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Arizona Corporation Commission
DOCKETED
MAY 13 2005

DOCKETED BY

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION
OF ARIZONA WATER COMPANY, AN
ARIZONA CORPORATION, FOR
ADJUSTMENTS TO ITS RATES AND
CHARGES FOR UTILITY SERVICE
FURNISHED BY ITS WESTERN GROUP
AND FOR CERTAIN RELATED
APPROVALS.

Docket No. W-01445A-04-0650

**NOTICE OF FILING
REBUTTAL TESTIMONY**

Applicant, Arizona Water Company, hereby files the Rebuttal Testimony of William M. Garfield, Michael J. Whitehead, Thomas M. Zepp and Ralph J. Kennedy, and Sheryl L. Hubbard in the above-captioned docket.

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DATED this 13th day of May, 2005.

ARIZONA WATER COMPANY

By: Robert W. Geake
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An original and 13 copies of the foregoing, and attached documents were delivered this 13th day of May, 2005, to:

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A copy of the foregoing was delivered/mailed this 13th day of May, 2005, to:

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ARIZONA WATER COMPANY



Docket No. W-01445A-04-0650

2004 RATE HEARING EXHIBIT NO. ____

For Test Year Ending 12/31/03

**PREPARED
REBUTTAL TESTIMONY & EXHIBITS**

WILLIAM
M.
GARFIELD

ARIZONA WATER COMPANY



Docket No. W-01445A-04-0650

2004 RATE HEARING EXHIBIT NO. _____

For Test Year Ending 12/31/03

**PREPARED
REBUTTAL TESTIMONY & EXHIBITS
OF
William M. Garfield**

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10 **BEFORE THE ARIZONA CORPORATION COMMISSION**

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15 AND FOR CERTAIN RELATED)
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DOCKET NO. W-01445A-04-0650

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21 **REBUTTAL TESTIMONY OF**
22 **WILLIAM M. GARFIELD**
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1 **ARIZONA WATER COMPANY**

2
3 **Rebuttal Testimony of**

4 **William M. Garfield**

5
6 **I. INTRODUCTION AND PURPOSE OF TESTIMONY**

7 **Q. WHAT ARE YOUR NAME, EMPLOYER AND OCCUPATION?**

8 **A.** My name is William M. Garfield. I am employed by Arizona Water Company (the
9 "Company") as President.

10 **Q. ARE YOU THE SAME WILLIAM M. GARFIELD THAT PREVIOUSLY**
11 **PROVIDED DIRECT TESTIMONY IN THIS MATTER?**

12 **A.** Yes.

13 **Q. HAVE YOU REVIEWED THE DIRECT TESTIMONY FILED BY THE OTHER**
14 **PARTIES TO THIS PROCEEDING?**

15 **A.** Yes, I have generally reviewed the testimony of each of the witnesses of the
16 Commission's ("Commission") Utilities Division Staff ("Staff"), the Residential
17 Utility Consumer Office ("RUCO"), and the City of Casa Grande (the "City") and
18 specifically analyzed and reviewed testimony concerning our request to recover
19 Central Arizona Project ("CAP") costs, our request to recover the costs of certain
20 legal actions taken by the Company against the City, and arsenic treatment.

21 **Q. WHAT IS THE PURPOSE AND EXTENT OF YOUR TESTIMONY?**

22 **A.** The purpose of my rebuttal testimony is to (1) provide the basis for the
23 Company's request to recover the costs it has incurred to maintain and use its
24 CAP water allocations, (2) describe the Company's business needs and the
25 benefits ratepayers received from the Company's legal actions concerning its
26 Casa Grande water system, which support recovery of the legal expenses
27 incurred in those proceedings, and (3) show that the direct use of CAP water for
28 potable purposes cannot offset the need for arsenic treatment.

1 **II. COST RECOVERY FOR CAP WATER**

2 **A. Overview of the Issue.**

3 **Q. PLEASE SUMMARIZE THE POSITIONS OF STAFF AND RUCO REGARDING**
4 **THE COMPANY'S REQUEST TO RECOVER COSTS RELATING TO ITS CAP**
5 **SUBCONTRACTS.**

6 **A.** The Staff accounting witness, Mr. Ludders, made the following recommendations
7 with respect to the Company's CAP subcontracts for the Casa Grande, White
8 Tank and Coolidge systems:

- 9
- 10 • Disallow recovery on a going-forward basis annual expenses associated with
11 purchasing CAP water.
 - 12
 - 13 • Disallow inclusion of any deferred CAP charges in rate base or amortization
14 of those charges over a 10-year period, as proposed in the Company's
15 original application.
 - 16
 - 17 • Require the Company to file a detailed plan explaining how it will actually use
18 its CAP water by December 31, 2006. This plan must demonstrate that by
19 December 31, 2010, the Company will be using a significant portion of its
20 CAP allocation to serve customers in each system.
 - 21
 - 22 • If the water use plan fails to satisfy Staff, Mr. Ludders recommends that the
23 Company not be allowed to recover *any* of its deferred CAP charges and that
24 no further deferrals of future charges would be allowed.

25 Direct Testimony of Ronald E. Ludders ("Ludders Dt.") at 10 and 12-14.

26 RUCO's position is somewhat different. RUCO recommended that the
27 Commission deny the recovery of deferred CAP charges incurred by the
28 Company for its Casa Grande, Coolidge and White Tank systems. RUCO's

1 witness, Mr. Rigsby, contends that the CAP allocations are not "used and useful"
2 and that the level of amortized deferred CAP charges will place an undue
3 hardship on customers. RUCO does not address recovery of those costs in a
4 future rate case. Direct Testimony of William A. Rigsby ("Rigsby Dt.") at 16-21.

5 Both Mr. Ludders and Mr. Rigsby argue, in summary, that the Company
6 is not using its CAP allocation, apparently ignoring the fact that during the Test
7 Year, the Company purchased nearly 2,300 acre-feet of its CAP water which the
8 Company delivered to commercial and industrial customers in Casa Grande.
9 Both Mr. Ludders and Mr. Rigsby argue by their reference to potable use of CAP
10 water that the service of CAP water to customers for non-potable uses (e.g., turf
11 irrigation) does not constitute a legitimate use of CAP water, suggesting that they
12 believe that these types of non-potable users should be provided either
13 groundwater or treated CAP water. *See Ludders Dt. at 12; Rigsby Dt. at 20.*
14 That recommendation is contrary to Arizona water policy, which encourages the
15 substitution of renewable water sources (like CAP water) for groundwater, and
16 makes little sense given the cost associated with designing, constructing and
17 operating treatment facilities when untreated CAP water can be purchased and
18 delivered to customers for non-potable purposes, as the Company does in Casa
19 Grande.

20 **Q. ARE THE RECOMMENDATIONS OF MR. LUDDERS AND MR. RIGSBY**
21 **CONSISTENT WITH CURRENT CAP COST RECOVERY POLICY?**

22 **A.** No. The policy governing the recovery of costs relating to CAP water was
23 authorized by the Commission in Decision No. 62993 (Nov. 3, 2000) (copy
24 attached as Exhibit WMG-R1). In that decision, the Commission approved
25 Staff's recommendations which grew out of a comprehensive report developed
26 by the Commission Water Task Force. More importantly, however, the
27 Commission approved Staff's recommendation to allow CAP water cost recovery
28 before CAP water is used. The Water Task Force Report was docketed on

1 January 5, 2000, and distributed to all water utilities regulated by the
2 Commission. In Decision No. 62993, the Commission also approved Staff's
3 recommendation that it be directed to develop a detailed policy on CAP cost
4 recovery by June 30, 2001. Decision No. 62993 at ¶¶ 29-31 (pages 9-10) and
5 ordering paragraphs (page 12).¹ Following the issuance of Decision No. 62993,
6 Staff prepared a June 29, 2001 memorandum to the Commissioners
7 implementing its decision, including "Attachment D" to that memorandum which
8 contains the policy governing the recovery of CAP costs, which is attached as
9 Exhibit WMG-R2 (the "CAP Cost Recovery Policy"). The CAP Cost Recovery
10 Policy is currently posted on the Commission's website, along with the Water
11 Task Force Report and Decision No. 62993. The recommendations of Mr.
12 Ludders and Mr. Rigsby conflict with the CAP Cost Recovery Policy.

13 **B. Background on the CAP.**

14
15 **Q. WOULD YOU PROVIDE SOME HISTORICAL BACKGROUND ON THE CAP IN**
16 **ORDER TO PUT THIS ISSUE INTO PERSPECTIVE?**

17 **A.** Certainly. We need to go back to 1980, which was the year the Legislature
18 enacted the Groundwater Management Act, which is currently codified at A.R.S.
19 §§ 401 through 45-704 (the "Groundwater Code"). The Groundwater Code
20 established a comprehensive program for the management and regulation of the
21 withdrawal, transportation and use of groundwater. The Legislature declared that
22 the dependence of the people of Arizona on groundwater for their water supply
23 "is threatening to destroy the economy of certain areas of this State and is
24 threatening to do substantial injury to the general economy and welfare of the
25 State and its citizens." A.R.S. § 45-401(A). This legislation also established the
26 Arizona Department of Water Resources ("ADWR"), which is the agency

27
28 ¹ It should be noted that in Decision No. 62993, the Commission adopted Staff's recommendation that it promulgate other policies that are relevant to this rate proceeding, including policies affirming support for automatic adjustment mechanisms. These issues are addressed by other Company witnesses.

1 responsible for administering the Groundwater Code, and which established the
2 allocations of CAP water to various municipal and private water companies in
3 central and southern Arizona.

4 Several years later, beginning in 1984, the United States Department of
5 the Interior, together with the Central Arizona Water Conservation District
6 ("CAWCD"), began offering municipal and private water companies the
7 opportunity to enter into subcontracts for the delivery of water imported from the
8 Colorado River by means of the CAP, based on their particular CAP water
9 allocations. The Company has entered into four CAP subcontracts for municipal
10 and industrial ("M&I") water deliveries, including the three subcontracts at issue
11 in this case for the Casa Grande, Coolidge and White Tank systems. These
12 contracts provide for the delivery of 8,884 acre-feet of water annually to the Casa
13 Grande system; 2,000 acre-feet of water annually to the Coolidge system, and
14 968 acre-feet of water annually to the White Tank system.

15 **Q. WHAT PAYMENTS ARE REQUIRED UNDER A CAP SUBCONTRACT?**

16 **A.** Under the subcontracts, the Company is required to make two different types of
17 payments for water delivery services. First, the Company is required to pay in
18 equal semi-annual installments a CAP M&I capital charge. The amount of this
19 charge is based on each system's total allotment multiplied by an amount per
20 acre-foot established by CAWCD. It should be noted that the CAP M&I capital
21 charges have steadily increased over time. In all of these subcontracts, the CAP
22 M&I capital charge for 1995 was to be \$8.00 per acre-foot, and was projected to
23 gradually increase until this charge reached \$40.00 in calendar year 2024.
24 Unfortunately, the cost to construct the CAP water system turned out to be
25 substantially greater than anticipated.

26 The second type of payment that must be made under the subcontracts
27 is based on annual CAP operation, maintenance and replacement ("OM&R")
28 expenses. The annual OM&R payment must be made in equal monthly

1 installments, based on the estimated expenses for the upcoming year (with
2 possible adjustments based on actual expenses). This payment per acre-foot of
3 water is estimated by CAWCD each year, and the estimate for the calendar year
4 in which the payment is due is furnished to the subcontractor by June 1 of the
5 previous calendar year.

6 It should be emphasized that the CAP M&I capital charge must be paid
7 by the Company regardless of whether it actually takes delivery of any CAP
8 water. The reason is that this payment is used to repay the United States for the
9 cost of constructing the CAP. If a subcontractor like the Company fails to make
10 these payments, it will be in breach of its subcontract. In contrast, the OM&R
11 payment is based on actual water deliveries, and does not have to be paid until
12 water deliveries occur.

13 **Q. HOW IMPORTANT IS CAP WATER TO MANAGING AND CONSERVING THE**
14 **COMPANY'S RESOURCES?**

15 **A.** CAP water is very important to the Company. Approximately 1.7 million acre-feet
16 of Colorado River water are imported to central and southern Arizona each year
17 by means of the CAP. That water is used to augment local water supplies, and
18 in many cases is used in lieu of pumping groundwater. CAP water is critical to
19 ensuring reliable water supplies and maintaining economic growth.

20 As I have explained, the Groundwater Code imposes restrictions on the
21 withdrawal, transportation and use of groundwater, particularly in areas
22 designated as "Active Management Areas" or "AMAs." The Company's Casa
23 Grande, Coolidge and White Tank systems are located in AMAs, and customers
24 and developers are subject to a variety of water conservation requirements and
25 restrictions on the subdivision and development of land. Arizona water policy
26 encourages the substitution of alternative, renewable sources of supply, including
27 CAP water. Consequently, by making the annual CAP M&I capital payments and
28 thereby retaining the right to use CAP water, the Company has acted consistent

1 with Arizona water policy in addition to ensuring the availability of water for its
2 customers on a long-term basis.

3 Unfortunately, as I have explained, the cost of transporting and delivering
4 CAP water is greater than state and federal agencies initially forecasted, and
5 many small municipal providers lack the customer base and financial resources
6 to effectively utilize CAP water without substantial rate increases. CAP water is
7 surface water, and in addition to the actual purchase price, the water must be
8 treated in compliance with EPA and ADEQ surface water treatment rules before
9 it can be provided for potable uses. This adds capital costs to design and
10 construct surface water treatment facilities and expenses to operate and maintain
11 the treatment facilities following their construction. We have attempted to phase
12 in the use of CAP water on a gradual basis for this reason, while continuing to
13 pay the annual CAP M&I capital charges to fulfill the Company's obligations
14 under the CAP subcontract.

15 **C. The CAP Cost Recovery Policy.**

16
17 **Q. MR. GARFIELD, YOU MENTIONED THE WATER TASK FORCE AND**
18 **RESULTING POLICY CONCERNING COST RECOVERY FOR CAP WATER.**
19 **WOULD YOU PROVIDE ADDITIONAL DETAIL REGARDING THE WATER**
20 **TASK FORCE AND THE CURRENT POLICY?**

21 **A.** Yes. The Commission's Water Task Force was established by Commission vote
22 on April 24, 1998, and began meeting later that year. The Water Task Force's
23 members consisted of representatives of various affected entities, including Staff,
24 RUCO, water company representatives, and representatives from other state
25 agencies, such as ADWR, the Arizona Department of Environmental Quality, and
26 CAWCD. Mr. Kennedy and I participated in the Water Task Force as the
27 representatives of the Company.
28

1 The Water Task Force members recognized that, as a matter of public
2 policy, water utilities need to retain their CAP subcontracts and plan for the future
3 use of CAP water. The Water Task Force also recognized that the traditional
4 “used and useful” standard was not appropriate for CAP water, given the long-
5 term planning requirements for using CAP water and the difficulty of applying the
6 “used and useful” test for supplies meant to provide long-term solutions to water
7 supply needs.

8 To address this issue, the Water Task Force and Staff helped to develop
9 a policy that would allow water utilities to retain and fulfill their CAP subcontracts
10 and phase in the use of CAP water over a number of years. The Water Task
11 Force recognized that application of “used and useful” standard to CAP
12 subcontractors would force many water utilities, particularly those with a small
13 number of customers, to surrender their subcontracts and give up their ability to
14 use CAP water in the future. The Water Task Force report in turn led to Staff’s
15 recommendation to the Commission, the Commission’s issuance of Decision No.
16 62993, and, ultimately, the CAP Cost Recovery Policy posted on the
17 Commission’s website, attached as part of Exhibit WMG-R2.

18 **Q. DOES THE CAP COST RECOVERY POLICY REQUIRE THE USE OF CAP**
19 **WATER BEFORE COSTS CAN BE RECOVERED?**

20 **A.** No. The use of CAP water is *not* required prior to recovering CAP costs. Under
21 the policy, the utility is required to be using CAP water in order to obtain a return
22 on deferred CAP M&I capital charge payments. The CAP Cost Recovery Policy
23 provides four criteria that a water utility must meet prior to seeking cost recovery
24 of CAP M&I capital charges:

- 25 1. The CAP allocation is needed to properly serve its customers;
- 26 2. Such need would occur by the year 2025;
- 27 3. Use of a reasonable amount of its allocation must occur by 2025; and
- 28 4. All of the allocation must be used by 2034.

1 Q. WHAT ELSE IS REQUIRED UNDER THE CAP COST RECOVERY POLICY?

2 A. The CAP Cost Recovery Policy requires a water utility to submit a detailed
3 engineering plan on the proposed use of CAP water within 5 years *after* the
4 Commission has approved recovery of CAP water costs.

5 Q. HAS THE COMPANY OBTAINED APPROVAL OF RECOVERY OF CAP
6 COSTS?

7 A. In the 1992 rate case decision, the Commission allowed the Company to defer
8 recovery of CAP costs. In the Eastern Group rate case, the Commission
9 authorized the Company to recover CAP costs relating to its Apache Junction
10 system, which has a CAP allocation and subcontract. The Commission has not
11 addressed the recovery of CAP costs relating to the Western Group systems with
12 CAP subcontracts since the CAP Cost Recovery Policy was issued. We are
13 requesting the recovery of CAP costs in this case. If recovery of CAP costs is
14 approved later this year, it would trigger the requirement to prepare and submit a
15 detailed engineering plan by 2010 detailing how CAP water will be used.

16 Q. DOES THE CAP COST RECOVERY POLICY PROVIDE FOR DIFFERENT
17 TYPES OF COST RECOVERY, DEPENDING ON WHETHER CAP IS BEING
18 USED?

19 A. Yes. As I stated, the Staff policy allows cost recovery regardless of whether CAP
20 water is currently used. However, the method of cost recovery varies, depending
21 on the amount of CAP water being used when cost recovery is sought. Ms.
22 Hubbard addresses this issue in more detail in her testimony.

23 Q. GIVEN THE CAP COST RECOVERY POLICY, ARE YOU SURPRISED BY THE
24 POSITIONS TAKEN BY MR. LUDDERS AND MR. RIGSBY?

25 A. Yes. I am especially surprised that Mr. Ludders, Staff's Rate Analyst, apparently,
26 disagrees with the CAP Cost Recovery Policy, which, as discussed, was
27 developed by Staff in response to the Commission's direction in Decision No.
28 62993.

1 Q. DOES MR. LUDDERS EXPLAIN WHY HE DISAGREES WITH THE CAP COST
2 RECOVERY POLICY?

3 A. No. In his testimony he refers to a Commission decision issued in the early
4 1990s, but does not specify the decision number. *See Ludders Dt. At 13.* He
5 has ignored the CAP Cost Recovery Policy, which is available on the
6 Commission's website today. It is also troubling that Staff engineers remained
7 silent on this issue. It is even more troubling that the Staff employees most
8 knowledgeable about the benefits and need for CAP water would defer
9 consideration of water planning issues to a witness who is unfamiliar with
10 Arizona water policies, the CAP Cost Recovery Policy, and the long-term water
11 supply needs of growing communities.

12 **D. The Company's Current and Planned Use of CAP Water.**

13
14 Q. DOES THE COMPANY NEED CAP WATER TO PROVIDE A LONG-TERM
15 SOURCE OF SUPPLY FOR THE COMPANY'S CASA GRANDE, COOLIDGE
16 AND WHITE TANK WATER SYSTEMS?

17 A. Yes. No party to this proceeding has provided any evidence that the Company's
18 CAP water is not needed in Casa Grande, Coolidge or White Tank. The
19 Company's Casa Grande, Coolidge and White Tank water systems are
20 experiencing significant growth. Pinal County has estimated that the population
21 of Pinal County will more than triple from 250,000 to 1.2 million by 2020. Casa
22 Grande and Coolidge account for a significant portion of this projected
23 population growth. Current water demand within these two systems alone
24 exceeds 13,000 acre-feet per year. At the current rate of growth, an additional
25 1,000 acre-feet of water supplies per year will be needed. Even when fully
26 utilized, the Company's combined CAP allocations for Casa Grande and
27 Coolidge, 10,884 acre-feet, will only offset part of the growing demand for water.
28 Likewise, the Company's White Tank system is growing at a rate of

1 approximately 150 customers per year, representing an increase of
2 approximately 100 acre-feet of water demand per year. The Company's White
3 Tank CAP allocation, 968 acre-feet, will only offset part of the growing demand
4 for water in the White Tank system.

5 **Q. SHOULD THERE BE A DISTINCTION IN HOW THE COMMISSION ALLOWS**
6 **RECOVERY OF CAP HOLDING COSTS DEPENDING ON WHETHER THE**
7 **COMPANY IS SERVING POTABLE OR NON-POTABLE USES?**

8 A. No. Frankly, the positions of Mr. Ludders and Mr. Rigsby are difficult to
9 understand. The Company is required to meet the water demands of its
10 customers. Certain customers can be provided raw CAP water, without the
11 need to treat such water to Safe Drinking Water Act standards. The water
12 needs of these customers who are able to use non-potable CAP water are
13 equally valid and as necessary as the demands of the Company's other
14 customers. Matching available water supplies to water needs is fundamentally
15 important to meeting a customer's water requirements. The alternatives, which
16 Mr. Ludders and Mr. Rigsby seem to advocate, are to either forego use of CAP
17 water entirely and pump more groundwater (which is contrary to Arizona water
18 policy) or construct and operate water treatment facilities so that non-potable
19 water users receive potable water at a substantially higher cost. Neither
20 alternative makes sense and neither alternative advances Arizona's water
21 policies.

22 **Q. DOES THE COMPANY SERVE UNTREATED CAP WATER IN APACHE**
23 **JUNCTION?**

24 A. Yes. A substantial portion of the Company's CAP allocation for Apache Junction
25 is provided to golf courses for turf irrigation in lieu of pumped groundwater. This
26 water is not treated and is not potable. Neither Mr. Ludders nor Mr. Rigsby
27 raised this issue in the Company's Eastern Group rate case.

28

1 Q. WHAT ARE THE COMPANY'S CAP WATER USE PLANS FOR THE
2 COMPANY'S CASA GRANDE, COOLIDGE AND WHITE TANK WATER
3 SYSTEMS?

4 A. With respect to the White Tank system, the Company has been working with
5 WESTCAPS, a coalition of west valley CAP subcontractors, to identify the best
6 way to maximize the use of CAP water. During the past seven years, the
7 Company and other WESTCAPS members have concluded that a CAP water
8 treatment plant along the Beardsley Canal is the most cost-effective option of
9 using CAP water in the White Tank area. This coalition also includes Arizona-
10 American Water Company's ("AAWC") Aqua Fria Division. The Company has
11 been working with AAWC on an agreement that would provide for the treatment
12 of the Company's White Tank CAP allocation. Completion of the final
13 agreement is awaiting the conclusion of AAWC's negotiations with the Maricopa
14 Water District, the owner of the Beardsley Canal. AAWC representatives have
15 indicated that these negotiations are expected to be completed within the next
16 few months. The CAP water treatment plant was originally expected to be
17 completed by late 2006, but the schedule will probably require an additional year
18 due to ongoing negotiations and finalizing the agreements. At the time the
19 water treatment plant is completed, the Company will be able to, and will, use its
20 entire White Tank CAP allocation to serve its customers.

21 With respect to the Company's Casa Grande and Coolidge CAP allocations,
22 Mr. Whitehead's rebuttal testimony describes the Company's CAP water use
23 plans. To briefly summarize, the Company began planning a regional CAP
24 water treatment plant near Coolidge several years ago. The Company has
25 purchased a treatment plant site, and is proceeding with the engineering design,
26 as detailed in M. J. Whitehead's rebuttal testimony.

27 Q. WHY HAS THE COMPANY NOT FULLY USED ITS CAP ALLOCATIONS IN
28 CASA GRANDE, COOLIDGE AND WHITE TANK?

1 A. As I stated, we are currently delivering untreated CAP water to certain
2 commercial and industrial customers in Casa Grande, and will continue to look
3 for additional opportunities to do so. The balance of the Company's CAP
4 allocations will need to be treated to potable standards. For the Company's
5 White Tank water system, the first cost-effective opportunity to treat its CAP
6 allocation occurred when the Company and AAWC were able to negotiate the
7 outline of an agreement, under which AAWC will treat the Company's CAP
8 allocation in a large scale water treatment plant. The economies of scale
9 differences between the Company "going it alone" with a one million gallon per
10 day ("MGD") or smaller water treatment plant and AAWC's 10 MGD or larger
11 water treatment plant are significant. To move ahead more rapidly, for the sole
12 purpose of putting CAP water to use at any cost, would have been detrimental to
13 the Company's customers. The revenue requirements resulting from increased
14 plant investment, and increased operating and maintenance expenses
15 associated with a small scale CAP water treatment plant are unnecessary in light
16 of the more cost-effective treatment capacity available from AAWC.

17 Likewise, using the Company's CAP water in a groundwater savings
18 facility would have caused an increase in overall expenses of nearly \$80 per acre
19 foot, and the benefits to the Company's customers would have been minimal.
20 The groundwater savings facility would be located a considerable distance from
21 the wells serving the Company's White Tank customers, and the local aquifer
22 would receive little recharge from the project. The same rationale applies to the
23 Company's Casa Grande and Coolidge water systems. Increasing overall
24 expenses solely for the purpose of recovering deferred and ongoing CAP M&I
25 capital charges, as Mr. Ludders and Mr. Rigsby seem to suggest, is not prudent
26 business, and such an imprudent decision, if chosen by the Company, would
27 negatively impact ratepayers in the form of unnecessary and substantial rate
28 increases.

1 The situation in the Pinal AMA, where the Casa Grande and Coolidge
2 systems are located, is significantly different from the Phoenix AMA and from the
3 White Tank area. No CAP water treatment plants have been constructed in the
4 Pinal AMA. The Company is planning to construct a CAP water treatment plant
5 that will treat both its Casa Grande and Coolidge CAP allocations, in conjunction
6 with the Company's plans to consolidate its water systems into a single
7 interconnected system. In addition, the cities of Eloy and Florence are potential
8 participants in that plant, allowing costs to be shared.

9 The required investment in a CAP water treatment plant will be significant
10 and necessary to allow the Company to fully utilize its CAP allocations. RUCO
11 has already pointed out the significant cost impact from the Company's water
12 treatment plants being constructed to remove arsenic from groundwater. That
13 impact would have been compounded if the Company had pushed construction
14 of its CAP water treatment plants forward to allow for completion during the 2003
15 test year.

16 **E. The Benefits Provided by the Company's CAP Allocations.**

17
18 **Q. CAN YOU COMMENT ON STAFF'S TESTIMONY CONCERNING THE**
19 **BENEFITS RECEIVED BY THE COMPANY'S CUSTOMERS FROM THE CAP**
20 **ALLOCATION AND USE OF CAP WATER?**

21 **A.** Yes. Contrary to Mr. Ludder's assertions, the Company's customers already
22 have benefited from CAP water even without receiving direct deliveries of CAP
23 water. First, under the Groundwater Code, water providers with CAP allocations
24 were automatically deemed to have an assured water supply until August 1995.
25 That means that subdivisions developed in Casa Grande, Coolidge, and White
26 Tank between 1983 and 1995 were able to plat solely because of the
27 Company's CAP allocations in Casa Grande, Coolidge and White Tank. Since
28 1995, the Company's customers have been able to develop property through a

1 combination of retired farmland and enrollment in the Central Arizona
2 Groundwater Replenishment District. Second, customers that are receiving
3 non-potable CAP water could have used groundwater or other sources of water.
4 For example, the Reliant Energy (now Salt River Project) Desert Basin power
5 plant near Casa Grande had the right to use groundwater pursuant to a Type 2
6 non-irrigation grandfathered right. Lacking access to non-potable CAP water,
7 groundwater would have been a source of water for the power plant. The
8 Company's delivery of non-potable CAP water has helped to preserve
9 groundwater for future use by the Company's Casa Grande customers.
10 Likewise, the Francisco Grande Golf Course, another Casa Grande customer,
11 had the right to use groundwater to water its turf, and in fact used groundwater
12 to meet its water needs for several decades. The Company's delivery of non-
13 potable CAP water to this customer has also helped to preserve groundwater for
14 future use by the Company's Casa Grande customers.

15 The preservation of groundwater in the Casa Grande area is important
16 since the physical availability of groundwater in the Casa Grande area without full
17 use of the Company's CAP allocations, will not by itself support projected water
18 demands for the next 100 years. In addition, providing non-potable CAP water to
19 turf facilities helps to provide a renewable resource for uses that would otherwise
20 rely on pumped groundwater, and can help to provide a reliable supply of such
21 water until treated effluent becomes available.

22 A third benefit is that CAP water sales to turf facilities and other non-
23 potable users generates revenue to pay the CAP M&I capital charges, thereby
24 reducing the future need to recover such charges from other customers.

25 A fourth benefit will result from having low-arsenic CAP water blended
26 with high-arsenic groundwater, thereby reducing the overall cost of treating
27 groundwater to remove arsenic. Even though this alternative is not cost-effective
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for current groundwater production facilities, it should prove valuable as new groundwater supplies are added to meet current and future water demands.

Q. ARE THERE OTHER BENEFITS FOR CURRENT CUSTOMERS FROM THE COMPANY'S CAP SUBCONTRACT ALLOCATIONS?

A. Yes. Unlike the Phoenix and Tucson AMAs, the Pinal AMA management goal is not safe yield. Instead, the goal is to allow the development of non-irrigation uses of groundwater, while preserving groundwater for future non-irrigation uses. The use of groundwater to support existing and future non-irrigation uses will continue indefinitely, with the ability to use CAP water whenever possible to offset existing and future uses of groundwater. The Company's CAP subcontract allocations will help to preserve groundwater for ongoing future use by reducing the Company's sole reliance on groundwater and maximizing the long-term availability of groundwater supplies.

Q. IS THE INTERGENERATIONAL EQUITY ISSUE RAISED BY RUCO A LEGITIMATE REASON TO OVERRIDE COMMISSION POLICY AND DENY COST RECOVERY?

A. No. Significant benefits have been provided to existing customers, as described above. Concerning the intergenerational equity issue, since CAP water is meant to provide long-term renewable supplies to help offset non-irrigation uses of groundwater, both current and future customers should bear the cost of maintaining the Company's CAP allocations. As explained, the Company's CAP allocation has helped to provide the regulatory basis for allowing current customers' homes to be built. Likewise, future water users will purchase homes from current users, providing a financial benefit to current users. The CAP process began over 25 years ago, and water users since then have helped to fund the state's efforts to bring CAP water to central Arizona. Renewable sources of water, such as CAP water, by their very nature, require long-term planning and commitments, including financial commitments. Denying cost

1 recovery would frustrate those goals, as the Commission and Staff have
2 recognized.

3 **Q. DO YOU SHARE CONCERNS EXPRESSED BY MR. LUDDERS AND MR.**
4 **RIGSBY ABOUT INCREASING DEFERRED CAP M&I CAPITAL CHARGES?**

5 **A.** Yes. That is why it is surprising to hear that they oppose recovery of these costs
6 at this time. No one has suggested that these water supplies are not needed.
7 Indeed, they are indispensable. The Company has made significant efforts to
8 bring CAP water into use in a cost-effective way and on a reasonable and
9 prudent timetable. Removing CAP M&I capital charges from ongoing expenses
10 and denying recovery of deferred CAP M&I capital charges will simply cause
11 CAP costs to become a larger, more difficult problem to deal with in the future.

12 **Q. DO YOU HAVE ANY FINAL COMMENTS ON THE ISSUE OF CAP COST**
13 **RECOVERY?**

14 **A.** Yes. Staff and RUCO are wrong about the current benefits of CAP water, their
15 attempt to downplay the Company's use of CAP water for non-potable purposes,
16 and the long-term benefits to customers from maintaining the Company's CAP
17 allocations. In addition, if Staff and RUCO are successful in depriving the
18 Company of its right to recover the cost of maintaining its CAP allocations from
19 its current and future customers by imputing an arbitrary and inappropriate "used
20 and useful" test to a long-term water supply that, by its nature, cannot be fully
21 used in the short-term, the Company's customers will ultimately be harmed. The
22 Commission and its Staff that worked with the Water Task Force recognized that
23 this would conflict with Arizona water policy and would lead to water utilities
24 having to rely solely on insufficient groundwater supplies to serve their
25 customers. Accordingly, the Commission should apply the CAP Cost Recovery
26 Policy in this proceeding and allow for timely recovery of costs acknowledged to
27 be necessary to assure CAP water is available to meet the Company's
28 customers' water requirements.

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F. Rebuttal To the City's Testimony on CAP and Arsenic.

Q. DO YOU AGREE WITH MR. HARVEY, THAT THE DEFERRED CAP M&I CAPITAL CHARGES SHOULD BE AMORTIZED OVER TWENTY YEARS AS OPPOSED TO TEN YEARS?

A. No. I believe that the deferred CAP M&I capital charges should be amortized over a reasonable period of time. Ten years is a reasonable period of time, twenty years is not.

Q. HOW DOES THE CAP COST RECOVERY POLICY PROPOSE TO ALLOW RECOVERY OF ONGOING AND DEFERRED CAP M&I CAPITAL CHARGES?

A. There are two basic methods identified in the CAP Cost Recovery Policy for recovering ongoing and deferred CAP M&I capital charges: commodity charges and a CAP Hook-up Fee. The mix of commodity and hook-up fees is determined by comparing the CAP allocation to the current groundwater withdrawals, with hook-up fees used only to recover the portion of CAP allocations that exceed current groundwater withdrawals, and commodity charges used to recover the difference. A rate of return component is added to that portion of the deferred CAP M&I capital charges at the current level of CAP usage.

