

ORIGINAL



0000149916

BEFORE THE ARIZONA CORPORATION

COMMISSIONERS

BOB STUMP, CHAIRMAN  
GARY PIERCE  
BRENDA BURNS  
BOB BURNS  
SUSAN BITTER SMITH

2013 DEC 20 P 12:09

ARIZONA CORPORATION COMMISSION  
DOCKET CONTROL

IN THE MATTER OF THE APPLICATION OF  
CHAPARRAL CITY WATER COMPANY FOR A  
DETERMINATION OF THE CURRENT FAIR  
VALUE OF ITS UTILITY PLANT AND  
PROPERTY AND FOR INCREASE IN ITS RATES  
AND CHARGES BASED THEREON.

DOCKET NO. W-02113A-13-0118

**STAFF'S NOTICE OF FILING  
DIRECT TESTIMONY**

The Utilities Division ("Staff") of the Arizona Corporation Commission ("Commission") hereby files the Direct Rate Design Testimony of Staff witnesses Gerald W. Becker and the Direct Cost of Service Testimony of Katrin Stukov in the above-referenced matter.

RESPECTFULLY SUBMITTED this 20<sup>th</sup> day of December, 2013.

Bridget A. Humphrey  
Matthew Laudone  
Attorneys, Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007  
(602) 542-3402

Original and thirteen (13) copies of the foregoing filed this 20<sup>th</sup> day of December, 2013, with:

Docket Control  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Arizona Corporation Commission  
**DOCKETED**  
DEC 20 2013

DOCKETED BY **nr**

1 Copy of the foregoing mailed and/or emailed  
2 on the 20<sup>th</sup> day of December, 2013, to:

3 Thomas H, Campbell  
4 Michael T. Hallam  
5 LEWIS & ROCA, LLP  
6 40 North Central Avenue  
7 Phoenix, Arizona 85004  
8 Attorneys for Chaparral City Water Company

9 Daniel W. Pozefsky, Chief Counsel  
10 RUCO  
11 1110 West Washington, Suite 220  
12 Phoenix, Arizona 85007

13 Andrew J. McGuire  
14 David A. Pennartz  
15 Landon W. Loveland  
16 GUST ROSENFELD, PLC  
17 One East Washington Street, Suite 1600  
18 Phoenix, Arizona 85004  
19 Attorneys for the Town of Fountain Hills

20 Lina Bellenir  
21 16301 East Jacklin Drive  
22 Fountain Hills, AZ 85268

23 Gale Evans  
24 Patricia Huffman  
25 16218 E. Palisades Blvd.  
26 Fountain Hills, AZ 85268

27 Leigh M. Oberfeld-Berger  
28 16623 E. Ashbrook Drive, Unit #2  
Fountain Hills, AZ 85268

Tracey Holland  
16224 E. Palisades Blvd.  
Fountain Hills, AZ 85268

Leonora M. Hebenstreit  
16632 E. Ashbrook Drive, Unit A  
Fountain Hills, AZ 85268

23  
24  
25   
26  
27  
28

**BEFORE THE ARIZONA CORPORATION COMMISSION**

**BOB STUMP**

Chairman

**GARY PIERCE**

Commissioner

**BRENDA BURNS**

Commissioner

**BOB BURNS**

Commissioner

**SUSAN BITTER SMITH**

Commissioner

IN THE MATTER OF THE APPLICATION ) DOCKET NO. W-02113A-13-0118  
OF CHAPARRAL CITY WATER COMPANY )  
FOR A DETERMINATION OF THE )  
CURRENT FAIR VALUE OF ITS UTILITY )  
PLANT AND PROPERTY AND FOR )  
INCREASE IN ITS RATES AND CHARGES )  
BASED THEREON )  
\_\_\_\_\_ )

RATE DESIGN

DIRECT TESTIMONY

OF

GERALD BECKER

EXECUTIVE CONSULTANT

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

DECEMBER 20, 2013

**TABLE OF CONTENTS**

	<u>Page</u>
INTRODUCTION .....	1
BACKGROUND .....	2
RATE DESIGN .....	3
MISCELLANEOUS SERVICE CHARGES .....	5

**SCHEDULES**

Rate Design .....	GWB-1
Typical Residential Bill Analysis.....	GWB-2

**EXECUTIVE SUMMARY  
CHAPARRAL CITY WATER COMPANY  
DOCKET NO. W-02113A-13-0118**

Chaparral City Water Company (“CCWC” or “Company”), is a certificated Arizona public service corporation that provides water service in the Town of Fountain Hills in Maricopa County. The average number of customers per Company during the test year was approximately 13,600 customers in its 19 square mile service territory.

