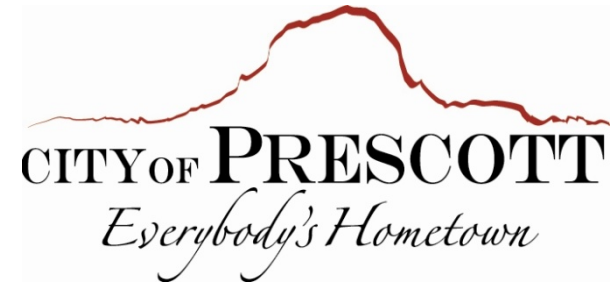


Water and Wastewater Rates

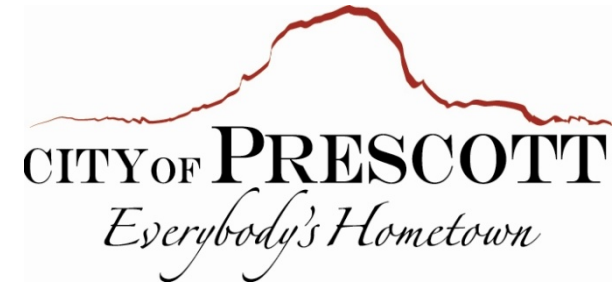
City Council Workshop - November 2, 2010

City Utilities Operations Costs and Funding



- Prescott's water and wastewater systems are highly complex due to terrain and the pattern of city development
- The ages and deterioration of many components of these systems, added to their complexities, are driving the higher capital, operations, and maintenance costs identified in this and previous rate analyses
- The escalation of utilities costs in Arizona and the nation is a fact; this will continue, with annual increases of 5-10% common
- Prescott's inverted tier water rate structure has done what it was designed to do - reduce consumption in the upper tiers and overall (over 20%)
- The drop in water sales has reduced revenue but not the majority of costs; wastewater treatment processes have been adversely affected
- Water and wastewater are operated as separate City enterprise funds
- Water sales and wastewater charges (through rates) and utilities development/impact fees are the only sources of revenue for these enterprise funds
- With costs rising, after any new efficiencies which can be realized, rates and fees must also increase to adequately fund expenses

Capital Improvement Plan (CIP)



The CIP is the minimum required to:

- Operate and maintain safe, reliable City water and wastewater systems
- Meet contractual commitments pertaining to certain projects
- Provide additional increments of capacity to remedy existing deficiencies and accommodate some growth in certain strategic areas (e.g., Airport)
- Synch with street improvement projects (replace old lines in the streets)

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.

Note: The Water CIP does not include funding for construction of the Big Chino Water Ranch Project

Water Rate Structure and Current Rates



Amount of Water Bill = Base Charge + Consumption Charge
 [flat amount] [Gals. Used x Rate]

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

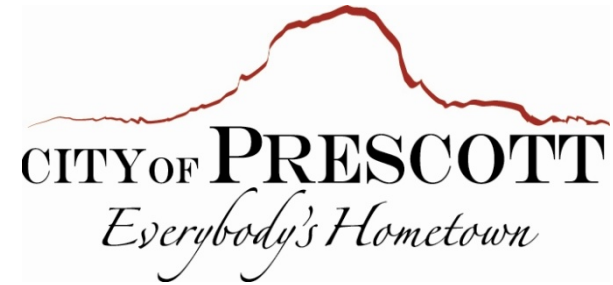
Usage by Tier

		Multi-Family (per unit)		Non-Residential in 1,000 of gallons							
		Single Family	Multi-Family	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

In addition to these rates:

- \$0.65 per 1,000 gallons Alternative Water Charge for all customers
- Surcharges of 39% for customers in unincorporated Yavapai County, 30% for those in the Town of Chino Valley

Wastewater Rate Structure and Current Rates



Amount of Sewer Bill = Base Charge + Volume Charge
[flat amount] [per 1,000 gals]

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

The volume charge is based on average monthly winter consumption.