Q. IS THIS THE ONLY METHOD THAT COULD BE USED TO RECOVER DEFERRED CAP M&I CAPITAL CHARGES?

A. Although the CAP Cost Recovery Policy does not provide for other methods of cost recovery, there could be other variations or mixes of commodity charges and hook-up fees that could be used, such as sixty percent from commodity and forty percent from hook-up fees, to recover deferred and ongoing CAP M&I capital charges. For the Company's Casa Grande, Coolidge and White Tank systems, Ms. Hubbard's rebuttal testimony provides the specifics of how the method identified in the CAP Cost Recovery Policy would be made up between commodity charges and hook-up fees and how a variation of this method could be devised that would address the concerns of Staff, RUCO, and Mr. Harvey that

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future water customers be required to bear an appropriate share of these deferred CAP M&I capital charges.

Q. DO YOU AGREE WITH MR. HARVEY THAT DEFERRED CAP M&I CAPITAL CHARGES SHOULD BE RECOVERED ONLY THROUGH THE USE OF A HOOK-UP FEE OR SURCHARGE ON NEW CUSTOMER'S WATER BILLS?

A. I disagree with Mr. Harvey concerning the recovery of deferred CAP M&I capital charges only from new customers, but the use of a hook-up fee is contemplated by the CAP Cost Recovery Policy. I do not agree that new customers should pay a surcharge on their water bills. This method would be overly complex to administer and would involve tracking one class of customers separately from other classes of customers, based on the initial date of service.

Q. MR. HARVEY HAS ASKED WHETHER CAP WATER TREATMENT PLANTS AND POTABLE USE OF CAP WATER CAN BE DEPLOYED IN THE CITY MORE QUICKLY AND AVOID THE COST OF REMOVING ARSENIC. IS THIS POSSIBLE?

A. No. It is neither possible nor practical. First, the Company's CAP allocation for the City does not meet the full water demands of the Company's Casa Grande system, and was not intended to do so.

Second, even if the CAP water treatment plant were in place and operational today, the Company would still have to rely upon its existing groundwater supplies to augment CAP water supplies, for peaking purposes, and for use during times when the CAP Canal is taken out of service for repairs. In the past, the CAP canal has been taken out of service for up to six weeks for such repairs. In other words, most, if not all of the water treatment plants needed to remove arsenic will still be needed to provide water service in the Company's Casa Grande water system.

Third, there is insufficient time to properly plan for and construct a CAP water treatment plant in time to deal with the new, more stringent arsenic

1 standard that becomes effective in January 2006. Four or five years would be a
2 reasonable time needed to design and construct the Company's CAP water
3 treatment plant. It is simply not possible for the Company's CAP treatment plant
4 to have the effect which Mr. Harvey and the City suggest. Contrary to Mr.
5 Harvey's assertions, a water resource plan, although desirable, is not the subject
6 of this rate proceeding nor would it be practical for such a plan to be developed
7 within the next eighteen months.

8 **Q. DO YOU AGREE WITH MR. HARVEY THAT HOW THE COMPANY DEPLOYS**
9 **THE USE OF CAP WATER VERSUS GROUNDWATER, AND TECHNOLOGY**
10 **ISSUES ARE PRECURSORS TO THE COMPANY'S REQUEST FOR A RATE**
11 **INCREASE IN THIS PROCEEDING?**

12 **A.** Absolutely not. This rate proceeding involves the Company's request for
13 revenue requirements related to added rate base, increased operating and
14 maintenance expenses, and the recovery of deferred CAP M&I capital charges,
15 among other factors. The impacts of how CAP water will be deployed by the
16 Company in the future, and the technologies chosen, will all be the subject of
17 future proceedings before the Commission and are not at issue in this
18 proceeding.

19 **III. RECOVERY OF THE COMPANY'S LITIGATION EXPENSES.**

20 **A. The City's Condemnation Proceeding.**

21 **Q. WHAT IS YOUR RESPONSE TO STAFF'S POSITION ON THE COMPANY'S**
22 **RECOVERY OF LEGAL EXPENSES INCURRED BY THE COMPANY AS A**
23 **RESULT OF THE CITY'S UNSUCCESSFUL CONDEMNATION ATTEMPT?**

24 **A.** Mr. Ludders contends that the Company should not be allowed to recover any of
25 its legal expenses resulting from the City's attempt to condemn a portion of the
26 Casa Grande system. Mr. Ludders has incorrectly concluded that the
27 Company's Casa Grande customers would have continued to receive water
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1 service whether or not the City was successful in its attempt to condemn a
2 portion of the Company's water system. That is a gross oversimplification and it
3 is misleading. The City attempted to condemn only a *portion* of the Company's
4 water system, which would have broken the Company's water system into three
5 or more pieces. The severed portions of the Company's water system would
6 have been left without adequate water production or storage capacity and some
7 customers would have experienced inadequate water pressures. Substantial
8 capital investments in new plant would have been required in any case.

9 **Q. WOULD THE COMPANY'S CASA GRANDE CUSTOMERS HAVE**
10 **EXPERIENCED HIGHER UTILITY BILLS IF THE CONDEMNATION HAD**
11 **SUCCEEDED?**

12 **A.** Yes. The cost impacts to the Company's remaining Casa Grande customers
13 after a partial takeover by the City would have been significant. This would be in
14 addition to decreased water system reliability.

15 As a result of the Company's actions, ratepayers benefited from
16 continued, reliable, low-cost water service from a well-established water provider.
17 The full extent of the impacts resulting from the City's ill-conceived and
18 inadequately planned effort to condemn may never be known since the Company
19 was able to block the City's attempt. No one has argued that the Company's
20 efforts were not necessary or that the City should have condemned the water
21 system. As Mr. Hammon's engineering report demonstrates, the Company's
22 Casa Grande system is well run and has no operational or other problems. Staff
23 also overlooks the fact that the Company acted reasonably and prudently in
24 defending the interests of the Company and its customers against a costly and ill-
25 conceived takeover by the City.

26 **B. The Legal Proceedings Concerning the City's Competing Effluent**
27 **Sales.**

28 **Q. WHAT ABOUT THE OTHER LEGAL PROCEEDING, MR. GARFIELD?**

1 A. The other legal proceeding involved the Company's challenge of the City's
2 attempt to sell effluent – a competing utility service – to customers within the
3 Company's Certificate of Convenience and Necessity ("CC&N"). First, it should
4 be noted that Staff does not object to these legal expenses, only the expenses
5 relating to the condemnation. RUCO, in contrast, does not object to recovery of
6 legal expenses relating to the condemnation, but does object to legal expenses
7 resulting from our challenge to the City's sale of effluent within the Company's
8 CC&N. *See Ludders Dt. at 16; Rigsby Dt. at 22-24.*

9 In that legal proceeding, the City attempted to provide a competing water
10 service within the Company's CC&N, which the Company believed was a
11 violation of state law. We believed the source of water was immaterial, since the
12 City could have attempted to provide any type of water service to the Company's
13 customers. The Company was also working to provide non-potable CAP water
14 to a large customer that otherwise could have used groundwater pursuant to a
15 Type 2 non-irrigation grandfathered right. The City attempted to interfere with the
16 Company's lawful right to provide such water service.

17 **Q. WERE THE COMPANY'S CUSTOMERS ADVERSELY IMPACTED BY THE**
18 **CITY'S ACTION?**

19 A. Yes. The Company's customers have been negatively impacted by the City's
20 interference, resulting in higher CAP M&I capital charges being deferred into the
21 future than otherwise would have resulted if the City had not interfered. This is
22 not the first instance where unregulated entities have attempted to invade the
23 field of a Commission-regulated utility and interfere with the utility's rights, and,
24 unfortunately, it won't be the last. This also was occurring at or around the time
25 of the City's condemnation attempt, which was determined by the Arizona Court
26 of Appeals to be unlawful.

27 **Q. MR. RIGSBY POINTS OUT THAT THE COMPANY DOES NOT SELL**
28 **EFFLUENT. IS THAT CORRECT?**

1 A. Mr. Rigsby's testimony is wrong. The Company already provides service of
2 effluent in its Superstition system. The Company does not need to produce
3 effluent (Rigsby Dt. at 23) to be able to sell non-potable water to meet its
4 customers' water needs. Coordination between effluent producers and the water
5 provider, namely the Company, were hampered by the City's attempted
6 interference with the Company's right to provide non-potable water, in addition to
7 the condemnation.

8 The Company is not precluded from providing effluent service as a public
9 service corporation, and does not require additional CC&N authority to provide
10 such service, only an approved tariff for the provision of effluent or reclaimed
11 water is required. Again, as in defending against the City's unlawful
12 condemnation attempt, the Company's decision to defend against what was
13 believed to have been an unlawful invasion of the Company's exclusive right to
14 furnish water service within its certificated service territory was prudent and
15 necessary to protect the Company and the customers' interests. Utilities should
16 be able to protect their rights and their customers' interests under a CC&N, and
17 expenses relating to such activities are legitimate costs of service that should be
18 included in customer rates.

19 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY IN THIS MATTER?**

20 A. Yes, except that my silence on any issue raised or recommended by any party to
21 this proceeding should not be construed as the Company's acceptance of that
22 issue or recommendation.
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EXHIBITS

BEFORE THE ARIZONA CORPORATION COMMISSION

CARL J. KUNASEK
Chairman
JIM IRVIN
Commissioner
WILLIAM A. MUNDELL
Commissioner

Arizona Corporation Commission

DOCKETED

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DOCKETED BY RT

IN THE MATTER OF THE ARIZONA CORPORATION COMMISSION'S OWN MOTION TO ESTABLISH THE COMMISSION WATER TASK FORCE

DOCKET NO. W-00000C-98-0153

DECISION NO. 62993

ORDER

Open Meeting
October 24 and 25, 2000
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. On April 24, 1998, in Decision No. 60829, the Arizona Corporation Commission (Commission) established the Commission Water Task Force (Task Force). The Task Force consists of representatives of regulatory agencies, the water providers, and water consumers. On September 22, 1998, the Task Force held its first meeting. The Task Force meetings were all noticed Open Meetings.
2. On October 28, 1999, the Task Force completed its Report for the Commission (Report). The Report contains recommendations to the Commission on several issues facing Arizona's water industry. On many issues, the Task Force achieved consensus. On other issues, the Report contains different recommendations from the various Task Force members.
3. On January 5, 2000, the Task Force Report was docketed and distributed to every Arizona water company regulated by the Commission. A deadline of March 15, 2000, was set for comments on the Report to be filed. Only two water companies and the Central Arizona Project (CAP) submitted comments. Arizona Water Company generally supports the Staff's proposals, but does express some reservations. Lakewood Water Company, a small water company in Amado, indicates that it is currently struggling with the financial requirements to fund necessary capital improvements. The capital costs to make improvements would double the rates for the company's customers, many of whom are low-income. The company expresses interest in the possibility of

Decision No. 62993

1 consolidation with other water utilities. The CAP generally supports Staff's proposals, but it does
2 express some reservations.

3 4. The Task Force was divided into three subcommittees: the Regulatory Reform
4 Subcommittee, the Conservation Subcommittee, and the Water Supply Subcommittee. The Regulatory
5 Reform Subcommittee achieved consensus on five goals:

- 6 • Reduce the number of small, non-viable water systems through new rules and procedures.
- 7 • Strengthen the financial capacity of the water utility industry.
- 8 • Provide greater emphasis on simplifying, shortening, and reducing the cost of the
9 ratemaking process.
- 10 • Improve consumer education.
- 11 • Increase interagency coordination.
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14 5. The Conservation Subcommittee focused on developing policies the Commission could
15 use to encourage water conservation. The Water Supply Subcommittee focused on issues relevant to
16 renewable and surface water supply, such as the Central Arizona Project.

17 Regulatory Reform Subcommittee

18 6. On Pages 3 through 25 of the Report, the Regulatory Reform Subcommittee's
19 recommendations and discussions are summarized.

20 7. On Pages 4 through 7 of the Report, Staff's proposal on placing more stringent
21 requirements on approval of CC&Ns for new water companies is discussed.

22 8. Commission Staff recommended the following Commission policy changes concerning
23 the establishment of new water companies:

- 24 a. The application for a new CC&N must show that an existing water company cannot
25 or will not serve the area being applied for. This showing must be made by submitting
26 service rejection letters from all the "A" size water companies in the state (there are 3)
27 and at least five of the "B" size companies (there are 20). The five B size companies
28 contacted should include the B size companies that are geographically closest to the
applicant. The application must also be accompanied by service rejection letters

1 from all the existing water companies within five miles of the area being requested. In
2 addition, the rejection letters must be accompanied by the corresponding request for
3 service that was made to each of the existing water companies by the applicant.

- 4 b. The rates should be set such that the company should at least break even no later than
5 its third year of operation. The calculations would be based on the company's
6 reasonable estimates of customer growth. The company should also be required to
7 come in for a rate case three years after serving its first permanent customer.
- 8 c. Because Staff believes that it is not in the public interest, no new CC&N would be
9 issued to any company that was affiliated with any other company or person that was
10 not in total or substantial compliance with Commission and ADEQ requirements. This
11 restriction should apply to CC&N extensions and transfers as well.
- 12 d. Staff recommends establishing a set of standard service charges for new CC&Ns.
- 13 e. Staff will work with the ADWR to establish tiered rate structures for new CC&Ns.

14 9. Staff recommends that the Commission endorse Staff's recommendations. Further,
15 Staff requests that the Commission order Staff to develop (through meetings with members of the
16 industry, RUCO, and other interested parties) a detailed statement of policy on water CC&Ns by
17 June 30, 2001. The detailed statement of policy should conform to the general principals of Staff's
18 recommendation contained in the Report and the above discussion. Staff members who are
19 responsible for processing new water CC&N requests should be responsible for conducting these
20 meetings and developing the detailed statement of policy.

21 10. On Pages 8 through 11 of the Report, several proposals for providing incentives for
22 consolidation in the water industry are discussed. Staff recommends that an acquisition adjustment
23 or a rate of return premium (but not both) be allowed under certain conditions. These conditions are:

- 24 • The acquisition is in the public interest;
- 25 • The acquisition will not negatively affect the viability of the acquirer;
- 26 • The acquired system's customers will receive improved service in a reasonable timeframe;
- 27 • The purchase price is fair and reasonable (even though that price may be more than the
28 original cost less depreciation book value) and conducted through an arms' length
negotiation;

- 1 • The recovery period for the acquisition adjustment should be for a specific minimum time
- 2 (e.g., twenty years); and
- 3 • The acquired company is a class D or E.

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5 11. Staff does not recommend allowing for acquisition adjustments unless all of the above

6 conditions are met. Staff believes that the burden should be on the company to prove that an

7 acquisition adjustment or a rate of return premium is in the public interest. The public interest

8 determination should account for the capital investments needed for the customers to receive improved

9 service and the costs savings the company is likely to realize through economies of scale. Other

10 methods of encouraging consolidation include allowing for rate of return premiums and deferral

11 accounting orders. Staff recommends that the Commission endorse Staff's recommendation. Further,

12 Staff requests that the Commission order Staff to develop, through meetings with members of the

13 industry, RUCO, and other interested parties, a detailed statement of policy on acquisition adjustments

14 and rate of return premiums by June 30, 2001. The detailed statement of policy should conform to the

15 general principals of Staff's recommendation contained above and in the Report. Staff members who

16 are responsible for recommending approval or denial of acquisition adjustment requests should be

17 responsible for conducting these meetings and developing the detailed statement of policy.

18 12. Other incentives for consolidation could be provided by the State Legislature. Tax

19 breaks or credits could be provided to companies that choose to acquire small and/or financially non-

20 viable water companies. The Staff requests the Commission adopt recommendations to the Legislature

21 regarding incentives for consolidation and direct the Commission's Legislative Liaison to initiate

22 efforts to encourage the Legislature to adopt these incentives.

23 13. The establishment of a fund similar to the Universal Service Fund used for

24 telecommunications firms, is another option for improving the financial capacity of small water

25 companies. A fund that all water companies pay into and that financially strapped companies could

26 draw out of for infrastructure investments could be established. For fairness purposes municipal water

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1 companies would need to be included as contributors/beneficiaries of the fund. This would require
2 legislation as well as changes to the Commission rules. Staff proposes this fund as an approach the
3 Commission may want to consider in the future.

4 14. Issues involving property taxes are discussed on Pages 12 and 13 of the Report. The
5 Staff requests the Commission adopt recommendations to the Legislature regarding alternative taxation
6 mechanisms for private water companies and direct the Commission's Legislative Liaison to initiate
7 efforts to encourage the Legislature to adopt these tax alternatives. Staff also recommends that the
8 Accounting and Rates (A&R) section of the Utilities Division sponsor, for any interested party, a
9 seminar on the ratemaking implications of property taxes, focusing on the problems the industry
10 outlines in the Report.

11 15. On Pages 14 and 15 of the Report, the Future Test Year issue is discussed. Staff
12 believes that there is no need to change the present method used by the Commission. At present, the
13 Commission employs an historical test year but does allow for pro forma additions for known and
14 measurable costs. It is Staff's opinion that this is a very good combination of both historical and future
15 test years. Presently, this is done on a case-by-case basis. Staff believes that this method could be
16 improved, therefore, Staff recommends that the Commission order Staff to develop a policy with
17 specific requirements for expense changes, revenue changes, and plant additions that occur after the
18 test year. Such items would include, but are not limited to:

- 19
- 20 a. Method of matching new expenses with new revenues.
 - 21 b. Revenue neutral plant, i.e., plant to serve existing, not future, customers.
 - 22 c. Revenue neutral plant will be installed within a specific timeframe, preferably one year.
 - 23 d. Revenue neutral plant is necessary to provide proper and adequate service to existing
 - 24 customers.

25 16. On Pages 15 and 16 of the Report, Staff's recommended Generic Hook-up Fee policy
26 is outlined. Both the industry and RUCO support Staff's recommendation in principal. Staff believes
27 that implementing this recommendation will require a rulemaking proceeding. Staff requests that the

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1 Commission order a rule making proceeding be opened to implement a Generic Hook-up Fee policy
2 along the lines of Staff's proposal.

3 17. On Pages 16 through 19 of the Report, proposals for plant replacement fund
4 mechanisms are discussed. Staff recommends that the Commission adopt a policy similar to the
5 Pennsylvania Public Utilities Commission's Distribution Service Investment Charge (DSIC). Staff
6 requests that the Commission order a rule making proceeding be opened to implement rules for a DSIC
7 or similar program in Arizona.

8 18. On Pages 19 and 20 of the Report, problems associated with past high depreciation
9 rates are discussed. The industry offered proposals on how to rectify these problems; however, Staff
10 and RUCO found those approaches to be inappropriate. Staff believes that its proposed Rate of Return
11 policy (discussed below) will solve the problems associated with past excessive depreciation rates. All
12 parties agreed that the Commission should no longer approve excessive depreciation rates for small
13 water companies.

14 19. On Pages 20 and 21 of the Report the pass-through mechanism approved by the
15 legislature in SB 1252 (now A.R.S. § 40-370) is discussed. The industry representatives on the Task
16 Force felt that the Commission's policy on A.R.S. § 40-370 needed to be clarified because, at the time
17 the Report was written, only one company had applied for authority to adjust rates under the provisions
18 of this mechanism. Since then the Commission has approved two such applications (they both have
19 been appealed). The two approved applications were for Arizona Water Company's Monitoring
20 Assistance Program (Decision No. 62141) and Rio Verde Utilities, Inc.'s CAP cost increase (Decision
21 No. 62037). Those two decisions indicate that the Commission's policy on A.R.S. § 40-370
22 applications is to support appropriate pass-throughs, which should mitigate the industries concerns.

23 20. On Pages 21 and 22 of the Report, Staff's proposed Rate of Return policy is outlined.
24 Staff believes that implementing this policy will solve the problems associated with high depreciation
25 rates and lead to other improvements. This policy would make filing rate cases much less burdensome
26 for small water companies. Staff's proposed policy allows companies that are filing rate applications
27 to choose between 1) a generic rate of return (for C, D, and E companies only); 2) setting rates based
28 on an operating margin basis (i.e., no rate of return consideration); or 3) an individual rate of return

1 (i.e., traditional rate making). In addition to the recommendations in the Report, Staff is
2 recommending that the choice of the generic rate of return be limited to C, D, and E companies. Also,
3 Staff recommends that the generic rate of return should be a minimum rate of return; thus, points can
4 be added to it to account for special expenses such as WIFA loan payments. Staff requests that the
5 Commission order a rule making proceeding be opened to implement Staff's proposed Rate of Return
6 policy. Staff is aware that the recent Court of Appeals Opinion may impact the Commission's ability
7 to implement Staff's proposed rate of return policy. Staff believes that the issues raised by the Court
8 of Appeals Opinion are best dealt with during the rulemaking proceedings.

9 21. On Pages 22 and 23 of the Report, the electronic filing of annual Reports, rate cases,
10 and other filings with the Commission is discussed. Staff, the industry, and RUCO all agreed that
11 allowing for electronic filing would be beneficial. Staff has already initiated the first steps of this
12 process by making the Short Rate Case Form available on the Commission's web site. Staff is
13 committed to making all of its forms available electronically. In order to institute full electronic filing,
14 the Hearing Division will need to be involved. Staff is committed to working with the Hearing
15 Division to develop a process that will allow for full electronic filing.

16 22. During the Task Force's discussions of electronic filing, the industry also expressed
17 concern about the volume and extent of the Commission's filing requirements. Staff acknowledges
18 that certain filing requirements may be out-dated. Staff is currently reviewing all forms and filing
19 requirements. However, such a review is a major undertaking and may take some time to complete.

20 23. On Page 23 of the Report, Staff's Main Extension Agreement (MXA) proposal is
21 outlined. Staff's proposal is to have standard MXA provisions included in each water companies
22 tariffs, instead of the current process of approving MXAs on an individual case basis. Both the
23 industry and RUCO supported Staff on this issue. Staff requests that the Commission order a rule
24 making proceeding be opened to implement Staff's proposed MXA policy.

25 24. On Pages 23 and 24 of the Report, several suggestions concerning consumer education
26 are discussed. Staff is currently working on educational programs for all industries the Commission
27 regulates. Implementing any educational program may require additional funds from the Legislature.
28 Staff is also evaluating the expansion of its well-regarded Small Water Assistance Team (SWAT)

1 program (which deals with educating water company owners/operators) to include education for water
2 consumers.

3 25. On Pages 24 and 25 of the Report, Staff's Phased Rate Increase policy is discussed.
4 Staff believes that in certain limited circumstances it is appropriate to phase rate increases in over
5 time. Staff will develop well-defined guidelines for when and how phased rate increases are
6 appropriate.

7 26. On Page 25 of the Report, Staff's recommendation on rates tied to conditions is
8 discussed. Staff recommends that all rate increases be conditioned on the company providing
9 acceptable quality service, water quality, and other relevant conditions. Staff has already implemented
10 this policy informally by including specific conditions in recent Recommended Orders. Staff will
11 develop a standard set of conditions that could apply to all water companies. One impediment to this
12 policy being successful is the Commission's lack of enforcement resources. Currently, the Utilities
13 division has *one* compliance officer to handle *all of the utilities* the Commission regulates.

14 Conservation Subcommittee

15 27. On Pages 26 through 29 of the Report, the Conservation Subcommittee's
16 recommendations and discussions are described. On Pages 26 through 28, a perceived problem with
17 the Commission's conservation policy is discussed. The industry and consumer members of the Task
18 Force as well as the ADWR representatives believed that the Commission would not allow companies
19 to include the costs of conservation programs in rates unless the conservation program was mandated
20 by the ADWR. If this were true, it would discourage companies from engaging in conservation
21 programs. However, Staff does not believe that this is true. No member of the Task Force could site
22 any examples of instances where Staff has recommended denial of conservation program costs or
23 where the Commission approved an order that included the denial of conservation programs and their
24 reasonable costs. Staff supports and encourages conservation. Staff believes that recovery of any
25 reasonable costs for conservation programs should be allowed.

26 28. On Pages 28 and 29, Staff's proposal to institute three tiered rates is discussed. Tiered
27 rates are the Commission's only direct means of encouraging conservation. Both the industry and
28 RUCO opposed Staff's proposal. The industry claimed that it is sure to result in companies

1 underearning, while RUCO claimed the policy is sure to result in companies overearning. Staff
2 believes that as with any rate design there is a possibility of either over or underearning. However,
3 with rates designed as proposed by Staff in the Task Force's Report there is almost no chance of
4 underearning while there is a good possibility of overearning. If properly designed though, the tiered
5 rates would result in the non-conserving customers paying extra for large uses of water and reward
6 those customers that used very little water. If customers conserved such that all were falling within
7 the middle tier, the company should earn its allowed rate of return. If the customers continued to use
8 water in the third tier, the water company would probably overearn. The use of the overearnings could
9 be restricted by the Commission in such a manner as to benefit the customers. Staff realizes that this
10 is a new and different way of looking at rate design combined with conservation, but Staff also realizes
11 that new ways have to be considered to save what many consider to be this State's most precious
12 resource. Staff recommends that the Commission order Staff to consider tiered rate designs for all
13 water company rate cases and that the tiers be designed to encourage conservation. Staff recognizes
14 that tiered rates may not be appropriate in all cases and that the decision to use or not use tiered rates
15 must be made on a case-by-case basis. However, the appropriateness of tiered rates should be
16 considered in every case. Further, Staff requests that the Commission order Staff to develop a detailed
17 statement of policy on tiered rates by June 30, 2001.

18 Water Supply

19 29. On Pages 30 through 33 of the Report, the Water Supply Subcommittee's
20 recommendations and discussions are summarized. The main focus of this subcommittee was the
21 recovery of Central Arizona Project (CAP) water allocation costs (CAP costs). All members of the
22 Subcommittee agreed that the Commission could somehow approve the recovery of CAP costs in a
23 proceeding outside of a rate case. However, the Commission's Legal division has concluded that
24 considering CAP costs outside of a rate case would run counter to the recent Court of Appeals opinion
25 on fair value. There was disagreement among the Subcommittee members about what the
26 Commission should require before it allows for CAP cost recovery. In the Report, Staff recommended
27 that the Commission allow for CAP cost recovery once the company has submitted a plan that
28 indicates how they will begin to actually use their CAP allocations within five years. Staff chose a

1 five-year time horizon because Staff wished to limit the extent to which current customers are charged
2 for CAP allocations which will only be used to serve future customers.

3 30. Since the Report was written, Staff has modified its position. Staff believes that the
4 Commission should be more flexible with the time horizon it allows for CAP water to go unused while
5 allowing cost recovery. Staff believes that the time requirement placed on companies applying for
6 CAP cost recovery should be decided on a case by case basis. Also, to ensure that current customers
7 do not pay an unfair amount relative to future customers, a portion of the CAP cost should be
8 recovered through some type of hook-up fee. The amount of the recovery that is recovered through
9 a hook-up fee should be determined by the company's total demand for water relative to its CAP
10 allocation. For example, if a company's total demand is 200,000 gallons per year and its CAP
11 allocation is 1,000,000 gallons per year, then the company should recovery 20 percent of its CAP cost
12 from current customers and the remaining 80 percent from hook-up fees. The methodology used for
13 CAP cost recovery in the Vail Water Company Rate Case (Decision No. 62450) is an example of the
14 general policy that Staff advocates.

15 31. Staff requests that the Commission order Staff to develop, through meetings with
16 members of the industry, RUCO, and other interested parties, a detailed statement of policy on CAP
17 cost recovery by June 30, 2001. The detailed statement of policy should conform to the recovery
18 methodologies used in the Vail Rate Case, Decision No. 62450.

19 **Conclusions**

20 32. In conclusion, Staff recommends several changes in and clarifications of Commission
21 policy, several changes to the Commission's rules, and that the Commission pursue several Legislative
22 changes. These recommendations are summarized as follows:

23 **Policy Changes**

- 24 • CC&Ns (new, transfers, and extensions)
25 • Acquisition Adjustments and Rate of Return Premiums
26 • Seminar on ratemaking implications of property taxes
27 • Electronic Filing and review of filing requirements
28 • Phased Rate Increase
 • Rates tied to Conditions
 • Tiered Rate Structure

- CAP cost recovery
- Pro forma adjustments

2 **Rulemaking**

- Generic Hook Up Fee
- Rate of Return
- Main Extension Agreements
- Plant Replacement Fund

6 **Legislative Changes**

- Incentives for consolidation, e.g. tax breaks
- Replace property taxes with a percentage of revenue tax

9 33. Staff recommends that the Commission endorse the above policy and Legislative
 10 changes. Also, Staff recommends that the Commission open a rulemaking proceeding in order to
 11 implement the above changes to the Commission rules.

12 CONCLUSIONS OF LAW

13 1. The Commission as the regulatory body with the longest history and the primary
 14 responsibility over private water companies should take the lead in seeking a coordinated solution to
 15 the problems of small water companies.

16 2. The Commission arranged for the formation of the Task Force for meetings between
 17 representatives of regulatory agencies, the water providers, and water consumers in order to address
 18 these issues.

19 3. The Task Force has issued a report that summarizes the views of its members.

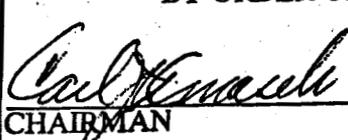
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ORDER

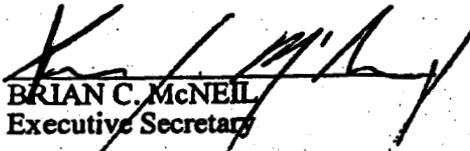
1
2 THEREFORE, IT IS ORDERED that the Commission approve Staff's recommendations in
3 the above Findings of Fact.

4 IT IS FURTHER ORDERED that this decision shall become effective immediately.

5
6 BY ORDER OF THE ARIZONA CORPORATION COMMISSION

7
8   
CHAIRMAN COMMISSIONER COMMISSIONER

9 IN WITNESS WHEREOF, I, BRIAN C. McNEIL,
10 Executive Secretary of the Arizona Corporation
11 Commission, have hereunto, set my hand and caused the
12 official seal of this Commission to be affixed at the Capitol,
13 in the City of Phoenix, this 3rd day of November, 2000.

14 
BRIAN C. McNEIL
Executive Secretary

15
16
17 DISSENT: _____

18 DRS:MJR:lhk

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MEMORANDUM

TO: THE COMMISSION

FROM: Utilities Division

DATE: June 29, 2001

RE: WATER TASK FORCE OF THE ARIZONA CORPORATION COMMISSION
(DOCKET NO. W-00000C-98-0153)
(DECISION NO. 62993)

On November 3, 2000, the Commission issued Decision No. 62993. This decision approved Staff's recommendations regarding the Commission's Water Task Force. The Commission directed Staff to work with interested parties to develop policy statements, some of which are due by June 30, 2001. Staff has had a number of meetings with interested parties to discuss the issues and resolve parties' concerns on many occasions, as noted below. The reports addressing specific subjects reflect a consensus of the working groups. In only one working group did Staff disagree with a portion of the group's resolution of an issue, which is also discussed below. The reports address the following issues:

Finding of Fact No. 9 from Decision No. 62993 ordered Staff to develop a policy statement regarding Certificates of Convenience and Necessity for water systems. Attachment A to this memorandum is a proposal for this policy developed in a meeting with interested parties.

Finding of Fact No. 11 ordered Staff to develop a policy statement regarding acquisition adjustments and rate of return premiums for water systems. Attachment B to this memorandum is a proposal for this policy, which was developed based on several meetings with interested parties

Finding of Fact No. 29 ordered Staff to develop a policy statement regarding tiered rates. Attachment C to this memorandum is Staff's proposal for this policy, which was developed after several meetings with interested parties.

Finding of Fact No. 31 ordered Staff to develop a policy statement regarding recovery of costs related to the Central Arizona Project. Attachment D is Staff's proposal for this policy, which was developed after several meetings with interested parties. Staff is in agreement with this proposal, except for the portion which deals with the definition of the term "use." The attached policy defines "use" as those methods considered as "use" by the Arizona Department of Water Resources (ADWR). The current regulations of ADWR allow a water company to be in compliance with its requirements as long as the water system uses its CAP water anywhere within the same Active Management Area (AMA) in which the water system is located. This approach is contrary to the position the Commission took in a recent Vail Water Company (Vail) rate case.

THE COMMISSION

June 29, 2001

Page 2

In Decision No. 62450, the Commission approved Vail's cost recovery of its CAP costs with specific mandates regarding Vail's long-term plans for the CAP water. At present Vail is using its CAP water in an "in lieu recharge project". Vail's CAP water is being used by a farm in Red Rock in lieu of the farm using groundwater. Because the farm in Red Rock is in the same AMA (Tucson AMA) as Vail, Vail gets credit for this use by the farm and therefore, is in compliance with ADWR requirements, even though the farm is approximately 60 miles from Vail. Staff believes that the water being recharged in Red Rock will never actually directly benefit the aquifer in Vail and therefore, never benefit the customers of Vail. This was the basis for the Staff recommendations that were adopted by the Commission in Decision No. 62450. The Commission ordered Vail to submit, within 10 years of the Decision, a plan to use its CAP water directly in its certificated area. Decision No. 62450 also ordered Vail to actually begin using its CAP water within its certificated area within 15 years of the Decision.

For these reasons, Staff recommends that the Commission slightly, but significantly, modify the definition of "use" contained in Attachment D by adding the condition that the water system would have to use its CAP water within its certificated area.

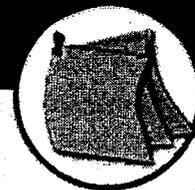
Staff recommends that these policy statements be discussed at an Open Meeting at the Commission's convenience.

Deborah R. Scott
Director
Utilities Division

DRS:SMO:

ORIGINATOR: Steven M. Olea

Arizona Corporation Commission

WORKING GROUP REPORTS**Attachment A****Proposed Policy for Water Certificates of Convenience and Necessity**

The Commission has established a policy goal of ensuring Arizona's water consumers are served by viable utilities. In Decision No. 62993, the Commission required Staff to develop a policy statement on Certificates of Convenience and Necessity (CC&N) for water systems which conforms to the general principles of Staff's recommendation as contained in the Water Task Force Report of October 28, 1999.

