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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

DOUG LITTLE – CHAIRMAN
BOB STUMP
BOB BURNS
TOM FORESE
ANDY TOBIN

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IN THE MATTER OF THE APPLICATION OF
COMMUNITY WATER COMPANY OF
GREEN VALLEY FOR DETERMINATION OF
THE CURRENT FAIR VALUE OF ITS
UTILITY PLANT AND PROPERTY AND FOR
INCREASES IN ITS RATES AND CHARGES
FOR UTILITY SERVICE.

DOCKET NO. W-02304A-15-0263

STAFF'S NOTICE OF FILING
SURREBUTTAL TESTIMONY

Staff of the Arizona Corporation Commission ("Staff") hereby files the Surrebuttal Testimony
of Staff witnesses Phan Tsan, Jian Liu and Darron Carlson in the above docket.

RESPECTFULLY SUBMITTED this 12th day of April, 2016.

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Arizona Corporation Commission

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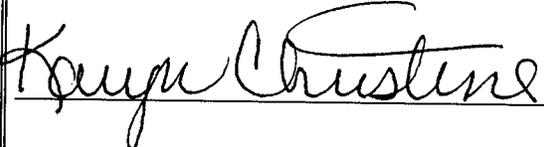
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BEFORE THE ARIZONA CORPORATION COMMISSION

DOUG LITTLE
Chairman
BOB STUMP
Commissioner
BOB BURNS
Commissioner
TOM FORESE
Commissioner
ANDY TOBIN
Commissioner

IN THE MATTER OF THE APPLICATION OF)
COMMUNITY WATER COMPANY OF GREEN)
VALLEY, AN ARIZONA CORPORATION, FOR)
A DETERMINATION OF THE CURRENT FAIR)
VALUE OF ITS UTILITY PLANT AND)
PROPERTY AND FOR INCREASE IN ITS)
RATES AND CHARGES FOR UTILITY SERVICE)
_____)

DOCKET NO. W-02304A-15-0263

SURREBUTTAL
TESTIMONY
OF
PHAN TSAN
PUBLIC UTILITIES ANALYST
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

APRIL 12, 2016

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**EXECUTIVE SUMMARY
COMMUNITY WATER COMPANY OF GREEN VALLEY
DOCKET NO. W-02304A-15-0263**

Staff's surrebuttal testimony addresses rate base, operating income, revenue requirement and rate design. Staff's recommended Fair Value Rate Base ("FVRB") is the same as the recommendation made in its direct testimony which is \$6,563,586. Staff recommends a revenue increase of \$478,000 or 13.50 percent increase over test year revenue of \$3,541,415. The total annual revenue of \$4,019,415 produces an operating income of \$663,076 for a 16.50 percent operating margin.

Staff's recommended rates would increase the typical 5/8-inch meter residential bill with a median usage of 3,500 gallons from \$18.15 to \$20.30, for an increase of \$2.15 or 11.82 percent.

Staff's surrebuttal testimony responds to Community Water Company's ("Community Water" or "Cooperative") rebuttal testimony on the following issues:

1. Operating Income
 - a. Water usage normalization
 - b. Repairs and Maintenance
 - c. Depreciation Expense
2. Rate Design

1 **INTRODUCTION**

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

3 A. My name is Phan Tsan. I am a Public Utilities Analyst employed by the Arizona Corporation
4 Commission (“Commission”) in the Utilities Division (“Staff”). My business address is 1200
5 West Washington Street, Phoenix, Arizona 85007.

6
7 **Q. Are you the same Phan Tsan who filed direct testimony in this case?**

8 A. Yes.

9
10 **PURPOSE OF SURREBUTTAL TESTIMONY**

11 **Q. What is the purpose of your surrebuttal testimony in this proceeding?**

12 A. The purpose of my surrebuttal testimony in this proceeding is to respond, on behalf of Staff,
13 to the rebuttal testimony of Mr. Arturo Gabaldon, and Mr. Thomas Bourassa, witnesses for
14 Community Water Company of Green Valley (“Community Water” or “Cooperative”).

15
16 **Q. What issues will you address?**

17 A. I will address the following issues:

- 18 1. Operating Income
19 a. Water usage normalization
20 b. Repairs and Maintenance
21 c. Depreciation Expense
22 2. Rate Design
23

1 **Q. Does your silence on any particular issue raised in the Cooperative's rebuttal**
2 **testimony indicate that Staff agrees with the Cooperative's stated rebuttal position?**

3 A. No. Rather, where I do not respond, I rely on my direct testimony.
4

5 **SUMMARY OF PROPOSED REVENUES**

6 **Q. Please summarize Staff's recommended revenue increase.**

7 A. Staff now recommends a revenue increase of \$478,000 or a 13.50 percent increase over test
8 year revenue of \$3,541,415. The total annual revenue of \$4,019,415 produces an operating
9 income of \$663,076 for a 16.50 percent operating margin.
10

11 **Q. How does Staff's recommended revenue compare to the recommended revenue in**
12 **Staff's direct testimony?**

13 A. Staff's recommended revenue has increased by \$120,061, from \$3,899,354 in its direct
14 testimony to \$4,019,415 in this surrebuttal testimony.
15

16 **RATE BASE**

17 **Q. What is Staff's recommended rate base?**

18 A. Staff's recommended rate base is \$6,563,586 as shown on Surrebuttal Schedule PNT-2.
19

20 **Q. How does Staff's recommended rate base compare to the recommended rate base in**
21 **Staff's direct testimony?**

22 A. Staff's recommended rate base rate is the same as the recommendation made in its direct
23 testimony.
24

1 **OPERATING INCOME**

2 *Operating Income Adjustment No. 1 – Water Usage Normalization*

3 **Q. Has Staff reviewed the Cooperative’s rebuttal testimony regarding water usage**
4 **normalization?**

5 A. Yes. The Cooperative has proposed in its direct testimony to reduce Metered Water Revenue
6 by \$95,505 which includes \$1,072 revenue annualization and \$94,433 usage normalization,
7 from \$3,546,359 to \$3,450,854. The Cooperative’s rebuttal position proposed an additional
8 \$64,296 revenue decline over the \$94,433 usage normalization adjustment in its direct
9 testimony so the Cooperative now proposes to reduce total Metered Water Revenue by
10 \$158,729. The Cooperative also proposed to reduce Purchased Power Expense and
11 Chemicals expense by an addition of \$9,091 and \$1,390, results in a total reduction of \$22,690
12 and \$3,469 respectively.

13
14 **Q. Does Staff agree with the Cooperative’s adjustment?**

15 A. No. While Staff now is recognizing declining usage for residential customers, Staff does not
16 believe the track for commercial usage is predictable. Commercial sales have fluctuated from
17 year to year and has been slowly increasing in recent years. The Cooperative stated that the
18 anticipated reduction in usage from Freeport McMoran Sierrita may have a significant impact
19 on commercial sales; however Staff does not believe the future usage from the mining
20 company is known and measurable.

21
22 **Q. What is Staff’s recommendation?**

23 A. Staff used 2015 updated data (test year ended December 31, 2014) for the residential usage
24 normalization calculation. Details of the calculation are shown on Surrebuttal Schedule PNT-
25 7, page 2 and 3.

1 Staff recommends a usage normalization adjustment that will reduce metered water revenue
2 by \$5,629 from \$3,450,854 to \$3,445,225, purchase power expense by \$2,117 from \$220,756
3 to \$218,639, and chemicals expense by \$323, from \$33,730 to \$33,407.

4
5 **Q. How does Staff's recommendation for water usage normalization compare to the**
6 **recommendation for water usage normalization in Staff's direct testimony?**

7 A. Staff did not recognize any water usage normalization adjustment in its direct testimony.

8
9 *Operating Income Adjustment No. 5 – Repair and Maintenance, reservoir maintenance annual reserve.*

10 **Q. Has Staff reviewed the Cooperative's rebuttal testimony regarding the reservoir**
11 **maintenance annual reserve?**

12 A. Yes.

13
14 **Q. What is the Cooperative's position regarding Repair and Maintenance Expense,**
15 **reservoir maintenance annual reserve?**

16 A. The Cooperative updated the estimated costs for the reservoir maintenance. The
17 Cooperative is proposing an increase of \$11,114 for Repair and Maintenance, reservoir
18 maintenance annual reserve from \$55,886 in its direct testimony to \$67,000 in its rebuttal
19 testimony.