Proposed Water Base Charge Presented at Public Meetings



Monthly Fixed Charge

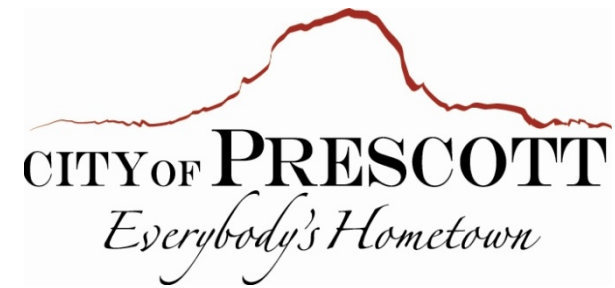
<u>Meter Size</u>	<u>Meters</u>	<u>Current</u>	<u>3/1/2011</u>	<u>1/1/2012</u>	<u>1/1/2013</u>	<u>1/1/2014</u>	<u>1/1/2015</u>	<u>1/1/2016</u>
5/8" WATER	19,104	6.60	10.60	11.70	12.90	13.50	14.20	14.90
3/4" WATER	17	7.05	11.30	12.40	13.60	14.30	15.00	15.80
1" WATER	1,591	7.95	12.70	14.00	15.40	16.20	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							

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

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

Proposed Water Consumption Charge

Presented at Public Meetings



Water Consumption Charge (per 1,000 gallons)

	<u>Current</u>	<u>3/1/2011</u>	<u>1/1/2012</u>	<u>1/1/2013</u>	<u>1/1/2014</u>	<u>1/1/2015</u>	<u>1/1/2016</u>
INCREASE		0%	7%	5%	5%	5%	5%
Residential Single Family							
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							
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							
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

Proposed Wastewater Charges

Presented at Public Meetings



Residential

	<u>Current</u>	<u>3/1/2011</u>	<u>1/1/2012</u>	<u>1/1/2013</u>	<u>1/1/2014</u>	<u>1/1/2015</u>	<u>1/1/2016</u>
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

	<u>Current</u>	<u>3/1/2011</u>	<u>1/1/2012</u>	<u>1/1/2013</u>	<u>1/1/2014</u>	<u>1/1/2015</u>	<u>1/1/2016</u>
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

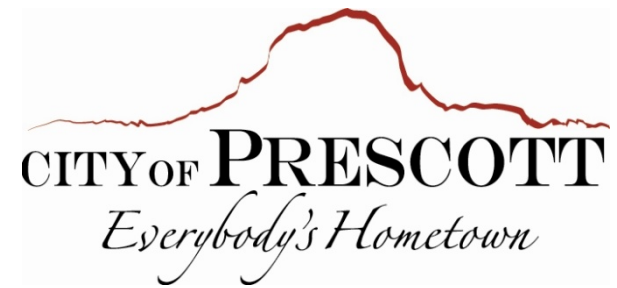
Uniform Non-Residential	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Bar w/o Dining Facilities	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Car Wash	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Dept/Retail Stores	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Hospital/Convalescent	3.89	4.28	4.71	5.18	5.70	5.99	6.29
Hotel w/Dining Facilities	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

Sample Utilities Bill Calculations

Presented at Public Meetings



	<u>Usage</u>	<u>Current</u>	<u>3/1/2011</u>	<u>1/1/2012</u>	<u>1/1/2013</u>	<u>1/1/2014</u>	<u>1/1/2015</u>	<u>1/1/2016</u>
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%



Publicity for Rate Setting Process and Meetings

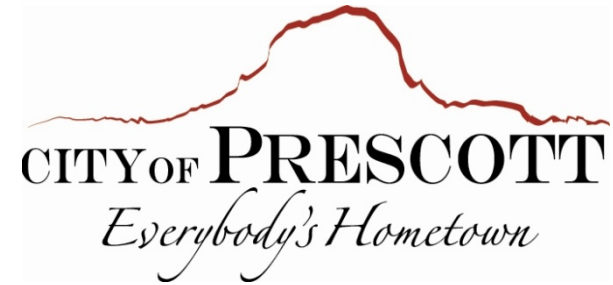
- **Prior month notice on water bills of all customers**
- **"Water and Sewer Rates" link on City website home page**
- **Radio announcements**
- ***Daily Courier* coverage (9/4, 9/7, 10/13, 10/15/10)**
- ***Prescott e-News* (10/17 and 10/21)**

