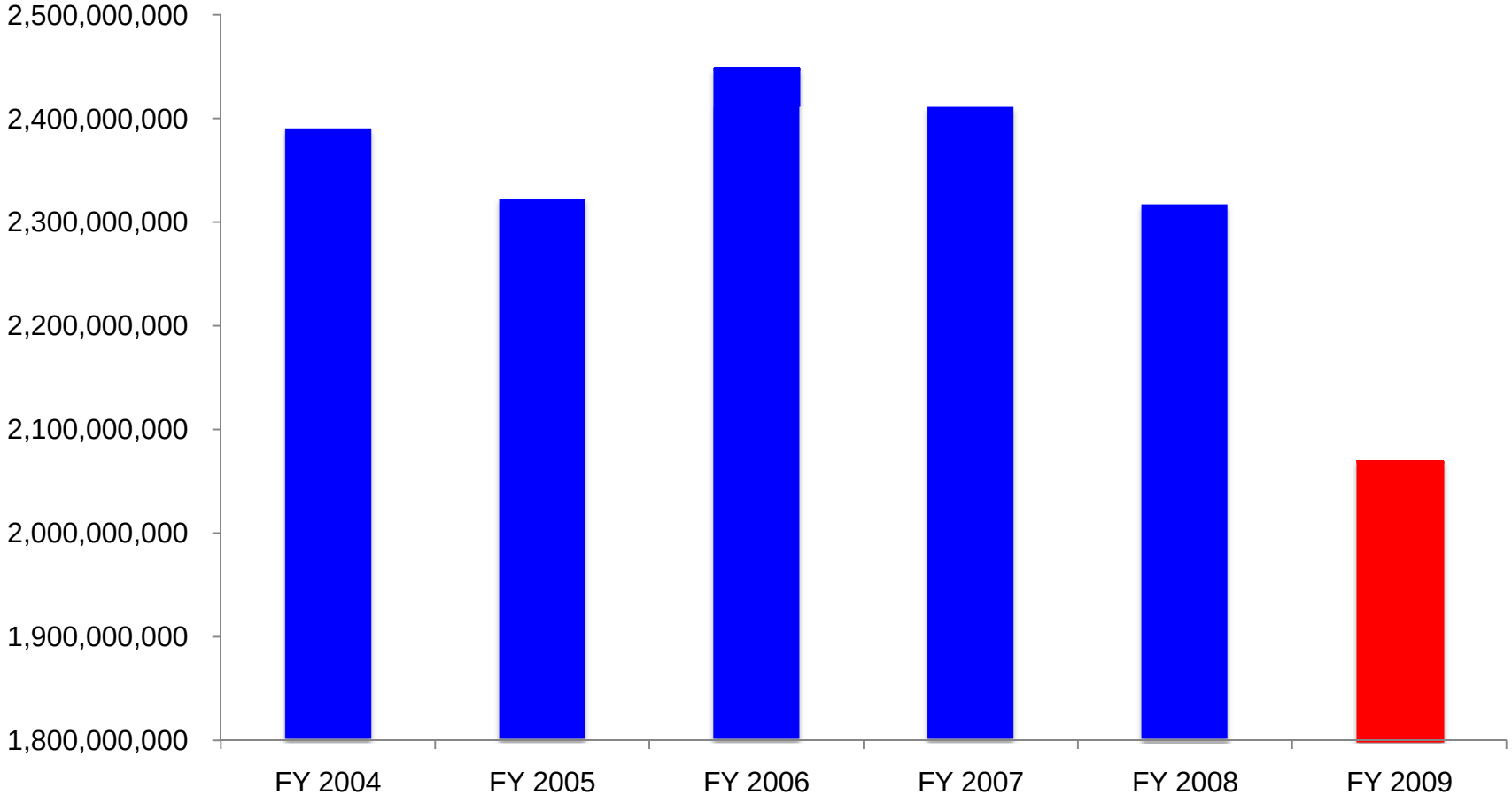
Factors Impacting 2010 Rate Plan

- Account growth has failed to meet even conservative 2008 forecast
- Significant decrease in usage from 2008, particularly in higher tiers
- Less impact fee revenue due to low growth and moratorium; means more of CIP must be funded through debt
- WIFA has tightened their approach to debt; limiting terms to 20 years