20
21 **Q. What is Staff's recommendation?**

22 A. Staff recommends repair and maintenance, reservoir maintenance annual reserve of \$44,129
23 as shown on Surrebuttal Schedule PNT-11, which results in an adjusted repair and
24 maintenance expense of \$54,151. Based on the updated information provided by the
25 Cooperative, Staff recalculated annual reserve for the reservoir maintenance. Staff excluded
26 the reserve for Reservoir No. 5 since it is not used and useful. With the exclusion of

1 Reservoir No. 5, the total estimated cost for all reservoir and tank maintenance is \$765,000.
2 However, the Cooperative has already accrued a net reserve of \$152,451. Therefore, only
3 \$612,549 is needed. See Surrebuttal Schedule PNT-11 for a detailed calculation of annual
4 reserve for the various reservoirs/tanks.

5
6 **Q. How does Staff's recommendation for repair and maintenance expense, reservoir**
7 **maintenance annual reserve compare to the recommendation for maintenance**
8 **expense, reservoir maintenance annual reserve in Staff's direct testimony?**

9 A. Staff's recommendation for maintenance expense, reservoir maintenance annual reserve is
10 increasing from \$26,740 in its direct to \$44,129 in its surrebuttal; so Staff's recommendation
11 has increased by \$17,389.

12
13 *Operating Income Adjustment No.7 - Depreciation expense*

14 **Q. Has Staff reviewed the Cooperative's rebuttal testimony concerning depreciation**
15 **expense?**

16 A. Yes.

17
18 **Q. Is Staff still of the opinion that the Cooperative did not implement broad group**
19 **depreciation method properly which caused over depreciation of plant?**

20 A. Yes.

21
22 **Q. Is the broad group procedure commonly used and an accepted method in regulatory**
23 **utility accounting?**

24 A. The broad group method is a generally accepted approach only if the entities conduct
25 periodic reviews of depreciation rates as required by the NARUC Uniform System of

1 Accounts (“USoA”). Accounting Instruction No. 33 (c) of the NARUC USoA for Class A¹
2 Utilities states:

3 When the straight-line method is used, the rates shall be reviewed
4 *periodically* and *adjusted* as required, so that the depreciation
5 accrual will bear a reasonable relationship to the service life, the
6 estimated net salvage, and the cost of the plant in service.

7
8 **Q. What is Staff’s response to Mr. Gabaldon’s rebuttal testimony, page 2, line 8 to line 12,**
9 **that the Cooperative’s “depreciation method was properly implemented,**
10 **incorporating depreciation rates Staff recommended and the Commission approved in**
11 **its last rate case and its prior rate cases” and that to require a depreciation study, as**
12 **Staff suggests, would be costly to the Cooperative and unprecedented?**

13 **A.** Staff continues to believe the Cooperative’s depreciation methodology was implemented
14 improperly. However, as stated above, NARUC USoA requires entities to conduct periodic
15 reviews of depreciation rates if using Broad Group depreciation methodology, but the
16 Cooperative has failed to do so. Staff is not recommending that the Cooperative perform a
17 “special deprecation study” but believes that it is critically important that periodic deprecation
18 studies be conducted as required by NARUC so that the reasonableness of the depreciation
19 rates being utilized are shown to be fair and appropriate for the remaining economic life of
20 the underlying long-term assets. Staff notes that the Cooperative was aware of this
21 requirement but failed to perform a study and proposed new depreciation rates in
22 conjunction with the processing of this rate case. The Cooperative’s response to Staff data
23 request PNT 2.2, stated that:

24

¹ The Cooperative is classified as Class A Utilities under NARUC USoA.

1 Until 1994, CWC contracted an engineer to perform regular
2 depreciation analysis every two years. This practice was changed in
3 1995 when CWC was informed that changes to depreciation rates
4 must be done in the context of a full rate case – consistent with
5 A.A.C. R14-2-1 02(CX1).

6
7 **Q. Mr. Bourassa stated in his rebuttal testimony that Staff is trying to impose the vintage**
8 **group procedure onto the Broad Group to justify its position that certain plant is fully**
9 **depreciated. How does Staff respond to this statement?**

10 A. There were instances where the Cooperative did not apply the broad group methodology
11 correctly so Staff chose to employ the vintage group method when determining when
12 significant plant elements were fully depreciated. The problems noted included an instance
13 where the Cooperative placed a cap on certain accumulated depreciation balances that
14 artificially stopped calculating depreciation expense which is a violation of the NARUC
15 depreciation guidelines. For instance, on Schedule B-2, page 3.8, there is no depreciation
16 expense calculated for Account No. 341 – Transportation Equipment for the year 2013 even
17 though the plat is not yet retired.

18
19 **Q. Why did Staff not make corresponding adjustments to accumulated depreciation?**

20 A. Staff made a pro-forma adjustment to reflect a proper amount of depreciation expense be
21 recovered from customers through rates on a going-forward basis. Therefore, no
22 adjustments to the accumulated depreciation reserve balance was necessary.

23

1 **Q. Is Staff's adjustment to depreciation expense in its surrebuttal testimony the same as**
2 **it is in its direct testimony?**

3 A. No. Staff recommends a depreciation expense of \$926,682 in this surrebuttal testimony, but
4 recommended \$823,885 in its direct testimony; so Staff's rebuttal position represents an
5 increase of \$102,797.

6

7 *Operating Income Adjustment No.9 – Property Tax*

8 **Q. Did Staff make any adjustment to the property tax expense?**

9 A. Yes. Staff's adjustment is based upon Staff's adjusted test year and recommended revenues,
10 as shown on Surrebuttal Schedule PNT-15.

11

12 **Q. What is Staff's recommendation?**

13 A. Staff recommends a property tax expense of \$156,460.

14

15 **REVENUE REQUIREMENT**

16 **Q. Is the Cooperative's proposed revenue requirement in its rebuttal testimony different**
17 **from the proposed one in its direct testimony?**

18 A. Yes.

19

20 **Q. Please summarize Cooperative's proposed and Staff's recommended revenue**
21 **requirement, revenue increase, and operating margin.**

22 A. The proposed and recommended revenue requirement, revenue increase, and operating
23 margin are as follows:

24

25

	<u>Revenue Requirement</u>	<u>Revenue Increase</u>	<u>Operating Margin</u>	
1				
2	Cooperative- Direct	\$4,231,930	\$708,244	16.5%
3	Staff – Direct	\$3,899,354	\$257,877	16.5%
4	Cooperative-Rebuttal	\$4,165,106	\$682,357	16.5%
5	Staff – Surrebuttal	\$4,019,415	\$478,000	16.5%
6				

7 **Q. In rebuttal testimony, Cooperative witness Mr. Jones (page 9, line 3 through 10)**
8 **argues that the Commission should effectively increase the 16.5 percent operating**
9 **margin used for setting the Cooperative’s rate to the extent that Staff’s**
10 **recommendations decrease the Cooperative’s net income. Will you be responding to**
11 **this Company proposal?**

12 **A. No, Staff witness Mr. Darron Carlson will be responding to this aspect of Mr. Jones’s rebuttal**
13 **testimony.**

14 **RATE DESIGN**

15 **Q. Does Staff recommend a different rate design than in its direct testimony?**

16 **A. Yes. Staff has prepared an altered rate design. Surrebuttal Schedule PNT-17 shows the**
17 **present, the Cooperative’s proposed and Staff’s recommended monthly minimum charges**
18 **and commodity rates.**

19

20 **Q. What is the rate impact on a typical 5/8 x 3/4-inch meter residential customer?**

21 **A. Staff’s recommended rates would increase the typical 5/8-inch meter residential bill with a**
22 **median usage of 3,500 gallons from \$18.15 to \$20.30, for an increase of \$2.15 or 11.82**
23 **percent.**

24

1 **Q. How is the revenue flow derived under Staff's revised recommended rates?**

2 A. Under Staff's recommended rates, approximately 54.81 percent is coming from monthly
3 minimum and 45.19 percent is from commodity charges.