The typical 3/4-inch meter residential customer with a median usage of 4,892 gallons would experience a \$10.13 or a 34.89 percent increase in his monthly bill from \$29.03 to \$39.16 under the Company’s proposed rates and a \$1.86 or a 6.39 percent increase in his monthly bill from \$29.03 to \$30.89 under Staff’s recommended rates.

Staff recommends approval of its recommended rates and charges as shown on the attached schedules.

1 **INTRODUCTION**

2 **Q. Please state your name, occupation, and business address.**

3 A. My name is Gerald Becker. I am an Executive Consultant III employed by the Arizona  
4 Corporation Commission ("Commission") in the Utilities Division ("Staff"). My business  
5 address is 1200 West Washington Street, Phoenix, Arizona 85007.

6  
7 **Q. Briefly describe your responsibilities as an Executive Consultant III.**

8 A. I am responsible for the examination and verification of financial and statistical  
9 information included in utility rate applications. In addition, I develop revenue  
10 requirements, and prepare written reports, testimonies, and schedules that include Staff  
11 recommendations to the Commission. I am also responsible for testifying at formal  
12 hearings on these matters.

13  
14 **Q. Please describe your educational background and professional experience.**

15 A. I received a Masters of Business Administration with an emphasis in Accounting from  
16 Pace University. I am a Certified Public Accountant and a Certified Internal Auditor. I  
17 am a member of the Arizona State Society of Certified Public Accountants.

18  
19 I have participated in multiple rate, financing and other regulatory proceedings. I attended  
20 the National Association of Regulatory Utility Commissioners ("NARUC") Utilities Rate  
21 School.

22  
23 I began employment with the Commission as a utilities regulatory analyst in April 2006.  
24 Prior to joining the Commission, I worked as an Auditor at the Department of Economic  
25 Security and Department of Revenue in the Taxpayer Assistance Section. Prior to those

1 jobs, I worked for 15 years as an Auditor, Analyst, Financial Analyst, and Budget  
2 Manager at United Illuminating, an investor-owned electric company in New Haven, CT.

3  
4 **Q. What is the scope of your testimony in this case?**

5 A. I am presenting Staff's analysis and recommendations regarding Chaparral City Water  
6 Company's ("CCWC" or "Company") applications for permanent increases in its rates  
7 and charges.

8  
9 **Q. What is the basis of your current testimony in this case?**

10 A. Based on the adjustments and revenue requirements recommended by Staff, I am  
11 presenting Staff's recommended rate design.

12  
13 **BACKGROUND**

14 **Q. Please review the background of these applications.**

15 A. CCWC is a certificated Arizona public service corporation that provides water service to  
16 customers in the Town of Fountain Hills in Maricopa County. CCWC is a wholly owned  
17 subsidiary of EPCOR Water (USA) Inc. ("EWUS").

18  
19 The Company's current rates were authorized in Decision No. 72258, dated April 7,  
20 2011<sup>1</sup>. That Decision authorized a \$1,883,020 revenue increase that provided a 7.52  
21 percent rate of return on a \$27,506,414 fair value rate base, which was the average of the  
22 original cost rate base and the replacement cost new rate base amount.

23  

---

<sup>1</sup> See Decision No. 72258, Exhibit A, Scenario 3 in column (F) which superseded the "Restated Decision (No. 71308)" as shown in Decision No. 72258, Exhibit A, Column [C].

1 **RATE DESIGN**

2 **Q. Did Staff prepare schedules showing the present, Company-proposed, and Staff-**  
3 **recommended rates and charges?**

4 A. Yes. Staff Schedule GWB-1 shows the present monthly minimum charges and  
5 commodity rates, the Company's proposed monthly minimum charges and commodity  
6 rates and Staff's recommended monthly minimum charges and commodity rates. The  
7 schedules also show the present, proposed and recommended service charges. A summary  
8 of the present, Company-proposed and Staff-recommended rates is presented in the  
9 following section.

10  
11 **Q. Would you please summarize the present rate design for CCWC?**

12 A. The present monthly minimum charges by meter size are as follows: 3/4-inch \$16.50; 1-  
13 inch \$27.50, 1 1/2-inch \$55.00, 2-inch \$88.00, 3-inch \$176.00, 4-inch \$275.00, 6-inch  
14 \$550.00, 8-inch \$880.00, 10-inch \$1,265.00, and 12-inch \$2,365.00. No gallons are  
15 included in the monthly minimum charge. The residential water commodity rate for the  
16 3/4-inch customer is \$2.31 per thousand gallons for zero to 3,000 gallons, \$2.96 per  
17 thousand gallons for 3,001 to 9,000 gallons, and \$3.61 per thousand gallons for any  
18 consumption over 9,000 gallons. The larger residential, commercial, irrigation, and  
19 hydrant commodity break-over points vary by meter size, but are \$2.96 per thousand  
20 gallons for the first tier and \$3.61 per thousand gallons for any consumption over the first  
21 tier. The present rate design also has monthly minimum and commodity charges for  
22 irrigation and hydrant customers, and a commodity only charge for standpipe water  
23 service. The monthly charge for fire sprinkler service is \$10.00 for all meter sizes plus  
24 \$2.96 per thousand gallons.