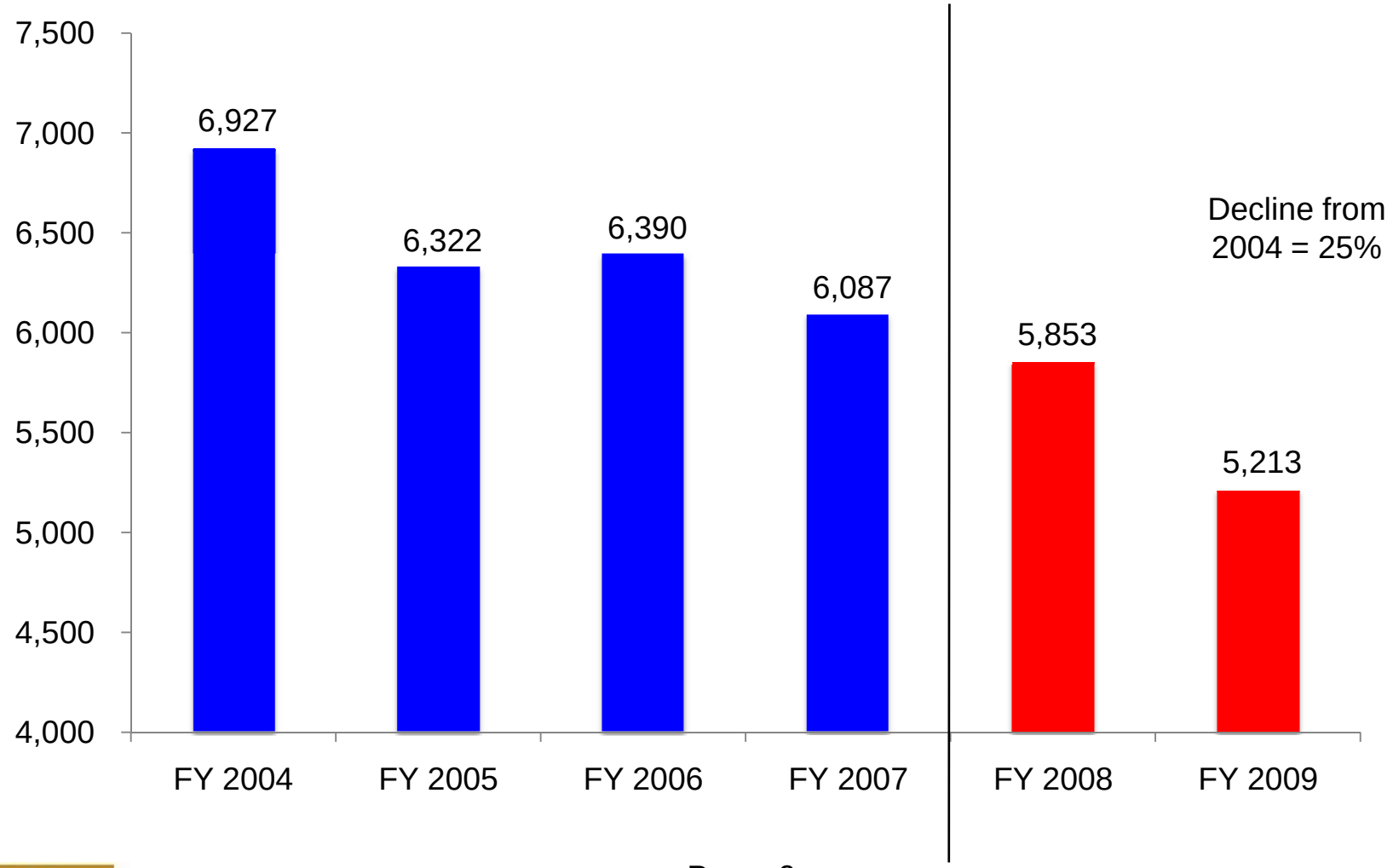
Historical and Forecast
Annual New Water Accounts