4

5 **Q. Does this conclude Staff's surrebuttal testimony?**

6 A. Yes, it does.

REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	[A]	[B]
		COOPERATIVE ORIGINAL COST	STAFF ORIGINAL COST
1	Adjusted Rate Base	\$ 7,678,586	\$ 6,563,586
2	Adjusted Operating Income (Loss)	\$ 526	\$ 192,162
3	Current Rate of Return (L2 / L1)	0.01%	2.93%
4	Required Rate of Return	9.09%	10.10%
5	Required Operating Income (L4 * L1)	\$ 698,269	\$ 663,076
6	Operating Income Deficiency (L5 - L2)	\$ 697,743	\$ 470,914
7	Gross Revenue Conversion Factor	1.0150	1.0150
8	Required Revenue Increase (L7 * L6)	\$ 708,244	\$ 478,000
9	Adjusted Test Year Revenue	\$ 3,523,687	\$ 3,541,415
10	Proposed Annual Revenue (L8 + L9)	\$ 4,231,930	\$ 4,019,415
11	Required Increase in Revenue (%)	20.10%	13.50%
12	Current Operating Margin	0.01%	5.43%
13	Operating Margin (L5/L10)	16.50%	16.50%

References:

Column (A): Cooperative Schedule A-1

Column (B): Staff Surrebuttal Schedules PNT-2 and PNT-4

GROSS REVENUE CONVERSION FACTOR

<u>Line No.</u>	<u>Description</u>	
1	Combined Federal and State Effective Income Tax Rate	0.0000%
2	Effective Property Tax Factor (Schedule PNT-14, L24)	1.4825%
3	Total Tax Percentage (L1+L2)	1.4825%
4	Operating income percentage (1-L2)	98.5175%
5	Gross Revenue Conversion Factor (1:L4)	1.015048

RATE BASE - ORIGINAL COST/FAIR VALUE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COOPERATIVE AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	Plant in Service	\$ 42,452,128	\$ (1,115,000)	\$ 41,337,128
2	Less: Accumulated Depreciation	16,014,775	-	16,014,775
3	Net Plant in Service	<u>\$ 26,437,353</u>	<u>\$ (1,115,000)</u>	<u>\$ 25,322,353</u>
	<i>LESS:</i>			
4	Net Contribution in Aid-of Construction (CIAC)	\$ 11,375,198	\$ -	\$ 11,375,198
5	Advances in Aid of Construction (AIAC)	7,383,569	-	7,383,569
6	Customer Deposits	-	-	-
7	Deferred Income Tax Credits	-	-	-
8	Total Deductions	<u>\$ 18,758,767</u>	<u>\$ -</u>	<u>\$ 18,758,767</u>
	<i>ADD:</i>			
9	Unamortized Finance Charges	\$ -	\$ -	\$ -
10	Deferred Tax Assets	-	-	-
11	Allowance for Working Capital	-	-	-
12	Intentional Left Blank	-	-	-
13	Total Additions	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
14	Original Cost / Fair Value Rate Base	<u>\$ 7,678,586</u>	<u>\$ (1,115,000)</u>	<u>\$ 6,563,586</u>

References:

Column (A), Cooperative Schedule B-1
Column (B): Surrebuttal Schedule PNT-3
Column (C): Column (A) + Column (B)

SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A]	[B]	[C]
			COOPERATIVE AS FILED	STAFF ADJUSTMENT	STAFF ADJUSTED
<i>PLANT IN SERVICE:</i>					
1	301	Organization Costs	\$ 47,863	\$ -	\$ 47,863
2	302	Franchise Costs	244	-	244
3	303	Land & Land Rights	170,589	-	170,589
4	304	Structures & Improvements-Pumping	30,695	-	30,695
5	304.1	Structures & Improvements-Water Treatment	141,261	-	141,261
6	307	Wells & Springs	2,013,049	-	2,013,049
7	311	Electric Pumping Equipment	3,289,327	-	3,289,327
8	311.1	Pumping Equipment-Gas	118,494	-	118,494
9	320	Water Treatment Equipment	4,440,527	-	4,440,527
10	320.1	Water Treatment Plants	-	-	-
11	320.2	Solutions & Feeders	-	-	-
12	320.3	Arsenic Remediation Plant	-	-	-
13	330	Distribution Reservoirs & Standpipes	2,061,545	(1,115,000) 1	946,545
14	330.1	Storage Tank	-	-	-
15	330.2	Pressure Tanks	-	-	-
16	331	Transmission & Distribution Mains	19,123,697	-	19,123,697
17	333	Services	4,696,522	-	4,696,522
18	333	Fire Taps	332,174	-	332,174
19	334	Meters & Meter Installations	1,600,133	-	1,600,133
20	335	Hydrants	2,031,665	-	2,031,665
21	336	Backflow Prevention Devices	-	-	-
22	339	Other Plant & Misc. Equip.	583,181	-	583,181
23	340	Office Furniture & Fixtures	151,618	-	151,618
24	340.1	Computer & Software	608,761	-	608,761
25	341	Transportation Equipment	469,777	-	469,777
26	342	Store Equipment	2,441	-	2,441
27	343	Tools & Work Equipment	103,018	-	103,018
28	344	Laboratory Equipment	12,000	-	12,000
29	345	Power Operated Equipment	136,512	-	136,512
30	345.1	Power Operated Equipment-Backhoe	149,439	-	149,439
31	346	Communications Equipment	124,656	-	124,656
32	347	Miscellaneous Equipment	-	-	-
33	348	Other Tangible Plant	12,938	-	12,938
		Rounding	2	-	2
34		Gross Utility Plant in Service	\$ 42,452,128	\$ (1,115,000)	\$ 41,337,128
35		Less: Accumulated Depreciation	16,014,775	-	16,014,775
36		Net Utility Plant in Service	\$ 26,437,353	\$ (1,115,000)	\$ 25,322,353
<i>DEDUCTIONS</i>					
37		Contributions in Aid of Construction (CIAC)	\$ 16,784,118	\$ -	\$ 16,784,118
38		Less: Accumulated Amortization	5,408,920	-	5,408,920
39		Net CIAC	\$ 11,375,198	\$ -	\$ 11,375,198
40		Advances in Aid of Construction (AIAC)	7,383,569	-	7,383,569
41		Customer Meter Deposits	-	-	-
42		Deferred Income Tax Credits	-	-	-
43		Total Deductions	\$ 18,758,767	\$ -	\$ 18,758,767
<i>ADDITIONS:</i>					
44		Unamortized Finance Charges	\$ -	\$ -	\$ -
45		Deferred Tax Assets	-	-	-
46		Allowance for Working Capital	-	-	-
47		Intentional Left Blank	-	-	-
48		Total Additions	\$ -	\$ -	\$ -
49		ORIGINAL COST RATE BASE	\$ 7,678,586	\$ (1,115,000)	\$ 6,563,586

Community Water Company of Green Valley
Docket No. W-02304A-15-0263
Test Year ended December 31, 2014

Surrebuttal Schedule PNT-4

RATE BASE ADJUSTMENT NO. 1 - PLANT NOT USED AND USEFUL

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COOPERATIVE AS FILED</u>	<u>[B] ADJUSTMENT</u>	<u>[C] STAFF ADJUSTED</u>
1	Distribution Reservoirs & Standpipes	\$ 2,061,545	\$ (1,115,000)	\$ 946,545

REFERENCES:

Column [A]: Cooperative Schedule B-2

Column [B]: Staff Testimony

Column [C]: Column [A] + Column [B]