25

1 **Q. Would you please summarize the Company's proposed rate design?**

2 A. The Company's proposed monthly minimum charges by meter size are as follows: 3/4-  
3 inch \$22.30, 1-inch \$37.19, 1 1/2-inch \$74.38, 2-inch \$119.00, 3-inch \$238.00, 4-inch  
4 \$371.88, 6-inch \$743.77, 8-inch \$1,190.02, 10-inch \$1,710.66, and 12-inch \$3,198.19.  
5 Customers who qualify as low income with 3/4-inch and 1-inch meters would qualify for a  
6 discount of \$7.50 per month from the monthly minimum. Zero gallons are included in the  
7 monthly minimum charge for all customers. The Company proposes a 3-tier inverted  
8 residential commodity rate for only the 3/4-inch customers of \$3.1061 per thousand  
9 gallons for zero to 3,000 gallons, \$3.9850 per thousand gallons for 3,001 to 9,000 gallons,  
10 and \$4.8640 per thousand gallons for any consumption over 9,000 gallons. The other  
11 proposed residential commodity rate tiers vary by meter size, but are \$3.9850 per thousand  
12 gallons for the first tier and \$4.8640 per thousand gallons for any consumption over the  
13 first tier. The Company is proposing an increase in its meter and commodity charges for  
14 commercial, irrigation and hydrant customers. The Company is also proposing increased  
15 monthly and commodity charges for private fire service which does not vary by meter  
16 size.

17  
18 **Q. Would you please summarize Staff's recommended rate design?**

19 A. Staff's recommended rates and charges are presented on Schedule GWB-1. Staff's  
20 recommended monthly minimum charges by meter size are as follows: 3/4-inch \$18.50, 1-  
21 inch \$30.85, 1 1/2-inch \$61.70, 2-inch \$98.71, 3-inch \$197.42, 4-inch \$308.47, 6-inch  
22 \$616.96, 8-inch \$987.12, 10-inch \$1,418.99, and 12-inch \$2,652.90. Customers who  
23 qualify as low income with 3/4-inch and 1-inch meters would qualify for a discount of  
24 \$7.50 per month from the monthly minimum. Zero gallons are included in the monthly  
25 minimum charge. For the 3/4-inch residential customers, Staff recommends a 3-tier  
26 inverted rate design with commodity charges of \$2.00 per thousand gallons for zero to

1 3,000 gallons, \$3.375 per thousand gallons for 3,001 to 9,000 gallons, and \$4.14 per  
2 thousand gallons for any consumption over 9,000 gallons. Staff's recommended larger  
3 residential, commercial, irrigation, and hydrant commodity rates have two tiers and vary  
4 by meter size, set at \$3.375 per thousand gallons for the first tier and \$4.14 per thousand  
5 gallons for any consumption over the first tier. Staff recommends increases in meter and  
6 commodity charge for commercial, irrigation and hydrant customers. Staff recommends  
7 increasing the monthly charge for fire sprinkler service to the greater of \$10.00 or 2  
8 percent of the monthly minimum charge for that meter size with no specified commodity  
9 charge.

10  
11 **Q. What is the rate impact on a typical 3/4-inch meter residential customer?**

12 A. The typical 3/4-inch meter residential customer with a median usage of 4,892 gallons  
13 would experience a \$10.13 or a 34.89 percent increase in his monthly bill from \$29.03 to  
14 \$39.16 under the Company's proposed rates and a \$1.86 or a 6.39 percent increase in his  
15 monthly bill from \$29.03 to \$30.89 under Staff's recommended rates. A typical bill  
16 analysis is provided on Schedule GWB-2.

17  
18 **MISCELLANEOUS SERVICE CHARGES**

19 **Q. Does Staff have any comments related to service charges?**

20 A. Yes. Staff agrees with the Company's proposed Service Charges, with the following  
21 exceptions:

22  
23 Staff recommends the addition of a Service Charge (after hours) tariff in the amount of  
24 \$35.00 and that this charge be in addition to the charge for any utility service provided  
25 after hours at the customer's request for the customer's convenience. Such a charge  
26 compensates the utility for additional expenses incurred from providing after-hours

1 service. Staff does not recommend approval of the proposed \$90.00 Reconnection of  
2 Service (Delinquent/After Hours) tariff. Staff also recommends removal of the tariff for  
3 Service Call – After Hours (per A.A.C. R14-2-403.D).

