

A background image featuring a single water drop falling into a pool of water, creating concentric ripples. The scene is captured in a soft, blue-tinted light, with the drop and ripples appearing as bright highlights against the darker blue background.

Water Utility Rate Meeting April 16, 2019

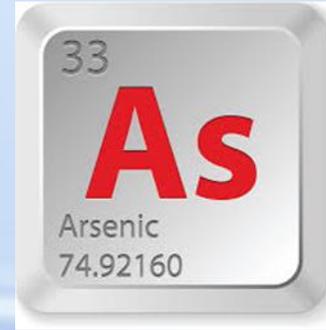
City Council Chambers
826 North Main Street
Cottonwood, Arizona

Topics

- 🌍 Cottonwood Municipal Water
 - 🌍 How and why get into the water business
 - 🌍 Acquisitions
 - 🌍 Conservation and being good stewards
- 🌍 Water Utility Financials
- 🌍 Proposed 5-Year Water Rates
- 🌍 Differential Rates
- 🌍 Area Water Rate Comparisons

How & Why did we get into the Water Business

- Water companies approached us to acquire them
- Arsenic Standards were looming
 - Technology was unproven
 - Costs for the systems were unknown
- Annual Outages and Warnings to Conserve
- Systems were in ill repair and leaking
 - Main valves had not been exercised and plotted
 - City found over 300 valves that had not been mapped
 - Meters were not functioning properly
- Improve fire suppression for the region
- Systems were intertwined between City and County
- City wanted to secure & protect its water resources for the entire region



Voter Authorization To Engage In The Water Business

Primary election – March 13, 2001

Ballot Question - Shall the City of Cottonwood, Arizona, be authorized to engage in the water utility business, and be authorized to construct, purchase, acquire or lease any plant or property or portion thereof devoted to the business or services rendered by a public utility ***either within or without the corporate limits of the City*** as set forth in Arizona Revised Statutes, Title 9, Chapter 5, Article 2, Section 9-511.01, 9-512, and 9-513?

Results	Yes 635	73%
	No 232	27%

The City of Cottonwood asked the Arizona Corporation Commission for approval to acquire the companies and received the approval.

Acquisition of the Water Companies

- 🌐 October 2004 - \$13,580,000 – 2004 MPC Bond Issue
 - 🌐 Cordes Lakes
 - 🌐 Clemenceau
 - 🌐 Verde Santa Fe
- 🌐 January 2006 - \$23,965,000 – 2006 MPC Bond Issue
 - 🌐 Cottonwood Waterworks
 - 🌐 Purchase agreement with Clarkdale
- 🌐 April 2009 - \$825,453 - Spring Creek Water Company – No debt
 - 🌐 Secure our water future to the North
- 🌐 March 2010 - \$889,107 - Quail Canyon Water Company – No debt
 - 🌐 Specifically to support Verde Village Unit #6 & #7
 - 🌐 Additional cost of \$159,994 to link the systems
 - 🌐 Total cost for this well - \$1,049,101

Recent Refinancing Savings

- 🌐 2004 MPC to WIFA Refinancing - \$2,327,382 (1)
 - 🌐 2006 MPC to WIFA Refinancing - \$5,135,581 (2) (3)
 - 🌐 GADA Loan to Excise Tax Bond - \$1,077,231
-
- 🌐 Note 1 – Does not include \$550,000 of forgivable principal for the \$1M Mingus Street Waterline
 - 🌐 Note 2 – Does not include \$800,000 of forgivable principal for the \$1.9M SR 260 Redundant Waterline
 - 🌐 Note 3 – Also removed well over \$5.5M in Clarkdale liability that were on Cottonwood's financials

Municipal Property Corporation – MPC
Greater Arizona Development Authority – GADA
State Route - SR