OPERATING INCOME STATEMENT - ADJUSTED TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COOPERATIVE ADJUSTED TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED
1	<u>REVENUES:</u>					
2	Metered Water Sales	\$ 3,450,854	\$ (5,629)	\$ 3,445,225	\$ 478,000	\$ 3,923,225
3	Water Sales - Unmetered	-	-	-	-	-
4	Other Operating Revenue	72,833	23,358	96,191	-	96,191
5	Total Operating Revenues	<u>\$ 3,523,687</u>	<u>\$ 17,728</u>	<u>\$ 3,541,415</u>	<u>\$ 478,000</u>	<u>\$ 4,019,415</u>
6	<u>OPERATING EXPENSES:</u>					
7	Salaries & Wages	\$ 999,690	\$ (72,685)	\$ 927,005	\$ -	\$ 927,005
8	Employee Pensions and Benefits	-	160,577	160,577	-	160,577
9	Purchased Water	-	-	-	-	-
10	Purchased Power	220,756	(2,117)	218,639	-	218,639
11	Chemicals	33,730	(323)	33,407	-	33,407
12	Repairs & Maintenance	65,908	(11,757)	54,151	-	54,151
13	Office Supplies & Expense	16,621	-	16,621	-	16,621
14	Outside services	295,318	(17,961)	277,357	-	277,357
15	Water Testing	15,124	-	15,124	-	15,124
16	Rents	-	-	-	-	-
17	Transportation Expense	54,195	-	54,195	-	54,195
18	Insurance - General Liability	54,967	-	54,967	-	54,967
19	Insurance - Health & Life	212,765	-	212,765	-	212,765
20	Regulatory Commission Expense	30,000	-	30,000	-	30,000
21	Miscellaneous Expense	236,192	(130,121)	106,071	-	106,071
22	Depreciation Expense	1,026,384	(99,702)	926,682	-	926,682
23	Taxes Other than Income	105,232	-	105,232	-	105,232
24	Property Taxes	156,279	181	156,460	7,086	163,546
25	Income Tax	-	-	-	-	-
26	Total Operating Expenses	<u>\$ 3,523,161</u>	<u>\$ (173,908)</u>	<u>\$ 3,349,253</u>	<u>\$ 7,086</u>	<u>\$ 3,356,339</u>
27	Operating Income (Loss)	<u>\$ 526</u>	<u>\$ 191,636</u>	<u>\$ 192,162</u>	<u>\$ 470,914</u>	<u>\$ 663,076</u>

References:

Column (A): Cooperative Schedule C-1
Column (B): Surrebuttal Schedule PNT-6
Column (C): Column (A) + Column (B)
Column (E): Column (C) + Column (D)

SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COOPERATIVE AS FILED	[B] Usage Normalization ADJ #1	[C] Other Revenue ADJ #2	[D] Sal. & Wages ADJ #3	[E] Em. Pen. & Ben. ADJ #4	[F] Re. & Main. ADJ #5	[G] Outside Service ADJ #6
1	<i>REVENUES:</i>							
2	461 Metered Water Sales	\$ 3,450,854	\$ (5,629)	\$ -	\$ -	\$ -	\$ -	\$ -
3	460 Water Sales - Unmetered	-	-	-	-	-	-	-
4	474 Other Operating Revenue	72,833	-	23,358	-	-	-	-
5	Total Operating Revenues	\$ 3,523,687	\$ (5,629)	\$ 23,358	\$ -	\$ -	\$ -	\$ -
6	<i>OPERATING EXPENSES:</i>							
7	601 Salaries & Wages	\$ 999,690	\$ -	\$ -	\$ (72,685)	\$ -	\$ -	\$ -
8	604 Employee Pensions and Benefits	-	-	-	160,577	-	-	-
9	610 Purchased Water	-	-	-	-	-	-	-
10	615 Purchased Power	220,756	(2,117)	-	-	-	-	-
11	618 Chemicals	33,730	(323)	-	-	-	-	-
12	620 Repairs & Maintenance	65,908	-	-	-	-	-	-
13	621 Office Supplies & Expense	16,621	-	-	-	-	(11,757)	-
14	630 Outside services	295,318	-	-	-	-	-	-
15	635 Water Testing	15,124	-	-	-	-	-	(17,961)
16	641 Rents	-	-	-	-	-	-	-
17	650 Transportation Expense	54,195	-	-	-	-	-	-
18	657 Insurance - General Liability	54,967	-	-	-	-	-	-
19	659 Insurance - Health & Life	212,765	-	-	-	-	-	-
20	666 Regulatory Commission Expense	30,000	-	-	-	-	-	-
21	675 Miscellaneous Expense	236,192	-	-	-	-	-	-
22	403 Depreciation Expense	1,026,384	-	-	-	-	-	-
23	408 Taxes Other than Income	105,232	-	-	-	-	-	-
24	408 Property Taxes	156,279	-	-	-	-	-	-
25	409 Income Tax	-	-	-	-	-	-	-
26	Total Operating Expenses	\$ 3,523,161	\$ (2,440)	\$ -	\$ (72,685)	\$ 160,577	\$ (11,757)	\$ (17,961)
27	Operating Income (Loss)	\$ 526	\$ (3,189)	\$ 23,358	\$ 72,685	\$ (160,577)	\$ 11,757	\$ 17,961

SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[H] Mis. Expense ADJ #7	[I] Depr. Exp. ADJ #8	[J] Prop. Tax ADJ #9	[K] STAFF ADJUSTED	[L] STAFF RECOMMENDED CHANGES	[M] STAFF RECOMMENDED
1	REVENUES:						
2	461 Metered Water Sales	\$ -	\$ -	\$ -	\$ 3,445,225	\$ 478,000	\$ 3,923,225
3	460 Water Sales - Unmetered	-	-	-	-	-	-
4	474 Other Operating Revenue	-	-	-	96,191	-	96,191
5	Total Operating Revenues	\$ -	\$ -	\$ -	\$ 3,541,415	\$ 478,000	\$ 4,019,415
6	OPERATING EXPENSES:						
7	601 Salaries & Wages	\$ -	\$ -	\$ -	\$ 927,005	\$ -	\$ 927,005
8	604 Employee Pensions and Benefits	-	-	-	160,577	-	160,577
9	610 Purchased Water	-	-	-	-	-	-
10	615 Purchased Power	-	-	-	218,639	-	218,639
11	618 Chemicals	-	-	-	33,407	-	33,407
12	620 Repairs & Maintenance	-	-	-	54,151	-	54,151
13	621 Office Supplies & Expense	-	-	-	16,621	-	16,621
14	630 Outside services	-	-	-	277,357	-	277,357
15	635 Water Testing	-	-	-	15,124	-	15,124
16	641 Rents	-	-	-	-	-	-
17	650 Transportation Expense	-	-	-	54,195	-	54,195
18	657 Insurance - General Liability	-	-	-	54,967	-	54,967
19	659 Insurance - Health & Life	-	-	-	212,765	-	212,765
20	666 Regulatory Commission Expense	-	-	-	30,000	-	30,000
21	675 Miscellaneous Expense	(130,121)	-	-	106,071	-	106,071
22	403 Depreciation Expense	-	(99,702)	-	926,682	-	926,682
23	408 Taxes Other than Income	-	-	-	105,232	-	105,232
24	408.1 Property Taxes	-	-	181	156,460	7,086	163,546
25	409 Income Tax	-	-	-	-	-	-
26	Total Operating Expenses	\$ (130,121)	\$ (99,702)	\$ 181	\$ 3,349,253	\$ 7,086	\$ 3,356,339
27	Operating Income (Loss)	\$ 130,121	\$ 99,702	\$ (181)	\$ 192,162	\$ 470,914	\$ 663,076

OPERATING INCOME ADJUSTMENT NO. 1 - WATER USAGE NORMALIZATION

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COOPERATIVE PROPOSED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF RECOMMENDED</u>
1	Meter Water Revenue	\$ 3,450,854	\$ (5,629)	\$ 3,445,225
2	Purchased Power Expense	\$ 220,756	\$ (2,117)	\$ 218,639
3	Chemicals	\$ 33,730	\$ (323)	\$ 33,407

References:

Column (A), Cooperative Schedule C-2

Column (B): Column (C)-Column (A)

Column (C): Surrebuttal Schedule PNT-7, page 2 and 3.

