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ARIZONA CORP. COMM
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Docket No. W-01303A-08-0227

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS AGUA FRIA WATER DISTRICT, HAVASU WATER DISTRICT, MOHAVE WATER DISTRICT, PARADISE VALLEY WATER DISTRICT, SUN CITY WEST WATER DISTRICT, AND TUBAC WATER DISTRICT

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS MOHAVE WASTEWATER DISTRICT

Docket No. SW-01303A-08-0227

Notice of Filing the
Surrebuttal Testimony (Part III)

by

Marshall Magruder

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This filing has been mailed to known and interested parties in the Service List.

Respectfully submitted on this 3rd day of March 2009

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Surrebuttal Testimony (Part III) by Marshall Magruder
Docket Nos. W-01303A-08-0227 and SW-01303A-08-0227

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SURREBUTTAL TESTIMONY

(Part III)

by

MARSHALL MAGRUDER

3 March 2009

In

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS AGUA FRIA WATER DISTRICT, HAVASU WATER DISTRICT, MOHAVE WATER DISTRICT, PARADISE VALLEY WATER DISTRICT, SUN CITY WEST WATER DISTRICT, AND TUBAC WATER DISTRICT

ACC Docket No. W-01303A-08-0227

And

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS MOHAVE WASTEWATER DISTRICT

ACC Docket No. SW-01303A-08-0227

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by Marshall Magruder**

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1 **Section 1 – BACKGROUND AND INTRODUCTION**

2
3 1.1 **INTRODUCTION.** See Part I, page 5.¹

4 1.2 **PURPOSE OF TESTIMONY [in Part I].** See Part I, page 7.²

5 1.3 **PURPOSE OF TESTIMONY in Part II.** See Part II, page 7.

6 1.4 **PURPOSE OF TESTIMONY IN Part III.**

7 **Q. What is the purpose of this Part III testimony?**

8 **A.** The purpose is to provide rebuttal testimonial information for each issue with additional
9 evidence and details. The four Issues in Part I and Part II are and remain unchanged in Part
10 II, unless specifically corrected or modified in this Surrebuttal Testimony.

11 **Q. Have you received timely and complete results during the discovery process?**

12 **A.** In general yes; however, several responses involving arsenic measurements and remediation
13 facilities were received so late the planned detailed data analysis could not be accomplished.

14 **Q. Can you explain this further?**

15 **A.** Yes. It is important for the small Tubac Water District to remove the arsenic from its drinking
16 water. In February 2008, a prior exception to delay implementation was overturned by the US
17 Environmental Protection Agency (EPA), thus eliminating any delay to implement. We
18 understand a single arsenic reading exceeded 35 ppb triggered this EPA action. As shown in
19 Part I, our last two 2008 quarterly arsenic readings had an annual average reading of 24 and
20 25 ppb and 27 ppb was recently reported for the first quarter of 2009.³ Through a data
21 request by this party, additional measurements, standards, and other factors leading to up
22 determination since 1970 were requested, along with background information concerning an
23 arsenic treatment facility (ATF) in Tubac with service charges and volumetric rates, higher
24 than any other AAWC ATF.

25 Furthermore, background information about the much less expensive Point of Use
26 (POU) arsenic removal process was provided over a month after the request. Due to the
27 significant ratepayer cost differential between the POU and ATF proposed by AAWC in 2005,
28 detailed objective trade-study rationale for non-selection of the POU process was needed.
29 On 13 February 2009, significantly exceeding the data request response requirements in this
30 Rate Case's Procedural Order, it was received.

31
32
33 ¹ Direct Testimony (Issues) of Marshall Magruder, dated 9 January 2009, hereafter Magruder Testimony Part I.

34 ² Direct Testimony (Cost of Service and Rate Design) of Marshall Magruder, dated 23 January 2009, hereafter Magruder Testimony Part II.

35 ³ These are AAWC letters to all Tubac Customers titled "Tubac Public Notice for Arsenic" each quarter.

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Part I
Section 2 – Issues in this Testimony – See Part I, pages 8-14.

Part ii
Section 3 – Cost of Service and Rate Structure Testimony – See Part II, pages 7 to 16.

Part III
Section 4 – SURREBUTTAL TESTIMONY

4.0 ORGANIZATION OF THIS TESTIMONY

Q. How is the testimony organized?

A. Section 4 contains the Surrebuttal Testimony in response to the company's Rebuttal Testimony of 11 February 2009, additional testimony by other parties, proposed rate structure, cost of service, and miscellaneous charges and fees and arsenic issues. The issues raised in Part I, expanded in Part II, continue. The Table of Contents is inclusive for all parts, as indicated prior to page numbers. This Part III is the Surrebuttal Testimony of Marshall Magruder. In this Surrebuttal, responses are provided for each AAWC rebuttal concerning my Part I and Part II Testimonies.

Q. Can you summarize your Surrebuttal Testimony?

A. My initial Direct Testimony Part I, I outlined four issues that were expanded in Part II.

Issue 1 – Conservation as a Significant Driver of Water Volumetric Rates. The Company's Rebuttal failed to understand the importance of sending price signals as a way to conserve water in Tubac and the other water districts. The RUCO and ACC Staff rate proposals had weak price signals compared to that proposed by this party.

Issue 2 – Capital Expenses for Tubac Arsenic Removal Facility. The Company's Rebuttal stressed the proposed Arsenic Cost Recovery Mechanism approach which is contrary to rate consolidation (Issue 3) as addressed in prior testimony by its witness. The Santa Cruz Valley Citizens Council (SCVCC), a Santa Cruz Valley non-profit organization, in coordination with the Company has submitted a request through Congresswoman Giffords for federal assistance for the funding of this very expensive \$2.3 million arsenic removal facility that would otherwise be paid solely by the Company's customers in Tubac. The Company in coordination with the SCVCC is in the process of requesting federal stimulus assistance through the Arizona Water Infrastructure Facility (WIFA).

Issue 3 – Consolidation of AAWC Water Districts. Upon review of RUCO's comprehensive approach for service and commodity rate consolidation based on present rates, prior American Water Company (AWC) testimonies, and AAWC's Rebuttal, there is consensus that customers with the highest rates have much more significant rate reductions than the rate increases

1 experienced by those with lower rates. This party supports full rate and fee consolidations including
2 having the Company, RUCO, and ACC Staff submit a single set of Consolidated Rate Schedules,
3 based on the rates being proposed by each. I recommend that Consolidated Rates and Fees be
4 implemented for all five water districts and that the next AAWC rate cases these other water districts
5 be incorporated within revised Consolidated Rates and Fees in order to have fair and reasonable
6 rates throughout Arizona.

7 **Issue 4 – Removal of Pre-Hearing AAWC Witness Training and Other Expenses.** The
8 Company has removed from its rate case costs the \$10,000 requested for such training but then
9 added another \$10,000 to its Rate Case expenses. In my opinion, AAWC should have included
10 Consolidated Rates as its first approach, based on evidence discussed in Issue 3 above, as a
11 routine business practice in preparation for this rate case. This is not a new, unexpected expense.

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1 **4.1 ISSUE NO. 1 – CONSERVATION AS A SIGNIFICANT DRIVER OF**
 2 **WATER VOLUMETRIC RATES**

3 **4.1.1 Response to AAWC Mr. Broderick Rebuttal.**

4 **Q. Did the Company understand the Magruder proposal to conserve water with a multi-**
 5 **tiered rate structure?**

6 **A.** No. For example, in the Company’s Rebuttal Testimony by Thomas Broderick, he
 7 questioned, “Mr. Magruder wants the third pricing block for Tubac to be very expensive.”⁴
 8

9 **Q. Do you consider your highest rates to be “very expensive”?**

10 **A.** Based on comparison with other local rates and prior AAWC rate requests, not at all. Let me
 11 explain where Mr. Broderick and I have differences.

12 As was shown in Table 3-1 of the Magruder Testimony Part II, repeated below with
 13 proposed RUCO and ACC Staff recommendations is included as Table 4-1. The Company
 14 proposed a nearly continuously flat rate structure after the first 4,000-gallon block with only a
 15 10-cent difference, from \$4.85 to \$4.95, starting at 20,000 gallons.⁵ The highest rate, I have
 16 proposed is at \$6.00/1000 gallons, only \$1.05 higher than that proposed by the Company.
 17

18 **Table 4-1. Present and Updated Proposed Tubac Residential Rate Schedules.**

[in consumer cost per 1,000 gallons for 5/8 and 3/4-inch meters]

Commodity Usage Tiers	Magruder Proposed Rates	Company Present Rates	Company Proposed Rates	RUCO Proposed Rates ⁶	ACC Staff Proposed Rates ⁷
First 4,000 gallons	\$1.50	\$ 1.89	\$ 3.78	\$3.4125	\$2.76
4,001 to 8,000 gallons	\$ 2.00	\$ 2.85	\$ 4.85	\$ 4.3785	\$3.90
8,001 to 12,000 gallons	\$ 2.50				
12,001 to 16,000 gallons	\$ 3.00				
16,001 to 20,000 gallons	\$ 3.50				
20,001 to 24,000 gallons	\$ 4.00	\$ 3.41	\$ 4.95	\$ 4.688	\$4.98
24,001 to 28,000 gallons	\$ 4.50				
28,001 to 32,000 gallons	\$ 5.00				
32,001 to 36,000 gallons	\$ 5.50				
Above 36,001 gallons	\$ 6.00				

28 The rate of \$6.00/1000 gallons is considerably less than another local water company
 29 discussed in Part I of the Magruder Testimony, where the volumetric rate for consumption
 30

31
 32 ⁴ Rebuttal Testimony of Thomas A. Broderick, AAWC, dated 11 February 2009, hereafter Broderick Rebuttal, page 17 at 14-15.