Conservation

- 🌍 Rate structure encourages conservation
 - 🌍 Base rate & 4 tier rate structure
 - 🌍 The more you use the costlier it becomes
- 🌍 Staff track water usage variations & follows up on high usage flows
- 🌍 Well upgrades include electronic pump drives that reduce pressure surges resulting in less water main & service line leaks
- 🌍 Improved distribution systems maintenance & oversight, higher quality materials and installation methods
- 🌍 Building up a conservation fund to assist with future conservation programs both inside and outside the city's corporate limits
- 🌍 Leak detection tablets are provided to each new customer

Taking Care of Business

Being good stewards

- Acquired two additional water companies without bonding
- Decommissioned the Clemenceau system (three well sites) due to inefficiency
- Increased storage capacity by nearly 1M gallons
- Improved capacity at most of our wells, pumps and boosters
- Increase fire protection by adding fire hydrants
 - 10 in city
 - 16 - in the County
- Installed generators at three Verde Village well sites
- Portable generator available as backup for county wells
- 7200 LF of pipe in Old Town
- 46 New valves
- Arsenic treatment compliant at all well sites
- Reduced water loss in the system – from 45% to 11%

Savings to the systems

- Initially we were saving over \$300,000 by maintaining our arsenic systems in-house
- Cottonwood acquired all the arsenic systems earlier than anticipated saving \$1.3M in the process
- Moved storage tanks from decommissioned well sites to more strategic locations rather than purchasing new
- City Engineer oversees any outside engineering services, to ensure quality control

A high-speed photograph of a water droplet falling into a pool of water, creating concentric ripples. The background is a soft, light blue gradient. The text "Water Utility Financials" is centered over the image.

Water Utility Financials

Revised & Projected Financials

OPERATING & COVERAGE SUMMARY

ACCOUNT DESCRIPTION	AUDITED	PROJECTED						
	2017	2018	2019	2020	2021	2022	2023	2024
Operating Revenue	\$7,042,317	\$7,565,157	\$8,127,509	\$8,491,371	\$8,871,641	\$9,269,054	\$9,684,405	\$10,118,490
Non-operating Revenue	385,628	69,800	71,210	72,670	74,151	75,670	77,240	78,840
Available Revenue	7,427,945	7,634,957	8,198,719	8,564,041	8,945,792	9,344,724	9,761,645	10,197,330
Expenses	4,330,065	4,990,707	5,117,581	4,845,434	5,015,330	5,187,196	5,354,309	5,542,717
Income / (Loss)	\$3,097,880	\$2,644,250	\$3,081,138	\$3,718,607	\$3,930,462	\$4,157,528	\$4,407,336	\$4,654,613
Debt Service	\$491,272	\$1,794,570	\$1,794,327	\$1,794,059	\$1,793,793	\$1,793,666	\$1,793,288	\$710,001
Coverage Ratio (minimum 1.35%)	630.6%	147.3%	171.7%	207.3%	219.1%	231.8%	245.8%	655.6%
Resource Development Fees	586,229	600,890	615,910	631,300	647,080	663,250	679,830	696,830
Impact Fees	0	0	0	0	0	0	0	0
Capacity Fees	0	0	0	0	0	0	0	0
Restricted Revenues	\$586,229	\$600,890	\$615,910	\$631,300	\$647,080	\$663,250	\$679,830	\$696,830
Coverage Ratio + Restricted Revenues	749.91%	180.83%	206.04%	242.46%	255.19%	268.77%	283.68%	753.72%