<u>Line No.</u>	<i>Declining Usage calculation</i>	
1	2015 total gallons sold (in 1,000's)-residential	539,786
2	2015 total residential customers	130,271
3	Total gallons sold per customers in 1,000's (Line 1 /line 2)	4.14
4	Test year total residential bills	124,416
5	Adjusted usage (Line 3 X Line 4)	515,525
6	Test year total gallons sold-residential	564,257
7	Decling Usage (Line 5 minus Line 6)	(48,732)
8	Weighted Avg Volume Charge (3)	\$2.05
9	Decling Usage Revenue Adjustment (Line 7 X Line 8)	<u><u>(\$100,062)</u></u>

(1)	Test year Total Residential Commodity Revenue	\$1,158,609
(2)	Test year total residential gallons sold	564,257
(3)	Weighted Average Volume Charge ((1)/(2))	\$2.05

Line No.			
1	<u>Usage Normalization Revenue Adjustment</u>		
2			
3	Actual Test Year Metered Water Revenue	\$	3,546,359
4	Revenue Annualization*		(1,072)
5	Declining Usage Adjustment-Staff (L 9, Surrebuttal Schedule PNT-7, page 2)		(100,062)
6	Staff adjusted metered water revenue (L3+L4+L5)	\$	<u>3,445,225</u>
7			
8	<u>Purchased Power Normalization</u>		
9			
10	Test Year Purchased Power Expense	\$	234,393
11	Gallons Sold (in 1,000's)		726,711
12	Cost per 1,0000 gallons (L10/L11)		<u>0.3225</u>
13			
14	Normalized Gallons Reduction (in 1,000's)		(48,732)
15	Purchased Power Normalization (L12 x L14)		(15,716)
16	Purchased Power annualization*		(38)
17	Staff adjusted purchased power expense (L10+L15+L16)		<u>218,639.07</u>
18			
19			
20			
21	<u>Chemicals Expense Normalization</u>		
22			
23	Test Year Chemicals Expense	\$	35,815
24	Gallons Sold (in 1,000's)		726,711
25	Cost per 1,0000 gallons (L23/L24)		0.0493
26			
27	Normalized Gallons Reduction (in 1,000's)		(48,732)
28	Chemicals expense Normalization(L27 X L25)		(2,402)
29	Chemical Expense annualization*		(6)
30	Staff adjusted chemicals expense (L23+L28+L29)		<u>33,407</u>

* Cooperative's direct schedule C-2 Page 5, Staff does not disagree with this adjustment

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Surrebuttal Schedule PNT-8

OPERATING INCOME ADJUSTMENT NO. 2 - OTHER REVENUES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>[A] COOPERATIVE PROPOSED</u>	<u>[B] STAFF ADJUSTMENT</u>	<u>[C] STAFF RECOMMENDED</u>
1	Other Water Revenue	72,833	23,358	96,191

References:

Column (A), Cooperative Schedule C-2
Column (B): Testimony
Column (C): Column (A) + Column (B)

Community Water Company of Green Valley
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Test Year ended December 31, 2014

Surrebuttal Schedule PNT-9

OPERATING INCOME ADJUSTMENT NO. 3 - SALARIES AND WAGES

LINE NO.	DESCRIPTION	[A] COOPERATIVE PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Salaries and Wages	\$ 999,690	\$ (72,685)	\$ 927,005
2	2015 Total Compensation		\$ 1,087,895	
3	Amounts Capitalized and Charged to other accounts		(148,850)	
4	Cost of Accountant included in Outside Service		(12,040)	
5	Adjusted salaries and wages charged to O & M		<u>\$ 927,005</u>	

References:

Column (A), Cooperative Schedule C-2
Column (B): Testimony
Column (C): Column (A) + Column (B)

OPERATING INCOME ADJUSTMENT NO. 4 - EMPLOYEE PENSIONS AND BENEFITS

LINE NO.	DESCRIPTION	[A] COOPERATIVE PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Reclassification from Miscellaneous Expense	\$ -	\$ 124,576	\$ 124,576
2	Retirement Adjustment		36,001	36,001
			<u>\$ 160,577</u>	

References:

Column (A), Cooperative Schedule C-2

Column (B): Testimony

Column (C): Column (A) + Column (B)

OPERATING INCOME ADJUSTMENT NO. 5 - REPAIR AND MAINTENANCE EXPENSE

LINE NO.	DESCRIPTION	[A] COOPERATIVE PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Reservoir Maintenance Annual Reserve	\$ 55,886	\$ (11,757)	\$ 44,129

Reservoir Maintenance Annual Reserve calculation

	[A]	[B]	[C]	[D] Distribution from Reservoir 2	[E] Total needed [C]-[D]	[F] [B] Frequency	[G] Annual cost [E]/[F]
	Estimated Cost	GL Balance					
2	Reservoir 1	\$75,000	\$ (62,870)	\$17,298	\$120,572	10 years	\$12,057
3	Reservoir 3	190,000	48,516	17,298	124,186	20 years	6,209
4	Reservoir 4	300,000	64,368	17,298	218,334	20 years	10,917
5	Tank 10	100,000	5,685	17,298	77,016	10 years	7,702
6	Tank 11	100,000	10,260	17,298	72,442	10 years	7,244
7	Reservoir 2 (removed)		86,492				
8	Total	<u>765,000</u>	<u>\$ 152,451</u>		<u>\$ 612,549</u>		<u>\$44,129</u>

References:

Column (A), Cooperative Schedule C-2
Column (B): Surrebuttal Testimony
Column (C): Column (A) + Column (B)

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Surrebuttal Schedule PNT-12

OPERATING INCOME ADJUSTMENT NO. 6 - OUTSIDE SERVICE

LINE NO.	DESCRIPTION	[A] COOPERATIVE PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Legal Consulting	\$ 18,345	\$ (10,911)	\$ 7,434
2	HR-Assistant to President	7,050.1	(7,050.1)	-
			<u>\$ (17,961)</u>	

References:

Column (A), Cooperative Schedule C-2
Column (B): Testimony
Column (C): Column (A) + Column (B)

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Surrebuttal Schedule PNT-13

OPERATING INCOME ADJUSTMENT NO. 7- MISCELLANEOUS EXPENSES

LINE NO.	DESCRIPTION	[A] COOPERATIVE PROPOSED	[B] STAFF ADJUSTMENT	[C] STAFF RECOMMENDED
1	Food & Entertainment	\$ 5,545	\$ (5,545)	\$ -
2	Profit Sharing	87,871	(87,871)	-
3	401(K) Matching	36,705	(36,705)	-
4	Total		<u>\$ (130,121)</u>	

References:

Column (A), Cooperative Schedule C-2

Column (B): Testimony

Column (C): Column (A) + Column (B)

OPERATING INCOME ADJUSTMENT No. 8 - DEPRECIATION EXPENSE

Line No.	ACCT NO.	DESCRIPTION	GROSS UTILITY PLANT IN SERVICE	FULLY/NON DEPRECIABLE	DEPRECIABLE PLANT	DEPREC. RATE	EXPENSE
<i>Plant In Service</i>							
1	301	Organization Costs	\$ 47,863	\$ 47,863	\$ -	0.00%	\$ -
2	302	Franchise Costs	244	244	-	0.00%	-
3	303	Land & Land Rights	170,589	170,589	-	0.00%	-
4	304	Structures & Improvements-Pumping	30,695		30,695	3.33%	1,022
5	304.1	Structures & Improvements-Water Treatme	141,261		141,261	3.33%	4,704
6	307	Wells & Springs	2,013,049		2,013,049	3.33%	67,035
7	311	Electric Pumping Equipment	3,289,327		3,289,327	12.50%	411,166
8	311.1	Pumping Equipment-Gas	118,494	118,494	-	12.50%	-
9	320	Water Treatment Equipment	4,440,527		4,440,527	3.33%	147,870
10	320.1	Water Treatment Plants	-		-	3.33%	-
11	320.2	Solutions & Feeders	-		-	20.00%	-
13	330	Distribution Reservoirs & Standpipes	946,545		946,545	2.22%	21,013
14	330.1	Storage Tank	-		-	2.22%	-
15	330.2	Pressure Tanks	-		-	5.00%	-
16	331	Transmission & Distribution Mains	19,123,697		19,123,697	2.00%	382,474
17	333	Services	4,696,522		4,696,522	3.33%	156,394
18	333	Fire Taps	332,174		332,174	3.33%	11,061
19	334	Meters & Meter Installations	1,600,133		1,600,133	8.33%	133,291
20	335	Hydrants	2,031,665		2,031,665	2.00%	40,633
21	336	Backflow Prevention Devices	-		-	6.67%	-
22	339	Other Plant & Misc. Equip.	583,181	-	583,181	6.67%	38,898
23	340	Office Furniture & Fixtures	151,618		151,618	6.67%	10,113
24	340.1	Computer & Software	608,761	89,293	503,018	20.00%	100,604
25	341	Transportation Equipment	469,777	194,310	169,405	20.00%	33,881
26	342	Store Equipment	2,441		2,441	4.00%	98
27	343	Tools & Work Equipment	103,018		103,018	5.00%	5,151
28	344	Laboratory Equipment	12,000		12,000	10.00%	1,200
29	345	Power Operated Equipment	136,512		136,512	5.00%	6,826
30	345.1	Power Operated Equipment-Backhoe	149,439	107,179	42,260	5.00%	2,113
31	346	Communications Equipment	124,656	50,299	74,357	10.00%	7,436
32	347	Miscellaneous Equipment	-		-	10.00%	-
33	348	Other Tangible Plant	12,938		12,938	10.00%	1,294
34		Subtotal General	<u>\$ 41,337,126</u>	<u>\$ 778,271</u>	<u>\$ 40,436,343</u>		<u>\$ 1,584,276</u>
		Composite rate					3.92%
35		Contributions in Aid of Construction (CIAC)					\$ 16,784,118
36		Amortization of Contributions					\$ 657,593
37		Staff Recommended Depreciation Expense					\$ 926,682
38		Cooperative Proposed Depreciation Expense					1,026,384
39		Increase/(Decrease) to Depreciation Expense					<u>\$ (99,702)</u>