Comments on Proposed Rates and Charges

- **Individual meetings with large water users**
- **Two public informational meetings**
- **Other written input**

Questions from Large Water Users

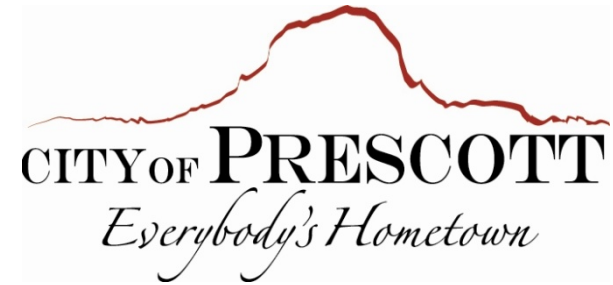
15 Meetings October 4-11, 2010



- Can the use of treated effluent be expanded for outside watering?
 - only where lines exist, or are constructed, to deliver it
 - a significant amount is recharged and pledged for Assured Water Supply
 - the highest and best use of this resource is to be addressed in formulation of a new long-term water management policy
 - keep in mind it is City conservation policy to reduce outside watering
- Is the cost of effluent going to be increased too?
 - not now; it will be addressed with the long-term water management policy
- Can cooling towers and landscaping be supplied with new irrigation meters or treated effluent?
 - only where lines exist, or are constructed, to deliver treated effluent
 - treated effluent to be addressed with long-term water management policy
 - irrigation meters are permitted by the City Code for nonresidential uses
- Is the proposed water rate increase for the Big Chino Project?
 - a small portion; 20% of the funding comes from the Alternative Water Charge
 - the Alt-Water Charge, a flat rate/1000 gals, is proposed to be increased along with the monthly base and consumption charge

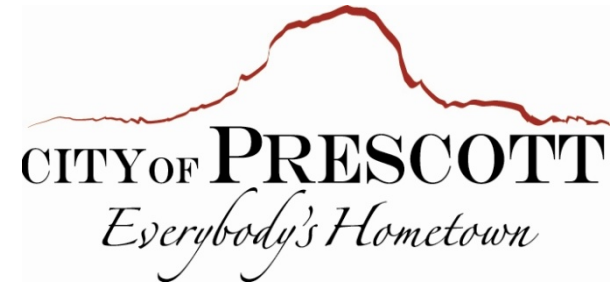
Questions from Large Water Users

(continued)



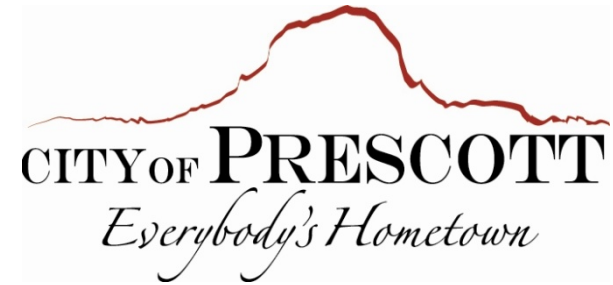
- What is the City doing to reduce its own water usage, primarily in parks?
 - retrofitting irrigation system controls for increased efficiency
 - in-depth training and application of Water Smart conservation techniques
- Can the water and sewer systems be simplified to lower costs?
 - yes, this is addressed in each capital project, and done where feasible (reduction of 1 tank on Indian Hill; eliminating lift stations, parallel lines)
- Can the capital improvement programs be spread out over more years?
 - yes, however, this has already been done repeatedly in each of the last several years; projects in the current CIPs cannot/should not be deferred
- Why weren't there more gradual increases in past years?
 - the Water Model (2005) and Sewer Model (2007) comprehensively identified system operational and rehabilitation needs
 - the majority of increases are being driven by the capital improvement programs based on these models
- How do the proposed rates compare with those elsewhere?
 - "in the ball park" for Central/Northern Arizona considering ages and complexities of our utilities systems; see comparison slide which follows