33 ⁵ Magruder Testimony Part II, on page 11 at 1 to 10. A correction was made in the last two tiers blocks.
 34 ⁶ Direct Rate Design Testimony of Rodney L. Moore, RUCO, 20 January 2009, hereafter Moore Rate Design Testimony, Schedule RLM-RD-1, page 1.

35 ⁷ Direct Testimony of Marvin E. Millsap, ACC Staff, 20 January 2009, hereafter Millsap Testimony, Table MEM-1, page 1.

1 over 4,001 gallons/month is \$10.00/1000 gallons and for consumption over 15,001 gallons is
2 \$20.00/1000 gallons.⁸ These rates might be considered "expensive."

3 It is noted, that the Company in 2002, proposed an even higher rate for the third tier of
4 \$6.0022/1000 gallons when consumption was 20,000 gallons or higher.⁹

5 **Q. What else did Mr. Broderick not understand about your Proposed Rate Structure?**

6 **A.** He continued with a statement that completes his lack of understanding the proposed
7 volumetric rate structure:

8 "Higher use water consumers in Tubac are price sensitive and drill private wells to
9 fully or partially bypass our system. Even though these wells are expensive, we saw
10 a number of new wells drilled several years ago when the topic of the cost of arsenic
11 facility first came up. Since most of our costs are fixed costs, such dramatic
12 conservation only serves to raise rates later for the remaining customers."¹⁰

13 First, if the Company complied with the provisions of A.R.S. §45-454C, then new
14 "exempt" wells may be able to be drilled within 100 feet of or inside the boundary of the
15 Tubac service area after 1 January 2006.¹¹ The Company has not requested from ADWR
16 that new wells be prohibited in this area. New wells can still be drilled today. See Appendix B
17 for Magruder Exhibit MM-7 for A.R.S. §45-454.

18 Second, as noted in the above quote, it was the "cost of arsenic facility" and not the
19 volumetric cost of water that was the most significant factor for drilling these new wells.

20 Third, these wells were not a "conservation" measure but an action that fears of the
21 exorbitant plans by the Company for rates exceeding \$200/month, miscommunications with
22 the public, and installations of reverse osmosis filters to avoid arsenic by many customers
23 were causes for these. In my opinion, these were fruitless and wasteful drilling measures. If
24 only the Company had handled this historic drilling event in a wiser manner.

25 Fourth, the nearly horizontal proposed rate structure has NO price signal impact for
26 customers, and without a price signal, using other means to make customer behavioral
27 changes to conserve water will be less effective.¹²

28 Fifth, Mr. Broderick misunderstood the significance of the conservation changes
29 proposed by the multi-tiered Magruder rate structure, that is, lower usage consumers will

30
31 ⁸ Magruder Testimony Part I, page 9 at 25 to page 10 at 27, and Exhibit MM-2, page 25 at 7 to 9.

32 ⁹ See ACC Docket No. WS-01303A-02-0867, et al, AAWC Application, proposed Schedule 10.

33 ¹⁰ Broderick Rebuttal, p. 18 at 16 to 20.

34 ¹¹ Interview by Marshall Magruder of Alejandro Barcenas, ADWR Director Santa Cruz AMA, at ADWR Office
35 in Nogales, Arizona, on 25 February 2009, hereafter Magruder-Barcenas Interview. There are some
exceptions for the subsection 45-454C prohibition against new exempt wells after 1 January 2006, in
particular subsections 45-454, E, F, and I, provide limited exceptions that could only rarely be applicable.

¹² This is discussed in more detail later.

1 see their volumetric rates lowered and while higher usage consumers will have their
2 volumetric rates increased as a deliberate conservation measure.

3 In summary, the proposed rate structure does NOT promote conservation, in an Active
4 Management Area, where future growth is limited based on the SCAMA requirements to
5 maintain sustainability in water resources as required by the Santa Cruz Comprehensive
6 Plan, Water Resources Element, where "water supplies are protected and conserved."¹³

7
8 **Q. Can AAWC prevent drilling new wells in its Tubac service area?**

9 **A.** Definitely, yes and it should. This was discussed during an interview with Mr. Alejandro
10 Barcenas, the Arizona Department of Water Resources (ADWR) Director of the Santa Cruz
11 Active Management Area. He said ADWR needs a request from the Company to prohibit
12 new well drilling in or within 100 feet of its service area, as permitted by A.S.R. §45-454C.
13 This request needs to include a digital map of its service area with the application. He also
14 said that the adjacent Baca Float Water Company, with a similar customer base, has
15 prohibited any future well drilling in its service area.¹⁴

16 **Q. Is it correct to summarize this testimony that Mr. Broderick's rebuttal offered no
17 evidence that using higher rates for highest consumers and lower rates for the lowest
18 consumers would not benefit real water conservation in the Tubac service area?**

19 **A.** That is correct.

20
21 **Q. Do you have other testimony concerning use of rates to promote water conservation?**

22 **A.** Yes. In an American Water Company-New Jersey rate case, AWC and AAWC's witness in
23 this case, testified and provided a "conservation plan" to be used as a pilot program. He
24 proposed a three-tier rate structure with the first 4,000 gallons at 10% less than the
25 proposed 14.3% rate increase, from 5,000 to 10,000 gallons at 5% higher than the proposed
26 28.3% rate increase, and above 10,000 gallons at 15% higher than the proposed 31% rate
27 increase. This steepens the rate curve, which is exactly what this party has proposed.¹⁵

28 We differ not in principle but only in the slope of the curve and number of tiers.

29
30
31 ¹³ Magruder Testimony Part I, Exhibit MM-3, The 2005 Santa Cruz County Comprehensive Plan – Water
32 Resources Element, pages 26 to 29. For a county the size of Santa Cruz County, this is an optional plan
33 element but water is so important that it was included. For example, the hydrological conditions in the
34 SCAMA are unique,

35 ¹⁴ Magruder-Barcenas Interview, 25 February 2009.

¹⁵ Direct Testimony of Paul R. Herbert, before the New Jersey Board of Public Utilities, in the matter of the
Joint Petition of New Jersey-American Water Company, Inc., Approval of Increased Tariff Rates and
Charges for Water and Sewer Service, Exhibit PT-12, hereafter, Hubert NJ-AWC Testimony, Conservation
Rate Pilot Program section, pages 14 to 15, in Appendix B, as Magruder Exhibit MM-8.

1 **Q. Why do you support ten-tiers instead of the traditional three-tier rate structure?**

2 **A.** To make a clear price signal obvious to a consumer and, most important, a signal for a
3 consumer to make the change(s) in behavior to lower consumption in order to reach the next
4 lower-tiered rate. If it is not possible to reach a lower tier or that the rate difference for
5 meeting that tier is insignificant, then consumers have no reason to save money by
6 conserving water.

7 Due to the critical differences in water resource available between New Jersey and
8 Arizona, the slope of this curve needs to be much steeper to really conserve water. This is
9 why proposed rates increasing every 4,000 gallons at \$0.50/1000 gallons, starting at
10 \$1.50/1000 gallons and increasing to \$6.00/1000 gallons when consumption exceeds
11 36,001 gallons in a month.

12 The slope of increasing commodity rates for this approach continues to increase with
13 more consumption instead of minor three-stepped rate changes proposed. When using just
14 three steps, for a customer to move from the third tier to the first requires, in the NJ plan,
15 only 5,000 gallons; however, in the AAWC proposed three-tier approach, a change of
16 several times a 4,000 gallon block consumption is required to make a significant change in
17 rates. Customers can change consumption 4,000 gallons but to make leaps over 10,000
18 gallons may not be even feasible for some consumers. Also, looking at the Chi-squared
19 distributions, the "long tail" needs "price signals" for individuals to make behavior changes
20 (to conserve) and none of the AAWC "tiers" have such signals, other than the extremely long
21 tail already found in the Paradise Valley five-tier rate structure. Maybe another five or more
22 tiers for the Paradise Valley consumers might send price signal to that water district.

23 **Q. What else should be done to help Consumers Conserve water?**

24 **A.** In my opinion, the terms "water conservation" and "water efficiency" are needed to separate
25 the human actions, e.g., changing in behavior, from means to improve the efficiency of water
26 use. The later, water efficiency, uses physical devices to both help the human change
27 behavior or to restrict water usage. Conservation involves human behavior changes that are
28 usually limited being measured by subjective means while efficiency improvements involve
29 elements that have cost and can thus be better and objectively evaluated with measures
30 such as cost-to-benefit ratios.

31 The Company's water conservation program includes classic conservation measures
32 (which I'd term as 'water efficiency' measures), including literature, low-flow showerheads
33 and yard water sprinklers, leak detector tablets, yard watering guides, and other low-cost
34 enticements to reduce water usage. These measures enhance water conservation and
35

1 must continue, because these "tools" may provide a physical signal to consumers to save
2 water by being more efficient.¹⁶

3 Unfortunately, the basic laws of supply and demand have found that "cost" has been
4 proven as an effective way to facilitate long-lasting customer behavioral changes leading to
5 less water demand, e.g., also known as conservation.

6
7 **Q. Do you still believe conservation is necessary for a fair and reasonable rate**
8 **structure?**

9 **A.** Absolutely, yes. The facts presented in Part II remain valid¹⁷ that support this issue in Part I¹⁸
10 as water conservation and sustainment are both critical State of Arizona and Santa Cruz
11 County objectives. Water conservation has been stated also to be an objective of AAWC.

12 **Q. Do you recommend the Commission approve rate structures designed to conserve**
13 **water?**

14 **A.** Yes. We must design, in Arizona, all water rate structures to conserve this diminishing
15 natural resource. Ground water, which is being depleted at high rates throughout the state,
16 cannot be replenished to sustain adequate water resources for future generations. There is
17 no part of Arizona that is sustaining its water resources other than the Santa Cruz Active
18 Management Area, which has only ground water available, and limits our maximum growth.
19 Parts of the Tucson AMA are depleting water at the rate of 4-feet a year, or almost 1-inch a
20 week, with subsidence cracks and land deformations. This is why the Santa Cruz AMA must
21 sustain its water flow to the Tucson AMA is to not dry up a critical water input to the deep
22 Tucson aquifer.