The Arizona Constitution, Article 15, Section 3, provides in part: "The corporation commission shall have full power to, and shall... make reasonable rules, regulations and orders, by which such corporations shall be governed in the transaction of business within the state.... Provided further that...rules, regulations, orders and forms...may from time to time be amended or repealed by such commission. "

State law on CC&Ns requires, in part, that a public service corporation shall not begin construction of any plant or system without first obtaining a CC&N from the Commission. (See A.R.S. 40-281) In processing a CC&N the Commission is performing a judicial function, (See A.R.S. 40-282), Staff, as a party to the case, is charged with developing, and making a recommendation on the application to develop the record for the hearing on which the Commissioners base their final decision.

The Arizona Administrative Code R14-2-402, Certificate of Convenience and Necessity for water utilities, is used by Staff to guide the development of their recommendation on the application. The rule requires the Applicant to provide the following information:

- a. Proper name and address of the utility and its owners,
- b. Articles of Incorporation and Corporate Bylaws,
- c. Type of plant and facilities to be constructed,
- d. Complete description of facilities to be constructed, with preliminary engineering specifications to describe the principle systems and components to meet the needs of the health department, and final engineering drawings when they are available.
- e. The proposed rates,
- f. Estimated total cost of the facilities,
- g. Manner of capitalization, method of financing the utility,
- h. Financial condition of Applicant,
- i. Estimated annual operating revenue and expenses from the proposed construction,
- j. Estimated starting and completion dates of the proposed construction,
- k. Maps of the proposed service area,
 - l. Appropriate city, county and/or state agency approvals,
- m. Estimated number of customers to be served for each of the first 5 years of

operation, including documentation to support estimates.

Staff also requires the Applicant to provide: the request for service initiating the "necessity" of the request for a CC&N, appropriate approvals from the Arizona Department of Water Resources (ADWR) and the Arizona Department of Environmental Quality (ADEQ), and compliance status information from the ADEQ and ADWR.

In order to assist the Commission in its goal to eliminate the proliferation of non-viable water systems, it is recommended that in addition the above, the following should be required:

1. Unless the Applicant is an existing public water utility in Arizona or is an affiliate of an Arizona public water utility, an Applicant for a new CC&N (i.e., not an extension to an existing CC&N) must demonstrate that existing water utilities have refused to extend their territories to include the requested area. This demonstration shall be made by the Applicant providing all the following:
 - a. A copy of the Applicant's request for service from all Class A* water utilities in the State as well as the refusal to serve from all those Class A water utilities, and
 - b. A copy of the Applicant's request for service from all or at least five (5), whichever is less, of the Class B* water utilities serving within fifty (50) miles of the Applicant's requested area as well as the refusal to serve from all those Class B water utilities, and
 - c. A copy of the Applicant's request for service from all water utilities* serving within five (5) miles of the Applicant's requested area as well as the refusal to serve from all those water utilities.

* Any utility willing to serve must respond to the Applicant within thirty (30) days of the Applicant's request and must meet item #3 below.

2. If the Applicant has received an affirmative response to a request for service within thirty (30) days of its request from any of the above water utilities, but believes that such service would not be cost-effective nor in the public interest, the Applicant shall submit detailed information and cost data that clearly and convincingly demonstrates such an opinion and that the granting of a CC&N to the Applicant is in the public interest.
3. The Applicant must demonstrate that it and all its affiliates and associated management or operations personnel are in compliance with all applicable Commission, ADEQ, and ADWR requirements. In the event, the utility, any affiliate, or associated management or operations personnel are not in compliance with Commission, ADEQ or ADWR requirements, the Applicant must demonstrate that the non-compliance is related to the recent acquisition or affiliation with a deficient utility. With regard to ADE, the Applicant shall be considered in compliance if it, or any of its affiliates, does not have or has not had within the 12 months prior to the application, any major deficiencies with regard to physical facilities, operation and maintenance requirements, or monitoring requirements.
4. Initial rates for a new CC&N should be designed such that the utility would have the opportunity to break even (zero percent rate of return) at the end of its third year of operation. These rates should also provide the utility the opportunity to

earn a reasonable rate of return by the end of its fifth year of operation. Rate levels and the rate of return would be based on the Applicants reasonable projections of customer growth and the rate base required to properly and adequately serve the customers.

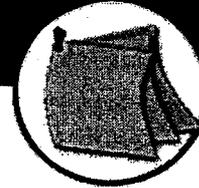
5. For new CC&Ns that are not being served by an existing utility, the following charges shall be set as follows:
 - a. Establishment (normal) -- \$20.00
 - b. Establishment (after hours) -- \$35.00
 - c. Reconnection -- \$20.00
 - d. Meter Test (if correct) -- \$25.00
 - e. Deposit -- 2 times the monthly minimum plus 15,000 gallons
 - f. NSF Check -- \$25.00
 - g. Service Call (after hours) -- \$40.00
 - h. Meter Re-read -- \$35.00
 - i. Late Payment Fee -- 1.5 percent after 15 days

The above charges shall be reviewed annually by Staff and adjusted if necessary.

6. Once the CC&N is granted, the utility shall be required to file a rate case no later than 120 days after the fifth anniversary of serving its first customer.

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Arizona Corporation Commission

WORKING GROUP REPORTS**Attachment B****Proposed Policy for Class D and E Water System Acquisitions**

The purpose of the acquisition policy is to try to encourage acquisition and consolidation of small water utilities operating in the state. For purposes of this policy, small water utilities are limited to Class D and E water utilities, i.e., less than \$250,000 of operating revenue in the most recent calendar year. Acquisition of small water utilities should result in improved water quality and/or service for the customers.

Decision No. 62993, dated November 3, 2000, established six general conditions a water company must meet to qualify for an acquisition adjustment or rate of return premium. Per that Decision, the acquisition incentive may be granted in one of two ways: (1) recovery of an amount paid in excess of the book value of the acquired company's assets (acquisition adjustment), or (2) a rate of return premium, but not both. This policy develops criteria and procedures for determining the amount of acquisition incentive that will be eligible for recovery in rates following acquisition of a small water utility.

The purchase price for a small water utility could exceed the book value of its plant in service, resulting in a positive acquisition adjustment. This policy applies exclusively to positive acquisition adjustments, and negative acquisition adjustments shall not be recognized for rate-making purposes.

In certain cases, a rate of return premium may be allowed instead of an acquisition adjustment. Once the rate of return percentage is determined, a premium amount will increase that percentage. The premium percentage will be allowed in rates for a period of time that the Commission determines is appropriate to provide an acquisition incentive.

Following is the list of six conditions a company must prove by a preponderance of the evidence in order to obtain an acquisition adjustment or rate of return premium in rates, as well as criteria to meet those conditions.

1. The Acquired Company Is A Class D Or E.

- This policy is to be applied to the acquisition of Class D and E water utilities, i.e., those having less than \$250,000 of operating revenue in the most recent calendar year.

2. The Acquisition Will Not Negatively Affect The Viability Of The Acquirer.

- The acquiring company shall provide documentation that satisfactorily demonstrates its continued financial viability subsequent to the acquisition. Staff will not recommend approval of a proposed acquisition that would be potentially detrimental to an acquirer's financial viability.

3. The Acquired System's Customers Will Receive Improved Service In A

Reasonable Timeframe.

- The acquiring company shall submit a plan for improving service to the customers of the acquired system. The plan shall include, but not be limited to, a detailed listing of the current violations and deficiencies of the water company to be acquired, as well as the acquirer's proposed solutions and the related costs. Additionally, the plan must also include a proposal for how the rates of the small water utility's customers will be affected. The acquirer's plan should also provide estimated implementation dates for each system or service improvement. A service improvement plan might include, but is not limited to, the following:
 - a. Delivering water to customers that meets the quality standards of the Arizona Department of Environmental Quality ("ADEQ") and the Safe Drinking Water Act.
 - b. Satisfactory resolution of outstanding violations with ADEQ and the Arizona Department of Water Resources ("ADWR").
 - c. Developing a reliable source of water supply.
 - d. Developing appropriate water storage capacity.
 - e. Improved water pressure, either higher or lower, within the distribution system.
 - f. Replacement of inadequate, insufficient, deteriorated, and/or inefficient infrastructure.
 - g. Improving billing procedures, customer complaint resolution, and service response times.
- 4. The Purchase Price Is Fair And Reasonable (Even Though That Price May Be More Than The Original Cost Less Depreciation Book Value) And Conducted Through An Arm's Length Negotiation.**
- One factor that would contribute to recommending an acquisition incentive is if the net plant value is either very small or zero, due to substantially or fully depreciated assets that require replacement. Although the water company assets may reflect zero net book value on the records, the assets in theory still have value due to the fact that they generate a future revenue stream. To determine if the purchase price and resulting acquisition incentive amount is fair and reasonable, Staff's evaluation shall include, but not be limited to, the following criteria:
 - a. The purchase price must be the result of good faith negotiations between the two transacting entities.
 - b. The acquisition must be conducted through an arm's length transaction, and the two parties must not be affiliates as defined by A.A.C. R14-2-801.1.
 - c. Present value of future cash flows.
- 5. The Recovery Period For The Acquisition Adjustment Should Be For A Specific Minimum Time.**
- Staff will evaluate the acquisition adjustment recovery period to be fair and reasonable to both the acquirer, and the customers of the small water utility. The specific recovery period shall be set on a case-by-case basis and shall be consistent with the period over which customers are expected to benefit, as well as mitigate the impact of cost recovery on rates.
 - If a rate of return premium is sought by the acquiring company, Staff will determine the premium percentage and recovery period on a case-by-case basis. Recovery via the rate of return premium will be calculated to recoup only the

excess of the purchase price over the book value of the plant in service.

6. The Acquisition Is In The Public Interest

Staff will investigate the acquirer's compliance history with the ADEQ and the ADWR to determine if it is a fit and proper entity to acquire a small water utility. Acquisition incentives will not be granted to entities that are currently in violation of rules set forth by ADEQ and/or ADWR.

The acquisition of a small water utility would comply with the standard of public interest if the above detailed five conditions are met, and no ADEQ and/or ADWR rule violations are pending. Additionally, the following circumstances may further demonstrate how an acquisition could be in the public interest:

- The small water utility is insolvent, defined as "unable or having ceased to pay debts as they fall due in the usual course of business".
- The small water utility will have increased opportunities to obtain short-term financing as a result of the acquisition. This will enable the company to make improvements to, and correct deficiencies within its water system that would enable it to serve water that meets the quality standards set forth in the Safe Drinking Water Act.
- Short-term and long-term cost savings can be demonstrated as a result of the acquisition, as well as efficiencies and economies of scale.
- As a result of the acquisition, delinquent remittance of transaction privilege tax and/or property tax by the small water utility to the Arizona Department of Revenue will be satisfied.

PROPOSED PROCEDURE

Once the two entities enter into a transfer/purchase agreement, they will submit a joint application to the Commission pursuant to Arizona Administrative Code Section R14-2-103. The joint application should include the following information:

- a. A Commission approved rate application for water companies with annual gross operating revenues of less than \$250,000 for the small water utility to be acquired as of the most recent fiscal year end, or all the information required in such a rate case application along with a request for a Commission accounting order delineating how the acquisition incentive will be treated.
- b. Financial statements of the acquirer as of the most recent fiscal year end.
- c. Disclosure of transaction as either an asset purchase and Certificate of Convenience and Necessity transfer, or stock purchase.
- d. A copy of the purchase agreement/sale document including the proposed purchase price.
- e. A detailed explanation and supporting evidence to demonstrate how the acquisition meets the six conditions to be eligible for recovery of an acquisition adjustment in rates.
- f. A list and explanation of current known deficiencies of the system to be acquired as well as the acquirer's proposed solutions to remedy the deficiencies, along with the costs, and timeframe for implementing the solutions.
- g. Reconstruction Cost New (RCN) for the small water utility to be acquired or adequate information for an RCN study to be performed.

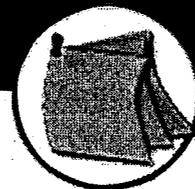
- h. A detailed calculation of the proposed acquisition adjustment requested to be eligible for recovery in rates, a proposal for its method of recovery, and a calculation of its effect on rates.

Upon submission of the application, Staff will analyze the documentation to determine whether the acquisition meets the six conditions identified in Decision No. 62993, by:

1. Analyzing the company's financial information to determine that it is a Class D or E water utility.
2. Assessing the acquiring entity's financial resources to determine if sufficient financial resources are available to acquire a small water utility without jeopardizing the acquirer's good financial standing.
3. Evaluating the acquirer's proposed actions to assess whether customers of the acquired small water utility will receive improved service within a reasonable timeframe.
4. Evaluating the original cost of the existing plant assets on the acquired utility's books, as well as RCN amounts. Staff will then compare those two amounts with the proposed purchase price to determine if the purchase price is fair and reasonable; if the purchase price was negotiated, and if the sale will be conducted, through an arms length transaction; and what amount of acquisition adjustment or rate of return premium, if any, will be allowed.
5. Classifying the acquisition incentive as either a regulatory asset (acquisition adjustment) or a rate of return premium, to be recovered over a specific time.
6. Reviewing the documentation provided in response to the five conditions set forth, as well as other potential benefits identified by the acquirer and determine if the acquisition meets the criteria of public interest. Staff will also evaluate whether the acquirer is a "fit and proper" entity to purchase a small water utility.
7. Requesting and analyzing other information/data that Staff and/or the Commission deems necessary for a particular case.

Arizona Corporation Commission

WORKING GROUP REPORTS



Attachment C

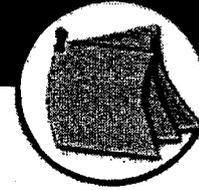
Proposed Policy For Water System Tiered Rate Design

Pricing/rate design is the Commission's primary means of encouraging conservation. The Commission can do this by implementing inverted block rates, i.e., tiered rates. Tiered rates may not be appropriate in all circumstances. Staff will consider the appropriateness of an inverted three-tiered commodity rate structure for all water company rate cases, and if appropriate, will recommend such a tiered rate structure to encourage conservation. The tiers should be designed in a manner that customers who conserve will recognize cost savings, while high water users will pay a greater portion of the costs that increased usage places on the water system. Criteria for evaluating the appropriateness and/or type of tiered rate structure on a case-by-case basis shall include, but not be limited to, the following:

1. Number of service connections on the system.
2. Number of high usage customers on the system.
3. Gallons of average water usage per connection per month.
4. Gallons of median water usage per connection per month.
5. Source of supply.

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Arizona Corporation Commission

WORKING GROUP REPORTS**Attachment D****Proposed Policy for Central Arizona Project (CAP) Cost Recovery**

The consensus of the CAP Working Group is that the Arizona Corporation Commission (Commission) should encourage water companies to retain their Central Arizona Project (CAP) water allocation. The purpose is to allow water companies to accomplish long term planning of their water resource needs for the benefit of their customers. The consensus of the group was that the Commission should accomplish this encouragement as follows:

1. A water company would be allowed to recover CAP costs if it could demonstrate that it needed the CAP allocation to properly serve its customers.
2. The water company must demonstrate that the need would occur by the year 2025.
3. The water company must demonstrate that it will actually be using a reasonable amount of its CAP allocation by 2025.
4. The water company must demonstrate that it will be using all of its CAP allocation by 2034.
5. "Use" will be those methods of using CAP water that are defined as "use" by the Arizona Department of Water Resources.
6. In order to obtain cost recovery, a water company must file a rate case and provide evidence demonstrating items 1 through 4 above.
7. At the time that cost recovery is approved for a water company, cost recovery will depend on how much of company's CAP allocation is actually being used -
 - a. If none of the CAP allocation is actually being used, the company will be allowed to recover dollar for dollar its appropriate CAP expenses, without earning a rate of return. The cost recovery will be split between a charge in the commodity portion of the rate and a CAP Hook-up Fee. The charge in the commodity will be that amount needed to pay the M&I portion of the expense for that amount of CAP water equal to the amount of groundwater actually being used by the current customers. The CAP Hook-up Fee will be calculated as that portion needed to pay the remainder of the M&I charges. This is similar to the method used in the Vail Water Company rate case (Decision No. 62450). If the CAP Hook-up Fee is determined by the Commission to have to be excessive in order to recover all the CAP costs, the remainder should be deferred and collected later as the company grows and adds additional customers and/or the rate of growth increases to allow the collection of additional CAP Hook-up Fees.
 - b. If only a portion of the CAP allotment is being used, cost recovery will be split. For that portion of the CAP allotment not being used, cost recovery will be allowed as explained above (#7a). For that portion of the CAP

- allotment actually being used, cost recovery will be as with any other used and useful item in a rate case, i.e., the plant needed will be included in rate base and earn a rate of return, while the M&I and OM&R expenses for that portion of the CAP allotment will be recovered as any other expense.
- c. When all the CAP allotment is being used, cost recovery will be as described in the second half above (#7b), i.e., just like any other plant and expense item that is used and useful.
 - d. For those water companies that have not obtained a specific accounting order from the Commission that details how CAP costs incurred up to this time would be treated and meet items 1 through 4 above, the actual amount of direct costs incurred (i.e., no rate of return or cost of money) should be recovered in rates by some method determined in a rate case, as long as such an allowance is not somehow improper (e.g., retroactive rate making, contrary to some mandatory accounting/rate making principle, etc.).
8. Within 5 years of obtaining approval for cost recovery of the CAP costs, the water company must submit a detailed engineering plan outlining how the water will be put to use.
 9. If a water company that has obtained cost recovery from the Commission is not using its total CAP allotment by 2034, that portion not being used shall be sold. If a water company has recovered from ratepayers the cost for retaining that portion of the CAP allocation it sells, all net proceeds shall be refunded to ratepayers in a manner to be determined by the Commission at that time. Similarly, if a water company sells all or any portion of its CAP allocation after recovering from ratepayers the cost to retain the portion it sells, all net proceeds shall be refunded to ratepayers.

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SHERYL
L.
HUBBARD

ARIZONA WATER COMPANY



Docket No. W-01445A-04-0650

2004 RATE HEARING EXHIBIT NO. _____

For Test Year Ending 12/31/03

**PREPARED
REBUTTAL TESTIMONY & EXHIBITS
OF
Sheryl L. Hubbard**

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10 **BEFORE THE ARIZONA CORPORATION COMMISSION**

11 IN THE MATTER OF THE APPLICATION)
12 OF ARIZONA WATER COMPANY, AN)
ARIZONA CORPORATION, FOR)
13 ADJUSTMENTS TO ITS RATES AND)
CHARGES FOR UTILITY SERVICE)
14 FURNISHED BY ITS WESTERN GROUP)
AND FOR CERTAIN RELATED)
15 APPROVALS)

DOCKET NO. W-01445A-04-0650

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20 **REBUTTAL TESTIMONY OF**
21 **SHERYL L. HUBBARD**
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1 **ARIZONA WATER COMPANY**

2
3 **Rebuttal Testimony of**

4 **Sheryl L. Hubbard**

5
6 **I. INTRODUCTION AND PURPOSE OF TESTIMONY**

7 **Q. PLEASE STATE YOUR NAME, EMPLOYER AND OCCUPATION.**

8 **A.** My name is Sheryl L. Hubbard. I am employed by Arizona Water Company (the
9 "Company") as Manager of Rates and Regulatory Accounting.

10 **Q. ARE YOU THE SAME SHERYL L. HUBBARD THAT PREVIOUSLY**
11 **SUBMITTED DIRECT TESTIMONY IN THIS MATTER?**

12 **A.** Yes, I am.

13 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS**
14 **PROCEEDING?**

15 **A.** The purpose of my rebuttal testimony is to respond to certain direct testimony
16 submitted by the Arizona Corporation Commission's ("Commission") Utilities
17 Division Staff ("Staff"), the Residential Utility Consumer Office ("RUCO"), and the
18 City of Casa Grande (the "City") in this rate proceeding. Specifically, I will
19 present the Company's rebuttal position with respect to several elements of rate
20 base including accumulated depreciation, working capital allowance, and
21 deferred Central Arizona Project ("CAP") charges. In addition, I will address a
22 number of items related to net operating income such as the revenue
23 annualization, purchased power expenses, amortization of deferred CAP
24 charges, and rate case expenses.

25 **Q. ARE YOU SPONSORING ANY OF THE COMPANY'S REBUTTAL EXHIBITS**
26 **AND SCHEDULES?**

27 **A.** Yes, I am sponsoring the following exhibits, all of which are attached to this
28 testimony:

- 1 Exhibit SLH-R1 Schedule A-1 (Revised)
- 2 Exhibit SLH-R2 Schedule B-2 (Revised)
- 3 Exhibit SLH-R3 Schedule C-1 (Revised)
- 4 Exhibit SLH-R4 Deferred CAP M&I Capital Charges

5 **II. REBUTTAL TO RECOMMENDATIONS AFFECTING RATE BASE**

6 **Q. HAVE YOU REVIEWED THE DIRECT FILINGS OF WITNESSES FOR STAFF,**
7 **RUCO, AND THE CITY IN THIS PROCEEDING?**

8 A. Yes, I have reviewed the direct testimonies of Ronald E. Ludders on behalf of
9 Staff, William A. Rigsby, Timothy J. Coley for RUCO, and Edward F. Harvey for
10 the City.

11 **Q. PLEASE IDENTIFY THE SUBJECTS OF DISAGREEMENT THAT AFFECT**
12 **RATE BASE YOU WILL BE ADDRESSING IN YOUR REBUTTAL**
13 **TESTIMONY.**

14 A. Staff, through its witness Ronald E. Ludders, has proposed adjustments to the
15 Company's Adjusted Rate Base to eliminate the deferred Central Arizona Project
16 ("CAP") Municipal and Industrial ("M&I") capital charges from the Company's rate
17 base and to revise the lead/lag factors associated with Federal and State income
18 taxes used in computing the cash working capital.

19 RUCO, through its witnesses William A. Rigsby and Timothy J. Coley, is
20 proposing adjustments to eliminate the recovery of deferred CAP M&I capital
21 charges, to revise the lead/lag factors for Federal and State income taxes, to
22 eliminate the Company's inclusion of the effect of six months of additional
23 depreciation expense on accumulated depreciation, and to further revise the
24 accumulated depreciation balance to reflect RUCO's recalculation of the
25 elements that impact the accumulated depreciation balance (depreciation
26 expense, leasehold amortization expense, retirements, and cost of
27 removal/salvage).

28

1 **A. Deferred CAP M&I Capital Charges**

2 **Q. DOES THE COMMISSION HAVE A POLICY FOR CAP COST RECOVERY?**

3 **A.** Yes, it does. The Commission directed Staff to develop a detailed statement of
4 policy on CAP cost recovery to conform to the recovery methodologies used in
5 the Vail Water Company rate case. (Decision No. 62993 (November 3, 2000) at
6 10). Pursuant to Decision No. 62993, a statement of policy for CAP cost
7 recovery was developed by Staff and presented to the Commission in June 2001
8 and subsequently posted on the Commission's website (the "CAP Cost Recovery
9 Policy").

10 **Q. HAVE STAFF AND RUCO APPLIED THE CAP COST RECOVERY POLICY IN**
11 **THIS PROCEEDING?**

12 **A.** No, both Staff and RUCO have ignored the CAP Cost Recovery Policy. Instead,
13 they have relied primarily on Commission decisions issued prior to the adoption
14 of the CAP Cost Recovery Policy and recommended disallowance of all deferred
15 and current CAP M&I capital charges based on those earlier decisions which
16 predate the CAP Cost Recovery Policy.

17 **Q. DID THE COMPANY DISCUSS THE CAP COST RECOVERY POLICY IN ITS**
18 **DIRECT FILING?**

19 **A.** Yes. Each of the criteria numbered 1 through 4 from the CAP Cost Recovery
20 Policy were identified and the Company's plans for using CAP water in the
21 Company's Casa Grande, White Tank and Coolidge systems were set forth in
22 my direct testimony. The background leading to the development of the CAP
23 Cost Recovery Policy is discussed in Mr. Garfield's rebuttal testimony. For
24 further reference, a copy of the CAP Cost Recovery Policy is attached to Mr.
25 Garfield's rebuttal testimony in Exhibit WMG-R2. I will not repeat that
26 background.

27 **Q. PLEASE DISCUSS AGAIN THE FOUR CRITERIA FROM THE CAP COST**
28 **RECOVERY POLICY.**

1 A. A summary of the four criteria and the Company's proposed means of
2 compliance are set forth below.

3 1) CAP Allocation Is Needed to Properly Serve Customers.

4 As Mr. Garfield explains in his rebuttal testimony, use of the CAP
5 allocation to provide non-potable water reduces the Company's demand for
6 groundwater (as required by the Groundwater Code), while still providing the
7 required level of water service to the Company's customers. In addition, CAP
8 water is needed to ensure an adequate long-term water supply. Planning for a
9 regional CAP water treatment plant to provide potable water service in the
10 Company's Casa Grande and Coolidge systems has been underway for several
11 years, as more fully discussed in the rebuttal testimony of Mr. Whitehead.

12 In the White Tank system, customers have increased 106 percent (from
13 617 to 1270) since the Company's last rate case. To accommodate this growth
14 in water demand, the Company is in the process of contracting for the treatment
15 of its CAP allocation to provide potable water to customers in the White Tank
16 system, as further detailed in the rebuttal testimony of Mr. Garfield.

17 In the Coolidge system, the Company is presently proceeding with
18 preliminary engineering design work and right-of-way acquisition and permitting
19 for a CAP water treatment plant for use by the Coolidge and Casa Grande
20 systems, as well as other future interconnected systems. These engineering and
21 permitting efforts are discussed in more detail in the rebuttal testimony of Mr.
22 Whitehead. Finally, the Company is already making non-potable CAP water
23 available to serve golf courses and industrial customers under its NP-260 tariff,
24 thereby reducing groundwater pumping and preserving groundwater supplies.

25 2) CAP Allocation Is Needed By 2025.

26 In Casa Grande, a significant portion of the CAP allocation is currently
27 being used (approximately 2,300 acre feet of the Company's allocation was used
28 for non-potable purposes during 2004). The Company anticipates continued

1 increases in non-potable CAP water usage in Casa Grande and upon completion
2 of a treatment plant, CAP water will also be used for potable purposes.
3 Accordingly, the Company expects that the full CAP allocation will be needed at
4 the time a CAP water treatment plant is completed, currently anticipated by 2012,
5 many years before the deadline in the CAP Cost Recovery Policy.

6 In White Tank, the CAP allocation will be used to reduce the Company's
7 dependence on groundwater and meet increasing water system demands.
8 Although the CAP allocation is currently needed, a CAP water treatment plant is
9 not presently available. Upon completion of a joint CAP water treatment plant
10 with Arizona-American Water Company ("AAWC"), this condition will be satisfied.
11 A status update of the pending negotiations with AAWC is provided in the
12 rebuttal testimony of Mr. Garfield. In addition to this potable use of treated CAP
13 water, the Company expects demand for non-potable CAP water in the White
14 Tank system to develop as non-potable uses and needs for such water develop
15 similar to customers currently using non-potable CAP water in other Company
16 systems.

17 In Coolidge, as in White Tank, the CAP allocation will be used to reduce
18 the Company's dependence on groundwater and to meet increasing demand.
19 The Company is currently proceeding with preliminary engineering and right-of-
20 way acquisitions and permitting for a CAP water treatment plant to provide
21 treated CAP water to customers of the Casa Grande and Coolidge water
22 systems as well as other systems interconnected with such systems. As Mr.
23 Whitehead indicates in his rebuttal testimony, land has been purchased for the
24 CAP water treatment plant. As stated earlier, the current timetable for
25 completion of a Casa Grande CAP water treatment plant is 2012, but demand for
26 non-potable CAP water is expected to increase from current levels in both
27 Coolidge and Casa Grande.
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3) Reasonable Amount of the CAP Allocation Will Be Used by 2025.

The Company intends to reduce its reliance on groundwater by encouraging customers to use non-potable supplies where possible, constructing a regional CAP water treatment plant, and participating in a joint CAP water treatment plant with AAWC to enable CAP potable use. The Company's present goal and current plans for using the CAP allocations for Casa Grande, White Tank, and Coolidge satisfy the criteria that a reasonable amount of the CAP allocation will be used by 2025.

4) All of CAP Allocation Used by 2034.

The Company is in the process of developing capabilities for CAP water treatment plants to fully utilize its CAP allocations for Casa Grande, White Tank, and Coolidge—by 2008 in White Tank and by 2012 for Casa Grande and Coolidge—well before 2034. Consistent with the Company's current goals and operating expectations, the Commission's criteria as set forth in the CAP Cost Recovery Policy that all of a company's CAP allocation be used by 2034 will also be satisfied. The Company's primary concern is to ensure that the use of the CAP allocations provide direct benefits to our customers at the most reasonable cost.

Q. DO STAFF AND RUCO EXPLAIN THE BASES FOR THEIR RECOMMENDATIONS THAT THE COMMISSION DISALLOW RECOVERY OF THE DEFERRED CAP M&I CAPITAL CHARGES IN THE CASA GRANDE, WHITE TANK AND COOLIDGE SYSTEMS?

A. Staff and RUCO provide differing rationales for removing the deferred CAP M&I capital charges from rate base, although the reasoning of both parties is vague at best. See Ludders Dt. at 12-14; Rigsby Dt. at 16-21. Neither identifies any concern with the Company's plans as set forth in my direct testimony, nor did they compare their positions to the CAP Cost Recovery Policy.

1 Q. HOW DOES THE COMPANY RESPOND TO STAFF'S AND RUCO'S
2 RECOMMENDATIONS?

3 A. To begin with, while Staff and RUCO offer different explanations for their
4 positions, the result is the same—they seek to deny the Company recovery of
5 expenditures that were made to ensure a long-term availability of reliable water
6 supplies for its customers. This is particularly disturbing at this time when water
7 availability is a high priority on the agendas of many state agencies, including the
8 Governor's Office. The bottom line is that the positions being advocated by Staff
9 and RUCO are contrary to the CAP Cost Recovery Policy and conflict with the
10 statewide water policies given to water providers in the State of Arizona over the
11 last four years.

12 In addition, recovery of the deferred CAP M&I capital charges through
13 rates would promote the Company's financial health at a time when it is facing
14 substantial demand for capital resources, for instance, to fund arsenic treatment
15 facilities. Given that the Company can only recover a portion of the revenues
16 required to fund such activities under the current regulatory regime, the additional
17 burden of denied CAP cost recovery will threaten the Company's financial health.

18 Q. ON PAGE 12 OF HIS DIRECT TESTIMONY, STAFF WITNESS LUDDERS
19 STATES THAT "BEFORE RATE PAYERS ARE CHARGED WITH AN
20 EXPENSE IT MUST BE IN SERVICE AND USED AND USEFUL". HAS STAFF
21 APPLIED THIS CRITERIA IN ALL CAP COST RECOVERY PROCEEDINGS?

22 A. Yes, but with a great deal of latitude on the definition of "used and useful". For
23 example, in Decision No. 62293 (February 1, 2000) concerning the Sun City
24 Water Company and Sun City West Utilities Company (now operational districts
25 of AAWC), the "used and useful" criteria was satisfied by identifying a recharge
26 facility that would be available in the near future to receive the Sun City CAP
27 allocation. The recharge facility, which belongs to the Maricopa Water District
28 ("MWD"), was not located in the Sun City service territory and as such did not

1 provide a direct benefit to the ratepayers. Nevertheless, the deferred CAP M&I
2 capital charges were amortized over the period that the charges had
3 accumulated, five years, with a partial return on the unrecovered balance.
4 Decision No. 62293 at 8.

5 In Decision No. 62450 (April 14, 2000), pertaining to the application of Vail
6 Water Company for a rate increase, the "used and useful" criteria for CAP cost
7 recovery was satisfied by allowing Vail Water Company to recharge its CAP
8 allocation at a remote location, not contiguous to its service territory. The
9 Commission's decision recognized that the recharge would not benefit Vail's
10 customer base. Decision No. 62450 at 9. Staff, in that case, "believed that it is
11 important for Vail to retain its CAP allocation as long as it is eventually delivered
12 to Vail customers". *Id.* at 9. Since Vail's revenue requirement was based upon a
13 debt service coverage methodology, a return component on the unrecovered
14 deferred CAP M&I capital charges cannot be determined.

15 In Decision No. 63334 (February 2, 2001), pertaining to Agua Fria Water
16 Company (now an operational district of AAWC), the "used and useful" criteria
17 was satisfied by delivering increasing quantities of CAP water annually to the
18 MWD until the full allocation was being either treated or recharged by 2010.
19 Decision No. 63334 at 6 and 8. In that proceeding, the Commission found that
20 Agua Fria's customers would realize a direct benefit of reduced groundwater
21 pumping by MWD and a full return on the unrecovered deferred CAP M&I capital
22 charges was authorized. *Id.* at 3 and 9.

23 In Decision No. 64889 (March 19, 2004), involving the Company's Apache
24 Junction system, the CAP allocation was almost fully used for potable and non-
25 potable purposes and a full return on the unrecovered deferred CAP M&I capital
26 charges was authorized. Decision No. 66849 at 9.

27 **Q. HOW DO THE CASA GRANDE, WHITE TANK AND COOLIDGE PLANS FOR**
28 **USING CAP SATISFY THE USED AND USEFUL CRITERIA?**

1 A. As discussed throughout our rebuttal filing, the Company has specific plans in
2 place for CAP water treatment plants to provide potable CAP water to its
3 customers in the Casa Grande, White Tank and Coolidge systems in the near
4 future. In addition, the CAP allocation has been used to our customers' benefit in
5 assisting the creation of developments, as discussed by Mr. Garfield. Non-
6 potable CAP water is already being provided to customers in the Casa Grande
7 system, and with the arrival of new developments in the Coolidge and White
8 Tank systems, the demand for non-potable CAP water will increase. Providing
9 non-potable CAP water reduces CAP M&I capital charges and deferred CAP M&I
10 capital charges, which reduces the level of charges to be recovered from the
11 general body of customers.