Comments from Large Water Users



- With the increasing cost of water we need to review the number and sizes of water meters, and more closely monitor consumption
- We appreciate the information provided on our water use and opportunity detailed discussion with City representatives
- We expected higher increases in the cost of water; we're as much or more concerned about the rising cost of electricity
- Wastewater rates have been low; the proposed increases aren't out of line

Public Informational Meetings and Other Written Comments



- Two public meetings for presentation and discussion of the proposed rates were held October 14/21, 2010
- The meetings were sparsely attended with few comments/questions received
 - given the economy, the proposed increases will be an additional burden (the enterprise funds must be kept solvent to provide these core services)
 - only one proposal was presented; can you provide some alternatives deferring increases to later years? (an alternate scenario will be presented in a subsequent slide for discussion)
 - the CIPs look to be front-loaded; can they be spread out over more years? (they have already been spread out several times in this and prior years; many projects have been designed and are ready for bidding)
 - describe how the golf courses get water and how much they pay for it (treated effluent at \$250-300 per acre-foot)
 - can our systems be simplified to reduce the cost? (see prior slide comments)
- No other written comments have been received

Alternate Scenario



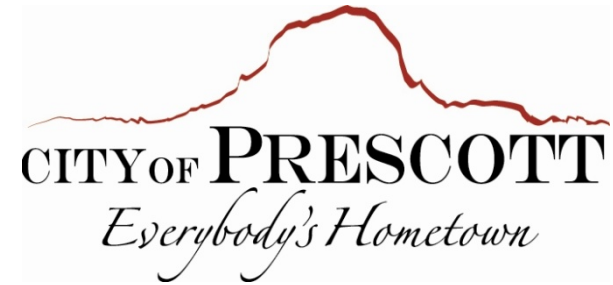
- **Water base charges are reduced** (amounts below for 3/1/11 adjustment)

	<u>Current</u> <u>Per Mo.</u>	<u>Proposed in</u> <u>Rate Study</u> ⁽¹⁾	<u>Alternate</u> <u>Scenario</u>
5/8" meter	\$ 6.60	\$ 10.60	\$ 8.60
1"	7.95	12.70	10.40
2"	12.90	20.60	16.80

(1) Amounts "in rate study" are those presented in public meetings and on City website

- **Water consumption charges are reduced in 2012**
 - No increase 3/1/11 (same as proposed in rate study)
 - Uniform annual increase of 5% 2012-16 (rate study has 7% in 2012 and 5% in 2013-16)
- **Alternative water charge unchanged from rate study**
- **Wastewater charges also unchanged from rate study**

Water Base Charge Alternate Scenario



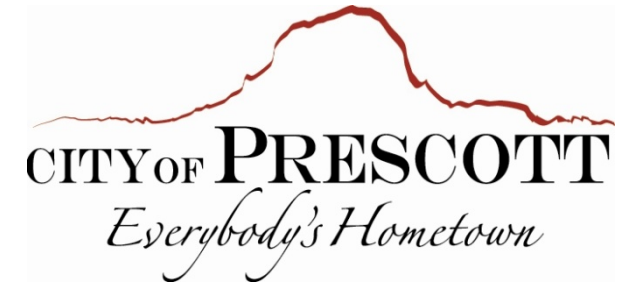
Monthly Fixed Charge

<u>Meter Size</u>	<u>Meters</u>	<u>Current</u>	<u>3/1/2011</u>	<u>1/1/2012</u>	<u>1/1/2013</u>	<u>1/1/2014</u>	<u>1/1/2015</u>	<u>1/1/2016</u>
5/8" WATER	19,104	6.60	8.60	10.60	11.60	12.60	13.20	13.90
3/4" WATER	17	7.05	9.20	11.30	12.40	13.50	14.20	14.90
1" WATER	1,591	7.95	10.40	12.80	14.00	15.20	16.00	16.80
1 1/2" WATER	283	10.20	13.30	16.40	17.90	19.40	20.40	21.40
2" WATER	442	12.90	16.80	20.70	22.70	24.70	25.90	27.20
3" WATER	49	19.20	25.00	30.80	33.70	36.60	38.40	40.30
4" WATER	28	28.20	36.70	45.20	49.50	53.80	56.50	59.30
6" WATER	13	50.70	66.10	81.50	89.20	96.90	101.70	106.80
8" WATER	3	77.70	101.20	124.70	136.50	148.30	155.70	163.50
TOTAL	21,530							