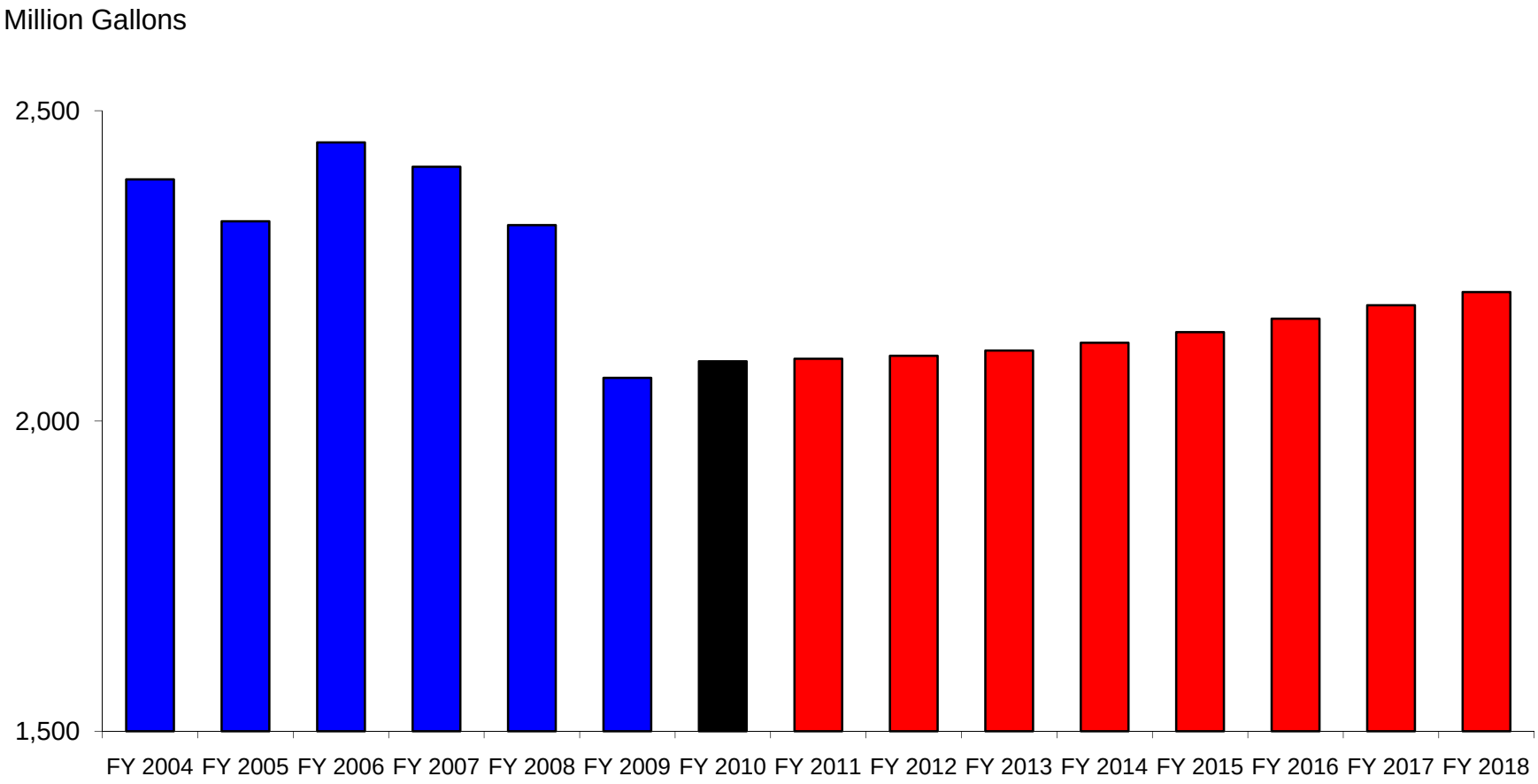
City of Prescott
Historical Water Consumption