12 **Q. DOES THE COMPANY HAVE A SPECIFIC RESPONSE TO THE**
13 **RECOMMENDATIONS MADE BY MR. RIGSBY ON BEHALF OF RUCO?**

14 A. Yes. Mr. Rigsby testifies that with the exception of the Casa Grande customers
15 that purchase non-potable CAP water under the Company's NP-260 tariff, the
16 remaining Casa Grande, Coolidge and White Tank ratepayers receive no benefit
17 from those system's CAP allocations, the CAP allocations are by definition non-
18 used and useful in the provision of service. Rigsby Dt. at 18. As discussed in
19 depth in the rebuttal testimony of Mr. Garfield, the Company's customers in Casa
20 Grande, Coolidge, and White Tank have benefited from the Company's retention
21 of its CAP allocation. Also, the CAP Cost Recovery Policy contemplates
22 recovery of deferred and ongoing CAP costs in instances where the CAP
23 allocation is not presently being fully used.

24 **B. Lead/Lag Factor For Federal And State Income Taxes**

25 **Q. HAS THE ISSUE OF THE APPROPRIATE LEAD/LAG FACTOR FOR**
26 **FEDERAL AND STATE INCOME TAXES FOR THE COMPANY BEEN**
27 **ADDRESSED BY THE COMMISSION IN A PREVIOUS PROCEEDING?**

28

1 A. Yes. In the Company's Eastern Group rate proceeding (Decision No. 66849
2 (March 19, 2004) at 9), the Commission discussed the calculation of the federal
3 income tax lag days and adopted the Company's calculation of 2.52 lag days for
4 federal income taxes and 27.05 for state income taxes.

5 **Q. HAS THERE BEEN ANY CHANGE IN THE PAYMENT OF OR THE**
6 **RECORDING OF THE EXPENSE ASSOCIATED WITH FEDERAL OR STATE**
7 **INCOME TAX LIABILITY SINCE THE ISSUANCE OF THE DECISIONS**
8 **REFERRED TO ABOVE THAT WOULD WARRANT A CHANGE IN THE**
9 **CALCULATION OF THE LAG FACTOR?**

10 A. No, there have not been any changes that would warrant a change in the
11 calculation of the federal or state income tax factor.

12 **Q. WHY IS STAFF RECOMMENDING A LEAD/LAG FACTOR FOR FEDERAL**
13 **AND STATE INCOME TAXES OF 37 DAYS?**

14 A. Because their analysis is fundamentally flawed. On page 7 of his direct
15 testimony, Staff witness Ludders states that 37 days is more reflective of when
16 the taxes are due, rather than when the Company actually pays its taxes. Upon
17 closer analysis of Mr. Ludders' work papers, it is evident that Staff's calculation of
18 the 37-day lag factor for Federal and State income taxes is based upon the
19 mistaken assumption that the service period for the tax liability paid quarterly is
20 the twelve months of the tax year. Ludders Dt. at 6-7. Accordingly, Staff's
21 analysis uses a mid-point for the service period of July 1st. Conversely, the
22 Company uses a service period that reflects the period that gives rise to the tax
23 liability, the months in which the revenues are earned. The quarterly tax
24 payment is related to the income earned monthly during the respective quarters.
25 Therefore, the service period is more appropriately the mid-point of the month,
26 which translates into the lag factors of 2.52 for Federal income taxes and 27.05
27 for State income taxes, as the Commission previously recognized in our Northern
28 and Eastern Group cases.

1 Q. ARE RUCO'S RECOMMENDED LAG FACTORS FOR FEDERAL AND STATE
2 INCOME TAXES THE SAME AS RUCO OFFERED IN THE NORTHERN AND
3 EASTERN GROUP RATE PROCEEDINGS?

4 A. Yes, RUCO continues to offer the same recommendation for Federal and State
5 income tax lag days of 61.95 and 99.80, respectively, (Coley Dt. at 14), even
6 though the Commission rejected RUCO's arguments in our Northern and Eastern
7 Group cases. See Decision No. 64282 (December 28, 2001) at 6 and Decision
8 No. 66849 (March 19, 2004) at 9.

9 Q. WHAT IS THE EFFECT OF USING THE 2.52 LAG DAYS FOR FEDERAL
10 INCOME TAXES AND 27.05 LAG DAYS FOR STATE INCOME TAX
11 PURPOSES ON STAFF'S CALCULATION OF THE CASH WORKING
12 CAPITAL?

13 A. If the 2.52 lag days for Federal income taxes and the 27.05 lag days for State
14 income taxes are reflected in the Staff's cash working capital calculations, the
15 amounts in Staff's direct testimony for working capital would be revised to the
16 amounts shown below by system:

	Staff's Direct Testimony	Revised Amount
17		
18	Casa Grande (\$ 43,550)	\$12,599
19	Stanfield (6,891)	(6,671)
20	White Tank (649)	5,846
21	Ajo (14,288)	(11,716)
22	Coolidge (26,267)	(12,812)

23

24 C. Ruco's Adjustments To Accumulated Depreciation

25 Q. HAVE YOU REVIEWED RUCO'S ADJUSTMENTS TO ACCUMULATED
26 DEPRECIATION FOR THE TEST YEAR?

27 A. Yes, I have.

28

1 Q. HOW DOES THE COMPANY RESPOND TO THESE ADJUSTMENTS?

2 A. RUCO proposes to eliminate the adjustment to the accumulated depreciation
3 balance that the Company made to annualize the depreciation expense on the
4 year-end plant in service. Rigsby Dt. at 11-13; Coley Dt. at 9-10. The
5 Commission, in each of the last two rate case filings that the Company has
6 made, adopted the Staff's pro forma adjustments, which included a depreciation
7 expense annualization adjustment to reflect a full year's depreciation on all plant,
8 except the post test year plant additions, which were annualized using the half-
9 year convention. See *Decision* No. 64282 at 6; *Decision* No. 66849 at 6. RUCO
10 argues that it is appropriate to increase the depreciation expense to annualize
11 the expense on year-end plant, but that no adjustment to the accumulated
12 depreciation balance is necessary. Based on my experience, the Commission
13 has consistently adopted this adjustment and as such, the Company has
14 adjusted the accumulated depreciation balance and the Staff has accepted it in
15 this case, consistent with our last two rate filings (Northern Group rate case and
16 the Eastern Group rate case).

17 Another adjustment that RUCO proposes to the accumulated depreciation
18 balance results from its recalculation of the annual depreciation expense from the
19 Company's last rate case using a 1990 test year. Rigsby Dt. at 11-12; Coley Dt.
20 at 9-10. RUCO ignored the fact that the accumulated depreciation balance is
21 impacted by more than just the annual depreciation expense and plant
22 retirements. The Company was authorized by the Commission to record a
23 reserve deficiency adjustment to its accumulated depreciation accounts for all of
24 its Western Group systems for all of the years included in RUCO's recalculation
25 efforts. *Decision* No. 38733 (December 2, 1966) at 1.

26 Cost of removal/salvage has been ignored by RUCO as well in calculating
27 their proposed adjustment to the Accumulated Depreciation balances of the
28 Western Group systems. RUCO has failed to include the reserve deficiency

1 adjustment and the adjustments for cost of removal/salvage in its recalculations
2 resulting in an erroneous adjustment to the Company's test year Accumulated
3 Depreciation balance.

4 For Company systems that lease office facilities, RUCO used the
5 composite depreciation rate instead of the proper leasehold amortization rate.
6 See Rate Base adjustment #1-Accumulated Depreciation-Plant for each system's
7 schedules; see also RUCO Exhibit WAR-4; Exhibit TJC-4. In addition, RUCO
8 has erroneously, on at least two occasions, adjusted the accumulated
9 depreciation balance by the retirement of non-depreciable plant. *Id.* Accordingly,
10 no adjustment is necessary to the accumulated depreciation balance because
11 the adjustment proposed by RUCO arises only because of errors in RUCO's
12 calculations.

13 **III. REBUTTAL OF RECOMMENDATIONS AFFECTING INCOME STATEMENT**

14 **Q. PLEASE IDENTIFY THE SUBJECTS OF DISAGREEMENT THAT AFFECT**
15 **THE CALCULATION OF THE ADJUSTED NET OPERATING INCOME, WHICH**
16 **WILL BE ADDRESSED IN YOUR REBUTTAL TESTIMONY.**

17 **A.** The Company disagrees with Staff's recommendations to adjust purchased water
18 expense to eliminate the recovery of CAP M&I capital charges that were included
19 in the Company's pro forma adjustments, to adjust the purchased power expense
20 to eliminate the Company's pro forma adjustment to annualize purchased power
21 costs, and to revise the level of rate case expense which the Company will be
22 authorized to recover.

23 The Company disagrees with RUCO's annualization of revenues and
24 certain operating expenses, RUCO's recommendation to disallow the recovery of
25 deferred and ongoing CAP M&I capital charges, and RUCO's calculation of
26 property taxes.

27

28

1 **A. CAP M&I Capital Charges**

2 **Q. PLEASE DISCUSS THE CAP M&I CAPITAL CHARGES THAT ARE**
3 **REFLECTED IN THE CALCULATION OF THE ADJUSTED NET OPERATING**
4 **INCOME FOR THE TEST YEAR IN THIS PROCEEDING.**

5 **A. CAP M&I capital charges that have been included in the test year adjusted net**
6 **operating income consist of 1) the ongoing CAP M&I capital charges reflected as**
7 **a pro forma adjustment to purchased water expense; and 2) the amortization of**
8 **deferred CAP M&I capital charges reflected as a pro forma adjustment to the test**
9 **year Depreciation and Amortization Expense in accordance with the CAP Cost**
10 **Recovery Policy.**

11 The ongoing CAP M&I capital charges were computed at the current rate
12 of \$28 per acre-foot (effective January 1, 2005) for each system's CAP allocation
13 (Casa Grande (8,884 acre feet ("A.F.")), White Tank (968 A.F.), and Coolidge
14 (2,000 A.F.)). For Casa Grande, 2,279 A.F. (26%) of the CAP allocation is being
15 used and accordingly, only the net incremental CAP M&I capital charges of
16 \$133,483 require Commission approval in this proceeding. The net incremental
17 amount of \$133,483 was computed by calculating the CAP M&I capital charges
18 at \$28 per A.F. on the entire Casa Grande allocation (8,884 A.F. X \$28 =
19 \$248,752) and deducting the CAP M&I capital charges reflected in the test year
20 expenses for non-potable sales of \$115,269.

21 The Company's pro forma adjustment to purchased water expense
22 includes another adjustment for Casa Grande of \$29,627 to annualize the
23 increase in CAP delivery rates from \$74 per A.F. during the test year to \$79 per
24 A.F. as of January 1, 2005.

25 In addition to the current and ongoing CAP M&I capital charges described
26 above, the Company's request in this proceeding seeks authorization to amortize
27 the deferred CAP M&I capital charges accumulated as of the end of the test year
28 (December 31, 2003) over a ten-year period. These charges appear as a pro

1 forma adjustment to the test year Depreciation and Amortization Expense. The
2 deferred CAP M&I capital charges that the Company is seeking authorization to
3 amortize are \$3,525,803 for Casa Grande, which is net of \$989,314 from non-
4 potable sales; \$506,268 for White Tank; and \$1,046,011 for Coolidge. This
5 results in amortization expense of \$352,580 for Casa Grande, \$50,627 for White
6 Tank, and \$104,601 for Coolidge.

7 **Q. DO YOU AGREE WITH THE DISALLOWANCE OF DEFERRED AND**
8 **ONGOING CAP M&I CAPITAL CHARGES PROPOSED BY BOTH STAFF AND**
9 **RUCO?**

10 **A.** No, Staff and RUCO have again ignored the CAP Cost Recovery Policy, which
11 contemplates cost recovery upon providing evidence demonstrating compliance
12 with the four conditions discussed earlier in this testimony. See Garfield Rebuttal
13 Exhibit WMG-R2. The CAP Cost Recovery Policy is very clear about the level of
14 cost recovery that will be allowed upon demonstration of compliance with
15 conditions 1 through 4 of the CAP Cost Recovery Policy. The CAP Cost
16 Recovery Policy is designed to protect both the Company's investment in
17 retaining a long-term water supply and the ratepayers' interest by holding the
18 Company financially responsible for actually using the full CAP allocation by
19 2034, and by submitting a CAP use plan within 5 years.

20 **Q. WHAT PERCENTAGE OF EACH SYSTEM'S CAP ALLOCATION IS**
21 **PRESENTLY BEING USED?**

22 **A.** For Casa Grande, 26% (2,279 A.F. / 8,884 A.F.) is presently being used to
23 provide service to customers under the Company's non-potable tariff. For White
24 Tank and Coolidge, the CAP allocations are not currently being used, but are
25 available for use today as customers request service of non-potable water, and
26 will be used for potable purposes by 2008 for White Tank and by 2012 for
27 Coolidge and Casa Grande, as discussed in Mr. Garfield's and Mr. Whitehead's
28 rebuttal testimony.

1 Q. IF THE COMMISSION WERE TO STRICTLY APPLY ITS CAP COST
2 RECOVERY POLICY, WHAT LEVEL OF RECOVERY WOULD THE COMPANY
3 RECEIVE?

4 A. The CAP Cost Recovery Policy provides, at a minimum, that the Company
5 should be authorized to include 26% of its deferred CAP M&I capital charges in
6 Casa Grande's rate base and earn a return on that portion of its investment with
7 a 10-year amortization to expense. See Garfield Rebuttal at Exhibit WMG-R2.
8 In addition, ongoing CAP M&I capital charges and the balance of deferred CAP
9 M&I capital charges would be fully recovered in commodity charges, however
10 without a rate of return. *Id.*

11 For the Company's White Tank system, until the Company is actually
12 using all or some of its CAP allocation, the deferred CAP M&I capital charges
13 would be recoverable over a 10-year period, as well as ongoing CAP M&I capital
14 charges, but the deferred CAP balance would not be included in rate base until
15 the Company is actually using some or all of its CAP allocation.

16 For the Coolidge system, the deferred CAP M&I capital charges would be
17 recoverable over a 10-year period, as well as ongoing CAP M&I capital charges,
18 but the deferred CAP balance would not be included in rate base until the
19 Company is actually using some or all of its CAP allocation.

20 Q. HAVE YOU COMPUTED THE REVENUE REQUIREMENTS ASSOCIATED
21 WITH THE CAP COST RECOVERY THAT WOULD BE AFFORDED UNDER
22 THE CAP COST RECOVERY POLICY?

23 A. Yes. Exhibit SLH-R1, entitled "Schedule A-1 Revised" summarizes the revenue
24 requirement calculations needed to apply the CAP Cost Recovery Policy.

25 Q. WOULD YOU PLEASE EXPLAIN EXHIBIT SLH-R1 IN GREATER DETAIL?

26 A. Yes. On this exhibit, the Company's direct case presentation is shown in
27 Columns 1 and 2. Column 1 reflects the Company's case as filed, while Column
28 2 restates the Company's initial application to eliminate all CAP-related revenue

1 and expense items (Revenue from NP-260 tariff for CAP M&I capital charges,
2 CAP M&I capital charges, CAP delivery charges and amortization of deferred
3 CAP M&I capital charges) and rate base elements (deferred CAP M&I capital
4 charges) to provide a starting point for applying the CAP Cost Recovery Policy.

5 **Q. WOULD YOU PLEASE CONTINUE WITH YOUR DISCUSSION OF EXHIBIT**
6 **SLH-R1?**

7 A. Column 3 of Exhibit SLH-R1 sets forth the calculation of the revenue requirement
8 associated with the CAP allocations actually used during the test year.

9 Column 4 of the same exhibit details the calculation of the revenue
10 requirement applicable to the unused CAP allocation applying the CAP Cost
11 Recovery Policy guidelines.

12 Column 5 of Exhibit SLH-R1 sets forth the Company's revenue
13 requirement that results from the application of the CAP Cost Recovery Policy
14 which consists of 1) Column 2, the Company's direct case excluding CAP, 2)
15 Column 3, (applicable only to the Casa Grande system) the used portion of the
16 CAP allocation including a return on 25.65% of the deferred CAP M&I capital
17 charges and 3) Column 4, the unused portion of the CAP allocation without a
18 return on 74.35% of the deferred CAP M&I capital charges (for Casa Grande)
19 and 100% of the deferred CAP M&I capital charges for the White Tank and
20 Coolidge systems.

21 **Q. HAVE YOU PROVIDED SUPPORTING EXHIBITS FOR THE RATE BASE AND**
22 **ADJUSTED NET OPERATING INCOME COMPONENTS OF THE SCHEDULE**
23 **A-1 REVISED REVENUE REQUIREMENT CALCULATION?**

24 A. Yes, I have. Exhibit SLH-R2 is a revised Schedule B-2 setting forth the
25 calculation of the Company's revised Rate Base and Exhibit SLH-R3 is a revised
26 Schedule C-1 detailing the derivation of the revised Adjusted Net Operating
27 Income.
28

1 Q. PLEASE EXPLAIN EXHIBIT SLH-2R IN GREATER DETAIL.

2 A. Exhibit SLH-R2 provides the same level of detail for rate base as is presented in
3 Exhibit SLH-R1 for revenue requirement, i.e., the Company's direct case is
4 shown with and without the balance of deferred CAP M&I capital charges in rate
5 base, and rate base in which the balance of deferred CAP M&I capital charges
6 has been allocated between used and unused portions of the CAP allocation.
7 Since the CAP Cost Recovery Policy does not contemplate inclusion in rate base
8 of the unused portion of the deferred CAP M&I capital charges, that amount is
9 not carried over to Exhibit SLH-R1 to determine the unused portion's revenue
10 requirement.

11 Q. PLEASE DESCRIBE EXHIBIT SLH-R3 IN GREATER DETAIL.

12 A. Exhibit SLH-R3 sets forth the calculation of the Adjusted Net Operating Income
13 with the same level of detail as has been provided for Exhibits SLH-R1 and SLH-
14 R2 for revenue requirement and rate base, respectively. In other words, the
15 Company's direct case is shown with and without purchased CAP water delivery
16 charges and CAP M&I capital charges applicable to non-potable sales and the
17 amortization of the deferred CAP M&I capital charges and the Adjusted Net
18 Operating Income has been computed allocating applicable revenue and
19 expense items on the basis of used versus unused CAP allocations. The CAP
20 Cost Recovery Policy specifically contemplates recovery of the ongoing CAP M&I
21 capital charges and an amortization of the deferred CAP M&I capital charges
22 which have been reflected in this exhibit. For Casa Grande, the figures
23 pertaining to the used portion of the CAP allocation include the current rates for
24 delivery charges applicable to the CAP water used during the test year and the
25 level of CAP M&I capital charges billed under the NP-260 tariff during the test
26 year.

27 Q. HAVE YOU DEVELOPED RATE DESIGN PROPOSALS RELATED TO THE
28 CAP COST RECOVERY IN CONJUNCTION WITH THE REVENUE

1 **REQUIREMENTS COMPUTED ON EXHIBIT SLH-R1 FOR THE USED AND**
2 **UNUSED CAP SCENARIOS?**

3 A. Yes, I have. Exhibit SLH-R4, entitled "Deferred CAP M&I Capital Charges," sets
4 forth two rate design proposals. One proposal is based upon the CAP-related
5 revenue requirements calculated pursuant to the CAP Cost Recovery Policy.
6 The CAP Cost Recovery Policy provides guidance on the rate design, which is
7 reflected as Scenario 1 of the exhibit. Scenario 2 modifies the Commission's
8 guidance on rate design to address the concerns expressed by the City and also
9 general concerns that Staff and RUCO may have regarding recovery from
10 current customers.

11 **Q. WHAT CONCERNS WERE EXPRESSED BY THE CITY REGARDING CAP**
12 **COST RECOVERY RATE DESIGN?**

13 A. As discussed in the rebuttal testimony of Mr. Garfield, the Company does not
14 agree with Mr. Harvey's premise that CAP water is primarily intended to serve
15 future customers. Harvey Dt. at 3. Still, there are a variety of rate design
16 proposals that address fair and equitable allocation of the recovery of CAP costs
17 between current and future customers.

18 **Q. PLEASE DISCUSS SOME OF THE RATE DESIGN PROPOSALS TO WHICH**
19 **YOU REFER.**

20 A. There are several rate design alternatives available to the Commission to allow
21 the Company to recover the CAP costs in just and reasonable rates. For
22 instance, a majority or all CAP costs could be recovered via a commodity rate for
23 current customers, as would result with a direct application of the CAP Cost
24 Recovery Policy. Another option available, in conjunction with a commodity rate,
25 is a one-time fee assessed at the time customers initiate a service request, also
26 referred to as a hook-up fee in the CAP Cost Recovery Policy.

27 **Q. HAVE YOU INCORPORATED THESE ALTERNATIVES IN SCENARIO 2 OF**
28 **EXHIBIT SLH-R1, DEFERRED CAP M&I CAPITAL CHARGES?**

1 A. Yes. Scenario 2 modifies the direct application of the Commission's CAP Cost
2 Recovery Policy to recognize a 60/40 split in the revenue requirement between a
3 commodity rate and hook-up type fees. Because the Company's CAP
4 allocations are not significantly larger than the groundwater demand of the
5 individual systems, a large percentage of the revenue requirement would be
6 recovered through a commodity charge to current customers applying the
7 guidelines in the Commission's CAP Cost Recovery Policy. In fact, in the Casa
8 Grande system, the current groundwater demand exceeds the CAP allocation
9 resulting in 100 percent of the allowable recovery to be collected via a commodity
10 charge pursuant to the Commission's CAP Cost Recovery Policy.

11 **B. Purchased Power Adjustments**

12 **Q. HAVE YOU REVIEWED STAFF'S ADJUSTMENT TO THE COMPANY'S**
13 **ADJUSTED PURCHASED POWER EXPENSE?**

14 A. Yes, I have. The pro forma adjustment that the Company made to its test year
15 purchased power expense was intended to annualize the rates that its power
16 suppliers were charging at the time the rate application was prepared. Staff
17 removed the Company's pro forma adjustment under the misconception that it
18 was somehow tied to the pumping costs related to CAP water.

19 **Q. IS THE COMPANY'S PRO FORMA ADJUSTMENT STILL NECESSARY?**

20 A. Yes. A pro forma adjustment is necessary to reflect the current rates that power
21 suppliers are charging the Company, however, due to the recent rate increase
22 granted to Arizona Public Service ("APS") in Decision No. 67744 (April 7, 2005),
23 the pro forma adjustment that the Company originally calculated may be too low.

24 **Q. WHAT IS THE EFFECT OF THE RATE INCREASES RECENTLY GRANTED**
25 **BY THE COMMISSION TO APS?**

26 A. The Company is in the process of assessing the impact of the rate changes on
27 its test year purchased power expenses. Unfortunately, the new rate design is
28 more complex than the design that was in effect during the test year and

1 additional time is needed to ensure accurate application of the new rates. We
2 anticipate this assessment by the time the Company's rejoinder is filed.

3 **Q. DID RUCO RECOMPUTE THE EFFECT OF THE APS RATE INCREASE ON**
4 **THE COMPANY'S TEST YEAR PURCHASED POWER EXPENSES?**

5 **A.** Yes, partially. RUCO applied the rate increase percentage for the Rate 32 tariff
6 of 3.5% to the Company's purchased power costs. Rigsby Dt. at 27; Coley Dt. at
7 20. However, the Company also takes power pursuant to APS' Rate 221 tariff,
8 and a rate increase was granted under that tariff as well, but RUCO did not
9 discuss the increase in Rate 221 or address the effects that increase would have
10 on the Company's purchased power expense.

11 **C. Revenue And Expense Annualization**

12 **Q. RUCO ALLEGES THAT THE COMPANY'S PRO FORMA ADJUSTMENT TO**
13 **ANNUALIZE REVENUES FAILS TO REFLECT YEAR END CUSTOMER**
14 **LEVELS. HOW DOES THE COMPANY RESPOND TO THIS ALLEGATION?**

15 **A.** RUCO's allegations are merely a means to distort the basis of its adjustment to
16 annualize revenues. Upon closer examination of RUCO's work papers, it
17 becomes evident that the average revenue per customer is incorrectly based
18 upon *all* customer classes rather than the average revenue per residential
19 customer, which, as I testified in my direct testimony (at 25-26), constitutes 96%
20 of the growth in customers in the Western Group. I also testified in my direct
21 testimony (at 25) about the pro forma adjustment to Annualize Additional
22 Customer Revenue and Expenses:

23 Adjustment 5 – Annualize Additional Customer Revenue and
24 Expenses is a pro forma adjustment that adjusts revenues and
25 expenses to recognize the number of customers served by the
26 Western Group at the end of the test year: 20,266 customers.
27 During the test year, the Western Group served an average of
28 19,596 customers, a difference of 670 customers. If the additional
670 customers being served at the end of the test year had taken
service for the full year, revenues would have been approximately
\$220,504 higher and expenses would have been \$104,675 higher
for the Western Group. (Emphasis added).

1 Clearly, the Company's presentation recognizes the year-end level of
2 20,266 customers. Also, the work papers provided to RUCO demonstrate that
3 the increase in customers to be annualized is based upon the 20,266 customers
4 that were served at December 31, 2003. The adjustment proposed by RUCO
5 lacks merit, mischaracterizes the Company's filing, and should be disregarded in
6 this proceeding.

7 **Q. HAS THE ISSUE OF AVERAGE REVENUE PER CUSTOMER USING ALL**
8 **CUSTOMER CLASSES VERSUS JUST THE RESIDENTIAL CLASS BEEN AN**
9 **ISSUE IN OTHER COMPANY PROCEEDINGS?**

10 **A.** Yes, the same issue arose in the Eastern Group rate case. The Commission
11 held that a revenue annualization that averages revenue increases to all
12 customer classes results in an *overstatement* of revenue because it does not
13 recognize that the vast majority of growth occurred in the 5/8-inch residential
14 class. Decision 66849 at 12. Unfortunately, RUCO has used the same
15 disapproved approach in this case. See Coley Dt. at 16-20 and Schedule TJC-
16 11; Rigsby Dt. at 27 and Schedule WAR-11.

17 **Q. RUCO PERFORMED A REGRESSION ANALYSIS IN THE NORTHERN**
18 **GROUP RATE CASE TO ASSESS THE DEGREE OF CORRELATION**
19 **BETWEEN NUMBER OF CUSTOMERS AND THE ANNUAL CHANGE IN**
20 **EACH EXPENSE. WHAT IS THE COMPANY'S POSITION ON THIS**
21 **ANALYSIS AND THE RESULTS ACHIEVED?**

22 **A.** Based upon the discussion of the regression analysis in the direct testimony of
23 Timothy J. Coley, which is scant at best, and the responses to the Company's
24 data requests regarding how the study was performed, the Company believes
25 that the results cannot be applied to the Western Group systems' expenses.
26 RUCO's regression analysis is theoretically questionable, outdated and lends
27 itself to many questions. The work papers in support of RUCO's regression
28 analysis provided in response to a data request excluded transmission and

1 distribution expenses entirely. The water treatment expenses used only reflected
2 operation expenses and excluded the water treatment maintenance expenses.
3 Any correlation or lack thereof is based on erroneous data.

4 The Company's expense annualization based upon costs per customer
5 statistics was limited to transmission, distribution expenses and customer
6 accounts expense. Statistics representing average operation and maintenance
7 costs per customer or per gallon are accepted within the industry to evaluate a
8 company's operating efficiency as compared to others in the same industry. The
9 cost categories that the Company has increased in its expense annualization
10 adjustment are all operations and maintenance costs. Source of supply,
11 pumping, and water treatment have been computed on a cost per gallon basis
12 while transmission, distribution and customer accounts have been computed
13 using unit costs per customer. The Company is not convinced by RUCO's
14 questionable and highly suspect regression analysis that transmission,
15 distribution and customer accounts expenses will remain constant as a result of
16 providing water to additional customers. It seems obvious that as new customers
17 are added there will be additional meter installations, maintenance, meter
18 readings, and customer billing and collection activity. Accordingly, the Company
19 recommends that the Commission reject RUCO's adjustment to eliminate the
20 Company's expense annualization amounts.

21 **D. Property Taxes**

22 **Q. RUCO ASSERTS THAT THE COMPANY'S PROPERTY TAX EXPENSE**
23 **METHODOLOGY OVERSTATES THE FULL CASH VALUE ("FCV"), WHICH**
24 **WILL LIKELY ALLOW THE COMPANY TO OVER-EARN. HOW DOES THE**
25 **COMPANY RESPOND?**

26 **A.** This is another issue that was raised in our previous rate cases, and the
27 Commission ruled against RUCO. *See e.g., Decision No. 64282 at 12-13.*
28 RUCO has repeatedly advanced the same methodology and it has consistently

1 been rejected by the Commission. See e.g., *id.*; *Rio Rico Utilities, Inc.* Decision
2 No. 67279 (October 5, 2004) at 8. *Bella Vista Water Company*, Decision No.
3 65350 (November 1, 2002) at 15-16; *Far West Water Company*, Decision No.
4 62649 (June 13, 2000) at 8.

5 **Q. WHAT IS WRONG WITH RUCO'S PROPOSED METHODOLOGY?**

6 A. The 2001, 2002, and 2003 revenues form the basis of the property taxes that the
7 Company will pay beginning in October of this year. Already, the 2004 revenues
8 are known and we are halfway through 2005. New rates will become effective in
9 late 2005, and will remain in effect through 2007. With these revenue increases,
10 the Company's property taxes will increase further. This increase in operating
11 expenses is known and measurable, yet RUCO gives no consideration to these
12 increased revenues and the known impact on property taxes. Actually, all RUCO
13 has done is use the Arizona Department Of Revenue formula to recalculate the
14 Company's 2004 tax bill.

15 **E. Rate Case Expense**

16 **Q. DOES THE COMPANY AGREE WITH STAFF'S RECOMMENDATION**
17 **REGARDING THE LEVEL AND ALLOCATION OF RATE CASE EXPENSE**
18 **FOR THE WESTERN GROUP SYSTEMS?**

19 A. No. The Staff has recommended rate case expenses of \$225,000 or \$45,000
20 per system. Initially, the Company interpreted the Staff's position as charging
21 \$45,000 of rate case expense to each system for the three-year amortization
22 period, but upon closer examination, the total expense has been allocated using
23 the three-factor methodology. Rather than recommending a fixed rate case
24 expense before the majority of the expenditures are known, as Staff is proposing,
25 a more fair and equitable method of determining the total rate case expense for
26 this proceeding as in previous Arizona Water cases would be to allow the
27 Company to provide an actual level of rate case expenses incurred through the
28 hearing and initial briefing stage at the time of filing reply briefs. This procedure,

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used in both the Northern Group and Eastern Group rate proceedings, results in a more accurate level of rate case expense without an arbitrary expense allowance as Staff's number reflects.

Q. DOES THAT COMPLETE YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes, it does. I do wish to note, however, that my silence on any issue raised or recommended by any party to this proceeding should not be construed as the Company's acceptance of that issue or recommendation.