23 The Commission must consider using rate design with steep rate change slopes and
24 more rate block tiers to send clear price signals to consumers to conserve water for the
25 future of our community and our state.
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31 ¹⁶ Using the electricity terms from the DOE Demand Side Management dictionary, the electricity terms
32 "conservation", "energy efficiency" and "demand side management (DSM)" were defined to put measures
33 that involve customer behavior changes (conservation), equipment used by consumers to improve
34 efficiency (energy efficiency), and actions by the utility to reduce demand (DSM), then programs can be
35 described as conservation, energy efficient, or DSM. Conservation measures have no direct costs and
include rate design; energy efficiency measures do have costs including equipment, literature, and
customer usage displays. DSM requires the utility to take actions.

¹⁷ Magruder Testimony Part II, Section 3.1, pages 7 to 14 with Exhibits MM-6, pages 17 to 20.

¹⁸ Magruder Testimony Part I, Section 2.1, pages 8 to 11 with Exhibits MM-1 to 3, pages 23 to 29.

1 Q. Are you adding too many tiers, with ten instead of the three or up to six tiers (Paradise
2 Valley) used in the other water districts?

3 A. In my opinion, the answer is no.

4 As presently structured, the Company's rate structure has only two price-break points, at
5 4,000 and 20,000 gallons per month. From Table MM-6-1 (Exhibit MM-6), we see that 34.3%
6 of the customer's bills during the test year are for 4,000 gallons or less. When we look at
7 consumptions at the Company's second tier break-point of 20,001 gallons, over 83.2% of the
8 customers bills have been included the first two tiers. The Company's third tier contains
9 16.8% of the remaining customers, and these customers, the highest-water users.

10 The Company's three-tier approach fails to provide any PRICE SIGNALS for almost 60%
11 of the ratepayers in its second tier. This rate structure defect, by exclusion of observable
12 price signals to customers, needs correction action in this rate case. The purpose of this
13 approach is conservation of this precious and diminishing natural resource.

14 Price Signals must be observable in order to be observed by customers, to conserve
15 water, the goal of this process. None of the proposed schemes meet these criteria.

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1 \$2.3 million arsenic removal facility that would otherwise be paid solely by the
2 Company's 532 customers in Tubac.

3 b. The Company, in coordination with the SCVCC, is in the process of requesting federal
4 stimulus assistance through the Arizona Water Infrastructure Facility (WIFA).

5 c. Locally, we are comparing various arsenic treatment facility costs, such as that at the
6 local Baca Float Water Company's ATF. Baca Float's service area boundary is along
7 that of AAWC's boundary, and its operational capabilities meet the demand for some
8 500 customers, very similar and compatible to the AAWC Tubac Water Division.

9
10 **Q. Were you able to conduct an analysis of arsenic and other minerals in Tubac water?**

11 **A.** No. The original data request was timed so that at least two weeks could be devoted to
12 detailed analysis, comparison of options, and determination of trends and statistical analyses
13 to either support or be used to deny overturning the February 2008 EPA letter that removed
14 our three-year exemption. The receipt of a response on 13 February 2009 from a data
15 requests submitted on 9 January 2009 and 15 January 2009 was not satisfactory. I even
16 submitted a "Discovery Dispute"²¹ on 30 January 2009 to the ALJ, the Company and the
17 active parties (RUCO and ACC Staff), without any response from the ALJ.

18 I was not able to conduct the planned analysis in late January due to known schedule
19 conflicts in February, as I am a Senior Tax Advisor Level III for H&R Block. The first two to
20 three weeks in February are defined as "peak" in this profession, when 14+ hour days are
21 the norm.

22 **Q. Did you receive the Point of Use (POU) Information from AAWC in a timely manner?**

23 **A.** No. That data request was dated 15 January 2009 and, like the arsenic data, the Company's
24 response not received until 13 February 2009. I do have a response below; however, time
25 has passed for me to use that data for the purpose intended, as I knew my work schedule
26 would have permitted the planned analysis earlier than when received.

27
28 **Q. Do you have any additional concerns about proposed rates for Arsenic Treatment?**

29 **A.** When compared to all other water districts, the planned costs for this service are the highest
30 in the Company, with an Arsenic Basic Cost of Service at \$25.98 per residential customer
31 and a commodity or volumetric rate of \$3.14 per 1,000 gallons.

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35 ²¹ Notice of Filing a Discovery Dispute between Arizona-American Water and Marshall Magruder, dated 30
January 2009.

1 As shown in Part II, Table 3-6²², a customer using 10,000 gallons per month, which is
2 less than average, will have a bill of \$134.10 compared to \$44.34 under the present rates.
3 An average resident uses 11,797 gallons per month. This bill only includes the proposed
4 service and volumetric rate increases in this docket and the proposed ACMR impact. There
5 are additional capital costs expected to include a storage tank, new mains between Well No.
6 4 and Well No. 5, and required equipment replacements.

7 **This is a 302.4% rate increase when arsenic treatment is included!!**

8 It should be obvious why our community is so concerned.
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35 ²² Magruder Testimony Part II, Table 3-6, Impact of Arsenic Charges on Residential Bills, page 15.

1 **4.3 Issue No. 3 – RATE CONSOLIDATION FOR ALL AAWC WATER DISTRICTS**

2
3 **Q. Do you still support consolidation of all the AAWC Water Districts?**

4 **A.** Yes. The Camelback Inn and Sanctuary's First Set of Data Request and Company's
5 response included prior testimonies by AAWC witness, Mr. Paul Herbert's that supported
6 rate consolidation.²³ This is not a single or a selected group of water districts issue. All
7 water districts should be consolidated into a single tariff for all water districts and one single
8 tariff for all sewage water districts throughout the entire Company.

9 In general, all RUCO, ACC Staff Direct and AAWC Rebuttal testimonies support tiered
10 rate structures and rate consolidation. There were no recommendations against
11 consolidation; however, the level or degrees of consolidation are where differences lie.
12 These differences will be discussed, as the ultimate decision on the Rate Consolidation
13 issue, in my opinion, has the most significant impact on ratepayers than any other issue in
14 this Rate Case.

15
16 **4.3.1 Response to AAWC Mr. Herbert Prior Testimony.**²⁴

17 **Q. How did Mr. Herbert define "consolidation"?**

18 **A.** In his New Jersey testimony, he used a different term, "rate equalization", which was defined
19 as follows:

20 "Rate equalization or single tariff pricing is the use of the same rates for the
21 same service rendered by a water company regardless of the customer's
22 location."²⁵

23 **Q. What basis did Mr. Herbert use to define "rate equalization" (consolidation)?**

24 **A.** Again, in his New Jersey testimony, he made this very clear as follows:

25 "Rate equalization is based on the long-term rate stability which results from a
26 single tariff, the operating characteristics of the tariff's groups, the equivalence of
27 services offered, the cost of service on a tariff group basis, and the principle of
gradualism."

28 **Q. How can rate equalization, as explained by Mr. Herbert, provide long-term stability for
29 several areas?**

30 **A.** His New Jersey testimony describes the Arizona situation, as follows:
31
32

33
34 ²³ Hubert NJ-AWC Testimony, Rate Equalization section, pages 16 to 19, which is in Appendix B, as
Magruder Exhibit MM-8.

35 ²⁴ Herbert NJ-AWC Testimony.

²⁵ Ibid. Page 16 at 10 to 12.

1 "Utility customer rates are dependent on the total expenses and rate base of the
2 utility and the amount of the commodity which the utility sells. Changes in rate base,
3 particularly, as the result of the Safe Drinking Water Act, have significant potential for
4 adversely impacting the rates for certain areas within a utility.

5 "The ability to absorb the cost of such projects over a larger customer base is a
6 compelling argument in support of rate equalization. Capital programs will never be
7 uniform in the several operating areas, even over periods of 5 to 10 years. The cost
8 of specific programs should be shared by all customers rather than burdening those
9 of the affected areas. Rate increases will be more stable and major increases in
10 specific tariff groups will be avoided."²⁶ [underlined for emphasis]

11 **Q. What impact would Mr. Herbert's approach above have on this AAWC Rate Case?**

12 **A.** First, this would consolidate all capital and other costs into one account, shared equally
13 using one set of rate categories for all customers.

14 Second, this would "equalize" or level out, the ups/downs in all AAWC water districts.

15 Third, this also reduces the rate complexity found in these six very divergent, non-
16 coordinated, and discombobulated rate cases to one rate base and case for all customers.

17 Fourth, by combing ledgers into a consolidated ledger, accounting would be easier; the
18 Company's administrative costs lower, and thus reduce long-term ratepayer costs.

19 In summary, this approach presents a fair and reasonable methodology to share capital
20 and other costs across all similar customers. If Consolidated Rates were fully implemented,
21 as recommended by Mr. Herbert, all customers and the Company benefit. The Commission
22 and RUCO also benefit by being able to concentrate on one set of books instead of many.
23 Separation of "water" and "waste water" into two tariffs is assumed.

24 **Q. How does Mr. Hebert's "rate equalization" handle different operating characteristics in
25 several areas?**

26 **A.** Mr. Herbert discusses this in terms of similarities, as follows:

27 "There are many similarities in the manner in which the several areas [such as
28 Arizona water districts] are operated. All the systems pump their treated water
29 through transmission lines to distribution areas that include mains, booster pump
30 stations and storage facilities. All of the areas rely on a centralized work force for
31 billing, accounting, engineering, administration, and regulatory matters. All of the
32 areas rely on a common source of funds for financing working capital and plant
33 construction. Inasmuch as the costs of operation are related to functions in which the
34 operating characteristics are the same, the use of equal rates is supported."²⁷

35 Mr. Herbert has shown that operational and maintenance activities are, in general, similar for
the long-term, thus consolidation is appropriate. In fact, most of these functions are already

²⁶ Ibid. Page 16 at 17 to page 17 at 4.