City of Prescott
Avg. Monthly Usage Per Acct -- Residential



Historical and Forecast Water Consumption



Water/WW Revenue Requirement

- City's utility budget has increased due primarily to factors beyond its control – inflation, regulatory requirements, etc.
- City's **Capital Improvement Plan** is the single biggest factor in setting rates, as it impacts rate plan in the following ways:
  - What projects are funded and at what cost
  - When projects are funded
  - How projects are funded (rates vs. other sources)
- We will present four (4) alternative CIP funding scenarios for Council to consider as it proceeds with this rate adjustment process and upcoming formulation of the FY 11 budget

CIP Funding Scenarios

Scenario	Funding Includes Component from Rates Big Chino	 WWTP Improvements
1	Yes	Yes
2	No	Yes
3	Yes	No
4	No	No

NOTE: These funding scenarios are for analysis only, and are not recommendations

CIP Funding Scenarios

	Total CIP 2010 -- 2019 ($ Millions)			
Scenario	Big Chino (Prescott Portion)	Water	Wastewater	Total
1	$76.4	$106.0	$132.7	$315.1
2	-	121.0	132.7	253.7
3	76.4	106.0	62.3	244.7
4	-	121.0	62.3	183.3

CIP/Rate Scenario 1 (Residential)
Big Chino and WWTPs
Have Rates Funding Components

			SCENARIO:	CIP Scen 1 -- 011210			
		Current	Apr-10	Jan-11	Jan-12	Jan-13	Jan-19
Alternate Water Source Fee							
Vol Rate Per 1,000 Gallons		$0.65	**$0.65**	$0.80	$1.30	$1.70	$3.50
WATER Rate							
Base Charge	5/8"	6.60	**6.93**	7.28	7.64	8.19	11.12
Vol Rate Per 1,000 Gallons							
-	3,000	2.86	**3.00**	3.15	3.31	3.55	4.82
3,001	10,000	4.30	**4.52**	4.74	4.98	5.34	7.25
10,001	20,000	6.45	**6.77**	7.11	7.47	8.01	10.87
20,001	Above	12.90	**13.55**	14.22	14.93	16.02	21.74
WASTEWATER Rate							
Base Charge		12.54	**12.54**	15.05	17.31	21.63	30.37
Vol Rate Per 1,000 Gallons		2.71	**2.71**	3.25	3.74	4.67	6.56

CIP/Rate Scenario Comparison
5,000 Gal Water -- 5,000 Gal WW

	Residential Monthly Charges -- 5,000 Gallons Water, 5,000 Gallons WW					
Scenario	Current	Apr 2010	Jan 2011	Jan 2012	Jan 2013	Jan 2019
2008 Study	$53.12	$53.12	$59.06	$69.01	$75.07	na
1	53.12	54.31	61.53	70.03	83.03	120.76
		1.19	7.22	8.50	13.00	

CIP/Rate Scenario 2 (Residential)
No Big Chino Funding From Rates; WWTPs Have Rates Funding Component

CITY OF PRESCOTT ARIZONA

			SCENARIO:	CIP Scen 2 -- 011210			
		Current	Apr-10	Jan-11	Jan-12	Jan-13	Jan-19
Alternate Water Source Fee							
Vol Rate Per 1,000 Gallons		$0.65	**$0.65**	$0.70	$0.80	$0.85	$1.70
WATER Rate							
Base Charge	5/8"	6.60	**6.93**	7.28	7.93	8.58	11.50
Vol Rate Per 1,000 Gallons							
-	3,000	2.86	**3.00**	3.15	3.44	3.72	4.98
3,001	10,000	4.30	**4.52**	4.74	5.17	5.59	7.49
10,001	20,000	6.45	**6.77**	7.11	7.75	8.39	11.24
20,001	Above	12.90	**13.55**	14.22	15.50	16.77	22.48
WASTEWATER Rate							
Base Charge		12.54	**12.54**	15.05	17.31	21.63	30.37
Vol Rate Per 1,000 Gallons		2.71	**2.71**	3.25	3.74	4.67	6.56

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CIP/Rate Scenario Comparison
5,000 Gal Water -- 5,000 Gal WW