Capital Improvements

ACCOUNT DESCRIPTION	AUDITED	PROJECTED						
	2017	2018	2019	2020	2021	2022	2023	2024
Capital Improvements								
Investment Expense	7,083	7,437	7,809	8,199	8,609	9,040	9,492	9,966
Masterplan	29,886	0	0	0	0	0	0	0
Arsenic Mitigation Backflush	0	0	0	0	70,000	125,000	125,000	175,000
Arsenic Media Replacement	0	0	127,950	127,950	127,950	127,950	127,950	75,000
Bond Issuance Cost	(343,740)	0	0	0	0	0	0	0
Reclaimed Water lines - Riverfront -Kids Park	0	0	350,000	10,000	10,000	10,000	10,000	10,000
Furnishing, Vehicles & Equipment	22,306	50,000	65,000	65,000	65,000	75,000	65,000	65,000
Fire Hydrant Installs & Replacements	28,664	40,000	40,000	40,000	40,000	40,000	40,000	40,000
W Mingus Construction Upgrade	(541)	0	0	0	0	0	0	0
Line Extensions	63,352	0	0	0	0	0	0	0
Line Replacements	18,205	250,000	250,000	250,000	250,000	250,000	250,000	250,000
Well Booster Station	0	100,000	105,000	115,000	75,000	95,000	105,000	75,000
Well Improvements & Replacements	4,345	120,000	117,515	117,500	115,500	122,700	95,500	115,000
Water System Upgrades	16,763	170,000	138,000	115,000	125,000	144,000	131,000	138,000
SR 260 Wellsite & Pipeline	0	0	1,990,000	25,000	25,000	25,000	25,000	25,000
Quail Canyon Booster Pump & Reservoir	0	0	325,000	10,000	10,000	10,000	10,000	10,000
Annual Capital Improvements Needs	(153,677)	737,437	3,516,274	883,649	922,059	1,033,690	993,942	987,966

Inside City Limits 5 Year Rate Projections

<u>Base Charge</u>	AUDITED	PROJECTED						
	2017	2018	2019	2020	2021	2022	2023	2024
5/8"	\$26.00	\$27.30	\$28.67	\$29.24	\$29.82	\$30.42	\$31.03	\$31.65
1"	\$42.07	\$44.17	\$46.38	\$47.31	\$48.26	\$49.23	\$50.21	\$51.21
1 1/2"	\$85.65	\$89.93	\$94.43	\$96.32	\$98.25	\$100.22	\$102.22	\$104.26
2"	\$135.23	\$141.99	\$149.09	\$152.07	\$155.11	\$158.21	\$161.37	\$164.60
3"	\$270.46	\$283.98	\$298.18	\$304.14	\$310.22	\$316.42	\$322.75	\$329.21
4"	\$420.71	\$441.75	\$463.84	\$473.12	\$482.58	\$492.23	\$502.07	\$512.11
6"	\$856.45	\$899.27	\$944.23	\$963.11	\$982.37	\$1,002.02	\$1,022.06	\$1,042.50
<u>Volume Charge (per 1,000 gal)</u>								
0 – 1,000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
1,001 – 5,000	\$3.22	\$3.38	\$3.55	\$3.62	\$3.69	\$3.76	\$3.84	\$3.92
5,001 - 10, 000	\$4.44	\$4.66	\$4.89	\$4.99	\$5.09	\$5.19	\$5.29	\$5.40
10,001 – 15,000	\$6.33	\$6.65	\$6.98	\$7.12	\$7.26	\$7.41	\$7.56	\$7.71
15,000 +	\$9.02	\$9.47	\$9.94	\$10.14	\$10.34	\$10.55	\$10.76	\$10.98
<u>Water Resource Development Fee</u>								
Water Resource Development	\$4.32	\$4.32	\$4.32	\$4.32	\$4.32	\$4.32	\$4.32	\$4.32
Water Source Assurance	\$0.35	\$0.35	\$0.35	\$0.35	\$0.35	\$0.35	\$0.35	\$0.35
Gila River Adjudication	\$0.44	\$0.44	\$0.44	\$0.44	\$0.44	\$0.44	\$0.44	\$0.44
Water Conservation	\$0.27	\$0.27	\$0.27	\$0.27	\$0.27	\$0.27	\$0.27	\$0.27
Total Development Fee	\$5.38	\$5.38	\$5.38	\$5.38	\$5.38	\$5.38	\$5.38	\$5.38
Connection Fees	\$44.25	\$46.00	\$48.00	\$49.00	\$50.00	\$51.00	\$52.00	\$53.00