4  
5 Staff agrees with an Establishment of Service charge and a Reconnection of Service  
6 (Delinquent) but recommends an Establishment of Service charge of \$30.00 and a  
7 Reconnection of Service (Delinquent) of \$35.00 and that this charge be in addition to the  
8 charge for any utility service provided after hours at the customer's request. Staff also  
9 recommends a meter test (if correct) charge of \$35.00.

10

11 **Q. What does Staff recommend?**

12 A. Staff recommends the approval of its Services Charges as shown on Schedule GWB-1.

13

14 **Q. Does this conclude your direct testimony?**

15 A. Yes, it does.

<u>Monthly Usage Charge</u>	<u>Present</u>	<u>Company Proposed Rates</u>	<u>Staff Recommended Rates</u>
<b>Meter Size (All Classes):</b>			
3/4 Inch	16.50	22.30	18.50
3/4 Inch Low Income	-	14.80	11.00
1 Inch	27.50	37.19	30.85
1 Inch (Low Income)	-	29.69	23.35
1 1/2 Inch	55.00	74.38	61.70
2 Inch	88.00	119.00	98.71
3 Inch	176.00	238.00	197.42
4 Inch	275.00	371.88	308.47
6 Inch	550.00	743.77	616.96
8 Inch	880.00	1,190.02	987.12
10 Inch	1,265.00	1,710.66	1,418.99
12 Inch	2,365.00	3,198.19	2,652.90
<b>Commodity Charge - Per 1,000 Gallons All Classes</b>			
<u>3/4" Meter (Residential, Commercial and Industrial)</u>			
First 3,000 gallons	\$ 2.3100	\$ 3.1061	\$ 2.0000
3,001 to 9,000 gallons	2.9600	3.9850	3.375
Over 9,000 gallons	3.6100	4.8640	4.140
<u>1" Meter (Residential, Commercial and Industrial)</u>			
First 24,000 gallons	2.9600	3.9850	3.375
Over 24,000 gallons	3.6100	4.8640	4.140
<u>1 1/2" Meter (Residential, Commercial and Industrial)</u>			
First 60,000 gallons	2.9600	3.9850	3.375
Over 60,000 gallons	3.6100	4.8640	4.140
<u>2" Meter (Residential, Commercial and Industrial)</u>			
First 100,000 gallons	2.9600	3.9850	3.375
Over 100,000 gallons	3.6100	4.8640	4.140
<u>3" Meter (Residential, Commercial and Industrial)</u>			
First 225,000 gallons	2.9600	3.9850	3.375
Over 225,000 gallons	3.6100	4.8640	4.140
<u>4" Meter (Residential, Commercial and Industrial)</u>			
First 350,000 gallons	2.9600	3.9850	3.375
Over 350,000 gallons	3.6100	4.8640	4.140
<u>6" Meter (Residential, Commercial and Industrial)</u>			
First 725,000 gallons	2.9600	3.9850	3.375
Over 725,000 gallons	3.6100	4.8640	4.140
<u>8" Meter (Residential, Commercial and Industrial)</u>			
First 1,125,000 gallons	2.9600	3.9850	3.375
Over 1,125,000 gallons	3.6100	4.8640	4.140
<u>10" Meter (Residential, Commercial and Industrial)</u>			
First 1,500,000 gallons	2.9600	3.9850	3.375
Over 1,500,000 gallons	3.6100	4.8640	4.140
<u>12" Meter (Residential, Commercial and Industrial)</u>			
First 2,250,000 gallons	2.9600	3.9850	3.375
Over 2,250,000 gallons	3.6100	4.8640	4.140

	Present	Company Proposed Rates	Staff Recommended Rates
<b>Fire Lines:</b>			
Up to 8"	\$ 10.00	\$ 13.62	Per Rule*
10"	10.00	13.62	Per Rule*
12"	10.00	13.62	Per Rule*
*2% of monthly minimum for a comparable size meter connection, but no less than \$10.00 per month. The service charge for fire sprinklers is only applicable for service lines separate and distinct for the primary water service line.			
<b>Other Service Charges:</b>			
Establishment	\$ 25.00	\$ 60.00	\$ 30.00
Establishment (After Hours)	\$ 35.00	\$ 90.00	NT
Reconnection (Delinquent)	\$ 35.00	\$ 60.00	\$ 35.00
Reconnection (Delinquent) - After Hours	\$ 50.00	\$ 90.00	N/T
Meter Test (If Correct)	\$ 35.00	\$ 30.00	\$ 35.00
Deposit	*	*	*
Deposit Interest	**	**	**
Reestablishment (within 12 months)	***	***	***
NSF Check	\$ 25.00	\$ 25.00	\$ 25.00
Late Payment Penalty	1.5% per month	1.5% per month	1.5% per month
Deferred Payment	1.5% per month	1.5% per month	1.5% per month
Moving Meter at Customer Request	At Cost	At Cost	At Cost
Meter Re-read (if correct)	\$ 25.00	\$ 10.00	\$ 10.00
Service Calls -After Hours	see above	see above	N/T
After Hours Service Charge (a)	-	-	\$ 35.00
* Per Commission Rule A.A.C. R14-2-403(B)			
** Per Commission Rule A.A.C. R14-2-403(B)			
*** Per Commission Rule A.A.C. R14-2-403(D) - Months off the system times the monthly minimum.			
In addition to the collection of regular rates, the utility will collect from its customers a proportionate share of any privilege, sales, use, and franchise tax. Per commission rule 14-2-409D(5).			
(a) In addition to the charge for any utility service provided after hours			