	Residential Monthly Charges -- 5,000 Gallons Water, 5,000 Gallons WW					
Scenario	Current	Apr 2010	Jan 2011	Jan 2012	Jan 2013	Jan 2019
2008 Study	$53.12	$53.12	$59.06	$69.01	$75.07	na
1	53.12	54.31	61.53	70.03	83.03	120.76
2	53.12	54.31	61.03	68.58	80.18	113.12
		1.19	6.72	7.55	11.60	

CIP/Rate Scenario 3 (Residential)
Big Chino has Rates Funding Component, WWTPs Do Not

			SCENARIO:	CIP Scen 3 -- 011210			
		Current	Apr-10	Jan-11	Jan-12	Jan-13	Jan-19
Alternate Water Source Fee							
Vol Rate Per 1,000 Gallons		$0.65	**$0.65**	$0.80	$1.30	$1.70	$3.50
WATER Rate							
Base Charge	5/8"	6.60	**6.93**	7.28	7.64	8.19	11.12
Vol Rate Per 1,000 Gallons							
-	3,000	2.86	**3.00**	3.15	3.31	3.55	4.82
3,001	10,000	4.30	**4.52**	4.74	4.98	5.34	7.25
10,001	20,000	6.45	**6.77**	7.11	7.47	8.01	10.87
20,001	Above	12.90	**13.55**	14.22	14.93	16.02	21.74
WASTEWATER Rate							
Base Charge		12.54	**12.54**	13.17	14.48	16.66	22.32
Vol Rate Per 1,000 Gallons		2.71	**2.71**	2.85	3.13	3.60	4.82

CIP/Rate Scenario Comparison
5,000 Gal Water -- 5,000 Gal WW

	Residential Monthly Charges -- 5,000 Gallons Water, 5,000 Gallons WW					
Scenario	Current	Apr 2010	Jan 2011	Jan 2012	Jan 2013	Jan 2019
2008 Study	$53.12	$53.12	$59.06	$69.01	$75.07	na
1	53.12	54.31	61.53	70.03	83.03	120.76
2	53.12	54.31	61.03	68.58	80.18	113.12
3	53.12	54.31	57.61	64.16	72.68	104.02
		1.19	3.30	6.55	8.52	

CIP/Rate Scenario 4 (Residential)
Neither Big Chino nor WWTPs Have
Rates Funding Component

			SCENARIO:	CIP Scen 4 -- 011210			
		Current	Apr-10	Jan-11	Jan-12	Jan-13	Jan-19
Alternate Water Source Fee							
Vol Rate Per 1,000 Gallons		$0.65	**$0.65**	$0.70	$0.80	$0.85	$1.70
WATER Rate							
Base Charge	5/8"	6.60	**6.93**	7.28	7.93	8.58	11.50
Vol Rate Per 1,000 Gallons							
-	3,000	2.86	**3.00**	3.15	3.44	3.72	4.98
3,001	10,000	4.30	**4.52**	4.74	5.17	5.59	7.49
10,001	20,000	6.45	**6.77**	7.11	7.75	8.39	11.24
20,001	Above	12.90	**13.55**	14.22	15.50	16.77	22.48
WASTEWATER Rate							
Base Charge		12.54	**12.54**	13.17	14.48	16.66	22.32
Vol Rate Per 1,000 Gallons		2.71	**2.71**	2.85	3.13	3.60	4.82

CIP/Rate Scenario Comparison
5,000 Gal Water -- 5,000 Gal WW

	Residential Monthly Charges -- 5,000 Gallons Water, 5,000 Gallons WW					
Scenario	Current	Apr 2010	Jan 2011	Jan 2012	Jan 2013	Jan 2019
2008 Study	$53.12	$53.12	$59.06	$69.01	$75.07	na
1	53.12	54.31	61.53	70.03	83.03	120.76
2	53.12	54.31	61.03	68.58	80.18	113.12
3	53.12	54.31	57.61	64.16	72.68	104.02
4	53.12	54.31	57.11	62.71	69.82	96.38
		1.19	2.80	5.60	7.11	