EXHIBITS

**SCHEDULE A-1 Revised
COMPUTATION OF INCREASE IN
GROSS REVENUE REQUIREMENTS
TEST YEAR 2003 WESTERN GROUP**

Line No.	Description	Source	Direct Case		Revenue Requirement of Used Portion of CAP (3)	Rebuttal Revenue Requirement of Unused Portion of CAP (4)	Total Revenue Requirement (5) (2)+(3)+(4)=(5)
			Arizona Water's Direct Case Presentation (1)	Arizona Water's Direct Case Excluding CAP (2)			
1.	Adjusted Rate Base	Sch B-2 Revised	29,416,615	24,338,533	904,469	0	25,243,002
2.	Adjusted Operating Income	Sch C-1 Revised	1,462,933	2,212,382	(198,905)	(550,544)	1,462,933
3.	Current Rate of Return		4.97%	9.09%	-21.99%	0.00%	5.80%
4.	Required Operating Income		3,088,745	2,555,546	94,969	0	2,650,515
5.	Required Rate of Return		10.50%	10.50%	10.50%	10.50%	10.50%
6.	Operating Income Deficiency		1,625,812	343,163	293,875	550,544	1,187,582
7.	Gross Revenue Conversion Factor		1.63245	1.63245	1.63245	1.63245	1.63245
8.	Increase in Gross Revenue		2,654,056	560,197	479,736	898,735	1,938,668

**SCHEDULE A-1 Revised
COMPUTATION OF INCREASE IN
GROSS REVENUE REQUIREMENTS
TEST YEAR 2003 CASA GRANDE**

Line No.	Description	Source	Direct Case		Revenue Requirement of Used Portion of CAP (3)	Rebuttal Revenue Requirement of Unused Portion of CAP (4)	Total Revenue Requirement (5) (2)+(3)+(4)=(5)
			Arizona Water's Direct Case Presentation (1)	Arizona Water's Direct Case Excluding CAP (2)			
1.	Adjusted Rate Base	Sch B-2 Revised	21,996,652	18,470,849	904,469	0	19,375,318
2.	Adjusted Operating Income	Sch C-1 Revised	1,180,182	1,723,302	(198,905)	(344,214)	1,180,182
3.	Current Rate of Return		5.37%	9.33%	-21.99%	0.00%	6.09%
4.	Required Operating Income		2,309,648	1,939,439	94,969	0	2,034,408
5.	Required Rate of Return		10.50%	10.50%	10.50%	10.50%	10.50%
6.	Operating Income Deficiency		1,129,466	216,138	293,875	344,214	854,226
7.	Gross Revenue Conversion Factor		1.63245	1.63245	1.63245	1.63245	1.63245
8.	Increase in Gross Revenue		1,843,798	352,834	479,736	561,912	1,394,481

**SCHEDULE A-1 Revised
COMPUTATION OF INCREASE IN
GROSS REVENUE REQUIREMENTS
TEST YEAR 2003 STANFIELD**

Line No.	Description	Source	Direct Case		Revenue Requirement of Used Portion of CAP (3)	Rebuttal Revenue Requirement of Unused Portion of CAP (4)	Total Revenue Requirement (5) (2)+(3)+(4)=(5)
			Arizona Water's Direct Case Presentation (1)	Arizona Water's Direct Case Excluding CAP (2)			
1.	Adjusted Rate Base	Sch B-2 Revised	314,131	314,131	0	0	314,131
2.	Adjusted Operating Income	Sch C-1 Revised	25,877	25,877	0	0	25,877
3.	Current Rate of Return		8.24%	8.24%	N.M.	N.M.	8.24%
4.	Required Operating Income		32,984	32,984	0	0	32,984
5.	Required Rate of Return		10.50%	10.50%	10.50%	10.50%	10.50%
6.	Operating Income Deficiency		7,107	7,107	0	0	7,107
7.	Gross Revenue Conversion Factor		1.63245	1.63245	1.63245	1.63245	1.63245
8.	Increase in Gross Revenue		11,601	11,601	0	0	11,601

**SCHEDULE A-1 Revised
COMPUTATION OF INCREASE IN
GROSS REVENUE REQUIREMENTS
TEST YEAR 2003 WHITE TANK**

Line No.	Description	Source	Direct Case		Revenue Requirement of Used Portion of CAP (3)	Rebuttal Revenue Requirement of Unused Portion of CAP (4)	Total Revenue Requirement (2)+(3)+(4)=(5)
			Arizona Water's Direct Case Presentation (1)	Arizona Water's Direct Case Excluding CAP (2)			
1.	Adjusted Rate Base	Sch B-2 Revised	2,441,155	1,934,887	0	0	1,934,887
2.	Adjusted Operating Income	Sch C-1 Revised	121,440	188,734	0	(87,294)	121,440
3.	Current Rate of Return		4.97%	9.75%	N.M.	N.M.	6.28%
4.	Required Operating Income		256,321	203,163	0	0	203,163
5.	Required Rate of Return		10.50%	10.50%	10.50%	10.50%	10.50%
6.	Operating Income Deficiency		134,881	14,429	0	87,294	81,723
7.	Gross Revenue Conversion Factor		1.63245	1.63245	1.63245	1.63245	1.63245
8.	Increase in Gross Revenue		220,187	23,555	0	109,854	133,409

**SCHEDULE A-1 Revised
COMPUTATION OF INCREASE IN
GROSS REVENUE REQUIREMENTS
TEST YEAR 2003 COOLIDGE**

Line No.	Description	Source	Direct Case		Revenue Requirement of Used Portion of CAP (3)	Rebuttal Revenue Requirement of Unused Portion of CAP (4)	Total Revenue Requirement (2)+(3)+(4)=(5)
			Arizona Water's Direct Case Presentation (1)	Arizona Water's Direct Case Excluding CAP (2)			
1.	Adjusted Rate Base	Sch B-2 Revised	3,817,510	2,771,499	0	0	2,771,499
2.	Adjusted Operating Income	Sch C-1 Revised	100,737	239,773	0	(139,036)	100,737
3.	Current Rate of Return		2.64%	8.65%	N.M.	N.M.	3.63%
4.	Required Operating Income		400,839	291,007	0	0	291,007
5.	Required Rate of Return		10.50%	10.50%	10.50%	10.50%	10.50%
6.	Operating Income Deficiency		300,101	51,234	0	139,036	190,270
7.	Gross Revenue Conversion Factor		1.63245	1.63245	1.63245	1.63245	1.63245
8.	Increase in Gross Revenue		489,901	83,637	0	226,970	310,607

SCHEDULE B-2 Revised
PRO FORMA ADJUSTMENTS RATE BASE
TEST YEAR 2003 WESTERN GROUP

Line No.	Description	Direct Case - As Filed			Rebuttal					
		TY 2003 Actual (1)	Pro Forma Adjustments (2)	Adjusted TY 2003 (1)+(2)=(3)	Remove All CAP Charges (4)	2003 TY Excluding All CAP (5)	Used Portion Of CAP (6)	Adjusted TY 2003 Revised-Base (5)+(6)=(7)	Unused Portion Of CAP (8)	Adjusted TY 2003 Revised-Total (5)+(6)+(8)=(9)
1.	Gross Plant in Service	61,953,083	0	61,953,083	0	61,953,083	0	61,953,083	0	61,953,083
2.	Phoenix Office Allocation	1,273,531	0	1,273,531	0	1,273,531	0	1,273,531	0	1,273,531
3.	Meter Shop Allocation	23,651	0	23,651	0	23,651	0	23,651	0	23,651
4.	Total Gross Plant in Service	63,250,265	0	63,250,265	0	63,250,265	0	63,250,265	0	63,250,265
5.	Less: Accumulated Depreciation	(16,230,231)	(22,549)	(16,252,780)	0	(16,252,780)	0	(16,252,780)	0	(16,252,780)
6.	Net Plant in Service	47,020,034	(22,549)	46,997,485	0	46,997,485	0	46,997,485	0	46,997,485
7.	Construction Work in Progress	284,117	(284,117)	0	0	0	0	0	0	0
8.	Total Net Plant	47,304,151	(306,666)	46,997,485	0	46,997,485	0	46,997,485	0	46,997,485
9.	Less: Customers' Advances for Construction Contributions in Aid of Construction	(11,339,790)	117,427	(11,222,363)	0	(11,222,363)	0	(11,222,363)	0	(11,222,363)
10.	Gross	(8,837,180)	0	(8,837,180)	0	(8,837,180)	0	(8,837,180)	0	(8,837,180)
11.	Accumulated Amortization	1,591,717	(37,421)	1,554,296	0	1,554,296	0	1,554,296	0	1,554,296
12.	Net Contributions in Aid of Construction	(7,245,463)	80,006	(7,165,457)	0	(7,165,457)	0	(7,165,457)	0	(7,165,457)
13.	Deferred Income Tax	(4,465,028)	0	(4,465,028)	0	(4,465,028)	0	(4,465,028)	0	(4,465,028)
14.	Deferred CAP (Net)	0	5,078,082 (a)	5,078,082	5,078,082	0	904,469	904,469	4,173,613	5,078,082
15.	Add: Total Working Capital Allowance	311,323	0	311,323	0	311,323	0	311,323	0	311,323
16.	Total Rate Base Components & Adjustments	24,565,193	4,851,422	29,416,615	5,078,082	24,338,533	904,469	25,243,002	4,173,613	29,416,615

(a) - Reclassified for Ease in Presentation

**SCHEDULE B-2 Revised
PRO FORMA ADJUSTMENTS RATE BASE
TEST YEAR 2003 CASA GRANDE**

ARIZONA WATER COMPANY

Line No.	Description	TY 2003 Actual (1)	Direct Case - As Filed Pro Forma Adjustments (2)	Adjusted TY 2003 (3)	Remove All CAP Charges (4)	2003 TY Excluding All CAP (5)	Used Portion Of CAP (25.65%) (6)	Rebuttal Adjusted TY 2003 Revised-Base (7)	Unused Portion Of CAP (74.35%) (8)	Adjusted TY 2003 Revised-Total (9)
			(1)+(2)=(3)	(3)-(4)=(5)	(5)-(6)=(7)	(7)-(8)=(9)				
1.	Gross Plant in Service	48,030,396		48,030,396		48,030,396		48,030,396		48,030,396
2.	Phoenix Office Allocation	930,536		930,536		930,536		930,536		930,536
3.	Meter Shop Allocation	17,282		17,282		17,282		17,282		17,282
4.	Total Gross Plant In Service	48,978,214	0	48,978,214	0	48,978,214	0	48,978,214	0	48,978,214
5.	Less: Accumulated Depreciation	(12,087,978)	15,761	(12,072,217)		(12,072,217)		(12,072,217)		(12,072,217)
6.	Net Plant In Service	36,890,236	15,761	36,905,997	0	36,905,997		36,905,997		36,905,997
7.	Construction Work in Progress	146,293	(146,293)	0		0		0		0
8.	Total Net Plant	37,036,529	(130,532)	36,905,997	0	36,905,997		36,905,997	0	36,905,997
9.	Less: Customers' Advances for Construction Contributions in Aid of Construction	(8,892,375)	931	(8,891,444)		(8,891,444)		(8,891,444)		(8,891,444)
10.	Gross Accumulated Amortization	(7,754,812)		(7,754,812)		(7,754,812)		(7,754,812)		(7,754,812)
11.	Net Contributions in Aid of Construction	1,381,441	(32,821)	1,348,620		1,348,620		1,348,620		1,348,620
12.	Deferred Income Tax	(3,387,966)		(3,387,966)		(3,387,966)		(3,387,966)		(3,387,966)
13.	Deferred CAP (Net)	0	3,525,803 (e)	3,525,803	3,525,803	0	904,469 (b)	904,469	2,621,334 (c)	3,525,803
14.	Add: Total Working Capital Allowance	250,254		250,254		250,254		250,254		250,254
15.	Total Rate Base Components & Adjustments	18,633,071	3,363,581	21,996,652	3,525,803	18,470,849	904,469	19,375,318	2,621,334	21,996,652

(a) - Reclassified for Ease in Presentation
(b) - \$3,525,803 X (2.279 AF/8,884 AF)
(c) - \$3,525,803 X (6.605 AF/8,884 AF)

**SCHEDULE B-2 Revised
PRO FORMA ADJUSTMENTS RATE BASE
TEST YEAR 2003 WHITE TANK**

Line No.	Description	Direct Case - As Filed			Rebuttal			
		TY 2003 Actual (1)	Pro Forma Adjustments (2)	Adjusted TY 2003 (3)	2003 TY Excluding All CAP (5)	Used Portion Of CAP (6)	Adjusted TY 2003 Revised-Base (7)	Unused Portion Of CAP (8)
1.	Gross Plant in Service	5,580,520		5,580,520	5,580,520			5,580,520
2.	Phoenix Office Allocation	89,008		89,008	89,008			89,008
3.	Meter Shop Allocation	1,653		1,653	1,653			1,653
4.	Total Gross Plant in Service	5,671,181	0	5,671,181	5,671,181	0	0	5,671,181
5.	Less: Accumulated Depreciation	(1,079,029)	(9,877)	(1,088,906)	(1,088,906)			(1,088,906)
6.	Net Plant in Service	4,592,152	(9,877)	4,582,275	4,582,275	0	0	4,582,275
7.	Construction Work in Progress	0		0	0	0	0	0
8.	Total Net Plant	4,592,152	(9,877)	4,582,275	4,582,275	0	0	4,582,275
9.	Less: Customers' Advances for Construction	(1,887,880)		(1,887,880)	(1,887,880)			(1,887,880)
10.	Contributions in Aid of Construction							
11.	Gross	(554,839)		(554,839)	(554,839)			(554,839)
12.	Accumulated Amortization	114,893	(3,087)	111,896	111,896			111,896
13.	Net Contributions in Aid of Construction	(439,856)	(3,087)	(442,943)	(442,943)			(442,943)
14.	Deferred Income Tax	(352,670)		(352,670)	(352,670)			(352,670)
15.	Deferred CAP (Net)	0	506,268 (e)	506,268	0	506,268	506,268	506,268
16.	Add: Total Working Capital Allowance	36,105		36,105	36,105			36,105
17.	Total Rate Base Components & Adjustments	1,947,851	493,304	2,441,155	1,934,887	506,268	506,268	2,441,155

(a) - Reclassified for Ease in Presentation

**SCHEDULE B-2 Revised
PRO FORMA ADJUSTMENTS RATE BASE
TEST YEAR 2003 AJ0**

Line No.	Description	Direct Case - As Filed			Rebuttal			Adjusted TY 2003 Revised-Total (9)		
		TY 2003 Actual (1)	Pro Forma Adjustments (2)	Adjusted TY 2003 (3)	Remove All CAP Charges (4)	2003 TY Excluding All CAP (5)	Used Portion Of CAP (6)		Adjusted TY 2003 Revised-Base (7)	Unused Portion Of CAP (8)
1.	Gross Plant in Service	1,656,478		1,656,478		(3)-(4)=(5)		(5)+(6)=(7)		(5)+(6)+(8)=(9)
2.	Phoenix Office Allocation	42,706		42,706		1,656,478		1,656,478		1,656,478
3.	Meter Shop Allocation	792		792		42,706		42,706		42,706
4.	Total Gross Plant In Service	1,699,976	0	1,699,976	0	1,699,976	0	1,699,976	0	1,699,976
5.	Less: Accumulated Depreciation	(627,369)	3,125	(624,244)		(624,244)		(624,244)		(624,244)
6.	Net Plant in Service	1,072,607	3,125	1,075,732	0	1,075,732	0	1,075,732	0	1,075,732
7.	Construction Work in Progress	0		0	0	0	0	0	0	0
8.	Total Net Plant	1,072,607	3,125	1,075,732	0	1,075,732	0	1,075,732	0	1,075,732
9.	Less: Customers' Advances for Construction	(36,395)		(36,395)	0	(36,395)	0	(36,395)	0	(36,395)
10.	Contributions in Aid of Construction									
11.	Gross	(41,263)		(41,263)	0	(41,263)	0	(41,263)	0	(41,263)
12.	Accumulated Amortization	11,040	(243)	10,797	0	10,797	0	10,797	0	10,797
13.	Net Contributions in Aid of Construction	(30,223)	(243)	(30,466)	0	(30,466)	0	(30,466)	0	(30,466)
14.	Deferred Income Tax	(157,495)		(157,495)	0	(157,495)	0	(157,495)	0	(157,495)
15.	Deferred CAP (Net)	0		0	0	0	0	0	0	0
16.	Add: Total Working Capital Allowance	(4,209)		(4,209)	0	(4,209)	0	(4,209)	0	(4,209)
17.	Total Rate Base Components & Adjustments	844,285	2,882	847,167	0	847,167	0	847,167	0	847,167

Schedule C-1 Revised
Pro Forma Operating Income Statements
Test year 2003
Western Group - Summary

Line No.	Description	Direct Case - As Filed		Rebuttal						
		TY 2003 Actual (1)	Pro Forma Adjustments (2)	Adjusted TY 2003 (3)	Remove All CAP Charges (4)	2003 TY Excluding All CAP (5)	Used Portion Of CAP (6)	Adjusted TY 2003 Revised-Base (7)	Unused Portion Of CAP (8)	Adjusted TY 2003 Revised-Total (9)
				(1)+(2)=(3)		(3)-(4)=(5)	(6)	(5)+(6)=(7)	(8)	(5)+(6)+(8)=(9)
Operating Revenues:										
1.	Residential	7,400,612	(330,759)	7,069,853	0	7,069,853	0	7,069,853	0	7,069,853
2.	Commercial	2,306,368	(175,727)	2,130,641	0	2,130,641	0	2,130,641	0	2,130,641
3.	Industrial	860,781	(61,580)	799,201	0	799,201	0	799,201	0	799,201
4.	Private Fire Service	10,535	0	10,535	0	10,535	0	10,535	0	10,535
5.	Other	717,317	(52,192)	665,125	115,269	549,856	115,269	665,125	0	665,125
6.	Total Operating Revenues	11,295,813	(620,258)	10,675,355	115,269	10,560,086	115,269	10,675,355	0	10,675,355
Operating Expenses:										
Source of Supply Expenses:										
7.	Purchased Water	505,724	247,786	753,510	508,236	245,274	291,649	536,923	216,587	753,510
8.	Other	48,495	8,946	57,441	0	57,441	0	57,441	0	57,441
Pumping Expenses:										
9.	Purchased Power	990,617	15,923	1,006,540	0	1,006,540	0	1,006,540	0	1,006,540
10.	Purchased Gas	603	0	603	0	603	0	603	0	603
11.	Other	370,305	0	370,305	0	370,305	0	370,305	0	370,305
12.	Water Treatment Expenses	237,237	(22,447)	214,790	0	214,790	0	214,790	0	214,790
13.	Transmission and Distribution Expenses	1,047,235	66,250	1,113,485	0	1,113,485	0	1,113,485	0	1,113,485
14.	Customer Account Expenses	859,667	27,429	887,096	0	887,096	0	887,096	0	887,096
15.	Sales Expenses & Payroll	3,670	0	3,670	0	3,670	0	3,670	0	3,670
16.	Administrative and General Expenses	1,154,680	181,063	1,335,743	0	1,335,743	0	1,335,743	0	1,335,743
17.	Total Operation and Maintenance	5,218,233	524,950	5,743,183	508,236	5,234,947	291,649	5,526,596	216,587	5,743,183
18.	Depreciation and Maintenance	1,322,673	567,776	1,890,449	507,808	1,382,641	90,447	1,473,088	417,361	1,890,449
19.	Taxes: Federal Income	735,611	(177,456)	558,155	(124,008)	682,163	(55,660)	626,503	(68,348)	558,155
20.	State Income	124,748	(39,093)	85,655	(27,318)	112,973	(12,261)	100,711	(15,056)	85,655
21.	Ad Valorem (Property)	669,647	132,484	802,131	0	802,131	0	802,131	0	802,131
22.	Other	985,127	(872,278)	112,849	0	112,849	0	112,849	0	112,849
23.	Total Operating Expenses	9,076,039	136,383	9,212,422	864,718	8,347,704	314,174	8,661,878	550,544	9,212,422
24.	Operating Income	2,219,574	(756,641)	1,462,933	(749,449)	2,212,382	(196,905)	2,013,477	(550,544)	1,462,933

Schedule C-1 Revised
Pro Forma Operating Income Statements
Test year 2003
Casa Grande - Summary

Line No.	Description	Direct Case - As Filed		Remove All CAP Charges		2003 TY Excluding All CAP		Used Portion Of CAP (25.65%)		Adjusted TY 2003 Revised-Base		Unused Portion Of CAP (74.35%)		Adjusted TY 2003 Revised-Total	
		TY 2003 As Filed (1)	Pro Forma Adjustments (2)	Adjusted TY 2003 (3)	(1)+(2)=(3)	(3)-(4)=(5)	(5)	(6)	(7)	(8)	(9)	(5)+(6)+(7)=(9)	(10)	(11)	(12)
Operating Revenues:															
1.	Residential	5,097,054	(192,304)	4,904,750	4,904,750	4,904,750	4,904,750	4,904,750		4,904,750			4,904,750		4,904,750
2.	Commercial	1,784,978	(130,772)	1,654,206	1,654,206	1,654,206	1,654,206	1,654,206		1,654,206			1,654,206		1,654,206
3.	Industrial	843,705	(60,327)	783,378	783,378	783,378	783,378	783,378		783,378			783,378		783,378
4.	Private Fire Service	9,098	0	9,098	9,098	9,098	9,098	9,098		9,098			9,098		9,098
5.	Other	613,819	(43,869)	569,950	569,950	569,950	569,950	569,950		569,950			569,950		569,950
6.	Total Operating Revenues	8,348,854	(427,272)	7,921,582	7,921,582	7,921,582	7,921,582	7,921,582		7,921,582		0	7,921,582		7,921,582
Operating Expenses:															
Source of Supply Expenses:															
7.	Purchased Water	338,564	159,448	498,013	498,013	498,013	498,013	498,013		498,013			498,013		498,013
8.	Other	37,593	8,342	45,935	45,935	45,935	45,935	45,935		45,935			45,935		45,935
9.	Pumping Expenses:	793,096	17,247	810,343	810,343	810,343	810,343	810,343		810,343			810,343		810,343
10.	Purchased Gas	0	0	0	0	0	0	0		0			0		0
11.	Other	286,696	0	286,696	286,696	286,696	286,696	286,696		286,696			286,696		286,696
12.	Water Treatment Expenses	196,192	(8,197)	187,995	187,995	187,995	187,995	187,995		187,995			187,995		187,995
13.	Transmission and Distribution Expenses	745,493	41,123	786,616	786,616	786,616	786,616	786,616		786,616			786,616		786,616
14.	Customer Account Expenses	580,891	24,068	604,959	604,959	604,959	604,959	604,959		604,959			604,959		604,959
15.	Sales Expenses & Payroll	2,962	0	2,962	2,962	2,962	2,962	2,962		2,962			2,962		2,962
16.	Administrative and General Expenses	820,902	131,816	952,718	952,718	952,718	952,718	952,718		952,718			952,718		952,718
17.	Total Operation and Maintenance	3,802,389	373,848	4,176,237	4,176,237	4,176,237	4,176,237	4,176,237		4,176,237			4,176,237		4,176,237
18.	Depreciation and Amortization Expenses	998,567	369,440	1,368,007	1,368,007	1,368,007	1,368,007	1,368,007		1,368,007			1,368,007		1,368,007
19.	Taxes: Federal Income	555,241	(116,221)	439,020	439,020	439,020	439,020	439,020		439,020			439,020		439,020
20.	State Income	94,148	(25,602)	68,546	68,546	68,546	68,546	68,546		68,546			68,546		68,546
21.	Ad Valorem (Property)	503,642	108,997	612,639	612,639	612,639	612,639	612,639		612,639			612,639		612,639
22.	Other	717,590	(640,839)	76,751	76,751	76,751	76,751	76,751		76,751			76,751		76,751
23.	Total Operating Expenses	6,671,577	69,623	6,741,200	6,741,200	6,741,200	6,741,200	6,741,200		6,741,200		344,214	6,741,200		6,741,200
24.	Operating Income	1,677,077	(486,895)	1,190,182	1,190,182	1,190,182	1,190,182	1,190,182		1,190,182		(344,214)	1,190,182		1,190,182

(a) - W/P C2-9b Page 1 of 4
 (b) - W/P C2-9d
 (c) - \$352,580 X (2,279 AF/8,884 AF)
 (d) - \$353,580 X (6,605 AF/8,884 AF)

Schedule C-1 Revised
Pro Forma Operating Income Statements
Test year 2003
Stantfield - Summary

Line No.	Description	Direct Case - As Filed		Rebuttal						
		TY 2003 As Filed (1)	Pro Forma Adjustments (2)	Adjusted TY 2003 (3)	Remove All CAP Charges (4)	2003 TY Excluding All CAP (5)	Used Portion Of CAP (6)	Adjusted TY 2003 Revised-Base (7)	Unused Portion Of CAP (8)	Adjusted TY 2003 Revised-Total (9)
	Operating Revenues:									
1.	Residential	93,725	(5,150)	88,575		88,575		88,575		88,575
2.	Commercial	29,378	(1,674)	27,704		27,704		27,704		27,704
3.	Industrial	0	0	0		0		0		0
4.	Private Fire Service	0	0	0		0		0		0
5.	Other	15,802	(1,079)	14,723		14,723		14,723		14,723
6.	Total Operating Revenues	138,905	(7,903)	131,002	0	131,002	0	131,002	0	131,002
	Operating Expenses:									
	Source of Supply Expenses:									
7.	Purchased Water	0	0	0		0		0		0
8.	Other	394	2	396		396		396		396
	Pumping Expenses:									
9.	Purchased Power	17,274	135	17,409		17,409		17,409		17,409
10.	Purchased Gas	0	0	0		0		0		0
11.	Other	4,120	0	4,120		4,120		4,120		4,120
12.	Water Treatment Expenses	1,889	(1,469)	430		430		430		430
13.	Transmission and Distribution Expenses	12,400	(160)	12,240		12,240		12,240		12,240
14.	Customer Account Expenses	8,565	39	8,604		8,604		8,604		8,604
15.	Sales Expenses & Payroll	44	0	44		44		44		44
16.	Administrative and General Expenses	12,479	1,972	14,451		14,451		14,451		14,451
17.	Total Operation and Maintenance	57,175	519	57,694	0	57,694	0	57,694	0	57,694
18.	Depreciation and Amortization Expenses	15,082	9,631	24,713	0	24,713	0	24,713	0	24,713
19.	Taxes: Federal Income	10,582	(3,361)	7,221	0	7,221	0	7,221	0	7,221
20.	State Income	1,794	(741)	1,053	0	1,053	0	1,053	0	1,053
21.	Ad Valorem (Property)	12,554	736	13,290	0	13,290	0	13,290	0	13,290
22.	Other	10,179	(9,025)	1,154	0	1,154	0	1,154	0	1,154
23.	Total Operating Expenses	107,366	(2,241)	105,125	0	105,125	0	105,125	0	105,125
24.	Operating Income	31,539	(5,662)	25,877	0	25,877	0	25,877	0	25,877

Schedule C-1 Revised
Pro Forma Operating Income Statements
Test year 2003
White Tank - Summary

Line No.	Description	Direct Case - As Filed		Rebuttal						
		TY 2003 As Filed (1)	Pro Forma Adjustments (2)	Adjusted TY 2003 (3)	Remove All CAP Charges (4)	2003 TY Excluding All CAP (5)	Used Portion Of CAP (6)	Adjusted TY 2003 Revised-Base (7)	Unused Portion Of CAP (8)	Adjusted TY 2003 Revised-Total (9)
	Operating Revenues:									
1.	Residential	710,792	(3,159)	707,633		707,633		707,633		707,633
2.	Commercial	48,861	(2,729)	46,132		46,132		46,132		46,132
3.	Industrial	9,557	(684)	8,873		8,873		8,873		8,873
4.	Private Fire Service	132	0	132		132		132		132
5.	Other	21,821	(1,109)	20,713		20,713		20,713		20,713
6.	Total Operating Revenues	791,163	(7,680)	783,483	0	783,483	0	783,483	0	783,483
	Operating Expenses:									
	Source of Supply Expenses:									
7.	Purchased Water	10,279	27,104	37,383	27,104 (a)	10,279	27,104	10,279	27,104 (a)	37,383
8.	Other	2,309	571	2,880		2,880		2,880		2,880
	Pumping Expenses:									
9.	Purchased Power	74,297	4,107	78,404		78,404		78,404		78,404
10.	Purchased Gas	0	0	0		0		0		0
11.	Other	27,057	0	27,057		27,057		27,057		27,057
12.	Water Treatment Expenses	11,426	(1,771)	9,655		9,655		9,655		9,655
13.	Transmission and Distribution Expenses	67,739	11,522	79,261		79,261		79,261		79,261
14.	Customer Account Expenses	52,306	2,544	54,850		54,850		54,850		54,850
15.	Sales Expenses & Payroll	263	0	263		263		263		263
16.	Administrative and General Expenses	75,031	12,340	87,371		87,371		87,371		87,371
17.	Total Operation and Maintenance	320,707	56,417	377,124	27,104	350,020	0	350,020	27,104	377,124
18.	Depreciation and Amortization Expenses	119,035	63,591	182,626	50,627 (b)	131,999	0 (c)	131,999	50,627 (d)	182,626
19.	Taxes: Federal Income	61,957	(15,388)	46,569	(8,553)	55,122	0	55,122	(8,553)	46,569
20.	State Income	10,513	(3,390)	7,123	(1,884)	9,007	0	9,007	(1,884)	7,123
21.	Ad Valorem (Property)	56,996	6,646	63,642		63,642		63,642		63,642
22.	Other	604,555	(50,388)	554,167		554,167		554,167		554,167
23.	Total Operating Expenses	186,608	57,488	244,096	67,294	176,802	0	176,802	67,294	244,096
24.	Operating Income	186,608	(65,188)	121,440	(67,294)	54,146	0	54,146	(67,294)	121,440

(a) - W/P C2-9b Page 2 of 4
 (b) - W/P C2-9d
 (c) - \$50627 X (0 AF/968 AF)
 (d) - \$353,580 X (968 AF/968 AF)

Schedule C-1 Revised
Pro Forma Operating Income Statements
Test year 2003
Ajo - Summary

Line No.	Description	Direct Case - As Filed			Rebuttal					
		TY 2003 As Filed (1)	Pro Forma Adjustments (2)	Adjusted TY 2003 (3)	Remove All CAP Charges (4)	2003 TY Excluding All CAP (5)	Used Portion Of CAP (6)	Adjusted TY 2003 Revised-Base (7)	Unused Portion Of CAP (8)	Adjusted TY 2003 Revised-Total (9)
Operating Revenues:										
1.	Residential	335,261	(21,784)	313,477		313,477		313,477		313,477
2.	Commercial	101,974	(6,052)	95,922		95,922		95,922		95,922
3.	Industrial	0	0	0		0		0		0
4.	Private Fire Service	0	0	0		0		0		0
5.	Other	2,944	(140)	2,804		2,804		2,804		2,804
6.	Total Operating Revenues	440,179	(27,976)	412,203	0	412,203	0	412,203	0	412,203
Operating Expenses:										
Source of Supply Expenses:										
7.	Purchased Water	156,881	5,233	162,114		162,114		162,114		162,114
8.	Other	316	0	316		316		316		316
Pumping Expenses:										
9.	Purchased Power	3,059	(83)	2,976		2,976		2,976		2,976
10.	Purchased Gas	0	0	0		0		0		0
11.	Other	14,594	0	14,594		14,594		14,594		14,594
12.	Water Treatment Expenses	4,066	(623)	3,443		3,443		3,443		3,443
13.	Transmission and Distribution Expenses	35,227	3,460	38,687		38,687		38,687		38,687
14.	Customer Account Expenses	27,775	(162)	27,613		27,613		27,613		27,613
15.	Sales Expenses & Payroll	142	0	142		142		142		142
16.	Administrative and General Expenses	39,497	6,120	45,617		45,617		45,617		45,617
17.	Total Operation and Maintenance	281,557	13,945	295,502	0	295,502	0	295,502	0	295,502
18.	Depreciation and Amortization Expenses	42,864	(2,863)	39,981		39,981		39,981		39,981
19.	Taxes: Federal Income	14,604	(4,846)	9,756		9,756		9,756		9,756
20.	State Income	2,477	(1,068)	1,409		1,409		1,409		1,409
21.	Ad Valorem (Property)	26,707	392	27,099		27,099		27,099		27,099
22.	Other	27,943	(24,184)	3,759		3,759		3,759		3,759
23.	Total Operating Expenses	396,152	(18,646)	377,506	0	377,506	0	377,506	0	377,506
24.	Operating Income	44,027	(9,330)	34,697	0	34,697	0	34,697	0	34,697

Schedule C-1 Revised
Pro Forma Operating Income Statements
Test year 2003
Coolidge - Summary

Line No.	Description	Direct Case - As Filed		Remove All CAP Charges		2003 TY Excluding All CAP		Rebuttal		Adjusted TY 2003 Revised-Total (9)
		TY 2003 As Filed (1)	Pro Forma Adjustments (2)	(1)+(2)=(3)	(3)-(4)=(5)	Used Portion Of CAP (6)	2003 Revised-Base (7)	Unused Portion Of CAP (8)		
Operating Revenues:										
1.	Residential	1,163,780	(108,362)	1,055,418	1,055,418	1,055,418	1,055,418	0	1,055,418	1,055,418
2.	Commercial	341,177	(34,500)	306,677	306,677	306,677	306,677	0	306,677	306,677
3.	Industrial	7,519	(569)	6,950	6,950	6,950	6,950	0	6,950	6,950
4.	Private Fire Service	1,305	0	1,305	1,305	1,305	1,305	0	1,305	1,305
5.	Other	62,931	(5,996)	56,935	56,935	56,935	56,935	0	56,935	56,935
6.	Total Operating Revenues	1,576,712	(149,427)	1,427,285	1,427,285	1,427,285	1,427,285	0	1,427,285	1,427,285
Operating Expenses:										
Source of Supply Expenses:										
7.	Purchased Water	0	56,000	56,000	56,000 (a)	56,000	56,000	0	56,000 (a)	56,000
8.	Other	7,883	31	7,914	7,914	7,914	7,914	0	7,914	7,914
Pumping Expenses:										
9.	Purchased Power	102,881	(5,483)	97,408	97,408	97,408	97,408	0	97,408	97,408
10.	Purchased Gas	603	0	603	603	603	603	0	603	603
11.	Other	37,838	0	37,838	37,838	37,838	37,838	0	37,838	37,838
12.	Water Treatment Expenses	23,654	(10,387)	13,267	13,267	13,267	13,267	0	13,267	13,267
13.	Transmission and Distribution Expenses	186,376	10,305	196,681	196,681	196,681	196,681	0	196,681	196,681
14.	Customer Account Expenses	190,130	940	191,070	191,070	191,070	191,070	0	191,070	191,070
15.	Sales Expenses & Payroll	259	0	259	259	259	259	0	259	259
16.	Administrative and General Expenses	206,771	28,815	235,586	235,586	235,586	235,586	0	235,586	235,586
17.	Total Operation and Maintenance	766,405	80,221	846,626	846,626	846,626	846,626	0	846,626	846,626
18.	Depreciation and Amortization Expenses	147,125	127,987	275,112	275,112	275,112	275,112	0 (c)	275,112	275,112
19.	Taxes: Federal Income	93,227	(37,638)	55,589	55,589	55,589	55,589	0	55,589	55,589
20.	State Income	15,816	(8,292)	7,524	7,524	7,524	7,524	0	7,524	7,524
21.	Ad Valorem (Property)	111,387	15,713	127,100	127,100	127,100	127,100	0	127,100	127,100
22.	Other	172,419	(147,842)	24,577	24,577	24,577	24,577	0	24,577	24,577
23.	Total Operating Expenses	1,296,389	30,159	1,326,548	1,326,548	1,326,548	1,326,548	0	1,326,548	1,326,548
24.	Operating Income	280,323	(179,586)	100,737	100,737	100,737	100,737	0	100,737	100,737

(a) - W/P C2-8b Page 4 of 4

(b) - W/P C2-8d

(c) - \$104,601 X (0 AF/2,000 AF)

(d) - \$104,601 X (2,000 AF/2,000 AF)