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

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

Water Consumption Charge Alternate Scenario



Water Consumption Charge (per 1,000 gallons)

	<u>Current</u>	<u>3/1/2011</u>	<u>1/1/2012</u>	<u>1/1/2013</u>	<u>1/1/2014</u>	<u>1/1/2015</u>	<u>1/1/2016</u>
INCREASE		0%	5%	5%	5%	5%	5%
Residential Single Family							
Tier1	\$ 2.86	2.86	3.00	3.15	3.31	3.48	3.65
Tier2	4.30	4.30	4.52	4.75	4.99	5.24	5.50
Tier3	6.45	6.45	6.77	7.11	7.47	7.84	8.23
Tier4	12.90	12.90	13.55	14.23	14.94	15.69	16.47
Residential Multi-Family							
Tier1	\$ 2.30	2.30	2.42	2.54	2.67	2.80	2.94
Tier2	3.46	3.46	3.63	3.81	4.00	4.20	4.41
Tier3	5.19	5.19	5.45	5.72	6.01	6.31	6.63
Tier4	10.39	10.39	10.91	11.46	12.03	12.63	13.26
Non-Residential							
Tier1	\$ 2.61	2.61	2.74	2.88	3.02	3.17	3.33
Tier2	3.92	3.92	4.12	4.33	4.55	4.78	5.02
Tier3	5.88	5.88	6.17	6.48	6.80	7.14	7.50
Tier4	11.76	11.76	12.35	12.97	13.62	14.30	15.02