²⁷ Ibid. Page 17 at 5 to 14.

1 consolidated by AAWC; however, they are then "de-consolidated," using traditional formulae,
2 to allocate these costs to back to various AAWC water and sewage water divisions.

3
4 **Q. Does Mr. Herbert explain how equivalence of offered services supports consolidation?**

5 **A.** He provides directly applicable evidence that noncontiguous service areas, such as the
6 AAWC districts, should consolidate rates, by stating:

7 "The use of the same rates in a utility with noncontiguous service areas is supported
8 by the equivalent service rendered in each area. Although there would be
9 considerable debate with respect to the equivalency of the service rendered to
10 different customer classifications, there is no question that the service rendered to a
11 residence in one area is the same as the service rendered to a residence in another
12 area. Residential customers are relatively consistent in their uses of water: cooking,
13 bathing, cleaning and other sanitary purposes, and lawn sprinkling. If customers use
14 water for the same purposes, the service offering is the same and should be priced
15 accordingly. Thus, from this perspective, there is no basis for charging different
16 prices to customers in different areas."²⁸ [underlined for emphasis]

17
18 **Q. Do variances in allocated costs of the tariff groups warrant the use of separate rate**
19 **schedules?**

20 **A.** He stated:

21 "No, they do not. Charging one group of customers' higher rates because they may
22 be served by a newer plant whose original cost exceeds that of other plants as a
23 result of inflation is not logical. The concepts previously discussed outweigh this
24 consideration and justify the goal of moving toward a single tariff. The electric
25 industry reflects such concepts when it serves customers in geographically dispersed
26 areas. A kilowatt-hour delivered in one area has the same price as a kilowatt-hour
27 delivered in another area despite the fact that cost of service studies could be
28 performed to identify differences in the cost of providing service to customers classes
29 in different regions."²⁹

30 There is a recent Arizona precedence for Mr. Herbert's comments concerning consolidation
31 of electric rates. In the UNS Electric rate case, the residential and small business rates in
32 Mohave and Santa Cruz County were consolidated, to eliminate decades of higher rates in
33 the smaller county, as I testified there "is no valid basis for continuing separate rates."³⁰

34 **Q. Does Mr. Herbert have other costs of service considerations that support rate**
35 **consolidation?**

A. Yes. The Company [including Arizona-American] has taken a number of steps in
recent years to centralize and consolidate its operations. Common costs which must
be assigned or allocated to each operating area to establish tariff group revenue

²⁸ Ibid. Page 17 at 15 to 24.

²⁹ Ibid. Page 18 at 1 to 10.

³⁰ See ACC Docket No. E-04204A-96-0783 and ACC Decision No. 70360 of 27 May 2008, page 53 at 14.

1 requirements include management fees, corporate headquarters costs, office costs,
2 customer service costs, depreciation expense developed on the basis of Company-
3 wide depreciation rates and income tax expense based on total Company financing
4 and tax provisions. The allocation of common costs, while reasonable, are subject to
5 judgment and may not result in the development of tariff group revenue requirements
6 which reflect precisely the cost of serving each area."³¹

7 **Q. How will demographic factors be considered to support rate consolidation?**

8 **A.** Mr. Herbert discusses how a single tariff will result in higher rate increases in areas where
9 the rates are lower.³² Conversely, a single tariff will have smaller rate increases in areas
10 where rates are higher. This balancing, equalizing or consolidation, makes rates fair and
11 reasonable.

12 **Q. Does Mr. Herbert summarize his rate equalization analysis in this testimony?**

13 **A.** He supports rate equalization (consolidation) but suggest that it be done using gradualism
14 principles, that is, over several rate cases. This will be further discussed in my conclusion
15 and recommendations below. He specifically stated:

16 "Rate equalization is appropriate for New Jersey-American. Such pricing is
17 supported by considerations of the benefits of sharing the impact of capital programs
18 on a Company-wide basis, the significant majority of common costs, the equivalent
19 service rendered, electric industry precedent and the per capita income of affected
20 communities. The best interests of the customers are served through gradualism by
21 continuing to implement rate equalization during this case and in subsequent
22 cases."³³

23 **Q. Why have you included so much of Mr. Herbert's prior testimony in this case?**

24 **A.** Mr. Herbert is a witness for AAWC and providing his excellent background testimony shows
25 that he is one witness that has Company-experience in this matter, and supports
26 consolidation of all financial and operational aspects for all water districts. Whether he will
27 support consolidation of water and sewage water districts will be answered soon, hopefully in
28 the Company's Rejoinder.

29 **4.3.2 Response to RUCO Mr. Rodney Moore Direct Rate Testimony.**³⁴

30 **Q. What did Mr. Moore present concerning Rate Consolidation?**

31 _____
32 ³¹ Herbert NJ-AWC Testimony, page 18 at 11 to 19.

33 ³² Ibid. Page 18 at 21 to page 19 at 11. Mr. Herbert uses specific New Jersey demographics; however,
34 testimony by Mr. Moore in paragraph 4.3.2, and Mr. Broderick in paragraph 4.3.3, below, tailors
35 consolidation impacts to Arizona.

³³ Ibid. Page 19, at 12 to 19.

³⁴ Moore Rate Design Testimony, pages 4 and 5, Exhibit B, Rate Consolidation.

1 A. A summary of his testimony is given below. Mr. Moore calculated consolidated rates based
2 on his comprehensive review of the present and Company's proposed rate structures. He
3 precluded the Paradise Valley Water District's rate structure because it had five breakout
4 points (tiers) while the others all had three tiers.

5 His analysis included adjusting the bill determinates to a common set of tiers and similar
6 break-over points; he used a weighted average calculation to determine a single
7 consolidated rate and to determine a single consolidated customer charge

8 For each customer class, meter size, and commodity usage tier, his consolidated rate
9 design generated the same aggregate revenue as the combined recorded test-year
10 revenues from each of the five water districts and their distinctive, unconsolidated rate
11 designs. He then refined the single consolidated rate to accurately proportion revenue
12 generated between residential and commercial ratepayers to reflect the test year values. He
13 further created different monthly rates using the same meter size and different commodity
14 charges for the same consumption.³⁵ His approach was comprehensive and directly relevant.

15
16 **Q. What were the results Mr. Moore determined for a Consolidated Service Charge?**

17 **A.** In his table of consolidated rate design, he compares service charge rates for each district
18 with his calculated Consolidated Charge of \$9.59 compared to \$15.59 by the Company as
19 shown in Table 4-2 below for residential 5/8 and 3/4-inch meters.

20 This table contains the "service charges" using the AAWC present rates, the RUCO
21 proposed rates, AAWC proposed rates, and ACC Staff proposed rates. These vary between
22 \$8.75 (present Mohave) to \$ 32.50 (AAWC proposed Tubac). Mr. Moore (RUCO) determined
23 a consolidated service charge, using the detailed and comprehensive criteria described
24 above, at \$9.59 (using present rates) while Mr. Broderick (AAWC using proposed, different
25 districts, etc. as discussed in 4.3.3 below) determined a consolidated service charge, using
26 different criteria than Mr. Moore, at \$ 15.59.

27 Using the consolidated service charge value of \$9.59, under Mr. Moore's present rates,
28 we see decreases for Tubac (-\$10.09), Havasu (-\$8.19), and Agua Fria (-\$0.86) and slight
29 increases for Sun City West (+\$0.02) and Mohave (+\$0.85).³⁶ Using Mr. Broderick's
30 consolidated service charge value of \$15.59, using the proposed rates, we see decreases for
31 Tubac (-\$16.91), Paradise Valley and Havasu (-\$12.41), and increases for Agua Fria and
32 Sun City West (+\$0.59) and Mohave Water (+\$3.59).

33
34 ³⁵ Moore Rate Design Testimony, page 4 at 18 to page 6 at 11.

35 ³⁶ Mr. Moore did not include Paradise Valley in his determination for consolidated rates because there are
five tiers while the others all had three tiers for 5/8 and 3/4-inch residential customers.

As stated above by Mr. Hebert, the highest rates will see the largest decreases and the lowest rates, the smallest increases when consolidating.

Table 4-2 Consolidated and Unconsolidated Service Charges for Residential 5/8 and 3/4-inch meters.

Consolidated Service Charge (RUCO)	AAWC Present Rate Design ³⁷					
	Agua Fria	Sun City West	Tubac	Havasas	Mohave Water	Paradise Valley
\$ 9.59³⁸	\$ 10.45	\$ 9.57	\$ 19.68	\$ 17.40	\$ 8.75	\$ 25.18
	RUCO Proposed Rate Design ³⁹					
	\$ 11.87	\$ 13.81	\$ 29.34	\$ 25.66	\$ 10.30	\$ 26.68

Consolidated Service Charge (AAWC) ⁴⁰	AAWC Proposed Rate Design ⁴¹					
	Agua Fria	Sun City West	Tubac	Havasas	Mohave Water	Paradise Valley
\$ 15.59	\$ 15.00	\$ 15.00	\$ 32.50	\$ 28.00	\$ 12.00	\$28.00

Consolidated Service Charge (ACC Staff) ⁴²	ACC Staff Proposed Rate Design ⁴³					
	Agua Fria	Sun City West	Tubac	Havasas	Mohave Water	Paradise Valley
Not located	\$ 14.55	\$ 15.30	\$ 28.73	\$ 24.54	\$ 9.10	\$ 28.00

Q. Did Mr. Moore consolidate commodity (volumetric) usage?

A. Yes. As stated above, he did more than just combine and average, by determining a common three-tier rates for residential customers (5/8 & 3/4-inch) and two-tiers for all other customer categories. Table 4-3 compares this residential rate category using his three rate tiers, for first 4,000 gallons, next 10,000 gallons (to 14,000), and over 14,000 gallons.