Outside City Limits 5 Year Rate Projections

Base Charge	AUDITED	PROJECTED						
	2017	2018	2019	2020	2021	2022	2023	2024
5/8"	\$33.80	\$35.49	\$37.26	\$38.01	\$38.77	\$39.55	\$40.34	\$41.15
1"	\$54.69	\$57.42	\$60.29	\$61.50	\$62.73	\$63.98	\$65.26	\$66.57
1 1/2"	\$111.34	\$116.91	\$122.76	\$125.22	\$127.72	\$130.27	\$132.88	\$135.54
2"	\$175.80	\$184.59	\$193.82	\$197.70	\$201.65	\$205.68	\$209.79	\$213.99
3"	\$351.59	\$369.17	\$387.63	\$395.38	\$403.29	\$411.36	\$419.59	\$427.98
4"	\$546.92	\$574.27	\$602.98	\$615.04	\$627.34	\$639.89	\$652.69	\$665.74
6"	\$1,113.39	\$1,169.06	\$1,227.51	\$1,252.06	\$1,277.10	\$1,302.64	\$1,328.69	\$1,355.26
<u>Volume Charge (per 1,000 gal)</u>								
0 – 1,000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
1,001 – 5,000	\$4.20	\$4.41	\$4.63	\$4.72	\$4.81	\$4.91	\$5.01	\$5.11
5,001 - 10, 000	\$5.78	\$6.07	\$6.37	\$6.50	\$6.63	\$6.76	\$6.90	\$7.04
10,001 – 15,000	\$8.23	\$8.64	\$9.07	\$9.25	\$9.44	\$9.63	\$9.82	\$10.02
15,000 +	\$11.72	\$12.31	\$12.93	\$13.19	\$13.45	\$13.72	\$13.99	\$14.27
<u>Water Resource Development Fee</u>								
Water Resource Development	\$4.32	\$4.32	\$4.32	\$4.32	\$4.32	\$4.32	\$4.32	\$4.32
Water Source Assurance	\$0.35	\$0.35	\$0.35	\$0.35	\$0.35	\$0.35	\$0.35	\$0.35
Gila River Adjudication	\$0.44	\$0.44	\$0.44	\$0.44	\$0.44	\$0.44	\$0.44	\$0.44
Water Conservation	\$0.27	\$0.27	\$0.27	\$0.27	\$0.27	\$0.27	\$0.27	\$0.27
Total Development Fee	\$5.38							
Connection Fees	\$44.25	\$46.00	\$48.00	\$49.00	\$50.00	\$51.00	\$52.00	\$53.00

Proposed New Rate Structure

<u>Base Charge</u>	<u>CURRENT RATES</u>		<u>PROPOSED RATES</u>	
	<u>in limits</u>	<u>out of limits</u>	<u>in limits</u>	<u>out of limits</u>
5/8"	\$26.00	\$33.80	\$27.30	\$35.49
1"	\$42.07	\$54.69	\$44.17	\$57.42
1 1/2"	\$85.65	\$111.34	\$89.93	\$116.91
2"	\$135.23	\$175.80	\$141.99	\$184.59
3"	\$270.46	\$351.59	\$283.98	\$369.17
4"	\$420.71	\$546.92	\$441.75	\$574.27
6"	\$856.45	\$1,113.39	\$899.27	\$1,169.06
<u>Volume Charge (per 1,000 gal)</u>				
0 – 1,000	\$0.00	\$0.00	\$0.00	\$0.00
1,000 - 5,000	\$3.22	\$4.20	\$3.38	\$4.41
5,001 - 10,000	\$4.44	\$5.78	\$4.66	\$6.07
10,000 - 15,000	\$6.33	\$8.23	\$6.65	\$8.64
15,001+	\$9.02	\$11.72	\$9.47	\$12.31
<u>Water Resource Development Fee</u>				
Water Resource Development	\$4.32	\$4.32	\$4.32	\$4.32
Water Source Assurance	\$0.35	\$0.35	\$0.35	\$0.35
Gila River Adjudication	\$0.44	\$0.44	\$0.44	\$0.44
Water Conservation	\$0.27	\$0.27	\$0.27	\$0.27
<u>Total Development Fee</u>	<u>\$5.38</u>	<u>\$5.38</u>	<u>\$5.38</u>	<u>\$5.38</u>
Connection Fees	\$44.25	\$44.25	\$46.00	\$46.00