**Service and Meter Installation Charges**

Service Size	Present Service Line	Present Meter	Total Present Charge	Proposed Service Line	Proposed	Total Proposed	Recommen	Recommen	Total Recommend
5/8"	\$ 385.00	\$ 135.00	\$ 520.00	\$ 385.00	\$135.00	\$ 520.00	\$ 385.00	\$ 135.00	\$ 520.00
3/4"	\$ 385.00	\$ 215.00	\$ 600.00	\$ 385.00	\$195.00	\$ 580.00	\$ 385.00	\$ 195.00	\$ 580.00
1"	\$ 435.00	\$ 255.00	\$ 690.00	\$ 435.00	\$234.00	\$ 669.00	\$ 435.00	\$ 234.00	\$ 669.00
1-1/2"	\$ 470.00	\$ 465.00	\$ 935.00	\$ 470.00	\$367.00	\$ 837.00	\$ 470.00	\$ 367.00	\$ 837.00
2" Turbine	\$ 630.00	\$ 965.00	\$ 1,595.00	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost
2" Comp	\$ 630.00	\$ 1,690.00	\$ 2,320.00	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost
3" Turbine	\$ 805.00	\$ 1,470.00	\$ 2,275.00	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost
3" Comp	\$ 845.00	\$ 2,265.00	\$ 3,110.00	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost
4" Turbine	\$ 1,170.00	\$ 2,350.00	\$ 3,520.00	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost
4" Comp	\$ 1,230.00	\$ 3,245.00	\$ 4,475.00	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost
6" Turbine	\$ 1,730.00	\$ 4,545.00	\$ 6,275.00	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost
6" Comp	\$ 1,770.00	\$ 6,280.00	\$ 8,050.00	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost
8" or larger	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost

Fire Sprinkler	Present	Proposed	Recommended
2" Meter and Valve	At Cost	At Cost	At Cost
4" Meter and Valve	At Cost	At Cost	At Cost
6" Meter and Valve	At Cost	At Cost	At Cost
8" Meter and Valve	At Cost	At Cost	At Cost

**Typical Bill Analysis**  
General Service 3/4-Inch Meter

Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	7,870	\$ 37.85	\$ 51.03	\$ 13.18	34.83%
Median Usage	4,892	29.03	39.16	\$ 10.13	34.89%
<b>Staff Recommended</b>					
Average Usage	7,870	\$ 37.85	\$ 40.94	\$ 3.09	8.17%
Median Usage	4,892	29.03	30.89	\$ 1.86	6.39%

**Present & Proposed Rates (Without Taxes)**  
General Service 3/4-Inch Meter

Gallons Consumption	Present Rates	Company Proposed Rates	% Increase	Staff Recommended Rates	% Increase
-	\$ 16.50	\$ 22.30	35.15%	\$ 18.50	12.12%
1,000	18.81	25.41	35.07%	20.50	8.98%
2,000	21.12	28.51	35.00%	22.50	6.53%
3,000	23.43	31.62	34.95%	24.50	4.57%
4,000	26.39	35.60	34.91%	27.88	5.63%
5,000	29.35	39.59	34.88%	31.25	6.47%
6,000	32.31	43.57	34.86%	34.63	7.16%
7,000	35.27	47.56	34.84%	38.00	7.74%
8,000	38.23	51.54	34.82%	41.38	8.23%
9,000	41.19	55.53	34.81%	44.75	8.64%
10,000	44.80	60.39	34.80%	48.89	9.13%
11,000	48.41	65.26	34.80%	53.03	9.54%
12,000	52.02	70.12	34.79%	57.17	9.90%
13,000	55.63	74.98	34.79%	61.31	10.21%
14,000	59.24	79.85	34.79%	65.45	10.48%
15,000	62.85	84.71	34.78%	69.59	10.72%
16,000	66.46	89.58	34.78%	73.73	10.94%
17,000	70.07	94.44	34.78%	77.87	11.13%
18,000	73.68	99.30	34.78%	82.01	11.31%
19,000	77.29	104.17	34.78%	86.15	11.46%
20,000	80.90	109.03	34.77%	90.29	11.61%
25,000	98.95	133.35	34.77%	110.99	12.17%
30,000	117.00	157.67	34.76%	131.69	12.56%
35,000	135.05	181.99	34.76%	152.39	12.84%
40,000	153.10	206.31	34.76%	173.09	13.06%
45,000	171.15	230.63	34.75%	193.79	13.23%
50,000	189.20	254.95	34.75%	214.49	13.37%
75,000	279.45	376.55	34.75%	317.99	13.79%
100,000	369.70	498.15	34.75%	421.49	14.01%