Table 4-3 RUCO Consolidated and Unconsolidated Commodity Charges for Residential 5/8 and 3/4-inch meters.

Commodity Usage (at \$/1000 gallons)	AAWC Present Rate Design ⁴⁴					
	RUCO Consolidated Rate	Agua Fria	Sun City West	Tubac	Havasas	Mohave Water
First 4,000 gals	\$1.2443	\$1.5398	\$1.3092	\$1.8900	\$1.6802	\$0.8500
Next 10,000 gals.	\$2.0757	\$2.2198	\$1.7442	\$2.8500	\$2.1852	\$1.3000
Over 14,000 gals.	\$2.3270	\$2.6468	\$2.0102	\$3.4100	\$2.5000	\$1.5000

³⁷ Millsap Testimony, pages 3 to 17.

³⁸ Includes five water districts and excludes the Paradise Valley water district.

³⁹ Moore Rate Design Testimony, Schedules RLM-RD1 for each water district, page 1, line 1.

⁴⁰ Broderick Rebuttal, page 18 at 25 and table on last page (not numbered) of rebuttal.

⁴¹ Millsap Testimony, pages 3 to 17.

⁴² This party was unable to locate any ACC Staff testimony for a consolidated service charge rate.

⁴³ Millsap Testimony, pages 3 to 17.

⁴⁴ Millsap Testimony, pages 3 to 17.

1 This shows that the first tier existing rates range between \$0.85 (Mohave) to \$1.89 (Tubac),
 2 second tier between \$1.30 (Mohave) and \$2.85 (Tubac), and third tier between \$1.50
 3 (Mohave) and \$3.41 (Tubac).

4 We observe the changes from tier to tier as follows:

	<u>First Tier</u>	<u>Second Tier</u>	<u>Third Tier</u>
Increases:			
• Mohave	+\$0.3943	+\$0.7757	+\$0.8270
Decreases:			
• Sun City West	-\$0.0651	-\$0.3315	-\$0.3168
• Agua Fria	-\$0.2955	-\$0.1442	-\$0.3198
• Havasu	-\$0.4359	-\$0.1094	-\$0.1720
• Tubac	-\$0.6457	-\$0.7443	-\$1.0830

10 Again, the water division with the highest rates received the greatest decrease when
 11 consolidated, and the water division with the lowest rates the highest rate increases.
 12 However, the largest tier one rate increase (+39.43 cents) is considerably smaller than the
 13 rate decrease (-64.57 cents), tier two lowest rate had a slightly higher difference (+3.14
 14 cents), and at tier three, the highest rate increase had a significant difference (-61.60 cents).
 15

16 **4.3.3 Response to AAWC Mr. Broderick Rebuttal.**

17 **Q. Did the Company provide consolidated rate information?**

18 **A.** Yes; however, different assumptions were made when compared to those by RUCO in Mr.
 19 Broderick's Rebuttal. Table 4-4 shows the AAWC consolidated commodity rates compared to
 20 the proposed AAWC rate design.
 21

22 The Company's consolidated commodity rate of \$1.50/1,000 gallons is lower for all "first
 23 4000 gallons" except Paradise Valley (+\$0.212) and Mohave (+\$0.29) with decreases for
 24 Sun City West (-\$1.380), Agua Fria (-\$1.426), Tubac (-\$2.280) and Havasu (-\$2.522). Again,
 25 the water districts with the highest commodity rates, received the greatest rate reductions,
 26 while those with the lowest rates, the smallest rate increases.
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Table 4-4 AAWC Consolidated and Unconsolidated Commodity Charges for Residential 5/8 and 3/4-inch meters.

AAWC Proposed Rate Design ⁴⁵							
Commodity Usage Blocks (at \$/1000 gallons)	AAWC Consolidated Rates ⁴⁶	Agua Fria	Sun City West	Tubac	Havasu Water	Mohave Water	Paradise Valley
First 4,000	\$1.500	\$2.926	\$2.880	\$3.780	\$4.033	\$1.471	\$1.288
4,001-10,000		\$3.463				\$1.625	
4,001-13,000	\$3.463				\$4.196		
4,001-15,000			\$3.171				
4,001-20,000				\$4.850			\$2.233
Over 10,001						\$1.744	
Over 13,001	\$3.670				\$4.555		
Over 14,001							
Over 15,001			\$3.413				
Over 20,001				\$4.950			
20,001-65,000							\$2.796
65,001-125,000							\$3.359
Over 125,001							\$3.879

14 **Q. Did AAWC calculate as the impact of Rate Consolidation on revenue and rates?**
 15 **A.** Based on several assumptions, Mr. Broderick has indicated that "typical" [undefined]
 16 Consolidated Bills for 5/8-inch residential customers would be as shown in Table 4-5 below.
 17

Table 4-5 AAWC's Consolidated Rate Impacts for Typical Residential 5/8-inch meter Bills and Total Revenue.⁴⁷

Water District	Typical Bill	Change due to Consolidated Rates	Total Revenue
Tubac	\$41.01	+47.13% rate INCREASE	\$0.3 million
Havasu	\$35.85	+42.90% rate INCREASE	\$0.6 million
Mohave	\$31.77	+37.22% rate INCREASE	\$1.7 million
Agua Fria	\$30.09	+17.75% rate INCREASE	\$3.5 million
Paradise Valley	\$66.94	+2.95% rate INCREASE	\$0.3 million
Sun City West	\$28.35	-15.69% rate DECREASE	\$1.3 million
Water Districts in the AAWC's Analysis that are NOT in this rate case.			
Sun City	\$32.26	+136.00% rate INCREASE	\$8.4 million
Anthem	\$34.15	+47.74% rate INCREASE	\$44.6 million

27 **Q. Can one compare the Mr. Broderick Consolidated Rates with those of Mr. Moore?**
 28 **A.** No. Mr. Moore did his comprehensive consolidation using the present rates and excluded
 29 Paradise Valley, derived common three-tier commodity blocks, while equalizing Company
 30 return with that in the Test Year. Mr. Moore's testimony has indicated he intends to update
 31 his comprehensive approach in his Surrebuttal based on the Company's Rebuttal.
 32

34 ⁴⁵ Millsap Testimony, pages 3 to 17.
 35 ⁴⁶ Broderick Rebuttal, page 18 at 25 and table on last page (not numbered) of rebuttal.
⁴⁷ Ibid. page 6 at 13 to page 7 at 10.

1 Mr. Broderick used the AAWC proposed rates, different water companies, and many
2 different assumptions that make his analysis not suitable to make any decisions in this rate
3 case. Mr. Broderick's analysis is incomplete.

4 Tables 4-3 (Moore) and 4-4 (Broderick) have major differences caused by the divergent
5 assumptions made by Mr. Broderick, in particular the wide variety of "blocks" shows how
6 dysfunctional the existing rate and proposed rate schedules are in this Company. There
7 should be only one block structure for all water districts.

8 **Q. Why do you not like the existing "blocks" used by AAWC?**

9 **A.** First, there appears to be no logic in setting the limits for the blocks. The distribution of the
10 water usage is not a Gaussian (or normal) distribution but more like a chi-squared (X^2)
11 distribution,⁴⁸ with a fast rising peak closer to zero and a long tail. A chi-squared distribution
12 has its mean or cumulative 50% distribution nearer to the origin, thus when an average
13 customer consumes between 7,500 to 12,000 gallons.⁴⁹ The rate structure must make cost
14 "signals" for these near-mean usage customers.

15 Second, we see second tiers that all start at 4,000 gallons to 10,000, 13,000, 15,000,
16 and 20,000 gallons. The range for this "second" tier extends from 6,000 to 14,000 gallons,
17 which is too wide and hard for a consumer to see the price signal to reach (or reduce
18 demand) the first tier. The long chi-squared tail extends for tens and hundreds of thousands
19 gallons with price tiers only in the Paradise Valley after 20,001 gallons.

20 Third, the AAWC Consolidated Rate second tier is 9,000 gallons wide, and still needs to
21 be divided to make obvious and reachable blocks for customers to lower water rates through
22 conservation.

23 Fourth, looking at Table 4-4, we see 13 different tiers used by these six water divisions
24 just for the same rate category. I have proposed using a standard 4,000-gallon blocks in the
25 residential and small commercial rate categories.

26 Furthermore, all larger residential and all commercial commodity rate categories only
27 have two tiers. Many small commercial (5/8 and 3/4-inch), such as in the Tubac district, have
28 very similar consumption demands (with a lower average), as their residential counterparts.
29 These commercial categories should parallel the residential rate tiers. In fact, multiple tier
30 blocks for all other rate categories should be in the resultant tariff from this rate case. Just
31 like the residential category that is discussed extensively, commercial enterprises can and
32

33
34 ⁴⁸ In testimony made my AWC's Mr. Hebert, for a San Jose, California, rate case, he shows curves for
various rate distributions. This testimony is found in Appendix B, Magruder Exhibit MM-8.

35 ⁴⁹ See Magruder Testimony Part II, at footnote 10.

1 will look for ways to lower rates, IF THEY CAN, to a lower tier. As the present and proposed
2 rate structure is now constructed with only two tiers, reaching the first tier rates is nearly
3 impossible unless your consumption is just over the second tier break point. At least five
4 tiers for larger meters is recommended, with two breakpoints below the chi-squared mean
5 for example near the 35% and 45% points, the third at 5% past the mean (55%), and fourth
6 and fifth, near the 65% and 80% points on the tail. The additional breakpoints on the tail will
7 provide significantly more revenue to the company as previously shown in Part II, Magruder
8 Exhibit MM-6, and Table 6-1.