Breakdown by Low to Average Usage

5,000 Gallons	2018		2019		RATE INCREASE	
	CURRENT RATES		PROPOSED RATES			
	in limits	out of limits	in limits	out of limits	in limits	out of limits
Base Fee	\$26.00	\$33.80	\$27.30	\$35.49	\$1.30	\$1.69
1,000 - 5,000 Rate	12.88	16.80	13.52	17.64	\$0.64	\$0.84
5,001 - 10,000 Rate	0.00	0.00	0.00	0.00	\$0.00	\$0.00
10,000 - 15,000 Rate	0.00	0.00	0.00	0.00	\$0.00	\$0.00
15,001- Rate	0.00	0.00	0.00	0.00	\$0.00	\$0.00
WRDF	5.38	5.38	5.38	5.38	\$0.00	\$0.00
Monthly 5,000 Gallon Bill	\$44.26	\$55.98	\$46.20	\$58.51	\$1.94	\$2.53

7,500 Gallons	2018		2019		RATE INCREASE	
	CURRENT RATES		PROPOSED RATES			
	in limits	out of limits	in limits	out of limits	in limits	out of limits
Base Fee	\$26.00	\$33.80	\$27.30	\$35.49	\$1.30	\$1.69
1,000 - 5,000 Rate	12.88	16.80	13.52	17.64	\$0.64	\$0.84
5,001 - 10,000 Rate	11.10	14.45	11.65	15.18	\$0.55	\$0.73
10,000 - 15,000 Rate	0.00	0.00	0.00	0.00	\$0.00	\$0.00
15,001- Rate	0.00	0.00	0.00	0.00	\$0.00	\$0.00
WRDF	5.38	5.38	5.38	5.38	\$0.00	\$0.00
Monthly 7,500 Gallon Bill	\$55.36	\$70.43	\$57.85	\$73.69	\$2.49	\$3.26

A high-speed photograph of a water droplet falling into a pool of water. The droplet is captured mid-fall, just above the surface, with a small splash of water below it. The impact has created a series of concentric ripples that spread outwards from the center. The background is a soft, light blue gradient.

Differential Rates

Reasons For Differential Rates

- 🌐 The distances are far greater when servicing lines as well as pumps and other equipment outside the corporate limits.
- 🌐 The terrain in a much of the village is very different than that inside the city limits which makes repairs more costly.
- 🌐 The Cottonwood Municipal Water Utility is a public utility owned by the citizens of Cottonwood. When the utility borrows money for infrastructure, whether inside or outside the city limits, the citizens of Cottonwood bear the risk of the new debt and infrastructure.
- 🌐 Inside the city about 70% of the distribution system is fed by gravity versus booster pumps which means the electrical cost to provide water is significantly less per account because the only cost is for the well pumpage into the gravity system. The village system and Verde Santa Fe (VSF) are 100% pressure distribution systems.
- 🌐 Approximately 60% of the leaks we repair are in the county (mainly the village since VSF is a relatively new system).
 - 🌐 Staff has to deal with 3, 7200 volt direct bury APS electrical lines that are joint trenched with the water lines.
 - 🌐 Verde Village utilities are underground & confined to narrow easements.

Reasons For Differential Rates

- 🌐 The meters in the village are primarily in small overgrown backyard easements.
 - 🌐 Easements are commonly fenced in, making it difficult to reach meters and make repairs
- 🌐 There are more small wells (14) outside the limits as opposed to larger wells inside the limits (9), all require daily monitoring and regular maintenance regardless of size.
 - 🌐 New arsenic media replacement will be costlier with the additional well sites
- 🌐 There are thirteen (13) arsenic systems outside the limits as opposed to nine (9) arsenic systems inside the corporate boundaries. Each of these systems require regular maintenance regardless of the size of the well.
- 🌐 The leak repair figures outside the city used to be higher until we invested in new pumps and variable speed controllers in the village which has reduced the pressure variations and associated water hammer.
- 🌐 The City purchased the Quail Canyon Water system exclusively to service Verde Village #6 & #7. Final cost to run the lines was over \$1M.
- 🌐 There were differential rates throughout the privately owned companies