OPERATING INCOME ADJUSTMENT No. 9- PROPERTY TAXES

LINE NO.	DESCRIPTION	[A]	[B]
		STAFF AS ADJUSTED	STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues	\$ 3,541,415	\$ 3,541,415
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	\$ 7,082,831	\$ 7,082,831
4	Staff Recommended Revenue	3,541,415	4,019,415
5	Subtotal (Line 4 + Line 5)	\$ 10,624,246	\$ 11,102,246
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	\$ 3,541,415	\$ 3,700,749
8	Department of Revenue Multiplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	\$ 7,082,831	\$ 7,401,497
10	Plus: 10% of CWIP	-	-
11	Less: Net Book Value of Licensed Vehicles	46,755	46,755
12	Full Cash Value (Line 9 + Line 10 - Line 11)	\$ 7,036,076	\$ 7,354,742
13	Assessment Ratio	18.00%	18.00%
14	Assessment Value (Line 12 * Line 13)	\$ 1,266,494	\$ 1,323,854
15	Composite Property Tax Rate - Obtained from ADOR	12.35380%	12.35380%
16	Staff Test Year Adjusted Property Tax Expense (Line 14 * Line 15)	\$ 156,460	
17	Cooperative Proposed Property Tax	156,279	
18	Staff Test Year Adjustment (Line 16 - Line 17)	\$ 181	
19	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		\$ 163,546
20	Staff Test Year Adjusted Property Tax Expense (Line 16)		156,460
21	Increase in Property Tax Due to Increase in Revenue Requirement		\$ 7,086
22	Increase in Property Tax Due to Increase in Revenue Requirement (Line 21)		\$ 7,086
23	Increase in Revenue Requirement		\$ 478,000
24	Increase in Property Tax Per Dollar Increase in Revenue (Line 22 / Line 23)		1.482456%

REFERENCES:

Line 15: Composite Tax Rate obtained from Arizona Department of Revenue
Line 17: Cooperative Schedule C-1 Page 2
Line 21: Line 19 - Line 20
Line 23: Surrebttal Schedule PNT-4

Cash Flow Analysis

<u>Line No.</u>	[A] <i>Cooperative Proposed</i>	[B] <i>Staff Recommended</i>
1	Operating Revenue:	\$ 4,231,930
2	Operating Expenses:	\$ 4,019,415
3	Operation and Maintenance	2,235,266
4	Depreciation	2,160,879
5	Property & Other Taxes	1,026,384
6	Income Tax	272,010
7	Total Operating Expense	-
8		-
9	Operating Income	\$ 3,533,660
10		\$ 3,356,339
11	Annual Debt Payment	\$ 698,270
12		\$ 663,076
13	Cash Flow : (L9+L4-L11)	\$ 272,756
		\$ 1,451,898
		\$ 1,317,002

References:

Column (A), Cooperative Schedule C-1
Column (B): Surrebuttal Schedule PNT-4

Monthly Usage Charge	RATE DESIGNS		
	Present Rates	Cooperative Proposed Rates	Staff Recommended Rates
Meter Size (All Classes):			
5/8 x 3/4 Inch	\$ 13.00	\$ 16.64	\$ 14.70
3/4 Inch	13.00	16.64	20.00
1 Inch	24.00	30.72	30.80
1 1/2 Inch	40.00	51.20	51.70
2 Inch	67.00	85.76	85.70
3 Inch	105.00	134.40	135.00
4 Inch	400.00	512.00	512.00
6 Inch	650.00	832.00	832.00
8 Inch	1,000.00	1,280.00	1,280.00
Construction Water Meter	According to meter size charges listed above	According to meter size charges listed above	According to meter size charges listed above
Fire Sprinkler			
Less than 6 inch	\$ 10.00	\$ 10.00	10.00
Less than 8 inch	15.00	15.00	15.00
Less than 10 inch	22.50	22.50	22.50
Less than 12 inch	33.75	33.75	33.75
Commodity Charge - Per 1,000 Gallons			
5/8" x 3/4" Meter (Residential)			
First 3,000 gallons	\$ 1.300	\$ 1.440	\$ 1.400
3,001 to 10,000 gallons	\$ 2.500	\$ 2.780	\$ 2.790
Over 10,000 gallons	\$ 3.420	\$ 3.800	\$ 3.820
3/4" Meter (Residential)			
First 3,000 gallons	\$ 1.300	\$ 1.440	\$ 1.300
3,001 to 10,000 gallons	\$ 2.500	\$ 2.780	\$ 2.790
Over 10,000 gallons	\$ 3.420	\$ 3.800	\$ 3.820
5/8" x 3/4" Meter (Commercial/residential and Commercial)			
First 10,000 gallons	\$ 2.500	\$ 2.780	\$ 2.790
Over 10,000 gallons	\$ 3.420	\$ 3.800	\$ 3.820
3/4" Meter (Commercial/residential and Commercial)			
First 10,000 gallons	N/A	\$ 2.780	\$ 2.790
Over 10,000 gallons	N/A	\$ 3.800	\$ 3.820
1" Meter (All classes, except construction)			
First 21,000 gallons	\$ 2.500	\$ 2.780	\$ 2.790
Over 21,000 gallons	\$ 3.420	\$ 3.800	\$ 3.820
1 1/2" Meter (All classes, except construction)			
First 35,000 gallons	\$ 2.500	\$ 2.780	\$ 2.790
Over 35,000 gallons	\$ 3.420	\$ 3.800	\$ 3.820
2" Meter (All classes, except construction)			
First 63,000 gallons	\$ 2.500	\$ 2.780	\$ 2.790
Over 63,000 gallons	\$ 3.420	\$ 3.800	\$ 3.820
3" Meter (All classes, except construction)			
First 143,000 gallons	\$ 2.500	\$ 2.780	\$ 2.790
Over 143,000 gallons	\$ 3.420	\$ 3.800	\$ 3.820
4" Meter (All classes, except construction)			
First 424,000 gallons	\$ 2.500	\$ 2.780	\$ 2.790
Over 424,000 gallons	\$ 3.420	\$ 3.800	\$ 3.820
6" Meter (All classes, except construction)			
First 680,000 gallons	\$ 2.500	\$ 2.780	\$ 2.790
Over 680,000 gallons	\$ 3.420	\$ 3.800	\$ 3.820
8" Meter (All classes, except construction)			
First 1,050,000 gallons	\$ 2.500	\$ 2.780	\$ 2.790
Over 1,050,000 gallons	\$ 3.420	\$ 3.800	\$ 3.820
Construction Water (All meter sizes)			
First 1,050,000 gallons	\$ 2.500	\$ 2.780	\$ 2.790
Over 1,050,000 gallons	\$ 3.420	\$ 3.800	\$ 3.820