**BEFORE THE ARIZONA CORPORATION COMMISSION**

BOB STUMP  
Chairman  
GARY PIERCE  
Commissioner  
BRENDA BURNS  
Commissioner  
BOB BURNS  
Commissioner  
SUSAN BITTER SMITH  
Commissioner

IN THE MATTER OF THE APPLICATION OF ) DOCKET NO. W-02113A-13-0118  
CHAPARRAL CITY WATER COMPANY )  
FOR A DETERMINATION OF THE CURRENT )  
FAIR VALUE OF ITS UTILITY PLANT AND )  
PROPERTY AND FOR INCREASE IN ITS )  
RATES AND CHARGES BASED THEREON )  
\_\_\_\_\_)

DIRECT  
TESTIMONY  
OF  
KATRIN STUKOV  
UTILITIES ENGINEER  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION

DECEMBER 20, 2013

**TABLE OF CONTENTS**

	Page
I. INTRODUCTION .....	1
II. COST OF SERVICE STUDY - REVIEW PROCESS .....	2
III. CONCLUSIONS AND RECOMMENDATIONS .....	4

**EXHIBITS**

Cost of Service Summary – Present Rates.....	Schedule G-1
Cost of Service Summary – Proposed Rates.....	Schedule G-2

**EXECUTIVE SUMMARY  
CHAPARRAL CITY WATER COMPANY  
COST OF SERVICE STUDY  
DOCKET NO. W-02113A-13-0118**

Katrin Stukov's testimony discusses Utilities Division Staff's ("Staff") review of Chaparral City Water Company's ("Chaparral" or "Company") Cost of Service Study ("COSS") for the rate case filed with the Arizona Corporation Commission ("Commission"), and presents the results of Staff's analysis.

Based on its review of Chaparral's COSS, Staff's conclusions and recommendations are as follows:

1. It is Staff's conclusion that Chaparral performed the COSS consistent with the methodology generally accepted in the industry, and developed all of the allocation factors appropriately.
2. Staff further concludes that, based on the evaluation of the COSS model utilized by Chaparral, the results of the COSS are satisfactory.
3. Staff further recommends that Chaparral's COSS cost allocation factors, and cost allocations modified by Staff as included under G Schedules, be accepted as reasonable in the instant case. The revised Schedules G-1 and G-2 are attached in Exhibit 1.

Staff's conclusions are limited to the specific facts of this case and shall not create any precedent regarding cost of service studies generally, and Staff may make different recommendations in other cases.

1 **I. INTRODUCTION**

2 **Q. Please state your name, place of employment and job title.**

3 A. My name is Katrin Stukov. My place of employment is the Arizona Corporation  
4 Commission ("Commission"), Utilities Division ("Staff"), 1200 West Washington Street,  
5 Phoenix, Arizona 85007. My job title is Utilities Engineer.

6  
7 **Q. How long have you been employed by the Commission?**

8 A. I have been employed by the Commission since June 2006.

9  
10 **Q. Please list your duties and responsibilities.**

11 A. As a Utilities Engineer, specializing in water and wastewater engineering, I inspect and  
12 evaluate water and wastewater systems, obtain data, prepare reports, suggest corrective  
13 action, provide technical recommendations on water and wastewater system deficiencies,  
14 and provide written and oral testimony on rate and other cases before the Commission.

15  
16 **Q. How many cases have you analyzed for the Utilities Division?**

17 A. I have analyzed over 80 cases covering various responsibilities for the Utilities Division.

18  
19 **Q. What is your educational background?**

20 A. I graduated from the Moscow University of Civil Engineering with a Bachelor of Science  
21 degree in Civil Engineering with a concentration in water and wastewater systems.

22  
23 **Q. Briefly describe your pertinent work experience.**

24 A. Prior to my employment with the Commission, I was a design review  
25 environmental engineer with the Arizona Department of Environmental Quality  
26 ("ADEQ") for twenty years. My responsibilities with ADEQ included review of projects

1 for the construction of water and wastewater facilities. Prior to that, I worked as a civil  
2 engineer in several engineering and consulting firms, including Bechtel, Inc. and Brown &  
3 Root, Inc., in Houston, Texas.