9
10 **Q. Did the Company or RUCO consider the other rates and fees for consolidation?**

11 **A.** In Part II of my testimony, I listed miscellaneous "charges" and "fees" used by the Company
12 in Table 3-5.⁵⁰

13 There was no Company rebuttal provided on this recommendation; however, the Millsap
14 Testimony provided these for each water district in his Schedules MEM-1.

15 None of these appear to be isolated by water district but the Company keeps on using
16 different rates/fees for the same service at different water districts. If nothing else happens in
17 this rate case concerning consolidation, this is one easy area to consolidate. Specific areas
18 that should be consolidated include:

- 19 1. General & Administrative (believed to have been completed)
- 20 2. Cost of Service and Volumetric Charges with more and standard tiers deployed
- 21 3. Arsenic treatment costs (service and volumetric) included in 2 above
- 22 4. Taxes, including social security and Medicare, and other Rate Base Costs
- 23 5. Service Line and Meter Installation Charge (change all to "actual cost")
- 24 6. Establish, Re-establish, and Re-connect fees during regular and off hours
- 25 7. Water Meter Test, (if correct) and Re-read the Meter (that is good)
- 26 8. Non-Sufficient Funds to check charges and Late fees, Deferred Payment Finance
27 Charge, Residential and Non-Residential Deposit Interest on Deposits

28 In addition, the Company's Rules and Regulations (R&Rs), submitted, as a part of this
29 rate case, should be consolidated into one document. In a response to a Magruder Data
30 Request, these R&Rs are not available to customers in Spanish.

31 **4.3.4 Response to AAWC Mr. Townsley Rebuttal.**⁵¹

32 **Q. Does the Mr. Townsley Rebuttal show that he supports Rate Consolidation?**

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35 ⁵⁰ Magruder Testimony Part II, Table 3-5, Miscellaneous Charges and Fees, page 14.

⁵¹ Rebuttal Testimony of Paul G. Townsley, AAWC, dated 11 February 2009, hereafter Townsley Rebuttal.

1 A. Most definitely yes, with some reservations. He spends four pages of testimony going into the
2 merits of Rate Consolidation, including almost every point made by Mr. Hebert in paragraph
3 4.3.1 above. Mr. Townsley also discusses the impact of having 13 different rate classes on
4 acquisition of other water companies, and the particular challenges for troubled ones. He has
5 a future oriented vision that can see past the present tariff situation and the numerous
6 benefits that Rate Consolidation will bring to his Company.⁵² He stated:

7 "I strongly support rate consolidation from a philosophical perspective, the
8 practicalities of district consolidation present significant challenges to both the
9 Commission and Arizona-American."⁵³

10 This party agrees with all of the benefits Mr. Townsley discussed.

11 Q. **What are the concerns expressed by Mr. Townsley about Rate Consolidation?**

12 A. First, he is concerned about completing this rate case on schedule to improve the Company's
13 financial situation. He feels any short-term delays will harm the Company.

14 Second, he is concerned about the disparity in average customer water bills due to
15 customer consumption levels and differences in net-plant investment per customer in
16 different districts.

17 Third, he is concerned about "significant public and political consternation" with a likely
18 consequence being an extension to the rate case schedule.⁵⁴

19 Q. **Does Mr. Townsley provide a recommendation to begin consolidation?**

20 A. Yes. He recommends that the Commission "levelize" the net-plant-investment per customer
21 across the districts."⁵⁵ He then suggests that a "surcharge" be created, similar to the electric
22 utilities use of a Systems-Benefit Charge (SBC), to "levelize" differences.

23 I do not support this approach as the SBC process is NOT understood by ratepayers,
24 sets up additional accounting procedures, and this Commission has finally resolved a most
25 challenging and grueling experience in eliminating the SBC by a major electric utility. It was
26 an ugly show that neither I nor anyone else who wants Arizona-American to be successful
27 would wish on their worst enemy. His recommendation is a just partial solution when a
28 complete "accounting reset" should be accomplished that will improve AAWC. The Test Year
29 plus changes gives the Company the solid foundation and basis right now to Consolidate.
30 Don't wait for later, it maybe too late.
31

32
33 ⁵² Townsley Rebuttal, page 11 at 21 to page 15 at 23.

34 ⁵³ Ibid. Page 16 at 6 to 8.

35 ⁵⁴ Ibid. at 8 to 16.

⁵⁵ Ibid. Page 16 at 17 to page 18 at 12.

1 **Q. Do you agree with the Townsley concerns?**

2 **A.** Yes. His is first and foremost concerned about any short-term delay.

3 It is my opinion, that RUCO, ACC Staff, and the Company can produce Consolidated
4 Rate Schedules for review during the forthcoming evidentiary hearings. This will provide
5 three independent views to be reviewed, cross-examined, and full-disclosure provided in
6 public hearings according to the rate case schedule. At worst, a week delay might result; with
7 all the benefits in Mr. Townsley coming to his Company, the ACC Staff, RUCO and to
8 ratepayers like myself.

9 His concern is about the public and political impacts of Consolidation are, in my opinion,
10 minor when compared to the proposed rates by the Company. That public relations damage
11 has already occurred.

12 **Q. What do you recommend that the Commission do with respect to Consolidation?**

13 **A.** I strongly urge the Commission

14 (1) To have this rate case review consolidated financial data (Consolidated Rates) and

15 (2) Based on results of rate base changes, etc., to order the Company to consolidate all
16 aspects of these five companies and

17 (3) In the future rate cases, to require unconsolidated divisions to fully join the new AAWC, as
18 a single fully integrated company instead of individual inefficient smaller, uncoordinated,
19 unconsolidated companies and

20 (4) To Increase the Company's ROI at least 1 to 2 percentage points, as a bonus, above
21 what it would routinely award in this case, in order to reflect the higher risk and potential
22 additional benefits to help reward the Company as its reorganizes into a better entity.

23 Without (4), in my opinion, the energies necessary to respond effectively to these new
24 demands might have less importance to upper management as success has smaller reward.

25 By making bold, objective, and obviously beneficial changes now, consolidation will
26 improve the entire company, and all ratepayers will benefit in the long-term. The present
27 situation is deplorable and almost dysfunctional and is surely not impressive to potential
28 investors, actual shareholders and today's nervous financial community.

29 A strong, united, and more efficient consolidated operation will attract investors, while
30 continuation of the present situation may continue to repel them.

31 I support such action as a result of this rate case with periodic status reports to the
32 Commission as to "lessons learned" so that any mistakes in the consolidation are transparent
33 and the best corrective action, with direct support by the Commission Staff as necessary, to
34 make Arizona-American Water Company the best in Arizona and the Western United States.
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1 **Appendix B**

2
3 **Exhibit MM-7**

4 **Arizona Revised Statutes, Section 45-454,**
5 **Exemption of Small Non-Irrigation Wells; Definitions.**

6 Quote.

7 A.R.S. §45-454. Exemption of small non-irrigation wells; definitions

8 A. Withdrawals of groundwater for non-irrigation uses from wells having a pump with a maximum
9 capacity of not more than thirty-five gallons per minute which were drilled before April 28, 1983 or
10 which were drilled after April 28, 1983 pursuant to a notice of intention to drill which was on file with
11 the department on such date are exempt from this chapter, except that:

12 1. Wells drilled before June 12, 1980 which are not abandoned or capped or wells which were not
13 completed on June 12, 1980 but for which a notice of intention to drill was on file with the Arizona
14 water commission on such date are subject to subsections J, K and L of this section and must be
15 registered pursuant to section 45-593. If two or more wells in an active management area are
16 exempt under this paragraph and are used to serve the same non-irrigation use at the same
location, the aggregate quantity of groundwater withdrawn from the wells shall not exceed fifty-six
acre-feet per year.

17 2. Wells drilled between June 12, 1980 and April 28, 1983, except as provided in paragraph 1 of
18 this subsection, and wells drilled after April 28, 1983 pursuant to a notice of intention to drill which
19 was on file with the department on April 28, 1983, are subject to subsections G, I, J and K of this
section.

20 B. Withdrawals of groundwater for non-irrigation uses from wells having a pump with a maximum
21 capacity of not more than thirty-five gallons per minute drilled on or after April 28, 1983, except
22 wells drilled after April 28, 1983 pursuant to a notice of intention to drill which was on file with the
23 department on such date, are exempt from this chapter, except that:

24 1. Such wells are subject to subsections G through K of this section.

25 2. In an active management area, other than a subsequent active management area designated
26 for a portion of a groundwater basin in the regional aquifer systems of northern Arizona,
27 withdrawals of groundwater from such wells for non-irrigation uses other than domestic purposes
and stock watering shall not exceed ten acre-feet per year.

28 3. In a subsequent active management area that is designated for a portion of a groundwater
29 basin in the regional aquifer systems of northern Arizona, groundwater withdrawn from such wells
30 may be used only for domestic purposes and stock watering.

31 C. On or after January 1, 2006, an exempt well otherwise allowed by this section may not be drilled
32 on land if any part of the land is within one hundred feet of the operating water distribution system
33 of a municipal provider with an assured water supply designation within the boundaries of an active
34 management area established on or before July 1, 1994, as shown on a digitized service area map
35 provided to the director by the municipal provider and updated by the municipal provider as
specified by the director.

1 Exhibit MM-7 (Con't)

2 D. On request from the owner of the land on which an exempt well is prohibited pursuant to
3 subsection C of this section on a form prescribed by the director, the director shall issue an
4 exemption from subsection C of this section if the landowner demonstrates to the satisfaction of the
5 director that any of the following applies:

6 1. The landowner submitted a written request for service to the municipal provider that operates
7 the distribution system and the municipal provider did not provide written verification to the
8 landowner within thirty calendar days after receipt of the request that water service is available to the
9 landowner after payment of any applicable fee to the municipal provider.