Typical Bill Analysis
General Service 5/8 x 3/4-Inch Meter

Cooperative Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	3,897	\$ 19.14	\$ 23.45	\$ 4.31	22.52%
Median Usage	3,500	18.15	22.35	\$ 4.20	23.14%
Staff Recommended					
Average Usage	3,897	\$ 19.14	\$ 21.40	\$ 2.26	11.81%
Median Usage	3,500	18.15	20.30	\$ 2.15	11.82%

Present & Proposed Rates (Without Taxes)
General Service 5/8 x 3/4-Inch Meter

Gallons Consumption	Present Rates	Company Proposed Rates	% Increase	Staff Recommended Rates	% Increase
-	\$ 13.00	\$ 16.64	28.00%	\$ 14.70	13.08%
1,000	14.30	18.08	26.43%	16.10	12.59%
2,000	15.60	19.52	25.13%	17.50	12.18%
3,000	16.90	20.96	24.02%	18.90	11.83%
4,000	19.40	23.74	22.37%	21.69	11.80%
5,000	21.90	26.52	21.10%	24.48	11.78%
6,000	24.40	29.30	20.08%	27.27	11.76%
7,000	26.90	32.08	19.26%	30.06	11.75%
8,000	29.40	34.86	18.57%	32.85	11.73%
9,000	31.90	37.64	17.99%	35.64	11.72%
10,000	34.40	40.42	17.50%	38.43	11.72%
11,000	37.82	44.22	16.92%	42.25	11.71%
12,000	41.24	48.02	16.44%	46.07	11.71%
13,000	44.66	51.82	16.03%	49.89	11.71%
14,000	48.08	55.62	15.68%	53.71	11.71%
15,000	51.50	59.42	15.38%	57.53	11.71%
16,000	54.92	63.22	15.11%	61.35	11.71%
17,000	58.34	67.02	14.88%	65.17	11.71%
18,000	61.76	70.82	14.67%	68.99	11.71%
19,000	65.18	74.62	14.48%	72.81	11.71%
20,000	68.60	78.42	14.31%	76.63	11.71%
25,000	85.70	97.42	13.68%	95.73	11.70%
30,000	102.80	116.42	13.25%	114.83	11.70%
35,000	119.90	135.42	12.94%	133.93	11.70%
40,000	137.00	154.42	12.72%	153.03	11.70%
45,000	154.10	173.42	12.54%	172.13	11.70%
50,000	171.20	192.42	12.39%	191.23	11.70%
75,000	256.70	287.42	11.97%	286.73	11.70%
100,000	342.20	382.42	11.75%	382.23	11.70%

BEFORE THE ARIZONA CORPORATION COMMISSION

DOUG LITTLE
Chairman
BOB STUMP
Commissioner
BOB BURNS
Commissioner
TOM FORESE
Commissioner
ANDY TOBIN
Commissioner

IN THE MATTER OF THE APPLICATION OF)
COMMUNITY WATER COMPANY OF GREEN)
VALLEY, AN ARIZONA CORPORATION, FOR A)
DETERMINATION OF THE CURRENT FAIR)
VALUE OF ITS UTILITY PLANT AND)
PROPERTY AND FOR RATE INCREASES IN ITS)
RATES AND CHARGES FOR UTILITY SERVICE)
BASED THEREON)
_____)

DOCKET NO. W-02304A-15-0263

SURREBUTTAL

TESTIMONY

OF

JIAN W. LIU

UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

APRIL 12, 2016

**EXECUTIVE SUMMARY
COMMUNITY WATER COMPANY OF GREEN VALLEY
DOCKET NO. W-02304A-15-0263**

Engineering Staff's recommendations have not changed based on the Rebuttal Testimony filed by the Company on March 15, 2016.

1 **INTRODUCTION**

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

3 A. My name is Jian W. Liu. My job title is Water/Wastewater Engineer. My place of
4 employment is the ACC, Utilities Division (“Staff”), 1200 West Washington Street, Phoenix,
5 Arizona 85007.

6
7 **Q. Are you the same Jian W. Liu who filed Direct Testimony on February 2, 2016 in this**
8 **case?**

9 A. Yes, I am.

10
11 **Q. What is the purpose of your Surrebuttal Testimony?**

12 A. My Surrebuttal Testimony is in response to Company’s witness Raul F.G. Piña regarding his
13 design storage calculation in the Rebuttal Testimony filed on March 15, 2016.

14
15 **Q. What is the classification of CWC water system?**

16 A. CWC operates four domestic water wells, based on that CWC water system is classified as a
17 multiple-well community water system pursuant to Arizona Department of Environmental
18 Quality (“ADEQ”).

19
20 **Q. What assumptions did CWC utilize when designing its storage capacity?**

21 A. In designing its storage capacity, CWC utilizes the assumption that it has a single well water
22 system.

23
24 **Q. Does Staff agree with that assumption?**

25 A. No.

26

1 **Q. What was the Companies rational for utilizing such assumptions?**

2 A. The Company claims that they adopted the assumption for planning purposes, in case there is
3 a major outage in its service territory and no production would be possible.

4
5 **Q. Does Staff believe a major outage is possible as stated by the Company?**

6 A. Staff believes anything is possible, however, based on historical data and information
7 obtained from Tucson Electric Power Company (“TEP”) it is highly improbable.

8
9 **Q. Why should CWC’s design storage capacity be calculated by using CWC as a
10 multiple-well water system?**

11 A. The analysis using CWC as a single well community water system may excludes 5,400,000
12 gallons of storage capacity from production wells. In Staff’s view, using CWC as a multiple-
13 well water system is a more realistic representation of how the system has functioned and
14 should continue to function.

15
16 **Q. Are there generators at the Company’s well sites?**

17 A. Yes. There is a 250 kilowatt (“kW”) generator at Well 10 site, and 350 kW generator at Well
18 11 site.

19
20 **Q. Can any of the existing generators be used in an emergency to run the well pumps?**

21 A. No. CWC indicates the generators were installed as emergency backup power to allow the
22 Company access to the water in the forebay holding tanks. The problem is, without water
23 pumped from the wells, the forebay holding tanks store very little water. Per CWC¹, the
24 Average Operating Storage is 265,625 gallons² for the forebay holding tanks. However, the

¹ Community Water Company of Green Valley’s responses to Staff’s Sixth Set of Data Requests received on March 28, 2016

² Average Operating Storage is 143,750 gallons for Well 10 Forebay Tank and 121,875 gallons for Well 11 Forebay Tank.

1 demand is 3,200,504 gallons (133,354 gallons per hour) for the Peak day of the peak month
2 (based on CWC production).
3

4 **Q. Did CWC's Engineer recommend CWC provide a standby generator for one of the**
5 **production wells?**

6 A. Yes. Mr. Pina states³ "Therefore, we recommended in our Engineer's Reservoir Selection
7 Report to replace Reservoir No. 2 or provide a standby generator for one of the production
8 wells, so that the Company could at all times meet the minimum required storage
9 requirement."
10

11 **Q. Has Staff been consistent in its recommendation regarding Staff's Water System**
12 **Analysis?**

13 A. Yes. I have performed Water System Analysis for more than 100 water systems in Arizona
14 by using the same Water System Analysis Method. In my experience and in comparison to
15 the many other water systems I have evaluated on behalf of Staff, it is my view that the CWC
16 water system probably has the best storage and production capacity in Arizona even without
17 Reservoir No. 5.
18

19 **Q. Did you attempt to address every issue the Company raised in its Rebuttal**
20 **Testimony?**

21 A. No. Staff limited its discussion to the specific issues as outlined above. Staff's lack of
22 response to any issue in this proceeding should not be construed as agreement with the
23 Company's position in its Direct Testimony; rather where there is no response, Staff relies on
24 its original Direct Testimony.
25

³ Rebuttal Testimony of Mr. Pina at page 7

- 1 **Q. Does this conclude your Surrebuttal Testimony?**
- 2 **A. Yes, it does.**