4  
5 **Q. Did Staff perform an analysis of the application that is the subject of this**  
6 **proceeding?**

7 **A.** Yes, Staff's review of the Company's cost of service study was performed by Staff  
8 Engineer Prem Bahl who recently retired.

9  
10 **Q. Is your testimony herein based on Mr. Bahl's analysis?**

11 **A.** Yes, it is.

12  
13 **Q. What is the purpose of this Direct Testimony?**

14 **A.** The purpose is to discuss Staff's review of Chaparral's COSS for the rate case, and  
15 present the results of this review.

16  
17 **II. COST OF SERVICE STUDY - REVIEW PROCESS**

18 **Q. What does the COSS signify?**

19 **A.** There are three steps in performing a COSS. They are: 1) Functionalization; 2)  
20 Classification; and 3) Allocation. First, the COSS enables us to determine the system cost  
21 of service by classifying the utility's costs (investments and expenses) by function, such as  
22 commodity-related, demand-related, customer-related and Direct Fire-related functions.  
23 Customer-related functions are further broken down into customers and customer services.  
24 Second, the study breaks down these costs by customer classes to reflect as closely as  
25 possible the cost causation by respective customer classes. Third, the results of the COSS

1 provide a benchmark for the revenues needed from each customer category by  
2 appropriately allocating the revenue requirement for each customer class.

3 **Q. Is there a standard COSS model?**

4 A. There is no standard methodology for designing a COSS, but it is generally advisable to  
5 follow a range of alternatives to identify which allocations are more reasonable than  
6 others. For that reason, the COSS should be used as a general guide only and as one of  
7 many considerations in designing rates.

8  
9 **Q. Did Staff conduct a separate independent COSS?**

10 A. No. Staff did not conduct a separate independent COSS.

11  
12 **Q. What was the process Staff used in reviewing the Company's COSS?**

13 A. Staff reviewed the Company's overall COSS methodology, which is the Commodity-  
14 Demand methodology as outlined in the American Water Works Association Manual M1,  
15 "Principles of Water Rates, Fees, and Charges." The Commodity-Demand Method breaks  
16 down the costs of providing water service into four primary cost components: commodity  
17 costs (costs that tend to vary with the amount of water used by the customers), demand  
18 costs (costs associated with peak use/demand), customer costs (costs not associated with  
19 water use, such as billing) and direct fire protection costs. Staff then reviewed the G  
20 Schedules reflecting various allocation factors (for Commodity, Demand, Customer, and  
21 Direct Private Fire) in the COSS. Next, Staff reviewed the Test Year ("FYE December  
22 31, 2012") rate base, revenues and expenses in the filed rate case. Staff adjustments to  
23 rate base, revenues and expenses were incorporated in the appropriate G Schedules. The  
24 modified G Schedules G-1 and G-2 are attached under Exhibit 1.  
25

1 **III. CONCLUSIONS AND RECOMMENDATIONS**

2 **Q. What are Staff's conclusions and recommendations regarding the Cost of Service**  
3 **Study?**

4 **A.** Based on the review of Chaparral's COSS, Staff's conclusions and recommendations are  
5 as follows:

6  
7 1. It is Staff's conclusion that Chaparral performed the COSS consistent with the  
8 methodology generally accepted in the industry, and developed the allocation  
9 factors appropriately, in accordance with the Staff recommended and Commission  
10 approved allocation factors in the Arizona Water Company's rate case (Docket No.  
11 W-01445A-08-0440).

12  
13 2. Staff further concludes that, based on the evaluation of the COSS model utilized  
14 by Chaparral, the results of the COSS are satisfactory.

15  
16 3. Staff further recommends that Chaparral's COSS cost allocations and factors be  
17 accepted as reasonable in the instant case. The G-Schedules G-1 and G-2 are listed  
18 under the attached Exhibit 1.

19  
20 Staff's conclusions are limited to the specific facts of this case and shall not create any  
21 precedent regarding Cost of Service Studies generally, and Staff may make different  
22 recommendations in other cases.

23  
24 **Q. Does this conclude your Direct Testimony?**

25 **A.** Yes it does.

## EXHIBIT 1

Schedule G-1 Returns at Present Rates by Class

Schedule G-2 Returns at Proposed Rates by Class

**Chaparral City Water Company**  
Test Year Ended December 31, 2012  
Cost of Service Study, Using Commodity-Demand Method  
Returns at Present Rates by Class