10 2. The total capital cost and fees for connecting to the operating water distribution system exceed
11 the total capital cost and fees for drilling and fully equipping an exempt well.

12 3. If the applicant must obtain an easement across other land to connect to the water distribution
13 system of the municipal provider, the applicant sent the owner of the land a request for the easement
14 by certified mail, return receipt requested, and either the applicant did not receive a response to the
15 request within thirty calendar days of mailing the request or the request was denied.

16 4. The landowner does not qualify for an exemption pursuant to paragraph 1, 2 or 3 of this
17 subsection and the landowner provides written verification from the municipal provider that the
18 landowner shall not receive or request water service from the municipal provider while the exempt
19 well is operational. The exemption for that well is revoked if the landowner or any subsequent
20 landowner receives water service from the municipal provider. In determining whether to approve or
21 reject a permit application filed under section 45-599, the director shall not consider any impacts the
22 proposed well may have on an exempt well drilled pursuant to this paragraph.

23 E. This section does not prohibit a property owner, after January 1, 2006, from drilling a replacement
24 exempt well for a lawful exempt well if the replacement well does not increase the total number of
25 operable exempt wells on the applicant's land.

26 F. A remediation well drilled for the purpose of remediating groundwater is exempt from this section
27 if it meets one of the following:

28 1. The remediation well is for an approved department of environmental quality or United States
29 environmental protection agency remediation program.

30 2. A registered geologist certifies that the remediation well is for the purpose of remediation.

31 G. A person shall file a notice of intention to drill with the director pursuant to section 45-596 before
32 drilling an exempt well or causing an exempt well to be drilled.

33 H. The registered well owner shall file a completion report pursuant to section 45-600, subsection B.

34 I. In an active management area only one exempt well may be drilled or used to serve the same non-
35 irrigation use at the same location, except that a person may drill or use a second exempt well to
serve the same non-irrigation use at the same location if the director determines that all of the
following apply:

1 Exhibit MM-7 (Con't)

2 1. Because of its location, the first exempt well is not capable of consistently producing more than
3 three gallons per minute of groundwater when equipped with a pump with a maximum capacity of
4 thirty-five gallons per minute.

5 2. The second exempt well is located on the same parcel of land as the first exempt well, the
6 parcel of land is at least one acre in size, all groundwater withdrawn from both exempt wells is used
7 on that parcel of land and there are no other exempt wells on that parcel of land.

8 3. Combined withdrawals from both wells do not exceed five acre-feet per year.

9 4. If the second exempt well is drilled after January 1, 2000, the county health authority for the
10 county in which the well is located or any other local health authority that controls the installation of
11 septic tanks or sewer systems in the county has approved the location of the well in writing after
12 physically inspecting the well site.

13 5. Use of two wells for the same non-irrigation use at the same location is not contrary to the
14 health and welfare of the public.

15 J. An exempt well is subject to sections 45-594 and 45-595.

16 K. Groundwater withdrawn from an exempt well may be transported only pursuant to articles 8 and
17 8.1 of this chapter.

18 L. A person who owns land from which exempt withdrawals were being made as of the date of the
19 designation of the active management area is not eligible for a certificate of grandfathered right for
20 a type 2 non-irrigation use for such withdrawals.

21 M. For the purposes of this section:

22 1. "Domestic purposes" means uses related to the supply, service and activities of households
23 and private residences and includes the application of water to less than two acres of land to
24 produce plants or parts of plants for sale or human consumption, or for use as feed for livestock,
25 range livestock or poultry, as such terms are defined in section 3-1201.

26 2. "Municipal provider" means a city, town, private water company or irrigation district that
27 supplies water for non-irrigation use.

28 3. "Stock watering" means the watering of livestock, range livestock or poultry; as such terms are
29 defined in section 3-1201.

30 End quote.

1 **Exhibit MM-8**

2 **Excerpt from Direct Testimony of Paul R. Hebert before the**
3 **New Jersey Board of Public Utilities.**

4 [Begin Quote]

5
6 STATE OF NEW JERSEY
7 BOARD OF PUBLIC UTILITIES
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13 IN THE MATTER OF THE JOINT PETITION OF
14 NEW JERSEY-AMERICAN WATER COMPANY, INC.,
15 APPROVAL OF INCREASED TARIFF RATES
16 AND CHARGES FOR WATER AND SEWER SERVICE
17 AND OTHER TARIFF REVISIONS
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24 B.P.U. Docket No. WR0_____

25 O.A.L. Docket No. PUC

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27 Direct Testimony of

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[Introductory and non-relevant material]

CONSERVATION RATE PILOT PROGRAM

33. **Q. Please explain the Company's plan to offer conservation rates in a pilot area.**

A. Pursuant to the order in the last case, the Company contracted to conduct a state-wide conservation-oriented rate study to investigate various conservation rate structures, calculate the impact of alternative conservation rate structures and assess the feasibility of implementing such alternative structures.

34. **Q. Has the conservation oriented rate study been submitted with the filing?**

1
2 Exhibit MM-8 (Cont.)
3

4 A. No, the study will be submitted at a later date and will be supplemented with additional
5 testimony explaining the study and the results.
6

7 **35. Q. Please describe the areas selected for the pilot program.**
8

9 A. The goal was to select areas representing a good cross-section of the service territory
10 including urban, suburban, coastal and inland communities. The areas include Camden,
11 Egg Harbor, Jamesburg and Ocean Township totaling approximately 25,600 customers.
12

13 **36. Q. Please describe the rates to be used in the pilot program.**
14

15 A. Based on the preliminary results of the conservation rate study and discussions with
16 management, a three-tier inclining block rate structure was selected to be used for the
17 purposes of the pilot program to be implemented at the conclusion of this case.
18

19 The first block will include usage up to 4,000 gallons per month and will be
20 priced at 10% less than the proposed regular GMS rate or 14.2% higher than the existing
21 rate. This block represents the basic needs of a typical household. The second block will
22 include usage from 5,000 to 10,000 gallons per month and will be priced at a rate that is
23 5% higher than the proposed regular GMS rate or 33.3% higher than the existing rate.
24 The third block will include all usage over 10,000 per month and will be priced at a rate
25 that is 15% higher than the proposed regular GMS rate or 46% higher than the existing
26 rate. Further explanation of the rate structures, the price elasticity applied, and the
27 proposed revenue recovery mechanism will be discussed in the final conservation rate
28 study.
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3 **RATE EQUALIZATION**

4 **37. Q. How has the concept of rate equalization influenced the design of proposed rates in**
5 **this case and how will rate equalization evolve in future cases?**

6
7 A. In this case, the proposed customer charges are equalized for all companies and service
8 areas and certain private and public fire rates are consolidated or continue the
9 equalization process. In future cases, the Company plans to continue rate equalization by
10 closing the gap among volumetric rates for all classes as well as the remaining private
11 and public fire rates. The process may take several rate cases until full rate equalization
12 is achieved.
13

14
15 **38. Q. What is rate equalization?**

16
17 A. Rate equalization or single tariff pricing is the use of the same rates for the same service
18 rendered by a water company regardless of the customer's location.
19

20 **39. Q. What is the basis for rate equalization?**

21 A. Rate equalization is based on the long-term rate stability which results from a single tariff,
22 the operating characteristics of the tariff groups, the equivalent services offered, the cost of
23 service on a tariff group basis, and the principle of gradualism.
24

25 **40. Q. Please explain how rate equalization will provide long-term rate stability for the**
26 **several areas.**

27
28 A. Utility customer rates are dependent on the total expenses and rate base of the utility and
29 the amount of the commodity which the utility sells. Changes in rate base, particularly as
30 the result of the Safe Drinking Water Act, have a significant potential for adversely
31 impacting the rates for certain areas within a utility.
32

33
34 The ability to absorb the cost of such projects over a larger customer base is a compelling argument in
35 support of rate equalization. Capital programs will never be

1
2 Exhibit MM-8 (Cont.)

3 uniform in the several operating areas, even over periods of 5 to 10 years. The
4 cost of specific programs should be shared by all customers rather than burdening those of
5 the affected areas. Rate increases will be more stable and major increases in specific tariff
6 groups will be avoided.
7

8 **41. Q. In what manner do the operating characteristics of the several areas support rate**
9 **equalization?**

10
11 A. There are many similarities in the manner in which the several areas are operated. All of
12 the systems pump their treated water through transmission lines to distribution areas that
13 include mains, booster pump stations and storage facilities. All of the areas provide water
14 to individual customers through a service line and meter. All of the areas rely on a
15 centralized work force for billing, accounting, engineering, administration, and regulatory
16 matters. All of the areas rely on a common source of funds for financing working capital
17 and plant construction. Inasmuch as the costs of operation are related to functions in
18 which the operating characteristics are the same, the use of equal rates is supported.
19

20
21 **42. Q. Please explain why the equivalence of services offered support rate equalization.**

22
23 A. The use of the same rates in a utility with noncontiguous service areas is supported by the
24 equivalent service rendered in each area. Although there would be considerable debate
25 with respect to the equivalency of the service rendered to different customer
26 classifications, there is no question that the service rendered to a residence in one area is
27 the same as the service rendered to a residence in another area. Residential customers are
28 relatively consistent in their uses of water: cooking, bathing, cleaning and other sanitary
29 purposes, and lawn sprinkling. If customers use water for the same purposes, the service
30 offering is the same and should be priced accordingly. Thus, from this perspective, there
31 is no basis for charging different prices to customers in different areas.
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1 Exhibit MM-8 (Cont.)