ARIZONA WATER COMPANY
 BASED ON CAP COST RECOVERY POLICY
 WESTERN GROUP - CASA GRANDE
 TEST YEAR 2003

Line	Description	Total	Allocation Used	Allocation Unused
General Information:				
1	Cap Allocation(Acre-Feet)	8,884	2,279	6,605
2	2003 Groundwater Usage (Acre-Feet)	11,400	2,924	8,476
3	Deferred CAP M&I Balance at 12/31/2003 (RATE BASE)	3,525,803	904,469	2,621,334
Purchased Water Expense:				
Ongoing (Current) M&I Charges:				
4	Test Year 2003 (2,279 AF Delivered)	115,269	115,269	
5	Unused Allocation (6605 AF)	133,483		133,483
6	Total Ongoing M&I Charges	<u>248,752</u>		
CAP Delivery Charges @ \$79/AF:				
7	Test Year 2003 (2,279 AF Delivered)	180,041	180,041	
8	Unused Allocation (6605 AF)	0		
9	Total CAP Delivery Charges	<u>180,041</u>		
10	Miscellaneous TY Adjustment	(3,661)	(3,661)	
11	Total Adjusted TY 2003 Purchased Water Expense	<u>425,132</u>	<u>291,649</u>	<u>133,483</u>
Amortization of Deferred CAP M&I Balance @ 12/31/2003:				
12	Deferred CAP M&I Balance at 12/31/2003 (RATE BASE)	3,525,803	904,469	2,621,334
13	Amortization Period	10	10	10
14	Amortization Expense (Adjusted TY Deprec & Amort Expense)	<u>352,580</u>	<u>90,447</u>	<u>262,133</u>

Proposed Rate Design - Scenario 1:

15	CAP Revenue Requirement (Exhibit SLH-R1)	\$ 1,041,648	\$ 479,736	\$ 561,912
16	% Recoverable via Commodity Rate			
17	(Groundwater pumped/CAP Allocation)	100.00%	100.00%	100.00%
18	% Recoverable via Hook-Up Fee			
19	(100% - Commodity percentage)	0.00%	0.00%	0.00%
20	Test Year Sales (M Gallons)	3,381,403.0		
21	2003 New Customers	596		
22	Average Residential Consumption	10,700		
23	Proposed Commodity Rate/M Gallon	\$ 0.3081	\$ 0.1419	\$ 0.1662
24	Proposed Hook-up Fee/ New Customer	\$ -	\$ -	\$ -
25	Average Residential Bill Increase	\$ 3.30	\$ 1.52	\$ 1.78

Proposed Rate Design - Scenario 2:

26	CAP Revenue Requirement (Exhibit SLH-R1)	\$ 1,041,648	\$ 479,736	\$ 561,912
27	% Recoverable via Commodity Rate	60.00%	60.00%	60.00%
28	% Recoverable via Hook-Up Fee			
29	(100% - Commodity percentage)	40.00%	40.00%	40.00%
30	Test Year Sales (M Gallons)	3,381,403.0		
31	2003 New Customers	596		
32	Average Residential Consumption	10,700		
33	Proposed Commodity Rate/M Gallon	\$ 0.1848	\$ 0.0851	\$ 0.0997
34	Proposed Hook-up Fee/ New Customer	\$ 699	\$ 322	\$ 377
35	Average Residential Bill Increase	\$ 1.98	\$ 0.91	\$ 1.07

ARIZONA WATER COMPANY
BASED ON CAP COST RECOVERY POLICY
WESTERN GROUP - WHITE TANK
TEST YEAR 2003

Line	Description	Total	Allocation Used	Allocation Unused
General Information:				
1	Cap Allocation(Acre-Feet)	968	0	968
2	2003 Groundwater Usage (Acre-Feet)	680.53	0	680.53
3	Deferred CAP M&I Balance at 12/31/2003 (RATE BASE)	506,268	0	506,268
Purchased Water Expense:				
Ongoing (Current) M&I Charges:				
4	Test Year 2003 (0 AF Delivered)	0	0	
5	Unused Allocation (968 AF)	27,104		27,104
6	Total Ongoing M&I Charges	<u>27,104</u>		
CAP Delivery Charges @ \$79/AF:				
7	Test Year 2003 (0 AF Delivered)	0	0	
8	Unused Allocation (968 AF)	0		
9	Total CAP Delivery Charges	<u>0</u>		
10	Total Adjusted TY 2003 Purchased Water Expense	<u>27,104</u>	<u>0</u>	<u>27,104</u>
Amortization of Deferred CAP M&I Balance @ 12/31/2003:				
11	Deferred CAP M&I Balance at 12/31/2003 (RATE BASE)	506,268	0	506,268
12	Amortization Period	10	10	10
13	Amortization Expense (Adjusted TY Deprec & Amort Expense)	<u>50,627</u>	<u>0</u>	<u>50,627</u>

Proposed Rate Design - Scenario 1:				
14	CAP Revenue Requirement (Exhibit SLH-R1)	\$ 109,854	\$ -	\$ 109,854
15	% Recoverable via Commodity Rate			
16	(Groundwater pumped/CAP Allocation)	70.30%	100.00%	70.30%
17	% Recoverable via Hook-Up Fee			
18	(100% - Commodity percentage)	29.70%	0.00%	29.70%
19	Test Year Sales (M Gallons)	211,414.4		
20	2003 New Customers	62		
21	Average Residential Consumption	13,000		
22	Proposed Commodity Rate/M Gallon	\$ 0.3653	\$ -	\$ 0.3653
23	Proposed Hook-up Fee/ New Customer	\$ 526	\$ -	\$ 526
24	Average Residential Bill Increase	\$ 4.75	\$ -	\$ 4.75

Proposed Rate Design - Scenario 2:				
25	CAP Revenue Requirement (Exhibit SLH-R1)	\$ 109,854	\$ -	\$ 109,854
26	% Recoverable via Commodity Rate	60.00%	60.00%	60.00%
27	% Recoverable via Hook-Up Fee			
28	(100% - Commodity percentage)	40.00%	40.00%	40.00%
29	Test Year Sales (M Gallons)	211,414.4		
30	2003 New Customers	62		
31	Average Residential Consumption	13,000		
32	Proposed Commodity Rate/M Gallon	\$ 0.3118	\$ -	\$ 0.3118
33	Proposed Hook-up Fee/ New Customer	\$ 709	\$ -	\$ 709
34	Average Residential Bill Increase	\$ 4.05	\$ -	\$ 4.05

ARIZONA WATER COMPANY
BASED ON CAP COST RECOVERY POLICY
WESTERN GROUP - COOLIDGE
TEST YEAR 2003

Line	Description	Total	Allocation Used	Allocation Unused
General Information:				
1	Cap Allocation(Acre-Feet)	2,000	0	2,000
2	2003 Groundwater Usage (Acre-Feet)	1,646.54	0	1,646.54
3	Deferred CAP M&I Balance at 12/31/2003 (RATE BASE)	1,046,011	0	1,046,011
Purchased Water Expense:				
Ongoing (Current) M&I Charges @ \$28/AF:				
4	Test Year 2003 (0 AF Delivered)	0	0	
5	Unused Allocation (2000 AF)	56,000		56,000
6	Total Ongoing M&I Charges	<u>56,000</u>		
CAP Delivery Charges @ \$79/AF:				
7	Test Year 2003 (0 AF Delivered)	0	0	
8	Unused Allocation (2000 AF)	0		
9	Total CAP Delivery Charges	<u>0</u>		
10	Total Adjusted TY 2003 Purchased Water Expense	<u>56,000</u>	<u>0</u>	<u>56,000</u>
Amortization of Deferred CAP M&I Balance @ 12/31/2003:				
11	Deferred CAP M&I Balance at 12/31/2003 (RATE BASE)	1,046,011	0	1,046,011
12	Amortization Period	10	10	10
13	Amortization Expense (Adjusted TY Deprec & Amort Expense)	<u>104,601</u>	<u>0</u>	<u>104,601</u>

Proposed Rate Design - Scenario 1:				
14	CAP Revenue Requirement (Exhibit SLH-R1)	\$ 226,970	\$ -	\$ 226,970
15	% Recoverable via Commodity Rate			
16	(Groundwater pumped/CAP Allocation)	82.33%	100.00%	82.33%
17	% Recoverable via Hook-Up Fee			
18	(100% - Commodity percentage)	17.67%	0.00%	17.67%
19	Test Year Sales (M Gallons)	459,203.7		
20	2003 New Customers	15		
21	Average Residential Consumption	10,100		
22	Proposed Commodity Rate/M Gallon	\$ 0.4069	\$ -	\$ 0.4069
23	Proposed Hook-up Fee/ New Customer	\$ 2,674	\$ -	\$ 2,674
24	Average Residential Bill Increase	\$ 4.11	\$ -	\$ 4.11

Proposed Rate Design - Scenario 2:				
25	CAP Revenue Requirement (Exhibit SLH-R1)	\$ 226,970	\$ -	\$ 226,970
26	% Recoverable via Commodity Rate	60.00%	60.00%	60.00%
27	% Recoverable via Hook-Up Fee			
28	(100% - Commodity percentage)	40.00%	40.00%	40.00%
29	Test Year Sales (M Gallons)	459,203.7		
30	2003 New Customers	15		
31	Average Residential Consumption	10,100		
32	Proposed Commodity Rate/M Gallon	\$ 0.2966	\$ -	\$ 0.2966
33	Proposed Hook-up Fee/ New Customer	\$ 6,053	\$ -	\$ 6,053
34	Average Residential Bill Increase	\$ 3.00	\$ -	\$ 3.00

RALPH
J.
KENNEDY

ARIZONA WATER COMPANY



Docket No. W-01445A-04-0650

2004 RATE HEARING EXHIBIT NO. _____

For Test Year Ending 12/31/03

**PREPARED
REBUTTAL TESTIMONY & EXHIBITS
OF
Ralph J. Kennedy**

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10

11 **BEFORE THE ARIZONA CORPORATION COMMISSION**

12
13 IN THE MATTER OF THE APPLICATION)
OF ARIZONA WATER COMPANY, AN)
14 ARIZONA CORPORATION, FOR)
ADJUSTMENTS TO ITS RATES AND)
15 CHARGES FOR UTILITY SERVICE)
FURNISHED BY ITS WESTERN GROUP)
16 AND FOR CERTAIN RELATED)
17 APPROVALS)

DOCKET NO. W-01445A-04-0650

18
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20
21 **REBUTTAL TESTIMONY OF**
22 **RALPH J. KENNEDY**
23
24
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26
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28

1 **ARIZONA WATER COMPANY**

2
3 **Rebuttal Testimony of**

4 **Ralph J. Kennedy**

5
6
7 **I. Introduction And Purpose Of Testimony**

8 **Q. WHAT IS YOUR NAME, EMPLOYER AND OCCUPATION?**

9 **A.** My Name is Ralph J. Kennedy. I am employed by Arizona Water Company (the
10 "Company") as Vice President and Treasurer.

11 **Q. ARE YOU THE SAME RALPH J. KENNEDY THAT PREVIOUSLY PROVIDED**
12 **DIRECT TESTIMONY ON THIS MATTER?**

13 **A.** Yes I am.

14 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS**
15 **PROCEEDING?**

16
17 **A.** The purpose of my rebuttal testimony is to respond to certain direct testimony
18 submitted by the Arizona Corporation Commission's (the "Commission") Utilities
19 Division Staff ("Staff"), the Residential Utility Consumer Office ("RUCO") and the
20 City of Casa Grande ("City") in this rate proceeding.

21 Specifically, the issues I will address include:

- 22
- 23 • Purchased Power and Purchased Water Adjustor Mechanisms
 - 24 • Weighted Cost of Capital
 - 25 • Rate Design
 - 26 • City of Casa Grande Testimony

27 **Q. HAVE YOU PREPARED ANY EXHIBITS AS PART OF YOUR PRESENTATION**
28 **IN THIS PROCEEDING?**

1 A. Yes, I have prepared the following exhibits that are attached to this testimony:

2 Exhibit RJK-R1 Staff Data Responses

3 Exhibit RJK-R2 RUCO Data Responses

4 Exhibit RJK-R3 Price Elasticity E-mail to Staff

5 Exhibit RJK-R4 Eastern Group Price Elasticity

6
7 **II. Purchased Power And Purchased Water Adjustment Mechanisms**

8 **Q. HAVE BOTH THE STAFF AND RUCO RECOMMENDED THAT THE**
9 **WESTERN GROUP POWER AND WATER ADJUSTMENT MECHANISMS BE**
10 **ELIMINATED?**

11 A. Yes, they have.

12 **Q. DO YOU AGREE WITH THE STAFF AND RUCO RECOMMENDATION ?**

13 A. No. State agencies such as the Commission and the Residential Utility
14 Consumer Office ("RUCO") should not make recommendations that disregard
15 Arizona law authorizing purchased power and purchased water adjustment
16 mechanisms. Recommendations of state agencies and their staffs should
17 support not subvert State law and policies.

18
19 **Q. ARE YOU SAYING THAT THERE IS A STATE LAW OR POLICY THAT**
20 **SUPPORTS PURCHASED POWER AND PURCHASED WATER ADJUSTOR**
21 **MECHANISMS SUCH AS THE MECHANISMS THE COMPANY HAS HAD IN**
22 **EFFECT FOR OVER 20 YEARS?**

23 A. Yes, I am.

24 **Q. WHAT SPECIFIC STATE LAW OR POLICY SUPPORTS PURCHASED**
25 **POWER AND PURCHASED WATER ADJUSTOR MECHANISMS?**

26
27 A. A.R.S. § 40-370.A provides:
28

1 *[The Commission shall authorize water utilities to recover*
2 *increases in specific operating costs by means of a surcharge on*
3 *water sales and to reduce rates when those specific operating*
4 *costs decrease. The operating costs that may be considered in this*
5 *procedure are limited to specific, readily identifiable costs that are*
6 *subject to the control of another person, including **the cost of***
7 ***purchasing electricity or gas, the cost of purchasing water***
8 ***from another utility, municipality or district and the payment of ad***
9 ***valorem taxes or any similar tax or assessment levied on the water***
10 *utility. The surcharge shall not exceed ten per cent of current rates.*
 (emphasis added)

11 **Q. ARE INCREASES IN THE COST OF PURCHASED POWER AND**
12 **PURCHASED WATER WITHIN THE COMPANY'S CONTROL?**

13 A. No. The cost of CAP water is based on charges approved year-to-year by the
14 Central Arizona Water Conservation District ("CAWCD"). Rates for power are set
15 by the Commission in the case of the Company's principal power supplier,
16 Arizona Public Service Company, and co-op suppliers. The Company has no
17 say in whether these rates go up or down.

18
19 **Q. MR. LUDDERS TESTIFIED THAT THESE EXPENSES CONSTITUTE A VERY**
20 **SMALL PERCENTAGE OF OPERATING EXPENSES. DO YOU AGREE?**

21 A. No I do not. The data in the Table that Mr. Ludders presented on page 8 of his
22 direct testimony is inaccurate and misleading. Mr. Ludders compared the
23 Company's test year 2003 adjusted purchased power expense to total operating
24 expenses as presented on the Company's Schedule C-1. Unfortunately,
25 however, Mr. Ludders' Table was off by a multiple of 100, For example, Casa
26 Grande's purchased power expense is not .1202%, it's 12.02%. Even if Ludders'
27 percentages were corrected, as the following Table does in the shaded column,
28

1 his comparison to total operating expenses misses the point of an adjustor
 2 mechanism.

3
 4 **Table 1**

System	Purchased Power As A Percent Of			Purchased Water As A Percent Of		
	Operating Expenses	O & M Expenses	Operating Income	Operating Expenses	O & M Expenses	Operating Income
<i>Ludders Corrected</i>						
Ajo	0.79%	1.01%	8.58%	54.86%	54.86%	467.24%
Casa Grande	12.02%	19.40%	68.66%	11.92%	11.92%	42.20%
Stanfield	16.56%	30.17%	67.27%	0.00%	0.00%	0.00%
White Tank	11.84%	20.79%	64.56%	9.91%	9.91%	30.78%
Coolidge	7.34%	11.64%	96.69%	6.69%	6.69%	55.59%

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 11
 12 Purchased power or purchased water, as a percentage of total operating
 13 expenses does not provide meaningful information to a decision maker. A far
 14 more relevant comparison is purchased power or purchased water as a
 15 percentage of total operating income, also shown in Table 1. As the Arizona
 16 Court of Appeals stated in *RUCO v. ACC*, 199 Ariz. 588, 20 P.3d 1169 (Az. App.
 17 2001):

18 *Automatic adjustment clauses are designed to ensure that utilities*
 19 *maintain a relatively constant profit despite an increase in a specific*
 20 *cost anticipated by the adjustment clause. An automatic increase*
 21 *allows a utility to recoup cost increases by passing the costs on to*
 22 *the customer, while at the same time maintaining the utility's net*
 23 *income. The same is true in the converse situation, that of an*
 24 *automatic decrease. The decrease in cost is passed on to the*
 25 *customer without disturbing a utility's profit. In essence, an*
 26 *automatic adjustment clause is designed to offset cost increases or*
 27 *decreases, leaving the utility's ultimate net income unchanged.*
 28

1 Q. DO THE ADJUSTER MECHANISMS REQUESTED BY THE COMPANY
2 SERVE THIS PURPOSE?

3 A. Absolutely. The proposed purchased water and power adjustor mechanisms are
4 used to prevent erosion or expansion of authorized net operating income
5 because of costs entirely beyond the Company's control. In addition to a sudden
6 large change such as the Company experienced when its San Manuel water
7 supplier increased the cost of water, several relatively small changes over time in
8 a system's purchased power or purchased water expenses can easily trigger the
9 need for a general rate application. We have followed the approach outlined in
10 A.R.S. § 40-370 with mechanisms that strengthen the financial capacity of the
11 Company and reduce the cost of ratemaking. It is prudent, just and reasonable
12 to retain the Company's longstanding, Commission-approved existing purchased
13 power and purchased water mechanisms.
14

15
16 **III. Weighted Cost Of Capital**

17 Q. WHAT IS STAFF'S AND RUCO'S PRIMARY AREA OF DISAGREEMENT
18 WITH THE COMPANY'S COST OF CAPITAL?

19 A. The primary area of disagreement concerns the appropriate cost of common
20 equity. The Company recommends a cost of common equity equal to 11.25%,
21 which results in a weighted or composite cost of capital of 10.50%. In contrast,
22 Staff recommends a cost of common equity of 9.1% and a weighted cost of
23 capital of 8.9%, while RUCO recommends a 9.44% cost of common equity and a
24 weighted cost of capital of 9.17%. See Ramirez Dt. at 34 and Schedule AXR-1;
25 Rigsby Dt. at 44 and Schedule WAR-1.

26 Q. WHAT IS THE IMPACT OF THE PARTIES' DIFFERENT COST OF CAPITAL
27 RECOMMENDATIONS ON THE WESTERN GROUP'S REQUIRED INCREASE
28 IN REVENUE?

1 A. The weighted cost of capital is used by all of the parties as the rate of return on
2 the Company's rate base. Staff's cost of capital reduces the required increase in
3 revenue for the Western Group by \$768,000, which is approximately 29% of the
4 Company's requested revenue increase. RUCO's recommended cost of capital
5 reduces the required increase in revenue for the Western Group By \$639,000, or
6 24% of the revenue increase!

7 The Western Group must add arsenic treatment facilities this year to meet
8 EPA's January 26, 2006 deadline. As these facilities are placed in service later
9 this year, the Company's short-term debt will increase rapidly. The Company
10 plans to seek bids and hopes to be able to issue \$15 - \$20 million of a new
11 series of long-term bonds before year-end. The decision in this case will impact
12 the Company's ability to finance the arsenic treatment facilities as well as the
13 cost of the new debt.

14 **Q. WHAT RETURN ON EQUITY WAS AUTHORIZED IN THE COMPANY'S**
15 **EASTERN GROUP RATE CASE IN 2004?**

16 A. In our Eastern Group rate case, Staff recommended a return on equity of 9.0%.
17 That recommendation was based on the DCF model and the Capital Asset
18 Pricing Model ("CAPM") – the same finance models being used by Staff in this
19 case. Staff's basic cost of equity, using its six "proxy" publicly traded water
20 utilities, was 9.2%. However, Staff recommended that this return on equity be
21 reduced by 20 basis points to 9.0% based on Arizona Water's capital structure.
22 The Commission rejected this downward adjustment and authorized a return on
23 equity of 9.2%. In this case, Staff is recommending a return on equity of 9.1%,
24 which, if adopted, would be even lower than their return on equity authorized by
25 the Commission in the Eastern Group case.

26 **Q. MR. KENNEDY, ISN'T IT TRUE THAT INTEREST RATES HAVE**
27 **DECREASED DURING THE PAST FOUR YEARS, JUSTIFYING A LOWER**
28 **RETURN ON COMMON EQUITY IN THIS CASE?**

1 A. No. While it is true that interest rates have declined, they generally reached their
2 low point in mid-2003, when Staff and RUCO prepared their testimony in the
3 Eastern Group case. Since that time, interest rates have been increasing, and
4 as Dr. Zepp explains, interest rates are forecasted to continue in increase over
5 the next year. Considering the relationship between interest rates and the cost
6 of equity, the cost of equity should be increasing. Staff's recommendations,
7 however, are stagnating around 9%, as this case and Chaparral City Water
8 Company's pending rate case demonstrate. As stated, Staff recommended a
9 return on equity of 9.1% in this case and 8.9% for Chaparral City. It is my view
10 that the particular versions of the finance models used by Staff are designed to
11 depress the cost of equity for Arizona utilities.

12 **Q. DO YOU AGREE THAT SPECIFIC COMPANY RISK NEED NOT BE**
13 **CONSIDERED?**

14 A. No. I have never met an investor who believes that researching the specifics of a
15 company before investing in it is unnecessary because of holding a diversified
16 portfolio. Actual investors seek to minimize their risks and maximize their
17 returns, both by diversification and by research on the risks and returns of
18 individual companies. The research can take many forms such as relying on a
19 broker to sift out and recommend the best investments, by independent
20 fundamental analysis, by studying various rating and analysis reports on
21 potential investments such as those produced by Value Line, Morningstar or
22 Standard & Poors. In addition large investors frequently are able to visit the
23 companies they are interested in and meet with management to learn more
24 about a particular company.

25 **Q. MR. KENNEDY DOES THE MARKET PRICE UNIQUE RISK?**

26 A. Yes it certainly does. The answer to this question should be as obvious as the
27 fact that when the price of water goes up, the quantity demanded will go down.
28 Any attentive market observer can see the market price of individual companies

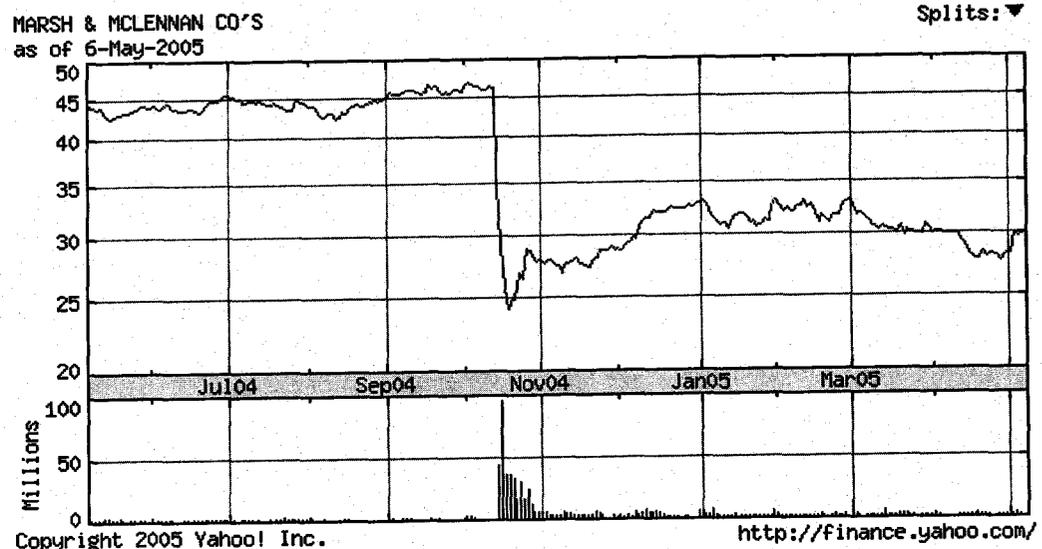
1 being repriced for unique risks as they become known to the market. Here are
2 some recent and massive repricing examples that occurred due to a change in
3 perceived risk.

4 • *"Due to the ongoing probes into its accounting, AIG delayed the*
5 *filing of its annual 10-K financial report—which was due last week to the SEC—*
6 *and its stock has plummeted recently amid speculation a major readjustment*
7 *could be announced."*

8 <http://www.nationalunderwriter.com/pandc/nuonline/032805/p12takingthefifth.asp>

9 • *Some of the nation's largest insurance companies are accused in*
10 *Spitzer's suit of steering contracts and bid rigging, including AIG, ACE (ACE),*
11 *The Hartford (HIG) and Munich American Risk Partners. Other insurance*
12 *companies are being investigated in a scheme that Spitzer said raises*
13 *everyone's insurance premiums.*

14 *Wall Street reacted harshly Thursday, wiping out more than \$26*
15 *billion in market value of the four companies traded in the USA. Munich is a*
16 *subsidiary of Germany's Munich Re. Marsh and others named in the complaint*
17 *said they are cooperating with Spitzer (USA Today, October 15, 2004).*



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Obviously, in the real world, unique, specific company risks are priced by the market. They should not be ignored when estimating the cost of equity.

Q. WHAT UNIQUE SPECIFIC RISKS SHOULD BE CONSIDERED IN ARRIVING AT THE COMPANY'S COST OF EQUITY?

A. The Company is more risky than the water utilities sample and thus its required common equity return is higher. The Company faces the following specific risks, as discussed in Zepp DT at 9-10.

1. The Company faces risk that stems from the use of an historical test year with limited opportunities for out-of-period adjustments. While many regulators use future test years, the Arizona Commission has discussed limiting the pro forma adjustments allowed to a historical test year.
2. The Commission eliminated its PPAM and PWAM in the Eastern Group. Such purchased power cost and purchased water cost adjusters are similar to ones available to the water utilities sample and thus the Company is now more risky than the water utilities sample.
3. The Company's arsenic treatment cost recovery mechanism ("ACRM") does not provide the opportunity to recover all costs of meeting the new federal arsenic MCL.
4. The Company faces risk due to the Commission's proposed policy that Staff consider the appropriateness of an inverted three-tiered commodity rate structure for all water company rate cases to encourage reductions in water use without any recognition of the revenue lost

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through the reduction in water use which will reduce revenues and increase their volatility.

Mr. Zepp concluded that based on the above risks that are greater for the Company than for the water utilities sample, the Company has an equity cost that is at least 50 basis points higher than the benchmark water utilities. Staff's proposal to deny recovery of the Company's CAP cost is a further risk factor.

Q. HOW DO THE RESULTS OF STAFF'S FINANCE MODELS COMPARE TO ACTUAL RETURNS ON EQUITY?

A. The results of Staff's model are definitely lower than the returns being earned by the sample water utilities.

<u>Water Utility</u>	<u>Return on Equity</u>	<u>Authorized Return on Equity</u>
American States	8.0%	10.0%
Aqua America	11.4%	10.08%
California Water	9.8%	9.7%
Connecticut Water	11.4%	12.7%
Middlesex Water	8.3%	10.0%
SJW Corp.	<u>11.3%</u>	<u>9.9%</u>
Average	10.0%	10.4%

AUS Monthly Utility Report (April 2005). Staff's recommendation is below what its sample water utilities are actually earning on average, and below what they are authorized to earn on average.

When combined with the additional risk faced by the Company, it is apparent that the recommendation of Staff, as well as that of RUCO, does *not* meet the financial integrity, capital attraction and comparable earnings criteria for setting just and reasonable rates established by the courts.

IV. Rate Design

Q. HOW DID STAFF EXPLAIN ITS PROPOSED THREE-TIER RATE DESIGN?

1 A. Staff did not explain it except for the following very general and vague sentence
2 on lines 15 through 18 of Mr. Ludders' direct testimony:

3
4 "Because of the ever-increasing demand for a finite resource, innovative and
5 more complex rate structures are being proposed nationwide and internationally
6 in an attempt to properly affect consumer choices."

7 Staff fails to show how its arbitrary three-tier rate design is "innovative" or how it
8 is expected to deal with "ever-increasing demand." In fact, there is no explanation
9 of what Staff expects its rate design to achieve. In past cases, Staff has admitted
10 that its tiered rate designs would not reduce water consumption, i.e. have a
11 conservation effect, Brown Data Response 2.4 in Docket No. W-01445A-00-
12 0962; Thornton, Dt at 6 (Exhibit S-40) in Docket No. W-01445A-02-0619, and it is
13 unable or unwilling to develop a required price elasticity adjustment to account
14 for the revenue that would be lost if its rate design actually resulted in
15 conservation through reduced water sales. Mr. Ludders' testimony provides no
16 adequate support for Staff's recommendation that all 5/8" x 3/4" customers
17 receive a large usage discount that is less than the current rate. This discounted
18 water recommendation undermines the effect of reducing the 1,000 gallons of
19 free water in the minimum.
20

21 **Q. WHY DIDN'T THE COMPANY PROPOSE A THREE TIER RATE DESIGN AS**
22 **PART OF ITS DIRECT CASE?**

23 A. The Company has seen no data or evidence that three tier inverted block rates
24 are the best way to use rate design to achieve water conservation, particularly for
25 investor owned water utilities in Arizona. Staff's understanding and ability to
26 design tiered rates appears to be evolving, but continues to have notable short-
27 comings:
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- Staff fails to recognize and adjust rates for price elasticity.
- Staff fails to provide any protection to the Company for the increased revenue volatility that results from the tiered rate design.
- Staff fails to justify an intentional subsidy in pricing the first block of water for the 5/8" x 3/4" meter size.
- Inequitable rates for the larger meter sizes.

Q. WHAT ABOUT RUCO'S RECOMMENDED RATE DESIGN?

A. RUCO's rate design mimics the design the Staff proposed two years ago in the Company's Eastern Group proceeding and it suffers from the same shortcomings of that earlier design.

Q. I ASSUME, MR. KENNEDY, THAT THE RATE DESIGN BEING PROPOSED BY STAFF WILL RESULT IN REDUCTIONS IN WATER USAGE.

A. Staff doesn't know if it will or not. The Company, in a data request, asked Staff to provide an estimate of the reduction in water use resulting from Staff's proposed rate design as well as the reduction in revenue that would result from reduced water usage. Staff responded to that data request by stating:

"It is possible that an increase in rates, be it single tier or a triple tier will result in reductions in water use. Staff has maintained that water usage effects of an inverted 3-tier rate design are long-term. In the short-term, Staff does not expect, any change will not be known and measurable [sic]."
Rebuttal Exhibit RJK-R1, DR 2-17

That answer is consistent with the testimony provided by Staff rate design witnesses in the Company's prior Eastern Group and Northern Group rate cases. In each of those cases, the Staff witness admitted that it is unclear whether

1 Staff's proposed rate design would have any impact on water usage, and the
2 Staff's rate design was rejected.

3 **Q. WOULD YOU PLEASE ELABORATE ON YOUR DISCUSSION OF THE**
4 **SHORT-COMINGS IN STAFF'S AND RUCO'S RECOMMENDED RATE**
5 **DESIGNS?**

6 **A.** Certainly. The most fundamental and significant failure is the absence of an
7 adjustment for price elasticity. The Commission's stated objective for tiered rates
8 is to reduce water consumption. For example, Staff's Proposed Policy For Water
9 System Tiered Rate Design, which is available on the Commission's web site
10 states:

11
12 "Pricing/rate design is the Commission's primary means of
13 encouraging conservation. The Commission can do this by
14 implementing inverted block rates, i.e., tiered rates."

15 Unfortunately while espousing the water saving aspect of inverted tiered rates,
16 Staff and now RUCO fail to look at the other side of the coin: the amount of
17 expected revenue that is lost when consumption decreases due to the tiered
18 rates.

19 Numerous economic studies show that the demand for potable water is
20 price inelastic. This means that there is a reduction in use when prices go up,
21 but the percentage reduction in use is less than the percentage increase in price.
22 This undeniable fact forms the rationale for tiered rates. It also demands that
23 rate analysts consider and adjust for the effects of price elasticity, namely, lower
24 water sales and lower revenues than assumed by Staff's and RUCO's rate
25 design.
26

27 **Q. WHAT STUDIES DID STAFF PERFORM IN CONNECTION WITH**
28 **DEVELOPING ITS PROPOSED RATE DESIGN IN THIS CASE?**

1 A. Staff performed no studies or other analysis. In response to Company data
2 requests, Staff admitted that it did not perform a cost of service study or similar
3 analysis in connection with developing its proposed rate design. Exhibit RJK-R1,
4 DR 2-14. Moreover, Staff failed to conduct a billing analysis and study of the
5 impacts that its proposed rate designs would have on various customers. *Id.* DR
6 2-15. Finally, Staff has admitted that it failed to conduct an analysis of possible
7 consumption and revenue impacts in connection with developing its proposed
8 rate design. *Id.* DR2-16. In fact, when asked by the Company whether
9 customers at average monthly usage and median monthly usage, served by
10 meters other than 5/8" x 3/4" would experience an increase in their utility bills,
11 Staff was unable to provide an answer. *Id.* DR 2-21. In other words, Staff made
12 absolutely no effort to evaluate the impact of its rate design on customers, and
13 has no idea of the impact of its rate design on either the Company or its
14 customers.
15

16
17 **Q. MR. KENNEDY IN THE LAST TWO COMPANY RATE CASES AND IN**
18 **STAFF'S CURRENT PROPOSED RATE DESIGN HAVE THE EFFECTS OF**
19 **PRICE ELASTICITY BEEN DOCUMENTED AND ADDRESSED?**

20 A. No. Staff did not address price elasticity in the Company's Northern Group case.

21 "Staff has no data on the price elasticity of characteristics of
22 customers. Therefore, a reduction in consumption and due to
23 tiered rates is not expected." (Brown, DR 2.4).

24 In the more recent Eastern Group case Staff concluded, without any
25 supporting evidence (Thornton Dt at 6):

26 Economists would say that water is "price inelastic." Therefore,
27 Staff did not make any changes to test year bill counts in
28 conjunction with the three tiers.

1 This statement is strongly contradicted by the National Regulatory Research
2 Institute ("NRRRI"). One of the very rate design manuals that Staff relies on to
3 develop rates, the NRRRI 1990 Cost Allocation and Rate Design for Water
4 Utilities, describes price elasticity as follows on page 31.