Line No.	Totals	Residential	Commercial	Irrigation	Hydrant
1	\$ 8,958,295	\$ 7,271,313	\$ 665,426	\$ 988,711	\$ 32,846
2	(10,471)	27,555	9,419	-	-
3	99,329	92,661	2,940	3,590	139
4	(32,169)	(30,009)	(952)	(1,163)	(45)
5	\$ 9,014,985	\$ 7,361,519	\$ 676,833	\$ 991,139	\$ 32,939
6					
7	\$ 5,407,470	\$ 4,584,534	\$ 324,516	\$ 480,897	\$ 17,522
8					
9	1,502,787	1,316,305	85,918	92,762	7,801
10	232,210	189,620	17,434	25,530	848
11	485,718	314,041	70,537	113,559	1,592
12	\$ 7,628,186	\$ 6,404,500	\$ 498,406	\$ 712,749	\$ 27,764
13	\$ 1,386,799	\$ 957,020	\$ 178,427	\$ 278,390	\$ 5,175
14	270,139	235,043	16,262	17,319	1,514
15	\$ 1,116,660	\$ 721,976	\$ 162,164	\$ 261,071	\$ 3,661
16	\$ 25,166,359	\$ 21,896,820	\$ 1,514,986	\$ 1,613,475	\$ 141,078
17	5.51%	4.37%	11.78%	17.25%	3.67%
18					
19	<b>Percent of Total Customers</b>	93.29%	2.96%	3.61%	0.14%
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					

<sup>1</sup> Allocated based on customer counts.  
<sup>2</sup> Operating Expenses and Depreciation computations are shown on Schedules GWB Rev Req.  
<sup>3</sup> Property Taxes allocation based on Revenues  
<sup>4</sup> Income Tax from Schedule GWB-10, at proposed rates. Income Taxes allocated based on taxable income  
<sup>5</sup> Interest Synchronized Interest Expense per Schedule GWB-2. Allocation based on Rate Base.  
<sup>6</sup> Rate Base computations are shown on Schedule GWB-3.  
<sup>7</sup> Operating Income Divided by Rate Base

Chaparral City Water Company  
Test Year Ended December 31, 2012  
Cost of Service Study, Using Commodity-Demand Method  
Returns at Proposed Rates by Class

Line No.	Totals	Residential	Commercial	Irrigation	Hydrant
1	Water Revenues	\$ 10,003,764	\$ 8,102,465	\$ 744,846	\$ 1,116,850
2	Revenue Annualizations/Declining Usage	\$ (32,308)	(42,807)	10,499	-
3	Misc. Revenues <sup>1</sup>	99,329	92,661	2,940	3,590
4	Low Inc. Discount not deducted Line 1	(22,500)	(22,500)		
5	Total Revenues	\$ 10,048,285	\$ 8,129,818	\$ 758,285	\$ 1,120,440
6					\$ 39,742
7	Operating Expenses <sup>2</sup>	\$ 5,416,666	\$ 4,593,112	\$ 324,789	\$ 481,230
8	Depreciation and Amortization <sup>2</sup>	1,502,787	1,316,305	85,918	92,762
9	Property Tax <sup>3</sup>	241,003	194,990	18,187	26,873
10	Income Tax <sup>4</sup>	874,456	598,084	104,603	167,782
11	Total Operating Expenses	\$ 8,034,912	\$ 6,702,491	\$ 533,497	\$ 768,647
12	Operating Income	\$ 2,013,373	\$ 1,427,328	\$ 224,789	\$ 351,793
13	Interest Expense <sup>5</sup>	270,139	235,043	16,262	17,319
14	Net Income	\$ 1,743,234	\$ 1,192,284	\$ 208,526	\$ 334,474
15	Rate Base <sup>6</sup>	\$ 25,166,359	\$ 21,896,820	\$ 1,514,986	\$ 1,613,475
16	Return on Rate Base <sup>7</sup> (Operating Income Basis)	8.00%	6.52%	14.84%	21.80%
17					6.71%
18					
19	Percent of Total Customers		93.29%	2.96%	3.61%
20					0.14%

Indicated Monthly Minimums and Single-Tier Commodity Rates for 3/4 Inch Meter

	Sched. G-8, pg 4A	Sched. G-8, pg 4B	Sched. G-8, pg 4C	Sched. G-8, pg 4D	Sched. G-8, pg 4E
	All Classes	Residential	Commercial	Irrigation	Hydrant
21	Monthly Minimums	\$ -	\$ 18.45	\$ 19.02	\$ 22.08
22	Single-Tier Commodity Rate	\$ 3.319	\$ 3.512	\$ 2.925	\$ 2.424
23					\$ 5.378

<sup>1</sup> Allocated based on customer counts.  
<sup>2</sup> Operating Expenses and Depreciation computations are shown on Schedules GWB Rev Req.  
<sup>3</sup> Property Taxes allocation based on Revenues  
<sup>4</sup> Income Tax from Schedule GWB-10, at proposed rates. Income Taxes allocated based on taxable income  
<sup>5</sup> Interest Synchronized Interest Expense per Schedule GWB-2. Allocation based on Rate Base.  
<sup>6</sup> Rate Base computations are shown on Schedule GWB-3.  
<sup>7</sup> Operating Income Divided by Rate Base