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3 **43. Q. Do variances between allocated costs of the tariff groups warrant the use of separate**
4 **rate schedules?**

5 A. No, they do not. Charging one group of customers higher rates because they may be
6 served by a newer plant whose original cost exceeds that of other plants as the result of
7 inflation is not logical. The concepts previously discussed outweigh this consideration
8 and justify the goal of moving toward a single tariff. The electric industry reflects such
9 concepts when it serves customers in geographically dispersed areas. A kilowatt-hour
10 delivered in one area has the same price as a kilowatt-hour delivered in another area
11 despite the fact that cost of service studies could be performed to identify differences in
12 the cost of providing service to customer classes in different regions.

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16 **44. Q. Are there other costs of service considerations that support rate equalization?**

17 A. Yes. The Company has taken a number of steps in recent years to centralize and
18 consolidate its operations. Common costs which must be assigned or allocated to each
19 operating area to establish tariff group revenue requirements include management fees,
20 corporate headquarter costs, office costs, customer service costs, depreciation expense
21 developed on the basis of Company-wide depreciation rates and income tax expense based
22 on total Company financing and tax provisions. The allocations of common costs, while
23 reasonable, are subject to judgment and may not result in the development of tariff group
24 revenue requirements which reflect precisely the cost of serving each area.

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30 **45. Q. What demographic factors should be considered to support rate equalization?**

31 A. Single tariff pricing will result in higher rate increases for those service areas where
32 the rates are lower than Service Area 1 (SA-1) until the time when rate equalization is achieved. So I
33 examined the relative personal income statistics nationwide and for the
34
35

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2 Exhibit MM-8 (Cont.)

3
4 State of New Jersey by county for those areas where higher rate increases will occur. Each affected
5 county has a higher per capita income than the nationwide average. Huntingdon, Mercer,
6 Morris, Somerset and Union Counties all have per capita personal income higher than the
7 New Jersey State average as well. Burlington and Middlesex have slightly lower per
8 capita income (within 10%) of the state average. The only county affected that has a per
9 capita income less than 90% of the state average is Ocean County. However within Ocean
10 County, Plumstead is the only community affected by the higher rate increases. The other
11 Ocean County communities of Bay Head, Lavallette, Montoloking, Brick, Dover and
12 Lakewood are already receiving rates under SA-1. Based on these findings, I conclude
13 that moving toward rate equalization will not be overly burdensome to customers in areas
14 other than SA-1.
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19 **46. Q. Briefly summarize your analysis of rate equalization for New Jersey-American**
20 **Water Company.**

21 A. Rate equalization is appropriate for New Jersey-American. Such pricing is supported by
22 considerations of the benefits of sharing the impact of capital programs on a Company-
23 wide basis, the significant majority of common costs, the equivalent service rendered,
24 electric industry precedent and the per capita income of the affected communities. The
25 best interests of the customers are served through gradualism by continuing to implement
26 rate equalization during this case and in subsequent rate cases.
27
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29 **47. Q. Does this conclude your direct testimony?**

30 A. Yes, it does.
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1 **Exhibit MM-9**

2
3 **Excerpt from Direct Testimony of Paul R. Hebert before the Public**
4 **Utilities Commission of the State of California**

5 [Begin Quote]

6 **BEFORE THE PUBLIC UTILITIES COMMISSION**
7 **OF THE STATE OF CALIFORNIA**

8 Application of Suburban Water Systems (U 339-W) for
9 Authorization to Implement a Low Income Assistance
10 Program, an Increasing Block Rate Design, and a Water
11 Revenue Adjustment Mechanism

A.

12 **DIRECT TESTIMONY OF PAUL R. HERBERT**

13 [Introductory material omitted]

14 Page 2.

15 Q8. What is the purpose of your testimony in this proceeding?

16 A8. The purpose of my testimony is to explain Suburban Water Systems ("Suburban") proposed conservation rate structure and associated allowance for price elasticity.

17 Page 3

18 **PROPOSED CONSERVATION RATE STRUCTURE**

19 Q9. Please explain the why Suburban is filing this application for increasing block rate design for residential customers.

20 A9. Suburban is filing this application in accordance with D.06-08-017, Ordering Paragraph 2, requires that within 90 days of the issuance of that decision that Suburban file an application for an increasing block rate design for residential customers:

21 Q10. Please explain the rate design that is included in Suburban's application.

22 A10. Suburban is proposing a 3-tier increasing block rate design. This means that there are three points where one usage block ends and the next usage block begins, known as "switch-over points". For all users the first switch-over point is at 10 Ccf per month, and the second switch-over point is at 30 Ccf per month.

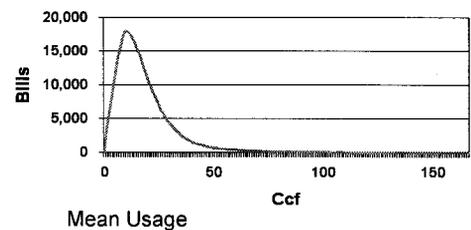
23 Q11. Please explain the rationale for selecting these switch-over points.

24 A11. With a balanced rate structure of tiered rates, large usage customers should receive a larger price signal to conserve than small usage customers, and customers consuming in the middle of the rate structure on average should see no change in annual water cost. This should be accomplished by setting the switch-points so that customers with average usage, approximately 20 Ccf per month, should fall in the middle of the second tier and see no change in their water rates.

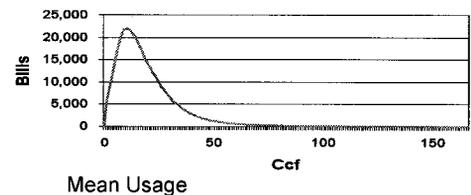
25 Page 4

26 In practice we were able to accomplish this in Suburban's Whittier La Mirada service area. But it was not possible to accomplish that precisely in Suburban's San Jose Hills service area. The reason this is difficult to accomplish is because of the lopsided distribution of water use. In both of Suburban's service areas the distribution of consumption shows the typical distribution for water systems, skewed heavily to the right with a hump on the low end and long tail on the high end. For this reason, in the San Jose Hills service

Whittier/La Mirada Service Area Bill Distribution



San Jose Hills Service Area Bill Distribution



1 area it was not possible to establish rates such that the breakeven usage falls exactly in the middle of the
2 second tier at the level of average usage. Instead the breakeven point falls slightly to the right of 20 Ccf
3 average usage, at about 22 Ccf. We do not believe this is a
4 serious problem, however.

5 Q12. What is the impact of your proposed rate design on average
6 users?

7 A12. Again, the average 19 Ccf user in Whittier will see a modest
8 reduction in their water bill, from \$26.68 to \$26.57. Similarly,
9 an average 20 Ccf water user in the San Jose Hills service area
10 will see a reduction from \$27.70 to \$27.46. Customers with
11 progressively higher water use will see progressively larger
12 increases.

13 Q13. Please describe in general terms the approach you used in
14 designing these conservation rates.

15 A13. We performed a detailed analysis of all residential water bills
16 in 2005. We then used those water usage patterns to develop
17 a forecasted usage pattern for 2006/2007 consistent with the
18 adopted water sales approved in Suburban's recent general
19 rate case. We then developed an increasing block rate
20 structure that would generate the Commission-approved
21 level of revenue requirement based on the Commission-
22 approved level of sales. The relative spread between rates for
23 the three zones based on elevation was maintained. And
24 finally, we applied a price elasticity factor to consider the reduction in usage that can be expected to occur
25 as a result of implementing conservation rates.

26 Q14. How did you develop the rates for each of the blocks?

27 Q14. For the San Jose Hills service area, the first block was designed so as to be 13% lower than the second
28 block, and the second block 13% lower than the third block. For the Whittier/La Mirada Service Area, the
29 first block was designed so as to be 10% lower than the second block, and the second block 10% lower
30 than the third block. An exception had to be made for Zone 3 because of a unique distribution of customer
31 usage. In that area the first block was designed so as to be about 5% lower than the second block, and the
32 second block about 5% lower than the third block

23 PRICE ELASTICITY ADJUSTMENT

24 Q15. What is a price elasticity adjustment required?

25 A15. A price elasticity adjustment is needed because without such an adjustment Suburban's revenue
26 requirement would suffer shortfalls as a result of conservation rate related reductions in demand.

27 Q16. Doesn't the Water Revenue Adjustment Mechanism required by D.06-08-017 provide for recovery of
28 conservation-related revenue shortfalls?

29 A16. No. The Water Revenue Adjustment Mechanism required by the decision serves to true up revenue based
30 on conservation rates to the level of revenue that would otherwise be generated based on uniform rates. It
31 does not provide for recovery of conservation-related revenue shortfalls?

32 Q17. Please describe the adjustment for price elasticity.

33 A17. We used a price elasticity factor of -.4. That means that for a one percent increase in price, customer usage
34 would be reduced by .4%.

35 Q18. How did you derive the .4% price elasticity factor?

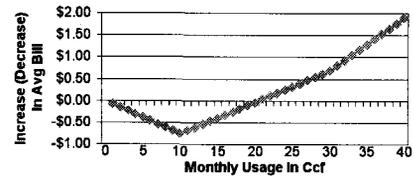
A18. The price elasticity factor was derived from a study concerning price elasticity of water demand in
Southern California.⁵⁷

Q19. Does this conclude your direct testimony?

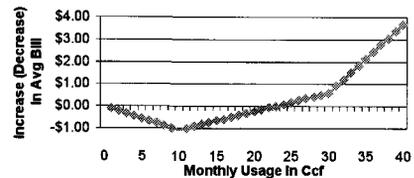
A19. Yes.

[End Quote]

Impact of Proposed Rate Structure On
Average Bill
Whittier/La Mirada Service Area



Impact of Proposed Rate Structure On
Average Bill
San Jose Hills Service Area



⁵⁷ Conley, Bryan C., *Price Elasticity Of The Demand For Water In Southern California*, The Annals of Regional Science, Vol 1, No 1, December, 1967