Sample Utilities Bill Calculations

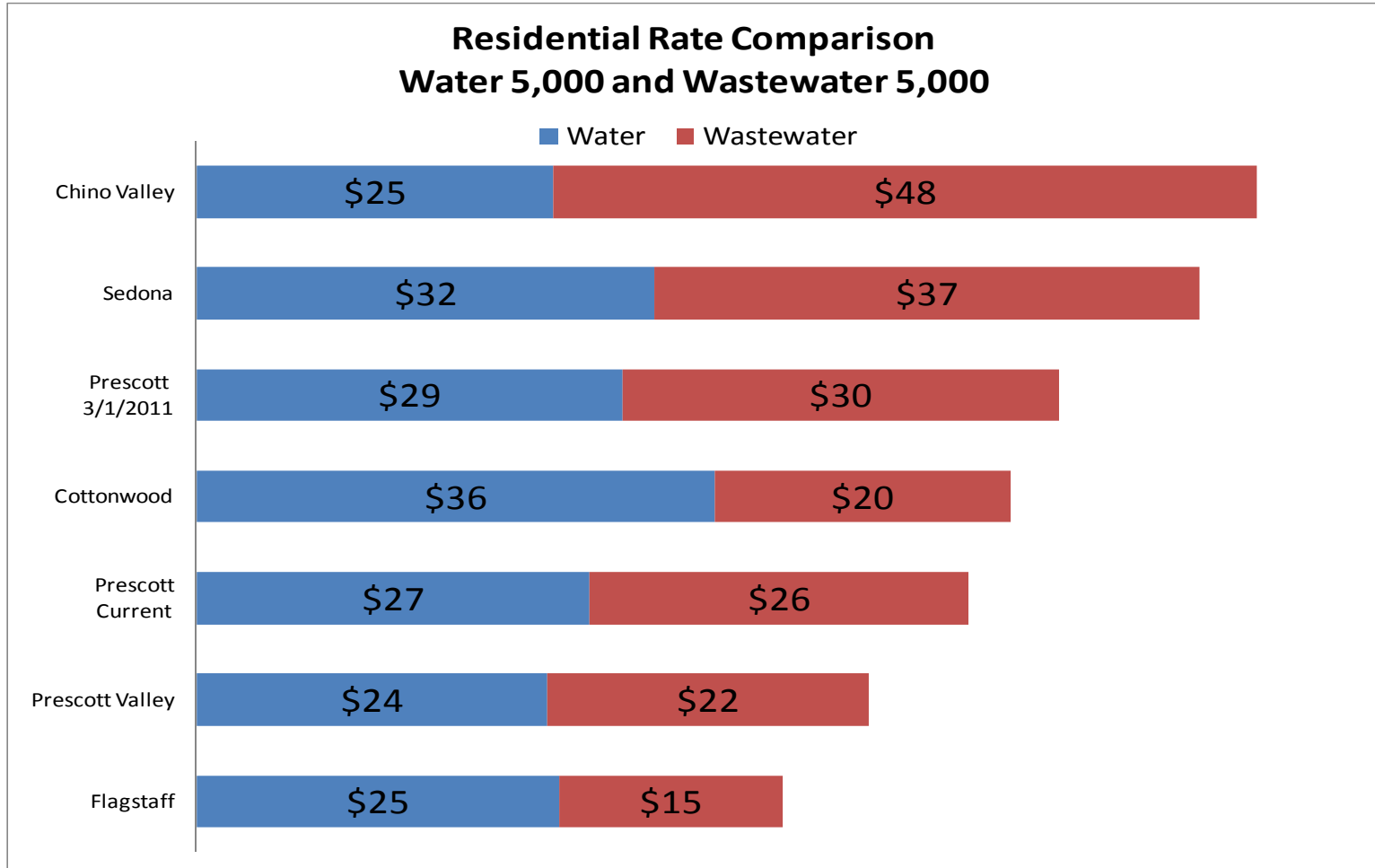
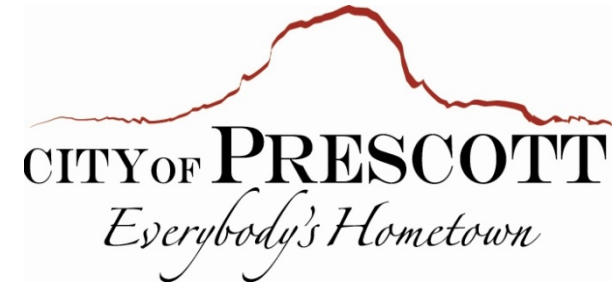
Alternate Scenario



	<u>Usage</u>	<u>Current</u>	<u>3/1/2011</u>	<u>1/1/2012</u>	<u>1/1/2013</u>	<u>1/1/2014</u>	<u>1/1/2015</u>	<u>1/1/2016</u>
Residential								
Water	5,000	27.03	29.28	32.64	34.80	37.01	38.87	40.85
Wastewater	5,000	26.09	30.02	34.53	39.72	43.68	45.88	48.18
Total		53.12	59.30	67.17	74.52	80.69	84.75	89.03
% Inc.			11.6%	13.3%	10.9%	8.3%	5.0%	5.1%
Water	25,000	190.53	193.78	206.69	217.80	229.36	240.92	253.00
Wastewater	15,000	53.19	61.22	70.43	81.02	89.08	93.58	98.28
Total		243.72	255.00	277.12	298.82	318.44	334.50	351.28
% Inc.			4.6%	8.7%	7.8%	6.6%	5.0%	5.0%
Non-Residential								
Restaurant 1 1/2" Meter								
Water	130,000	565.00	574.60	614.60	647.80	682.00	717.00	753.30
Wastewater	120,000	768.78	770.30	771.97	773.81	775.83	776.94	779.31
Total		1,333.78	1,344.90	1,386.57	1,421.61	1,457.83	1,493.94	1,532.61
% Inc.			0.8%	3.1%	2.5%	2.5%	2.5%	2.6%
School/College 4" Meter								
Water	450,000	1,888.20	1,919.20	2,052.20	2,163.00	2,276.80	2,393.50	2,514.80
Wastewater	124,000	497.54	547.42	602.41	662.53	729.03	766.10	804.47
Total		2,385.74	2,466.62	2,654.61	2,825.53	3,005.83	3,159.60	3,319.27
% Inc.			3.4%	7.6%	6.4%	6.4%	5.1%	5.1%