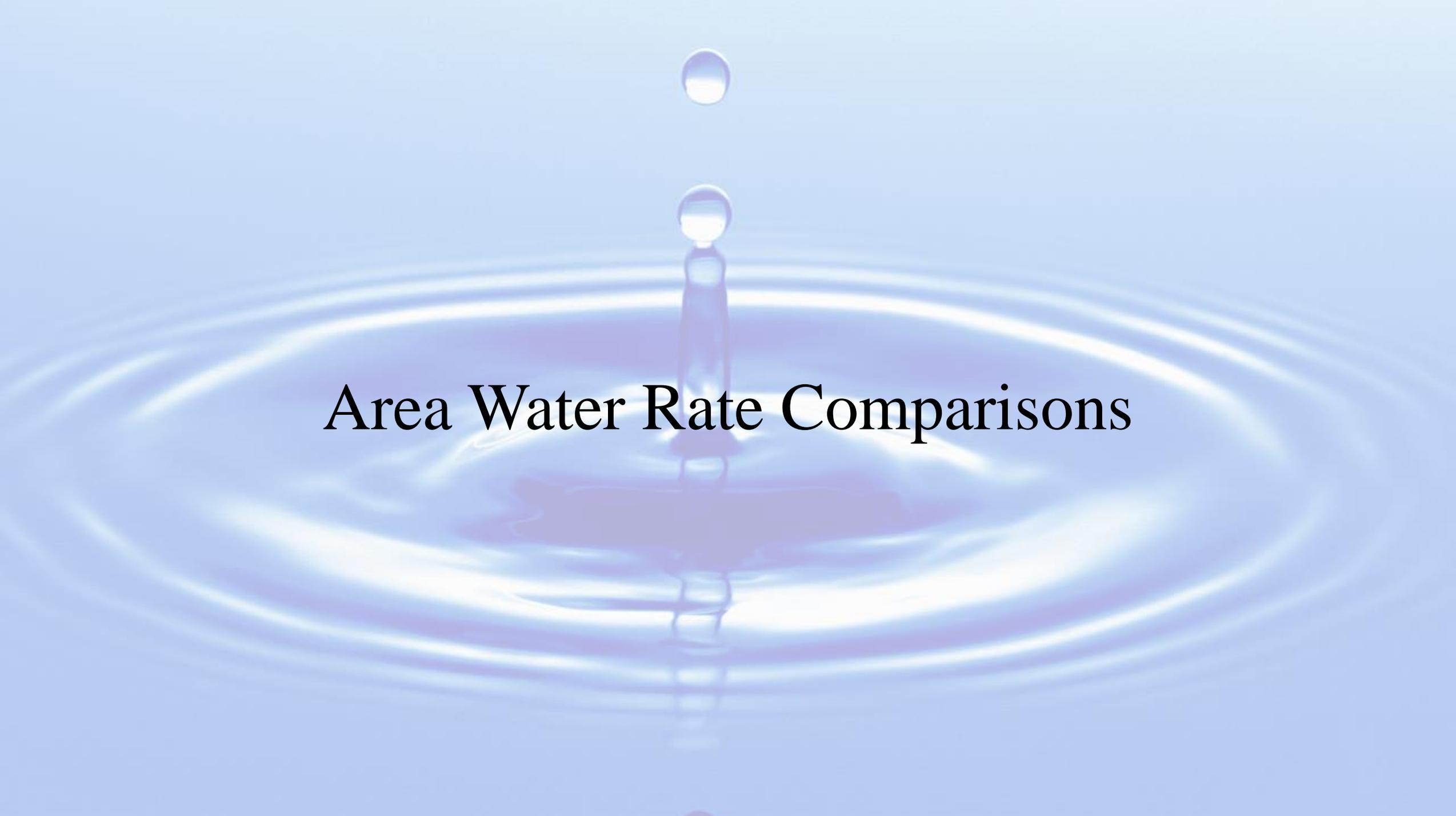
Variable Rates Throughout the State

2015 Water Rate Structures for Residential Customers	
City	Outside/Inside Bill Differential at 5,000 gallons
Nogales	211%
Eagar	200%
Eloy	200%
Valle Escondido DWID	200%
Wickenburg	200%
Winslow	190%
Globe	172%
Tombstone	168%
Maricopa DWID	166%
Springerville	166%
Phoenix	150%
Chandler	140%
Prescott	135%
Yuma	133%
Cottonwood	130%

2015 Water Rate Structures for Residential Customers	
City	Outside/Inside Bill Differential at 5,000 gallons
Glendale	130%
Tempe	130%
Florence	129%
Kingman	128%
Flowing Wels Irrigation District	126%
Jerome	126%
Gila Bend	125%
Goodyear	125%
Lake Havasu City	125%
Show Low	124%
Douglas	122%
Wellton	117%
Huachuca City	112%
Flagstaff	110%
Marana	100%

Differential Rates Are Commonplace in Arizona

- There are over 400 water utilities in Arizona
- 64 are municipally owned and operated
- 29 or 45.3% of Municipal water utilities have differential rate
- Remaining 35 may or may not provide services outside its limits
 - Example Clarkdale
- Not uncommon for cities/towns to have differential rates due to:
 - Municipal water companies with differential rates
 - Private utility companies operating within city boundaries
 - Utility districts with property tax support within boundaries
 - There are communities that have differential rates within their own boundaries

A high-speed photograph of a water droplet falling into a pool of water, creating concentric ripples. The background is a soft, light blue gradient. The droplet is captured mid-fall, with a small one above and a larger one below, both reflecting light. The ripples are clearly visible, spreading outwards from the point of impact.

Area Water Rate Comparisons

Seven Questions to Consider Before Comparing Rates