5 In economics, demand is viewed as the inverse relationship
6 between price and quantity consumed. The price elasticity of
7 demand measures the percentage change in quantity demanded in
8 response to a percentage change in price. That is, price elasticity
9 measures the sensitivity of quantity consumed to price changes.

10 **Estimating price elasticity is an important component of**
11 **demand forecasting and revenue projection. If a rate change is**
12 **anticipated, its effect on demand and revenues must also be**
13 **anticipated by utilities and their regulators. (emphasis supplied)**

14
15 The need for a price elasticity adjustment is widely recognized and
16 undisputed by the two most influential organizations that perform research and
17 provide books and classes on rate design. Both the NRRRI and the American
18 Water Works Association ("AWWA") emphasize the importance of utilizing price
19 elasticity effects in designing rates.

20 According to the AWWA, estimating price elasticity is an important
21 component of water revenue forecasting and rate design. If a rate change is
22 anticipated, the water utility must consider its effect on usage and revenues.
23 Where it is not cost-effective for water utilities to conduct demand studies,
24 **results of existing research can be used to develop benchmarks for**
25 **estimating the usage effects of rate changes.** Demand forecasts should
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1 account for price effects on use as an essential element in developing accurate
2 revenue forecasts,¹

3 **Q. MR. KENNEDY ARE YOU AWARE OF ANY RESEARCH THAT COULD BE**
4 **USED TO ESTIMATE THE USAGE EFFECTS OF RATE CHANGES AS THE**
5 **AWWA RECOMMENDS?**

6
7 **A.** Yes, I am. The Governor's Drought Task Force included the following discussion
8 of price elasticity in its June 10, 2004 draft:

9 Beecher's reviewed over 100 studies of the price elasticity of
10 demand with the following conclusions (Beecher 1994).

- 11
- 12 • The most likely range for elasticity of residential water demand
 - 13 is -.20 to -.40, meaning a 10 percent increase in price lowers
 - 14 demand by 2 to 4 percent; and
 - 15 • The most likely range for elasticity of industrial water demand is
 - 16 -.50 to -.80, meaning a 10 percent increase in price lowers
 - 17 demand by 5 to 8 percent.

18 **Q. WAS THE STAFF AWARE OF THESE WIDELY ACCEPTED PRICE**
19 **ELASTICITY ESTIMATES?**

20 **A.** Yes, they were. I sent an email to three members of the Staff on November 23,
21 2004 that included the same information as referenced above. A copy of that
22 email is reproduced as Exhibit RJK-R3.

23 **Q. DOES THE COMPANY HAVE ANY DATA FROM ITS OTHER SYSTEMS TO**
24 **SUPPORT YOUR TESTIMONY?**

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28 ¹ American Water Works Association, *Principles of Water Rates, Fees, and Charges*, Fifth Ed., 157-160

1 A. Yes. The Commission imposed a three tier inverted block rate design for each of
2 the eight systems in the Company's Eastern Group in Decision No. 66849 (March
3 19, 2004), without any price elasticity adjustment. The Company accumulated
4 billing data beginning with April 2004, the first full month the new rates were in
5 effect, through March 2005. This enabled us to make an estimate of the price
6 elasticity of demand.
7

Eastern Group Price Elasticity		
<u>% Change In Quantity</u>	-7.00% =	-0.57
% Change In Price	12.23%	

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12 The Eastern Group increase per customer was 12.23% and the change in
13 consumption per customer was -7.00% resulting in a price elasticity of -.57, as
14 shown above and calculated on Exhibit RJK-R4. The Company's actual
15 experienced price elasticity is within the ranges predicted by Beecher.
16

17 **Q. WOULD YOU PLEASE EXPLAIN YOUR CONCERNS OVER THE FAILURE OF**
18 **STAFF AND RUCO TO ADDRESS THE INCREASED REVENUE VOLATILITY**
19 **THAT WILL RESULT FROM THEIR RATE DESIGNS?**

20 A. Yes. The increased revenue volatility caused by tiered rates is a serious
21 concern. In AWWA's rate design manual, the following Revenue Stability
22 discussion is presented under the Advantages and Disadvantages of Increasing
23 Block Rates.

24 Increasing block rate structures tend to result in more revenue
25 volatility than other rate designs (i.e. decreasing and uniform block
26 rates). This revenue volatility is because an increasing block rate
27 anticipates recovering a proportionately greater percentage of the
28 customers class's revenue requirement at higher levels of

1 consumption. These higher levels of consumption tend to be more
2 subject to variations in seasonal weather and, when coupled with a
3 higher unit pricing, customers tend to curtail consumption in these
4 higher consumption blocks. As a result, a utility implementing an
5 increasing block rate structure is advised to have a good
6 understanding of the distribution of water demand by customer
7 class and of price elasticity of demand.²

8 Staff (and RUCO) continue to ignore this short-coming of their rate design
9 proposals exposing the Company to lost revenue, more volatile net operating
10 income and eroding financial health.

11 **Q. HOW COULD THIS PROBLEM OF INCREASED REVENUE VOLATILITY BE**
12 **ADDRESSED?**

13 **A.** The AWWA manual recommends the following solution to the revenue volatility
14 problem.

15 "A utility concerned about adverse revenue effects resulting from an
16 increasing block rate design might consider developing a reserve,
17 often referred to as a **stabilization fund**. A stabilization fund
18 allows a utility to draw on the fund balance during revenue
19 shortfalls that result from lower than expected consumption."³

20 However, inverted block rates are not as well suited for a regulated water utility
21 as they are for a municipal water utility. This is especially true if the regulated
22 water utility's rates are based on a historical test year, as compared to a
23 municipal utility that bases its rates on future budgeted and planned construction.

24 A municipality can justify higher commodity revenue and rates by considering the
25

26
27 ² *ibid*, p100

28 ³ *ibid*, 100

1 revenue stream required to fund its five year construction estimates rather than
2 limiting the increase to a return on an historical rate base. In other words, a
3 municipality's rates will generally be based more on future marginal costs than
4 historical costs. It is also easier for a municipality to handle the volatility in
5 revenue resulting from inverted tiered rates by establishing a reserve fund to deal
6 with revenue shortfalls, a stabilization fund.
7

8 In any case, continuing to ignore this problem when tiered rates are
9 imposed on regulated water utilities to encourage water conservation weakens
10 their financial capability and increases risk by decreasing revenue stability and
11 thereby increases the volatility of their net operating income.

12 **Q. WHAT ABOUT THE SUBSIDY IN THE PROPOSED RATE DESIGNS**
13 **OFFERED BY THE OTHER PARTIES?**

14 **A.** Staff and RUCO provide an unreasonable and discriminatory discount to all
15 customers receiving service with a 5/8" x 3/4" meter. During the 2003 test year,
16 Casa Grande customers receiving service with a 5/8" x 3/4" meter received
17 149,713.6 MGal of water at no charge due to the 1,000 gallons allowed in the
18 minimum at no cost. Consistent with its Northern Group and Eastern Group rate
19 designs, the Company proposed to eliminate this "free water" allowance. Neither
20 Staff nor RUCO objected. Instead, though, Staff and RUCO now propose to
21 provide discounted water to this group of customers. Staff's Casa Grande
22 discount is priced 16.7% less than the rate levels proposed for the second block
23 and is applied to 422,457.7 MGal or 25% of the total consumption by this group
24 of customers, as illustrated on the second line of the following table. In Casa
25 Grande, Staff's proposed discounted rate is only 75% of the \$1.559 rate that
26 these customers have been paying since January 1, 1993. Customers taking
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service with a 5/8" x 3/4" meter and using up to 250,000 gallons per month will receive 3,000 gallons of discounted water!

	Cost Of Staff's 5/8" x 3/4" Discount On 3,000 Gallons				% Of Staff's
	<u>Discounted MGal</u>	<u>% of Size Consumption</u>	<u>Cost Of Discount</u>		<u>NOI Deficiency</u>
Ajo	17,805.2	42.4%	@ 4.50 MGal (-18.2%)	\$ 80,123.40	206%
Casa Grande	422,457.7	25.0%	@ 1.25 MGal (-16.7%)	105,614.43	40%
Stanfield	6,642.90	27.3%	@ 2.00 MGal (-28.6%)	13,285.80	355%
White Tank	41,943.6	21.5%	@ 1.50 MGal (-33.3%)	62,915.40	190%
Coolidge	91,590.3	26.4%	@ 1.25 MGal (-37.5%)	<u>114,487.88</u>	151%
Total Cost Of Discount				\$ 376,426.90	90.3%

Q. WHAT IS THE IMPACT ON REVENUE OF OFFERING THIS DISCOUNTED RATE TO 5/8" X 3/4" CUSTOMERS?

A. This discount for all 5/8" x 3/4" customers in the Western Group reduces the revenue provided by customers with this meter size by \$376,426.90. To put this dollar discount in perspective, it represents 90.3% of the total Western Group Net Operating Income Deficiency Staff calculated and reported on line 6 of Schedule REL -1. The cost of this discount will be recovered from the larger size meters.

Q. ARE THERE ANY OTHER PROBLEMS WITH STAFF'S PROPOSED RATE DESIGN?

A. Yes. Staff's break-over point between the first and second commodity rate blocks for customers served by 5/8" x 3/4" meters is set at only 3,000 gallons. The commodity rate applicable to usage in the initial block is substantially less than the Company's existing commodity rate. Moreover, the commodity rate applicable to usage in the second rate block is also less than the Company's existing commodity rate. As a result, Staff is effectively proposing a misguided

1 "lifeline" rate rather than a conservation-oriented rate for customers on 5/8" x 3/4"
2 meters.

3 **Q. WHAT IS A "LIFELINE" RATE?**

4 **A.** By definition, a lifeline rate is intended to provide a minimum volume of water
5 service at a substantially reduced cost to residential customers who find it difficult
6 to afford water service due to their income levels. With respect to that type of
7 rate design, the AWWA provides the following recommendations:
8

9 First, lifeline rates should be offered only to residential customers who
10 meet certain income eligibility requirements. The reason for this
11 recommendation is obvious: discounted rates are contrary to basic cost of
12 service principles and are not economically efficient. Discounted rates produce a
13 subsidy that must be recovered by means of higher rates from the remaining
14 customers. Those customers then pay more than the cost of service.
15

16 Second, the AWWA states that lifeline rates and similar types of
17 discounted rates should not be considered unless the local cost of water service
18 is high relative to other, similar water utilities, or where a significant percentage of
19 residential customers are believed to be unable to afford water service.

20 Third, the AWWA states that lifeline rates and similar types of discounted
21 rates should not be used in areas where there are water shortages or where
22 water use is a concern. The AWWA states that the use of lifeline rates "may
23 encourage greater use among the eligible customers and therefore be
24 inconsistent with the need to reduce water consumption. In this case, the
25 benefits to customers whose water cost might be reduced would have to be
26 weighed against water use concerns." *Id.* at 11. The AWWA also states that
27 these types of discounted rates "provide no conservation or water reduction
28

1 incentive to those that receive the subsidy. Since water is sold below cost, the
2 pricing incentive to reduce consumption is lessened. The impact on demand
3 should be carefully considered in areas where water supplies are scarce." *Id.* at
4 13.

5 **Q. REFERRING TO MR. LUDDERS' DIRECT TESTIMONY, CAN YOU PROVIDE**
6 **A SPECIFIC EXAMPLE THAT ILLUSTRATES THIS PROBLEM?**

7 **A.** Yes. Please refer to Schedules REL-15 and REL-16 for the Coolidge water
8 system, which are attached to Mr. Ludders' direct testimony. Page 1 of Schedule
9 REL-15 sets forth Staff's proposed commodity rates and break points for
10 customers served by 5/8" x 3/4" meters. At present, the Company charges
11 \$2.092 per 1,000 gallons (with 1,000 included in the monthly minimum service
12 charge). Under Staff's proposal, the commodity rate for all usage up to 3,000
13 gallons would be only \$1.25 per 1,000 gallons, while the commodity rate for all
14 usage between 3,000 gallons and 10,000 gallons would be \$2.00 per 1,000
15 gallons. In the upper rate block, applicable to usage in excess of 10,000 gallons,
16 Staff's proposed commodity rate is \$3.00 per 1,000 gallons.

17 **Q. HOW WILL THE SUBSIDY CREATED BY STAFF'S RATE DESIGN BE**
18 **RECOVERED?**

19 **A.** As the AWWA manual on *Alternative Rates* indicates, the subsidy must be
20 recovered from customers on larger meters. In order to determine the magnitude
21 of this subsidy, the Company asked Staff in a data request to provide the rate of
22 return on rate base for each meter size based on Staff's proposed rate design
23 and recommended revenue. In its response, Staff stated that it could not provide
24 this information because it failed to perform a cost of service study in RJK-R1,
25 DR 2-14.
26
27
28

1 In short, although Staff's understanding and ability to design tiered rates
2 appears to be evolving, it still has several notable short-comings:

- 3 • A failure to recognize and adjust rates for price elasticity.
- 4 • A failure to provide any protection to the Company for the increased
5 revenue volatility that results from the tiered rate design.
- 6 • An intentional subsidy in pricing the first block of water for the 5/8" x
7 3/4" meter size that penalizes customers on larger meters.

8
9 **Q. WHAT ABOUT RUCO'S PROPOSED RATE DESIGN?**

10 **A.** RUCO's two-tier rate design also has serious short-comings. Specifically, RUCO
11 has repeated Staff's earlier mistake in the Company's Eastern Group rate
12 proceeding by applying the same blocking factors to each Western Group system
13 and all meter sizes within each system. Thus, RUCO proposes to price the first
14 4,000 gallons at the lower first block price and prices all consumption greater
15 than 4,000 gallons at the higher second block rate. As I explained in my rebuttal
16 testimony in the Eastern Group proceeding, this shifts a greater percentage of
17 the larger meter sizes consumption into the higher priced second tier, but it fails
18 to project any reduction in sales to customers with those larger meters.

19
20 RUCO's rate design with uniform break points prices 32% of the Casa
21 Grande system 5/8" x 3/4" consumption at the lower first block price of
22 \$1.00/MGal and the remainder at the second block price of \$1.59/MGal.
23 Applying the same blocking to the 2" meter size results in only 2% of
24 consumption being priced at the lower first block price of \$1.00 MGal and 98%
25 being priced at the higher second block price of \$1.59. For the 6" meter size
26 99.86 of the consumption is priced at the higher second block price of \$1.59. This
27 same effect occurs in every Western Group system for all meter sizes greater
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than 5/8" x 3/4". This is clearly discriminatory and RUCO's proposed rate design should be rejected.

Q. HOW DO YOU RECOMMEND THAT THE REMAINING SHORT-COMINGS OF STAFF'S TIERED RATE DESIGN BE ADDRESSED?

A. Both price elasticity and the heightened revenue volatility need to be addressed either by modifying Staff's tiered rate design directly to make up for the revenue loss or by providing some other mechanism. The increased revenue volatility could be addressed through a stabilization fund as AWWA suggests or by providing a specific rate of return increase. The best solution would be to continue the Company's cost of service based rate design until Staff completes a tiered rate design model that specifically addresses price elasticity and revenue volatility to eliminate the remaining short-comings of its current proposed model.

Q. DID RUCO PREPARE A COST OF SERVICE STUDY, OR OTHERWISE PERFORM AN ANALYSIS OF THE IMPACTS OF ITS PROPOSED RATE DESIGN?

A. No. RUCO did not perform any of the studies necessary to support its departure from the Company's proposed rate design, in Exhibit RJK-R2.

V. City Of Casa Grande

Q. HAVE YOU REVIEWED THE DIRECT TESTIMONY OF MR. EDWARD HARVEY ON BEHALF OF THE CITY?

A. Yes, and there are several aspects of Mr. Harvey's testimony I wish to respond to in my rebuttal testimony. To begin with, Mr. Harvey suggests (at page 5 of his direct testimony) that any cost savings resulting from the repurchase of an arsenic treatment demonstration facility be used to reduce the costs of arsenic treatment in other areas served by the Company. Although the Company was

1 awarded two EPA demonstration projects in its Sedona system, part of our
2 Northern Group, those awards were based on system specific criteria. Moreover,
3 I believe that the Commission, in keeping with its longstanding policy, will require
4 that cost savings (or cost increases) in any one system be retained in that
5 system. This was certainly the message of the Commission when it approved
6 the Northern Group ACRM and found that "customers in the Sedona system
7 should not subsidize the costs of Rimrock customers." Decision No. 66400
8 (October 14,2003) at 22.
9

10 **Q. WHAT OTHER COMMENTS DO YOU HAVE IN RESPONSE TO MR.**
11 **HARVEY'S DIRECT TESTIMONY?**

12 **A.** Mr. Harvey expresses concern (at page 5 of his direct) over whether the
13 Company's lease versus buy decisions will be made in the best long-term interest
14 of its customers. Frankly, I think Mr. Harvey lacks sufficient knowledge of the
15 background and testimony of the Phase II portion of the Northern Group Rate
16 proceeding and the resulting Decision No. 66400 to support his concerns. The
17 City was an intervenor in both phases of that proceeding. As part of the
18 Commission's order approving the Northern Group ACRM, the Company was
19 ordered to file a general rate case (for all three of its operating groups) no later
20 than September 30, 2007 based on test year 2006. In that case, Staff, and any
21 other party, will have the opportunity to review the prudence of the Company's
22 lease versus buy decisions.
23

24 **Q. WHAT ABOUT MR. HARVEY'S CONCERNS OVER THE COSTS OF**
25 **FINANCING ARSENIC TREATMENT FACILITIES?**
26

27 **A.** Mr. Harvey also testifies (at page 5) that the Company might have been able to
28 obtain lower cost financing if municipalities, like the City, played a larger role. It

1 is not clear what role Mr. Harvey envisions for the City, but the Commission has
2 already found that the Company has made reasonable efforts to investigate the
3 availability of grants and loans for arsenic treatment facilities and expressed its
4 expectation that the Company continue to monitor the availability of all grants
5 and financing sources in order to mitigate the rate impact on its customers.
6 Decision No. 66400 at 17.
7

8 **Q. IS THE COMPANY CONTINUING TO MONITOR FINANCING OPTIONS?**

9 **A.** Yes. Unfortunately, with respect to WIFA, specifically mentioned by Mr. Harvey,
10 there simply isn't sufficient funding to meet all the requests for assistance
11 financing arsenic treatment facilities. The Company investigated the availability
12 of grants and loans for financing installation of arsenic treatment facilities through
13 Internet searches and a meeting and discussion with WIFA.
14

15 On its own, prior to the Commission's directive, the Company had
16 applied for eligibility to participate in the EPA's Treatment Technology Research
17 Demonstration program for all of its water systems where arsenic levels
18 exceeded 10 ppb including the Company's Casa Grande system. EPA has built
19 10 full-scale demonstration plants nationwide in the first phase of this program.
20 Two of the first phase demonstration plants were built in the Company's Northern
21 Group, one in the Rimrock water system and the other in the Valley Vista water
22 system that is within the Sedona system. At the conclusion of the demonstration
23 project the Company may acquire the facility at a significant cost savings.
24

25 The Company also met with representatives of WIFA, the agency that
26 administers the Drinking Water State Revolving Fund for Arizona, to obtain
27 information on the availability of grants and loans for arsenic treatment facilities.
28 WIFA provided information to the Company on the potential sources of grants

1 and loans and eligibility criteria. Even though WIFA identified eight sources for
2 grants or loans for arsenic treatment facilities, seven have restrictions that
3 disqualify the Company. The disqualifying restrictions include population,
4 geographic and income levels. Based upon our discussions with WIFA and
5 review of the eligibility criteria, it appears that the Company would not qualify for
6 seven of the programs.
7

8 The Company, as well as other investor owned water utilities, is eligible to
9 apply for a WIFA loan. WIFA loan requirements, however, conflict with the
10 Company's organization and operations. WIFA loans are granted to single
11 system utilities for a specific project and generally have shorter 5 to 6 year
12 maturities than the Company's existing long-term debt, which is issued for 25 to
13 30 years. The loans are not designed for a multi-system utility with centralized
14 financing and accounting. They are markedly different from the Company's
15 existing financing and accounting methods because WIFA evaluates the
16 borrower on a system basis and requires that rates that will support the loan
17 must be approved prior to the award. WIFA loan proceeds are provided on a
18 draw down basis that requires payment of the vendor's invoices by WIFA instead
19 of the Company. Historically, the Company has combined all of its annual
20 construction projects into a series of one-year loans that would be repaid with the
21 proceeds of a periodic long-term bond issue. The Company's accounting is
22 based on direct payments to its vendors. Also, WIFA's standard administrative
23 requirements are not workable for the Company.
24
25

26 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY MR. KENNEDY?**
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A. Yes, it does. I would note, though, that my silence on any issue raised or recommendation made by Staff, RUCO, or the City should not be taken as the Company's acceptance of such issue or recommendation.

EXHIBITS

**ARIZONA CORPORATION COMMISSION STAFF'S
RESPONSE TO ARIZONA WATER COMPANY, INC.'S
SECOND SET OF DATA REQUESTS
DOCKET NO. W-01445A-00-0962
July 20, 2001**

2.4 Do you expect the proposed tiered rates to reduce consumption?

~~RESPONSE: Staff has no data on the price elasticity characteristics of customers. Therefore, a reduction in consumption due to tiered rates is not "expected."~~

RESPONDENT(S): Crystal S. Brown, Senior Rate Analyst, Accounting and Rates, ACC

**ARIZONA CORPORATION COMMISSION STAFF'S RESPONSE
TO ARIZONA WATER COMPANY'S SECOND DATA REQUESTS
Docket Nos. W-01445A-04-0650**

May 9, 2005

2-14 Did Staff perform a cost of service study or similar analysis in connection with developing its proposed rate design for each Western Group system? If your answer is in the affirmative, please provide copies of all studies, reports, work papers, published materials and other documents that Staff has used in connection with developing its proposed rate design.

Staff Response: No

Response by: Ronald Ludders

**ARIZONA CORPORATION COMMISSION STAFF'S RESPONSE
TO ARIZONA WATER COMPANY'S SECOND DATA REQUESTS
Docket Nos. W-01445A-04-0650**

May 9, 2005

2-15 In connection with developing its proposed rate design for each Western Group system, did Staff conduct a billing analysis and study of the impacts that its proposed rate designs would have on various customers? If your answer is in the affirmative, please provide a copy of all studies, reports, work papers, published materials and other documents concerning such analysis.

Staff Response: No

Response by: Ronald Ludders

**ARIZONA CORPORATION COMMISSION STAFF'S RESPONSE
TO ARIZONA WATER COMPANY'S SECOND DATA REQUESTS
Docket Nos. W-01445A-04-0650**

May 9, 2005

- 2-16 Did Staff conduct an analysis of possible consumption and revenue impacts in connection with developing its proposed rate design for each Western Group system? If your answer is in the affirmative, please provide copies of all studies, reports, work papers, published materials and other documents relating to such analysis.

Staff Response: No

Response by: Ronald Ludders

**ARIZONA CORPORATION COMMISSION STAFF'S RESPONSE
TO ARIZONA WATER COMPANY'S SECOND DATA REQUESTS
Docket Nos. W-01445A-04-0650**

May 9, 2005

2-17 Does Staff maintain that its proposed rate design for each Western Group system will result in reductions in water use by customers? If your answer is in the affirmative, please provide the following:

- (a) For each Western Group system, please provide an estimate of the reduction in water use resulting from Staff's proposed rate design.
- (b) For each Western Group system, provide the estimated reduction in revenue resulting from reduced water usage by customers.

Staff Response: It is possible that an increase in rates, be it a single tier or a triple tier will result in reductions in water use. Staff has maintained that water usage effects of an inverted 3-tier rate design are long-term. In the short-term, Staff does not expect, any change will not be known and measurable.

Response by: Ronald Ludders

**ARIZONA CORPORATION COMMISSION STAFF'S RESPONSE
TO ARIZONA WATER COMPANY'S SECOND DATA REQUESTS
Docket Nos. W-01445A-04-0650**

May 9, 2005

2-19 For each Western Group system, provide the rate of return on rate base for each meter size based on Staff's proposed rate design and recommended revenue.

Staff Response: Staff would need a Company cost of service study in order to respond.

Response by: Ronald Ludders

**ARIZONA CORPORATION COMMISSION STAFF'S RESPONSE
TO ARIZONA WATER COMPANY'S SECOND DATA REQUESTS
Docket Nos. W-01445A-04-0650**

May 9, 2005

- 2-21 For each Western Group system, please indicate for each meter size whether customers at average monthly usage and median monthly usage will experience an increase based on Staff's rate design and recommended revenue. In your response, please provide the dollar increase and the percentage increase for each meter size other than 5/8 x 3/4 inch meters.

Staff Response: Staff would need a Company cost of service study in order to respond.

Response by: Ronald Ludders

RUCO'S RESPONSE

**SECOND SET OF DATA REQUESTS
FROM ARIZONA WATER COMPANY
TO THE RESIDENTIAL UTILITY CONSUMER OFFICE
(Docket No. W-01445A-04-0650)**

- 2.12 Did RUCO perform a cost of service study or similar analysis in connection with developing its proposed rate design for each Western Group system? If your answer is in the affirmative, please provide copies of all studies, reports, work papers, published materials and other documents that RUCO has used in connection with developing its proposed rate design as well as an electronic version of the study.

Response (Coley):

No.

RUCO'S RESPONSE

**SECOND SET OF DATA REQUESTS
FROM ARIZONA WATER COMPANY
TO THE RESIDENTIAL UTILITY CONSUMER OFFICE
(Docket No. W-01445A-04-0650)**

- 2.13 In connection with developing its proposed rate design for each Western Group system, did RUCO conduct a billing analysis and study of the impacts that its proposed rate designs would have on various customers? If your answer is in the affirmative, please provide copies of all studies, reports, work papers, published materials and other documents concerning such analysis as well as an electronic version of the study.

Response (Coley):

See RUCO's Direct Testimony TJC-19, pages 1-4, and WAR-19, pages 1-4.

RUCO'S RESPONSE

**SECOND SET OF DATA REQUESTS
FROM ARIZONA WATER COMPANY
TO THE RESIDENTIAL UTILITY CONSUMER OFFICE
(Docket No. W-01445A-04-0650)**

- 2.14 Did RUCO conduct an analysis of possible consumption and revenue and revenue impacts in connection with developing its proposed rate design for each Western Group system? If your answer is in the affirmative, please provide copies of all studies, reports, work papers, published materials and other document concerning such analysis as well as an electronic version of the study.

Response (Coley):

No.

RUCO'S RESPONSE

**SECOND SET OF DATA REQUESTS
FROM ARIZONA WATER COMPANY
TO THE RESIDENTIAL UTILITY CONSUMER OFFICE
(Docket No. W-01445A-04-0650)**

2.15 Does RUCO maintain that its proposed rate design for each Western Group system will result in reductions in water use by customers? If your answer is in the affirmative, please provide the following:

- (a) For each Western Group system, please provide an estimate of the reduction in water use resulting from RUCO's proposed rate design.
- (b) For each Western Group system, provide the estimated reduction in revenue resulting from reduced water usage by customers.

Response (Coley):

No.

RUCO'S RESPONSE

**SECOND SET OF DATA REQUESTS
FROM ARIZONA WATER COMPANY
TO THE RESIDENTIAL UTILITY CONSUMER OFFICE
(Docket No. W-01445A-04-0650)**

- 2.16 For each Western Group system, provide an explanation of how RUCO's proposed commodity rate blocks and break-over points were developed. In addition, provide copies of all studies, reports, work papers, published materials and other documents supporting the commodity rate blocks and break-over points recommended by RUCO as well as electronic versions of the study.

Response (Coley):

The 4,000 gallon break-over point for RUCO's two-tiered rate design simply provides a safety net for the consumption of basic needs. The Commission has shown strong support for tiered rates in recent decisions. For the most part, the commodity rate blocks fall below the median consumption level for each system.

RUCO'S RESPONSE

**SECOND SET OF DATA REQUESTS
FROM ARIZONA WATER COMPANY
TO THE RESIDENTIAL UTILITY CONSUMER OFFICE
(Docket No. W-01445A-04-0650)**

2.17 For each Western Group system, provide the rate of return on rate base for each meter size based on RUCO's proposed rate design and recommended revenue.

Response (Coley):

See response to 2.12.

Ralph Kennedy

From: Ralph Kennedy
Sent: Tuesday, November 23, 2004 11:58 AM
To: James J. Dorf (E-mail); Ron Ludders (E-mail); Darron Carlson (E-mail)
Cc: Sheryl Hubbard
Subject: Elasticity Of Water Demand

Exhibit RJK-R3

I want to bring the following information from EPA's "Water and Wastewater Pricing" publication to your attention, which states the following on page 4.

"Water policy analyst Janice Beecher reviewed over 100 studies of the price elasticity of demand with the following conclusions (Beecher 1994):

- The mostly likely range for elasticity of residential water demand is $-.20$ to $-.40$, meaning a 10 percent increase in price lowers demand by 2 to 4 percent and
- The mostly likely range for elasticity of industrial water demand is $-.50$ to $-.80$, meaning a 10 percent increase in price lowers demand by 5 to 8 percent.

Clearly water is "inelastic" meaning that when the price increases, consumption decreases but at a lower rate than the increase in price."

The original study must be in the ACC library or Eastern Group rate case files because I obtained a copy of the entire Beecher study from John Thorton in response to a data request in the Eastern Group rate case.

Please contact me if you need any info on rate design or other items.

Ralph

**Actual Price Elasticity For New Rates
Authorized for Eastern Group In Decision No.66849**

	MGallons Per Customer				Total Revenue Per Customer			
	12 Months Ending		Change		12 Months Ending		Change	
	3/31/2005	3/31/2004	Amount	Percent	3/31/2005	3/31/2004	Amount	Percent
5/8"X3/4	84.54	89.18	(4.63)	-5.20%	365.70	354.32	11	3.21%
1"	154.35	168.00	(13.65)	-8.12%	795.14	690.69	104	15.12%
2"	1,257.18	1,284.59	(27.42)	-2.13%	5,519.70	4,098.24	1,421	34.68%
3"	1,946.33	1,776.99	169.34	9.53%	8,892.84	5,509.64	3,383	61.41%
4"	5,182.39	5,921.74	(739.35)	-12.49%	23,472.71	18,102.79	5,370	29.66%
6"	3,616.32	6,626.83	(3,010.51)	-45.43%	36,588.71	24,274.26	12,314	50.73%
8"								
10"								
Total Eastern Group	114.92	123.57	(8.65)	-7.00%	527.23	469.79	57.44	12.23%

Eastern Group Price Elasticity		
<u>% Change In Quantity</u>	<u>-7.00%</u>	=
<u>% Change In Price</u>	<u>12.23%</u>	<u>-0.57</u>

MICHAEL
J.
WHITEHEAD

ARIZONA WATER COMPANY



Docket No. W-01445A-04-0650

2004 RATE HEARING EXHIBIT NO. _____

For Test Year Ending 12/31/03

**PREPARED
REBUTTAL TESTIMONY
OF
Michael J. Whitehead**

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10 **BEFORE THE ARIZONA CORPORATION COMMISSION**

11 IN THE MATTER OF THE APPLICATION)
12 OF ARIZONA WATER COMPANY, AN)
13 ARIZONA CORPORATION, FOR)
14 ADJUSTMENTS TO ITS RATES AND)
15 CHARGES FOR UTILITY SERVICE)
FURNISHED BY ITS WESTERN GROUP)
AND FOR CERTAIN RELATED)
APPROVALS)

DOCKET NO. W-01445A-04-0650

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**REBUTTAL TESTIMONY OF
MICHAEL J. WHITEHEAD**

1 **ARIZONA WATER COMPANY**

2

3 **Rebuttal Testimony of**

4 **Michael J. Whitehead**

5

6

7 **I. Introduction and Purpose of Testimony**

8 **Q. WHAT IS YOUR NAME, EMPLOYER AND OCCUPATION?**

9 **A.** My name is Michael J. Whitehead. I am employed by Arizona Water Company
10 (the "Company") as Vice President of Engineering.

11 **Q. ARE YOU THE SAME MICHAEL J. WHITEHEAD THAT PREVIOUSLY GAVE**
12 **DIRECT TESTIMONY IN THIS MATTER?**

13 **A.** Yes.

14 **Q. HAVE YOU REVIEWED THE DIRECT TESTIMONY FILED BY THE OTHER**
15 **PARTIES TO THIS PROCEEDING?**

16 **A.** Yes, I have generally reviewed the testimony of each of the witnesses for the
17 Commission's Utilities Division Staff ("Staff") and the Residential Utility Consumer
18 Office ("RUCO") and specifically analyzed and reviewed the portions of the
19 Staff's and RUCO's testimony concerning the Company's request to recover its
20 costs associated with its Central Arizona Project ("CAP") subcontracts. Staff's
21 testimony regarding CAP water and cost recovery can be found in Ronald E.
22 Ludders' direct testimony at pages 12-14. RUCO's testimony on this subject can
23 be found in the direct testimony of William A. Rigsby at pages 18-20. I have also
24 reviewed the direct testimony of the City of Casa Grande's ("City") witness,
25 Edward F. Harvey. Mr. Harvey discusses the CAP issues at page 4 of his direct
26 testimony.

27 **Q. WHAT IS THE PURPOSE AND EXTENT OF YOUR REBUTTAL TESTIMONY?**

28

1 A. The purpose of my rebuttal testimony is to (1) refute the direct testimony of Mr.
2 Ludders, the Staff witness, at pages 12-14, which misstates the Company's
3 ongoing plans for the design and construction of a regional CAP Water
4 Treatment Plant that will treat the Company's Casa Grande and Coolidge CAP
5 allocations and (2) to show that the Company has already made significant
6 commitments to bring treated CAP water into use in the Company's Casa
7 Grande and Coolidge systems.