Comparison with Other Municipalities

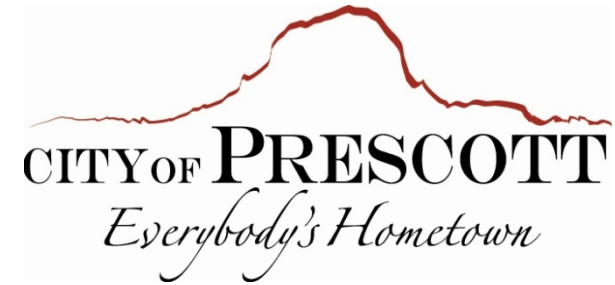
Example No. 1 for Alternate Scenario



Notes: (1) Amounts are for average month

(2) "Rate Study" amount for Prescott 3/1/2011 is \$31 Water + \$30 Wastewater

Recap of Key Points



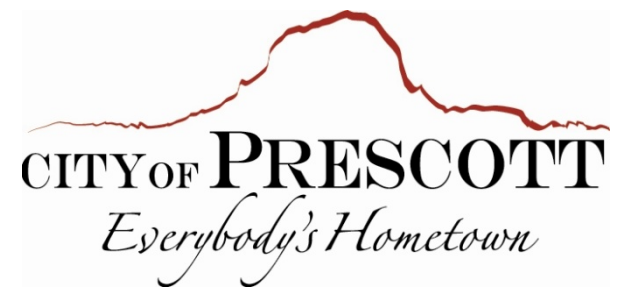
- The effect of the City's very complex water and wastewater systems on rates cannot be overemphasized - it is simply a fact of life in Prescott that utilities services here will be higher than in many other cities
- The City's water and wastewater utilities are operated as enterprise funds; to remain solvent, revenue in these separate "business units," through rates and fees, must be adequate to meet expenses
- The increases identified in this update were anticipated in previous rate studies, and are still needed
- Deterioration of public infrastructure (roads, utilities, facilities) due to deferral of maintenance and rehabilitation has been and continues to be a national problem; the cost to reverse it is staggering
- It is unrealistic to expect federal or state governments to solve our utilities funding challenges
- CPI aside, rates must rise until the aged systems (consisting of numerous deteriorated capital assets with services lives of as long as 50 years) are rehabilitated and then funding is kept at levels adequate to replace them again in the long term future when those service lives are again exhausted

The Rate Setting Process

Fiscal Year 2011 Update



8/17/10 Completed	Council Workshop	Discussion of rate increases necessary to fund the FY 11-16 Water and Wastewater Capital Improvement Programs (CIPs).
9/7/10 Completed	Council Workshop	Discussion of priority projects and schedule for the rate setting public process.
10/4-11/10 Completed	Meetings with Large Water Users	Meetings with large water users to discuss current and proposed rates.
10/14/10 Completed	Public Meeting #1	Public to present information on the City utilities systems, enterprise funds, and proposed rates; and receive comments.
10/21/10 Completed	Public Meeting #2	Repeat of Public Meeting #1.
11/2/10	Council Workshop	Presentation of proposed rates and summary of public comments; Council direction to proceed with rate setting process and/or other direction.
11/9/10	Council Agenda Item	Adoption of Notice of Intention declaring the intent to adjust/raise rates; set public hearing and formally release the public report.
12/14/10	Council Public Hearing	Public hearing on the proposed rates not less than 30 days following adoption of the Notice of Intention.
12/14/10	Council Agenda Item	On 12/14/10, following the public hearing, Council could adopt an ordinance setting the new water and wastewater rates.
2/1/11	New Rates in Effect	New rates effective not less than 30 days after ordinance adoption on 12/14/10.
1/11/11	Council Agenda Item	On 1/11/11, following the public hearing on 12/14/10, Council could adopt an ordinance setting the new water and wastewater rates.
3/1/11	New Rates in Effect	New rates effective not less than 30 days after ordinance adoption on 1/11/11.



**Council Discussion/Direction
and
Public Comments**