Presentation Summary

- Higher water and wastewater rates are a fact of life throughout Arizona and the USA
- Lower growth, reduced usage levels and economic downturn have adversely impacted rate and financial plan
- Lessened impact fees from growth and moratorium is contributing to higher rates

Presentation Summary

- Ultimate rate plan implemented depends upon how City chooses to fund the Big Chino Project, WWTP process and capacity improvements, and other CIP projects

- An alternative to funding the WWTPs in part from rates is issuance of general obligation debt supported by property tax

- Alternatives to funding the Big Chino Project in part from rates includes a public-private partnership (P3), and issuance of general obligation debt supported by property tax

Appendix B

Capital Requests - Water/Alt Water

Project Description	Ops	Imp	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Surface Water Recharge Pipeline	0%	100%	3,247,854					
Airport Zone 12 New Tank Reservoir & Booster Station	10%	90%	3,075,000					
Prescott Canyon 1.25 MG Tank Reservior & Piping	25%	75%	2,285,814					
Airport Zone 12 Tank Reservoir Transmission Piping	10%	90%	2,200,000					
Big Chino Water Ranch (BCWR)	20%	80%	2,808,280	2,855,250	1,810,250	1,035,250	935,250	935,250
Copper Basin Tank Reservoir	90%	10%	1,900,000	930,000				
New Thumb Butte Reservoir	90%	10%	1,680,000					
Water Meter Change-Out Program	100%	0%	1,500,000	200,000				
Airport Zone Production/Recovery Wells	10%	90%	1,330,000	133,000	1,197,000	133,000	1,197,000	
Prescott Resort Pump Station Upgrade	25%	75%	1,300,000					
Small Water Main Replacements	100%	0%	1,100,000	1,000,000	1,167,000	1,061,000	1,239,000	1,126,000
Upper Thumb Butte Tank	90%	10%	1,075,000					
Williamson Valley Road	90%	10%	1,000,000					
Rosser Street Reconstruction & Utility Upgrade	100%	0%	800,000					
Lower Thumb Butte Pump Sta	90%	10%	775,000					
12" Line Thumb Butte Road - Hassayampa Village Rd to Lower Thumb Butte PS	50%	50%	700,000					
A/P New Zone 101 Pump Station	10%	90%	600,000	2,687,000				
Intermediate Pump Station and Reservoirs	80%	20%	500,000					
Indian Hill Reservoir	50%	50%	300,000					
Arsenic Treatment Plant	100%	0%	298,000					
Granite Creek and Willow Creek Dam Repairs	100%	0%	250,000	250,000				
Copper Basin Tank Reservoir Piping - Sheriff's Posse Trail to New Reservoir	90%	10%	210,500	195,500				
Water Model Update	100%	0%	200,000					232,000
Telemetry (SCADA) System Install/Upgrade Program	70%	30%	193,000					
Irrigation Efficiency Enhancements (Heritage Park & Roughrider Field)	100%	0%	160,000					
Storage Tank Maintenance Program	100%	0%	155,000	160,000	165,000	170,000	176,000	182,000
Yavapai Hills Lower Pump Station Upgrade	25%	75%	150,000	800,000				
Capital Contingencies	100%	0%	150,000	155,000	160,000	165,000	170,000	176,000
Water Production/Distribution Warehouse	100%	0%	150,000					
Haisley A (Virginia) Pump Station Rehabilitation	90%	10%	110,000	390,000				
Hassayampa Pump Station - New Zone 19	100%	0%	100,000	919,000				
Booster Station Upgrade	100%	0%	100,000	103,000	106,000	109,000	112,000	115,000
12" Line Virginia St - Virginia St Pump Station to Foothills Pump Station	90%	10%	75,000	550,000				
Fire Hydrants	100%	0%	42,000	44,000	46,000	48,000	50,000	52,000
Production Well Maintenance	100%	0%	40,000	42,000	44,000	46,000	48,000	50,000
PRV Upgrades	100%	0%	37,000	39,000	41,000	43,000	45,000	47,000
Senator Highway	100%	0%	15,000	100,000				
Rates Updates	100%	0%	12,500	15,000		17,000		19,000
Leak Detection Program	100%	0%	11,000	12,000	13,000	14,000	15,000	16,000
Maintenance Management	100%	0%	10,000					
Old North Tank Reservoir Repl	100%	0%		4,599,000				
Park Avenue	100%	0%		1,130,000				
Willow Creek 14" Transmission Main	50%	50%		646,000				
Robinson Drive	90%	10%		526,000				
Haisley New Tank Reservoir	50%	50%		513,000	1,419,000			
SR69 Corridor All Phases Water Infrastructure	0%	100%		510,000	1,650,000			