- ① Where does the water come from and how is it treated and distributed?
- ② Are water rates covering the full cost of the services provided?
- ③ How many and what type of customers do the systems serve?
- ④ How much water do people use?
- ⑤ What is the condition of the system assets?
- ⑥ Do the water systems provide for fire protection?
- ⑦ Do the water systems have the same type of ownership?

Area Rate Comparisons

Source: Communities websites & personal contacts

1. Municipal Water is privately owned - Camp Verde Water System, Inc. & Verde Lakes Water System & Wastewater Camp Verde Sanitation District collects property taxes to offset O&M and capital improvements
2. Part of Chino is supplied by Prescott water at 30% above the Prescott cost.
3. Wastewater is provided by the No. Gila County Sanitary District-collects \$0.60 per \$100 of secondary assessed value
4. Prescott Valley Sewer is a combination of a fixed monthly cost plus usage. Base is \$5.07 plus \$4.54 per each 1,000 gallons
5. Water is operated by Arizona Water Company
6. Cottonwood Water provides water services, wastewater is provided by Verde Santa Fe Wastewater Co.

Community	Notes	2016 Census Population	7,500 gallons of water	
			Inside	Outside
Cottonwood		11,990	\$55.36	\$70.43
Camp Verde	1	11,238		
Chino Valley		11,250	\$41.11	\$41.11
Chino Valley / Prescott	2		\$60.73	\$60.73
Clarkdale		4,272	\$66.00	\$66.00
Flagstaff		71,459	\$56.68	\$62.14
Payson	3	15,476	\$80.03	\$80.03
Prescott		42,513	\$46.72	\$61.22
Prescott Valley	4	43,132	\$33.08	\$33.08
Sedona	5	10,397	\$50.59	\$50.59
Show Low		11,096	\$53.55	\$66.69
Verde Santa Fe	6		\$70.43	\$70.43
Wickenburg		7,115	\$19.15	\$38.29
Williams		3,159	\$60.70	\$60.70
Winslow		9,754	\$35.97	\$69.10
Average			\$49.46	\$55.15



Questions