BEFORE THE ARIZONA CORPORATION COMMISSION

DOUG LITTLE
Chairman
BOB STUMP
Commissioner
BOB BURNS
Commissioner
TOM FORESE
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ANDY TOBIN
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IN THE MATTER OF THE APPLICATION OF)
COMMUNITY WATER COMPANY OF GREEN)
VALLEY FOR DETERMINATION OF THE)
CURRENT FAIR VALUE OF ITS UTILITY)
PLANT AND PROPERTY AND FOR AN)
INCREASE IN ITS RATES AND CHARGES)
FOR UTILITY SERVICE)
_____)

DOCKET NO. W-02304A-15-0263

SURREBUTTAL
TESTIMONY
OF
DARRON W. CARLSON
PUBLIC UTILITIES ANALYST MANAGER
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

APRIL 12, 2016

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1 **INTRODUCTION**

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

3 A. My name is Darron Carlson. My business address is 1200 West Washington Street, Phoenix,
4 Arizona 85007.

5
6 **Q. Did you provide any direct testimony on behalf of Staff in this proceeding?**

7 A. No, I did not.

8
9 **Q. By whom are you employed and in what capacity?**

10 A. I am employed by the Utilities Division ("Staff") of the Arizona Corporation Commission
11 ("ACC" or "Commission") as a Public Utilities Analyst Manager.

12
13 **Q. How long have you been employed with the Utilities Division?**

14 A. I have been employed with the Utilities Division since September of 1991.

15
16 **Q. Please describe your educational background and professional experience.**

17 A. I hold a Bachelor of Arts degree in both Accounting and Business Management from
18 Northeastern Illinois University in Chicago, Illinois.

19
20 I have participated in quite a number of seminars and workshops related to utility ratemaking,
21 cost of capital, income taxes, and similar issues. These have been sponsored by organizations
22 such as the National Association of Regulatory Utility Commissioners ("NARUC"), Duke
23 University, Florida State University, Michigan State University, New Mexico State University,
24 and various other organizations.

25

1 **Q. Briefly describe your responsibilities as a Public Utilities Analyst Manager.**

2 A. In my capacity as a Public Utilities Analyst Manager, I supervise analysts who examine, verify,
3 and analyze utilities' statistical, financial, and other information. These analysts write reports
4 and/or testimonies analyzing proposed mergers, acquisitions, asset sales, financings, rate cases,
5 and other matters in which they make recommendations to the Commission. I provide
6 support and guidance along with reviewing and editing the work products. I also perform
7 analysis as needed on special projects. Additionally, I provide expert testimony at formal
8 hearings. Finally, I assist Staff members during formal hearings and supervise responsive
9 testimonies, as needed, during the hearing process.

10

11 **BACKGROUND**

12 **Q. Please describe Community Water of Green Valley ("Community Water" or**
13 **"Cooperative")**

14 A. Community Water is a member-owned, non-profit water utility located in Southern Arizona,
15 in unincorporated Pima County and the Town of Sahuarita. The Cooperative provided water
16 service to approximately 12, 939 customers during the test year ended December 31, 2014.
17 The current rates for the Cooperative were approved in Decision No. 71478, dated February
18 3, 2010.

19

20 **PURPOSE OF TESTIMONY**

21 **Q. What is the scope of your surrebuttal testimony in this case?**

22 A. I am presenting Staff's analysis and recommendation in the limited area of operating margin
23 and the Cooperative's associated cash reserves.

24

1 **Q. Who else is providing Staff testimony and what areas/issues will they address?**

2 A. Staff witness Phan Tsan is presenting Staff's recommendations regarding rate base, operating
3 revenues and expenses, revenue requirement, and rate design. Staff witness Jian Liu is
4 presenting Staff's recommendations regarding the engineering and technical analysis.
5

6 **OPERATING MARGIN / CASH RESERVES**

7 **Q. What did the Cooperative request for an operating margin?**

8 A. The Cooperative requested a 16.50 percent operating margin.
9

10 **Q. What is Staff's recommendation regarding the operating margin?**

11 A. Staff concurs with the Cooperative and recommends a 16.50 percent operating margin.
12

13 **Q. If you concur on the level of operating margin, what is the problem?**

14 A. Staff has a number of concerns about details of the Cooperative's intentions going-forward as
15 depicted in its direct and rebuttal testimonies filed in the Cooperative's pending rate case.
16

17 **Q. Please explain your concerns.**

18 A. In the Cooperative witness Mr. Gabaldon's direct testimony, he lays out a strategy that includes
19 the intention to increase the operating margin percentage in each of the next three rate cases
20 so that the Cooperative will be able to fund all of its future plant replacements and
21 improvements through the cash reserves that will build up through the increasing operating
22 margins. Although Mr. Gabaldon also mentions that the Cooperative believes a long-term
23 debt level of 20 to 35 percent is a good balance, it appears that the Cooperative intends to use
24 little or no long-term debt to fund its future plant needs.
25

1 Further, Cooperative witness Mr. Jones argues in his direct testimony, and on pages 9 through
2 11 of his rebuttal testimony, that it is a necessity that Community Water's customers be
3 expected to fund significant additional cash reserves for the Cooperative. Mr. Jones goes on
4 to request that to the extent the Commission accepts adjustments recommended by Staff that
5 would effectively reduce the Cooperative's ability to build up such cash reserves that the
6 operating margin used to establish rates in this case be increased above 16.50 percent in this
7 case.

8
9 **Q. Why are these comments and requests on behalf of Community Water concerning to**
10 **Staff?**

11 **A.** Staff is concerned that the Cooperative will not seek to maintain a balanced capital structure
12 that would include more long-term debt (40 percent to 60 percent) instead of relying so heavily
13 on equity. Staff believes that cooperatives, like other public service entities, operate best, most
14 economically, and most financially sound by maintaining a balanced capital structure.

15
16 Further, and most important, the level of total capital should not be excessive. Or stated
17 another way, the level of total capitalization should be roughly equivalent to the level of rate
18 base required to provide safe and reliable service to ratepayers.

19
20 **Q. Isn't the fact that Community Water is a member-owned cooperative, with arguably a**
21 **more limited access to equity infusions and a greater reliance upon the reinvestment**
22 **of earnings to fund capital expenditures, important factors for the Commission to**
23 **consider?**

24 **A.** Yes, those are important considerations but only to a reasonable point. Even the rates charged
25 by a cooperative for its services can pass the point of being reasonable, and the Commission

1 must give considerations to both the financial health of the Cooperative and the interests of
2 its members.

3 Staff believes the Commission should be cautious and conservative in assessing Community
4 Water's required operating margin and that is why it believes that going above a 16.50 percent
5 operating margin would not be advisable in the current docket.

6
7 **Q. Mr. Carlson, what matters of financial relevance exist that support Staff's view?**

8 **A.** There are several identified factors that are relevant and support Staff's position. Those factors
9 include the following:

- 10
- 11 • The Cooperative's projected year (12/31/2015) total capital, from Schedule A-3, is
12 almost \$13 million which far exceeds the Cooperative's rate base of approximately \$7.7
13 million, shown on Schedule A-1.
 - 14 • The Cooperative's current cash on hand balance was approximately \$2.6 million as
15 seen on Schedule E-1.
 - 16 • Building even higher current cash reserve balances comes at the expense of higher
17 rates for current customers, and current customers should not be excessively burdened
18 with the responsibility of funding, or pre-funding, capital improvements that will be
19 used to serve future generations of customers. This can happen if unreasonably high
20 operating margins are used in order to achieve the goal of the building-up of cash
21 reserves so that the Cooperative can eventually pay cash for long-term infrastructure
22 additions.

23
24 Despite the arguments surrounding the unique financial needs of a cooperative public service
25 corporation, Staff believes that assuring intergenerational fairness to ratepayers should be an
26 ever present goal of this Commission.

1 **Q. Mr. Carlson, is synchronization of the level of capital employed by a regulated utility**
2 **with the level of rate base of that utility a foundational consideration of setting rates**
3 **for public service corporations?**

4 A. Yes, absolutely, and the Commission should not be persuaded to ignore this feature of
5 ratemaking fairness in the case of Community Water.

6
7 **Q. Mr. Carlson, does this conclude your testimony?**

8 A. Yes, it does.