Capital Requests - Water/Alt Water

Project Description	Ops	Imp	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Mt Club System Cross Conn	100%	0%		500,000				
36" Line Douglas Ave - Willow Creek Road to North Reservoir	100%	0%		462,000				
South Mt Vernon	100%	0%		400,000				
Upper Rancho Vista Pump Station Upgrade	90%	10%			478,000			
12" Line Skyline, Horizon, Lookout - Upper Thumb Butte PS to Upper TB Tank	50%	50%			75,000	375,000		
Mingus Tank Reservoir Replacement	100%	0%				600,000	3,700,000	
18" Line Smoke Tree Lane - 30" Main at Willow Creek to Birchwood Cove	90%	10%				200,000	1,465,000	
12" Line Meadowbrook, Forest Hills Rd - Thumb Butte Rd to Thumb Butte Tank	80%	20%				160,000	1,100,000	
Mingus Pump Station Rehabilitation	0%	100%						100,000
Unidentified Projects Contingency				5,000,000				
			$ 30,645,948	$ 25,865,750	$ 8,371,250	$ 4,176,250	$ 10,252,250	$ 3,050,250

Capital Requests - Wastewater

Page No.	Project Description			FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
102	Airport Phase 1 (3.2MG)	20%	80%	2,860,000	7,340,000	26,000,000	5,400,000		
103	Sundog Filter Replacement / Denitrification	100%	0%	1,500,000					
104	Sewer Mainline Repl/Rehab	80%	20%	1,850,000	1,030,000	103,000	1,061,000	107,000	1,093,000
105	Cliff Rose Lift Station Upgrade	0%	100%	791,361					
106	Granite Dells - Centerpointe East Wastewater Improvement	0%	100%	500,000	1,000,000	500,000			
107	Sundog Collector/ Sundog Ranch Road (Storm Ranch)	0%	100%	395,000					
108	Sundog Digester Cleaning	100%	0%	300,000			328,000		
109	Capital Contingencies	50%	50%	155,000	160,000	165,000	170,000	176,000	182,000
110	Lift Station Rehabilitation	100%	0%	150,000	150,000	153,000	157,000	111,000	115,000
21	Rosser Street		100%	139,100					
18	Williamson Valley Rd		100%	130,000					
111	Chemical Root Control	100%	0%	105,000	80,000	83,000	115,000	89,000	92,000
47	South Mount Vernon	35%	65%	15,000	520,000				
88	Rate Analysis	0%	100%	12,500	15,000		17,000		19,000
N/A	Maintenance Management	30%	70%	10,000					
112	Sundog Solids Dewatering	45%	55%		2,320,000	5,280,000			
113	Granite St - Granite Creek to Leroux	35%	65%		800,000	1,400,000	1,400,000	1,400,000	
114	Sundog Trunk Main	65%	35%		750,000		350,000	3,250,000	1,820,000
44	Park Ave	100%	0%		674,000				
48	Robinson Drive		100%		349,000				
115	WW Collection Model Update				200,000				
116	WWTP SCADA System	30%	70%		75,000	75,000			
117	Hassayampa	80%	20%				650,000		2,376,000
118	Sundog Headworks, Septage Receiving and Odor Control	80%	20%					340,000	3,400,000
119	Pleasant Valley	30%	70%						600,000
120	Brush-Lincoln (See Gurley)	85%	15%						100,000
	Unidentified Project Contingency				5,000,000				
				8,912,961	20,463,000	33,759,000	9,648,000	5,473,000	9,797,000