8 **II. PLANS FOR DESIGN AND CONSTRUCTION OF A REGIONAL CAP WATER**
9 **TREATMENT PLANT**

10 **Q. PLEASE SUMMARIZE THE STAFF'S POSITION REGARDING THE**
11 **COMPANY'S LEVEL OF COMMITMENT FOR THE USE OF TREATED CAP**
12 **WATER.**

13 A. Mr. Ludders has mischaracterized the Company's efforts to bring treated CAP
14 water into potable use as one of "...evaluating the feasibility of using a yet un-
15 built Casa Grande treatment facility to treat CAP water for Coolidge." (Ludder's
16 dt. at p. 12)

17 **Q. IS MR. LUDDERS' CHARACTERIZATION CORRECT?**

18 A. No. He greatly understates the Company's efforts to date in bringing treated
19 CAP water into use in the Company's Casa Grande and Coolidge systems. The
20 Company is not merely exploring the feasibility of treating CAP water. In fact, the
21 Company has already made significant commitments, including financial
22 commitments, towards design and construction of a CAP water treatment plant
23 that will treat both Casa Grande and Coolidge CAP allocations and is partnering
24 with Arizona American Water Company in the joint planning for the construction
25 of a CAP water treatment plant that will treat the Company's full White Tank CAP
26 allocation. Mr. Garfield's rebuttal testimony further explains the Company's
27 efforts concerning its White Tank CAP allocation.

28

1 **Q. WHY IS THE COMPANY'S COMMITMENT TO USE TREATED CAP WATER**
2 **IMPORTANT IN THIS PROCEEDING?**

3 A. Staff and RUCO witnesses recommend no recovery of the Company's deferred
4 and ongoing CAP M&I capital charges based on what they claim is the lack of
5 use, or sufficient use, of CAP water and the lack of an approved plan of use for
6 CAP water. Although the CAP Cost Recovery Policy referred to in Mr. Garfield's
7 and Ms. Hubbard's rebuttal testimonies does not require the submittal of a plan
8 for CAP water use prior to cost recovery, I will provide information demonstrating
9 the progress that the Company has already made beyond a conceptual plan of
10 use and is proceeding to put treated CAP water to use.

11 **Q. WHAT ARE THE COMPANY'S PLANS FOR DESIGN AND CONSTRUCTION**
12 **OF A CAP WATER TREATMENT PLANT?**

13 A. The Company started planning a regional surface water treatment plant to treat
14 CAP water to comply with Safe Drinking Water Standards (the "Regional CAP
15 Plant") in central Pinal County several years ago. We identified the preferred
16 location for the Regional CAP Plant and purchased approximately 68 acres of
17 land southeast of Coolidge, roughly a half-mile west of the CAP canal. The
18 Company has also submitted its application to the Arizona State Land
19 Department ("State Land") for right-of-way access to cross state land from the
20 CAP canal to the Regional CAP Plant site. This right-of-way will be necessary
21 for construction of a 48-inch diameter pipeline, which will be used to deliver water
22 from the CAP canal to the treatment facility. The initial design of the booster
23 pump station necessary to pump water from the CAP canal and pressurize the
24 pipeline for delivery to the Regional CAP Plant is also complete. These plans will
25 be submitted to the Central Arizona Water Conservation District ("CAWCD"), the
26 operator of the CAP, later this year for review and comment.

27 **Q. WHY DOES THE COMPANY CONSIDER ITS PROPOSED CAP TREATMENT**
28 **PLANT TO BE A REGIONAL PLANT?**

1 A. The Company considers it to be a regional plant because it will be treating both
2 the Company's Casa Grande and Coolidge CAP allocations. In addition, it has
3 the potential to treat CAP water supplies for other water providers, such as the
4 City of Eloy and the City of Florence. The water treated will ultimately serve
5 Casa Grande, Coolidge, Arizona City, Tierra Grande and Stanfield and other
6 areas within the Company's CC&Ns.

7 **Q. HOW MANY CUSTOMERS WOULD BE SERVED BY THE REGIONAL CAP**
8 **PLANT?**

9 A. The Company's Casa Grande and Coolidge CAP allocations totaling 10,884 acre
10 feet, could serve approximately 24,000 residential customers based on an
11 average use of 0.45 acre feet per customer per year. In addition to the
12 Company's existing Casa Grande and Coolidge CAP allocations, there is the
13 potential to secure contracts for non-Indian agricultural priority CAP water and to
14 lease Indian CAP supplies. Also, much of the Company's Casa Grande and
15 Coolidge areas include lands within the San Carlos Irrigation and Drainage
16 District, which has rights to Gila River surface water supplies. These additional
17 supplies have the potential to serve well above 24,000 residential customers as
18 such supplies are identified and are placed under contract to the Company.

19 The approaches taken by the Company with the Regional CAP Plant, i.e.,
20 its approach to phasing, modular expansion capability, adaptable treatment
21 technologies and treatment trains, ability to treat multiple sources of supply,
22 among others, not only provide the flexibility needed to meet ever-changing state
23 and federal regulations but they also provide the flexibility to meet the projected
24 demands of the Company's customers from any of the many types of sources of
25 supply that become available to the Company.

26 **Q. WHAT WOULD BE THE CAPACITY OF THE REGIONAL CAP PLANT AND**
27 **COULD THE CAPACITY BE EXPANDED IN THE FUTURE?**

28

1 A. The initial capacity of the Regional CAP Plant would probably be 10 million
2 gallons per day ("MGD"), which capacity could be expanded by adding additional
3 modules. This will result in lower capital investment, lower operating and
4 maintenance expenses, and overall lower rates to the ratepayers. In the end, the
5 ultimate capacity of the Regional CAP Plant, based on the current water
6 treatment plant site, could exceed 40 MGD.

7 **Q. WHAT APPROVAL PROCESSES ARE UNDERWAY WITH RESPECT TO**
8 **THESE FACILITIES?**

9 A. The 48-inch diameter pipeline has been designed. We have sought comments
10 from State Land on the pipeline design in connection with the requested right-of-
11 way. Application for an approval to construct will be submitted to the Arizona
12 Department of Environmental Quality ("ADEQ") as soon as we receive comments
13 from State Land. I anticipate we will receive comments from State Land by the
14 first quarter of 2006. Thereafter, it will take approximately eight (8) weeks for
15 ADEQ to process and approve our application for approval to construct for the
16 construction of the 48-inch diameter pipeline.

17 **Q. CAN YOU EXPLAIN MORE ABOUT THE STATE AND FEDERAL**
18 **REGULATIONS THAT YOU MENTIONED?**

19 A. Yes, certainly. The United States Environmental Protection Agency ("U.S. EPA")
20 and ADEQ regulate the quality of water produced from water treatment plants
21 connected to a community water system. A community water system is any
22 water system for which 15 or more permanent connections exist or for which a
23 year round population of 25 or more people are served. The U.S. EPA and
24 ADEQ classify all of the Company's Western Group of water systems as
25 community water systems. All water distributed by the Company's water
26 systems must meet drinking water standards established by the U.S. EPA's Safe
27 Drinking Water Act and any amendments thereto and ADEQ's Safe Drinking
28 Water Rules. These extensive regulations are also subject to periodic changes,

1 such as was done recently for arsenic, and are also subject to added regulations,
2 such as was recently done for disinfection byproducts.

3 **Q. WILL THE FEDERAL AND STATE REGULATIONS AFFECT OR GOVERN**
4 **THE TREATMENT PROCESS?**

5 A. Yes, they will. As an example of the potential effects of such regulations, recent
6 surface water treatment plant designs have accounted for changing regulations
7 for disinfection byproducts. Raw CAP water entering a surface water treatment
8 plants contains various forms of organic matter. Chlorination of such raw water
9 has the potential to generate disinfection byproducts such as haloacetic acids
10 and trihalomethanes, among others. These byproducts are known carcinogens
11 and are subject to federal and state safe drinking water regulations. In an effort
12 to reduce the potential to form such disinfection byproducts, alternative methods
13 of disinfection and/or removal of such organic matter prior to disinfection have
14 been included in recent water treatment plant designs.

15 **Q. WHAT IS THE LIKELY TREATMENT PROCESS THAT WILL BE USED TO**
16 **TREAT THE COMPANY'S CAP ALLOCATIONS?**

17 A. Typically, surface water treatment plants involve pre-treatment and post
18 treatment processes, flocculation, coagulation, and some form of filtration
19 method. Conventional surface water treatment plants could use a single, dual or
20 multi-media filter material, such as sand, anthracite and garnet. Because of the
21 potential for generating disinfection byproducts, advanced treatment methods,
22 such as microfiltration, ultrafiltration or another form of membrane treatment
23 could be used. Additional waste can be generated using one of these advanced
24 methods and thus, waste disposal may become a more important factor. The use
25 of activated carbon has also been used more extensively in recent years for
26 removal of organic materials and to prevent taste and odor problems.

27 **Q. CAN YOU PROVIDE A GENERAL DESCRIPTION OF THE COMPANY'S**
28 **REGIONAL CAP PLANT?**

1 A. Certainly. The Regional CAP Plant will be located at a sixty-eight acre site and
2 will consist of the following components:

- 3 1. Raw water pumps
- 4 2. Raw water intake structures and delivery lines
- 5 3. Pretreatment
- 6 4. Pre-disinfection
- 7 5. Chemical feed
- 8 6. Rapid mix
- 9 7. Flocculation
- 10 8. Sedimentation
- 11 9. Clarification
- 12 10. pH adjustment
- 13 11. Filter vessels and/or membrane systems
- 14 12. Post treatment chlorination
- 15 13. Taste and odor control
- 16 14. Sludge drying/dewatering
- 17 15. Backwash vessels/ponds

18 The Regional CAP Plant will consist of concrete structures, water storage
19 vessels, backwash tanks, pumping equipment, chemical feed equipment, flow
20 meters, rate of flow controllers, valves, emergency standby power equipment,
21 laboratory equipment, safety and first aid equipment, supervisory control and
22 data acquisition system ("SCADA"), and other miscellaneous treatment plant
23 equipment.

24 Q. PLEASE DESCRIBE WHAT A SCADA SYSTEM IS.

25 A. A SCADA system is a system in which operational data is gathered from various
26 parts of the water treatment plant and/or water distribution and storage systems
27 and for which control strategies are developed and controlled by a computer.
28 Typically, software is designed for such a computer, which establishes the

1 desired operating outcome, such as chlorine level, tank level, flow rates, water
2 pressures, and other operating criteria. A SCADA system allows complex
3 operating information to be gathered, and control decisions to be made in a much
4 more efficient manner than could be done manually by water distribution or water
5 treatment plant operators. This allows for more efficient operations and results in
6 lower labor costs. It also provides for better water service, greater reliability and
7 ensures a more consistent and higher quality of water delivered to consumers.

8 **Q. WHEN DOES THE COMPANY EXPECT TO COMMENCE ACTUAL**
9 **CONSTRUCTION OF THE PIPELINE AND TREATMENT FACILITY?**

10 A. The pipeline will be installed on a schedule consistent with the Company's
11 master planning for this area, including the progress of development of master
12 planned communities along the western boundary of Coolidge. The Company
13 anticipates accepting bids for treatment plant design in 2007 and awarding a
14 design contract in 2008. Bidding for the construction of the first phase of the
15 Plant would commence in early 2009. Following bid review and the awarding of
16 a construction contract for the Regional CAP Plant, work would commence late
17 2009 with a planned 2012 completion date. This should lead to treated CAP
18 water being delivered to Coolidge in 2012, followed by deliveries to Casa
19 Grande.

20 **Q. WHAT ADDITIONAL STEPS WILL THE COMPANY UNDERTAKE IN**
21 **CONNECTION WITH DESIGN OF THE REGIONAL CAP PLANT?**

22 A. There are several initial engineering tasks that must be completed. These
23 include:

- 24 1. A regional SCADA System must be installed to integrate all the regional
25 water systems, as discussed above.
- 26 2. Prior to proceeding with construction of the Regional CAP Plant, intake
27 structures, and distribution mains, and with the use of CAP water for potable
28 purposes, the Company must submit construction drawings to the U.S.

1 Department of the Interior's Bureau of Reclamation (the "BOR"). The BOR
2 will review the Company's construction plans and determine the
3 environmental effects of such construction, if any, in relation to an
4 environmental impact study already conducted by the BOR for the CAP canal
5 and the service areas where CAP water would be used. At the conclusion of
6 the BOR's review, the BOR will issue an environmental clearance to the
7 Company. Upon such clearance, the Company can proceed with its
8 construction work. This requirement is contained within the Company's CAP
9 subcontracts

- 10 3. Rights-of-way, permits or easements will be necessary to provide access to
11 the Regional CAP Plant site and for the installation of pipeline that will tie into
12 the water distribution system.
- 13 4. A Pinal County Conditional Use Permit must be obtained. The land is
14 currently zoned agriculture (AG). Pinal County will permit the Company to
15 construct the Regional CAP Plant on agricultural land without changing the
16 zoning. Using the Conditional Use Permit process, the Conditional Use
17 Permit will establish the land use, setbacks, and height restrictions for the
18 proposed Regional CAP Plant.
- 19 5. Coordinate with the local power company to bring power to the Regional
20 CAP Plant and booster pump stations. Also, coordinate establishing
21 telecommunication, sewer, and other utility or supporting services for the
22 Regional CAP Plant site.
- 23 6. The Company's Engineering Department will address water quality impacts
24 of treated CAP water on existing distribution system components through
25 corrosion studies conducted by or on behalf of the Company.
- 26 7. The Company will engage the services of an outside engineering company to
27 determine the most appropriate technologies available to treat CAP water.
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8. Upon completion of the above-referenced engineering tasks, the Company will be ready in 2007 to prepare bid documents to bid the design, which will culminate in the completion of full construction drawings for the Plant.

Q. DOES THE COMPANY HAVE ANY COST ESTIMATES FOR THE FACILITIES NECESSARY TO TRANSPORT, TREAT AND DELIVER CAP WATER?

A. Yes. The initial estimated cost to design and construct the first phase of the treatment facility is approximately \$20 million. The Company's estimated costs for the booster pumps and transmission pipeline are \$300,000 and \$600,000, respectively. Obviously, these represent significant capital investments. However, when complete, the facilities to treat and deliver CAP water for our customers will benefit ratepayers in Coolidge, Casa Grande, Tierra Grande, Arizona City, and Stanfield for a minimum of 75 years.

Q. DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?

A. Yes it does. I would note, though, that my silence on any issue raised or recommendation made by Staff, RUCO, or the City should not be taken as the Company's acceptance of such issue or recommendation.

THOMAS

M.

ZEPP

ARIZONA WATER COMPANY



Docket No. W-01445A-04-0650

2004 RATE HEARING EXHIBIT NO. _____

For Test Year Ending 12/31/03

**PREPARED
REBUTTAL TESTIMONY & EXHIBITS
OF
Thomas M. Zepp**

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10 **BEFORE THE ARIZONA CORPORATION COMMISSION**

11
12 IN THE MATTER OF THE APPLICATION)
OF ARIZONA WATER COMPANY, AN) **DOCKET NO. W-01445A-04-0650**
13 ARIZONA CORPORATION, FOR)
14 ADJUSTMENTS TO ITS RATES AND)
CHARGES FOR UTILITY SERVICE)
15 FURNISHED BY ITS WESTERN GROUP)
AND FOR CERTAIN RELATED)
16 APPROVALS)

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**REBUTTAL TESTIMONY OF
THOMAS M. ZEPP**

1 **ARIZONA WATER COMPANY**

2
3 **Rebuttal Testimony of**

4 **Thomas M. Zepp**

5
6 **I. INTRODUCTION, SUMMARY AND CONCLUSIONS**

7 **Q. PLEASE STATE YOUR NAME.**

8 A. Thomas M. Zepp.

9 **Q. DID YOU PREPARE DIRECT TESTIMONY ON BEHALF OF ARIZONA WATER
10 COMPANY IN THIS CASE?**

11 A. Yes, I provided testimony on the cost of equity.

12 **Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?**

13 A. Arizona Water Company ("Arizona Water" or "the Company") asked me to review
14 and to respond as appropriate to the April 18, 2005 testimony of Mr. Alejandro
15 Ramirez on behalf of the Arizona Corporation Commission ("ACC" or
16 "Commission") Staff and the April 20, 2005 testimony of Mr. William A. Rigsby on
17 behalf of the Residential Utility Consumer Office ("RUCO").

18 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

19 A. In this section of my testimony, I provide an overview of the important cost of
20 equity issues in this case and summarize my conclusions.

21 In Section II, I present a discussion that puts Mr. Ramirez's and
22 Mr. Rigsby's testimonies in perspective. I show the recommended returns on
23 equity ("ROEs") made by both Mr. Ramirez and Mr. Rigsby are unreasonably low
24 when compared to past ACC decisions, past ACC Staff testimony in 2003,
25 currently earned and authorized ROEs for other water utilities, and ROEs that are
26 produced with the methods used by the Federal Energy Regulatory Commission
27 ("FERC") and the California PUC ("CPUC") Staff.
28

1 In Section III, I respond to Mr. Ramirez's equity cost estimates. I put
2 Mr. Ramirez's quotation from one of Professor Siegel's tables in perspective and
3 explain why the expected return on equity ("ROE") for an average risk common
4 stock is over 12%. I update his DCF historical growth rate estimates with data for
5 2004 and show his constant growth DCF equity cost estimates increase if the
6 conceptually correct measures of growth are adopted to make the estimates.
7 Next, I restate Mr. Ramirez's multi-stage DCF model by incorporating a second
8 stage that recognizes investors would expect higher future growth after a period in
9 which dividends per share ("DPS") grow more slowly than earnings per share
10 ("EPS") before growth equaled GDP growth. I also restate Mr. Ramirez's CAPM
11 analysis using estimates of long-term Treasury rates expected when Arizona's
12 new rates will be in place, discuss problems with the method he uses to determine
13 a "current" market risk premium estimate and present a current market risk
14 premium estimate that is based on a more appropriate approach. Combined,
15 these updates and conceptually correct data increase Mr. Ramirez's average cost
16 of equity estimate for the water utilities sample to 10.6%. Because Arizona Water
17 is more risky than the water utilities sample, it requires an ROE that is at least 50
18 basis point higher. I also respond to Mr. Ramirez's criticisms of the FERC and
19 California PUC models I relied upon to determine benchmark equity cost
20 estimates in my direct testimony.

21 In Section IV, I respond to Mr. Rigsby's equity cost estimates. I restate
22 his DCF equity cost estimates with forward-looking estimates of the stock
23 financing rate ("s") Mr. Rigsby reports in his tables and an estimate of "v" in "vs"
24 growth based on Mr. Rigsby's data and find his DCF sample indicates the
25 benchmark cost of equity is 10.9%. I also restate his CAPM approach with the
26 correct concepts and available forecasts of long-term Treasury rates and find his
27 CAPM equity cost is 11.0%. Again, because Arizona Water is more risky than the
28 water utilities sample, it requires an ROE that is at least 50 basis point higher.

1 Q. DO YOU SPONSOR ANY SCHEDULES AND EXHIBITS TO ACCOMPANY
2 THIS REBUTTAL TESTIMONY?

3 A. Yes. I sponsor 17 rebuttal tables, which are attached to this testimony.

4 Q. PLEASE PROVIDE AN OVERVIEW OF THE IMPORTANT COST OF EQUITY
5 ISSUES IN THIS CASE.

6 A. Mr. Kennedy calculates that the difference between my recommended ROE and
7 the ACC Staff recommendation accounts for approximately 30% of the difference
8 in revenue requirements in this case. See *Rebuttal Testimony of Ralph J.*
9 *Kennedy ("Kennedy Rb.")* at 6-7. The appropriate ROE for Arizona Water is a
10 significant issue in this case.

11 Second, known facts are in conflict with the negative ROE adjustment
12 proposed by Mr. Ramirez. As Mr. Kennedy explains, the market cost of Arizona
13 Water's Series K bond issue compared to the costs of bonds for the water utilities
14 sample provides clear support for a *positive*, not negative, risk premium. The
15 negative ROE adjustment should have never been proposed. Once risks faced
16 by Arizona Water that are not faced by the water utilities sample are taken into
17 account, the positive risk premium is at least 50 basis points.

18 Third, I provide data below that show the 9.3% ROE Mr. Ramirez estimates
19 for his water utilities sample, the ROE for Arizona Water proposed by Mr. Ramirez
20 of 9.1%, and the ROE of 9.44% for Arizona Water proposed by Mr. Rigsby are
21 woefully inadequate. The U. S. Supreme Court says a fair rate of return should
22 be commensurate with returns expected to be earned by enterprises having
23 comparable risk and adequate for a utility to be able to attract capital. The
24 evidence I provide shows the ACC Staff and RUCO ROE recommendations
25 will do just the opposite – they will *discourage* investment instead of attracting it
26 and certainly are too low to be comparable to returns expected to be earned by
27 other equally risky investments.
28

1 Fourth, I explained in my direct testimony that the Arizona Constitution, as
2 applied by this Commission, creates a particular rate setting system that bases
3 rates on historical test periods and limits the ability of Arizona utilities to make
4 out-of-period adjustments. This constraint on rate setting in Arizona increases the
5 risk that Arizona Water will make its authorized ROE and makes it even more
6 important that the Commission recognize returns other utilities can expect to earn.

7 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

8 **A.** I find the following:

9
10 1. Arizona Water requires a minimum 50 basis point risk premium to
11 account for it being more risky than benchmark water utilities samples. Evidence
12 from the Company's Series K bond issue alone supports a risk premium of 37 to
13 49 basis points. Neither Staff nor RUCO provide facts that challenge my
14 recommendation on this issue.

15 2. A risk premium computed from ROEs the ACC found reasonable in
16 decisions prior to 2001 combined with current interest rates indicates the ROE
17 comparable to ROEs authorized in the past for Arizona water utilities is 10.7%.

18 3. Increases in interest rates and beta risk since the time ACC Staff
19 prepared testimony in Arizona-American Water Company and Arizona Water's
20 2003 cases indicates the fair ROE for the water utilities sample is substantially
21 *higher* than 9.2%. The increase in interest rates alone indicates the current cost
22 of equity for the water utilities sample is above 10.3%. The Staff estimate of 9.3%
23 for its water utilities sample raises a red flag about the methods ACC Staff has
24 used to estimate equity costs in this case.

25
26 4. If the FERC models I presented in my direct testimony are updated with
27 data provided by Mr. Ramirez, the indicated cost of equity for the benchmark
28

1 water utilities falls in a range of 11.2% to 11.5%. Arizona Water requires a higher
2 return because it is more risky.

3 5. Updates of data and restatements of Mr. Ramirez's DCF approaches
4 indicate the cost of equity for the water utilities sample is 90 basis points higher
5 than was estimated by Mr. Ramirez. Those equity cost estimates would be even
6 higher if the FERC models are used to make DCF equity cost estimates instead of
7 the models relied upon by ACC Staff.

8
9 6. CAPM estimates should be based on long-term Treasury rate forecasts
10 and a more stable method of predicting the current market risk premium. Making
11 those changes increases Mr. Ramirez's CAPM equity cost estimates from 9.2% to
12 10.9%. *See Rebuttal Table 12.*

13 7. Averages of the restatements of Mr. Ramirez's DCF and CAPM equity
14 cost estimates increase the estimated cost of equity for a benchmark water utility
15 from 9.3% to 10.6%. *See Rebuttal Table 12.*

16
17 8. The method Mr. Ramirez used to adjust downward his ROE estimate for
18 the water utilities sample to a lower recommended ROE for Arizona Water
19 requires estimates of market values, of equity ratios, and estimates of betas.
20 Neither is available for Arizona Water and thus the foundation to make the
21 adjustment does not exist and the adjustment should never have been proposed.

22 9. The method Mr. Ramirez used to adjust downward a ROE estimate for
23 the water utilities sample to a lower recommended ROE for Arizona Water ignores
24 available evidence. If any type of adjustment to the estimated ROE for the water
25 utilities sample should be made when estimating the cost of equity for Arizona
26 Water, the ROE for Arizona Water should be increased to recognize it has a cost
27 for its Series K bonds that exceeds the cost of bonds for the sample water utilities,
28

1 and smaller utilities have betas closer to 1.0 than the beta for the water utilities
2 sample even though the smaller water utilities are less leveraged.

3 10. Current forecasts of Treasury securities rates and the data in
4 Mr. Ramirez's Schedule AXR-8 indicate the cost of equity for a benchmark water
5 utility falls in a range of 10.4% to 10.6%. See *Rebuttal Table 12*.
6

7 11. Basing Mr. Rigsby's DCF equity cost estimate on data he collected,
8 instead of his personal opinion, and actual "vs" growth increases his DCF equity
9 cost estimate to 10.9%.

10 12. If conceptually correct long-term Treasury bonds are used to revise
11 Mr. Rigsby's CAPM equity cost estimate, the indicated cost of equity is 11.0%.
12

13 **II. PERSPECTIVE ON MR. RAMIREZ'S AND MR. RIGSBY'S RECOMMENDED**
14 **ROES.**

15 **Q. PLEASE PUT MR. RAMIREZ'S AND MR. RIGSBY'S ESTIMATES OF EQUITY**
16 **COSTS IN PERSPECTIVE.**

17 **A.** In its *Hope* and *Bluefield* decisions, the U. S. Supreme Court set forth three critical
18 standards for a fair rate of return. That return should (1) allow a utility to attract
19 capital, (2) be commensurate with returns on investments in other enterprises with
20 corresponding risks, and (3) assure confidence in the financial integrity of the
21 enterprise. Mr. Ramirez and Mr. Rigsby make equity cost recommendations of
22 9.1% and 9.44%, respectively. Even without consideration of how those equity
23 costs were determined, it is clear they are unreasonably low and do not meet the
24 three critical standards of the U. S. Supreme Court. Those recommended ROEs
25 are unreasonably low when compared to (1) currently authorized ROEs for other
26 water utilities, (2) currently earned ROEs by those same utilities, (3) past ACC
27 decisions, (4) ACC Staff testimony in two 2003 cases for water utilities, (5) ROEs
28 that are produced with the methods used by the Federal Energy Regulatory

1 Commission ("FERC") to determine DCF equity costs and (6) ROEs determined
2 with the risk premium approach adopted by the California PUC ("CPUC") Staff.

3
4 **A. The ACC Staff's and RUCO's Recommendations Are Less Than**
5 **Currently Authorized Returns.**

6 **Q. HOW DO ACC STAFF'S AND RUCO'S RECOMMENDED RETURNS ON**
7 **EQUITY COMPARE TO AUTHORIZED RETURNS ON EQUITY FOR THE**
8 **WATER UTILITIES IN MR. RAMIREZ'S SAMPLE?**

9 **A.** They are significantly lower. Rebuttal Table 1 reports authorized ROEs for the six
10 utilities in Mr. Ramirez's water utilities sample. The three water utilities Mr. Rigsby
11 relies upon to determine his equity cost estimates are included in that sample.
12 Table 1 shows that the utilities in Mr. Ramirez's sample have authorized returns
13 on equity in a range of 9.7% to 12.7%, that average 10.4% – an ROE that is *130*
14 *basis points higher* than Mr. Ramirez's recommendation and *100 basis point*
15 *higher* than Mr. Rigsby's recommendation. A 10.4% ROE understates the cost of
16 equity for Arizona Water because the Company is more risky than the sample
17 water utilities.

18 The authorized ROEs are expected to provide a *conservative* measure of
19 the current cost of equity for the water utilities sample. Some of them are the
20 result of settlements. It has been my experience that ROEs agreed to in
21 settlements of water utility cases are the result of parties agreeing to a lower ROE
22 in exchange for the water utility prevailing on an issue that is less well understood
23 by the public. Thus, to the extent that the reported ROEs in Rebuttal Table 1 are
24 the result of settlements, they probably understate the cost of equity.

25 **B. The Staff's and RUCO's Recommendations Are Less Than Actual**
26 **Returns on Equity.**

1 Q. HOW DO MR. RAMIREZ'S AND MR. RIGSBY'S RECOMMENDED ROES
2 COMPARE TO ACTUAL ROES BEING EARNED BY WATER UTILITIES?

3 A. Rebuttal Table 1 also shows that the ROEs recommended by Mr. Ramirez and
4 Mr. Rigsby are much lower than the ROEs currently being earned by the water
5 utilities sample. If regulators provide rates and rate adjustment mechanisms that
6 give utilities a reasonable opportunity to earn their authorized ROEs, on average,
7 earned ROEs should also provide an indicator of what is a fair ROE. Recently,
8 however, the water utilities sample companies have been unable to earn their
9 authorized ROEs. But leaving that issue aside, Rebuttal Table 1 shows the
10 average of earned ROEs in 2004 for the ACC Staff water utilities sample was
11 10.0%, an ROE above both RUCO's and ACC Staff's recommendations.
12 Because interest rates have increased since 2003 and 2004 and the water utilities
13 have, on average, not made their authorized ROEs, 10% understates the fair rate
14 of return for the water utilities sample and is even further below the fair rate of
15 return for Arizona Water because it is more risky than the sample. One of the
16 three critical tests of a fair ROE established by the U. S. Supreme Court is the
17 return should be commensurate with returns on investments in other enterprises
18 with corresponding risks. Mr. Rigsby's and Mr. Ramirez's recommended ROEs
19 are well below what the benchmark water utilities are authorized to earn as well
20 as what they have actually earned, and thus are not commensurate with returns
21 on investments in other enterprises with corresponding risks.

22 C. The ACC Staff's and RUCO's Recommendations Are Less Than
23 Returns Authorized in Prior ACC Decisions.

24
25 Q. WHAT IS SHOWN IN REBUTTAL TABLE 2?

26 A. Mr. Ramirez has sponsored methods developed by former members of the ACC
27 Staff to estimate costs of equity that produce much lower ROEs than the methods
28 being used by the Commission prior to 2001. Rebuttal Table 2 is a restatement

1 of Table 14 of my Direct Testimony but with ROEs based on the average risk
2 premium found from past ACC decisions and current (as of March 24, 2005 when
3 Mr. Ramirez gathered data for his testimony) and forecasted 10-year Treasury
4 rates (see Rebuttal Table 3). Based on the current forecast of the 10-year
5 Treasury rate, the ROE determined with the risk premium consistent with past
6 Commission decisions is 10.7%. Given more stringent state and federal
7 regulations than those that existed prior to 2001 and added risks that stem from
8 uncertain recovery of unavoidable purchased water and purchased power costs in
9 its Eastern Group, uncertain recovery of costs to treat arsenic, greater uncertainty
10 of selling water with an inverted-tier rate design instead of flat or declining-tier rate
11 design, fewer potential purchasers of Arizona Water bonds, and limited financial
12 flexibility, if anything, an ROE consistent with past ACC decisions provides a floor
13 under ROEs that should be set today.

14 I explain below why I believe it is inappropriate to rely on current interest
15 rates to determine the ROE for Arizona Water when new rates will not go into
16 effect until late 2005. This is particularly a concern when it is well known that
17 interest rates have been increasing and that investors expect them to continue to
18 increase. But even if the 10-year Treasury rate relied upon by Mr. Ramirez in his
19 testimony is considered, the ROE consistent with the average risk premium in
20 past ACC decisions indicates the benchmark cost of equity is 10.0%, a far cry
21 from the unreasonable equity cost estimate for his water utility sample made by
22 Mr. Ramirez of 9.3%, Mr. Ramirez's recommendation of 9.1% and RUCO's
23 recommendation of 9.44%.

24 **Q. HOW DOES MR. RAMIREZ'S EQUITY COST ESTIMATE FOR HIS WATER**
25 **UTILITIES SAMPLE COMPARE TO ACC STAFF'S EQUITY COST ESTIMATES**
26 **IN 2003?**

27 **A.** It is much lower. ACC Staff estimated benchmark equity costs in 2003 in Arizona
28 Water Company's last case (W-01445A-02-0619, dated July 8, 2003) and in

1 Arizona-American Water Company's last case (WS-01303A-02-0867, dated
2 September 5, 2003) for the same water utilities sample used by Mr. Ramirez and
3 for a sample of gas utilities. The beta estimate (the sole measure of risk used by
4 ACC Staff) for the gas utility sample was .69 in the prior cases, virtually the same
5 as the .68 beta Mr. Ramirez now estimates for his water utilities sample. ACC
6 Staff estimated the benchmark cost of equity for that utility sample was 10.3%,
7 when the average of 5-, 7-, and 10-year Treasury securities rates was only 3.3%.
8 In the current Arizona Water case, Mr. Ramirez reports the average rate for those
9 same Treasury securities is 4.5% (Direct Testimony of Alejandro Ramirez
10 ("Ramirez Dt."), at 27, n. 9 and Schedule AXR-8) – 120 basis points higher. But,
11 instead of estimating an ROE for the benchmark utilities sample that is higher
12 than 10.3%, he estimates the cost of equity is 100 basis points *lower*. Clearly,
13 something is wrong with the methods ACC Staff is currently using.

14 In the last Arizona Water and Arizona-American cases, ACC Staff also
15 estimated benchmark equity costs with the same water utilities sample being used
16 by Mr. Ramirez in this case. Since the time the 2003 ACC Staff testimony was
17 prepared, there have been increases in beta risk, from .59 to .68, as well as the
18 120 basis point increase in Treasury rates. In the 2003 Arizona Water and
19 Arizona-American Water Company rate cases, ACC Staff estimated a benchmark
20 ROE for the water utilities sample of 9.2%, when the beta risk was .59 and the
21 average of Treasury security interest rates Staff relied upon to develop that equity
22 cost was 3.3%. The increase in the intermediate-term Treasury rates alone would
23 justify an increase in the recommended ROE of 120 basis points. Also, the beta
24 relied upon by Mr. Ramirez has *increased* from .59 to .68. That change in the
25 beta together with the long-horizon market risk premium of 7.6% relied upon by
26 Mr. Ramirez (see Schedule AXR-8) would justify an additional increase in the
27 recommended ROE 68 basis points. Based on these two changes, the indicated
28 cost of equity should also be substantially above 10.3%.

1 These results make no sense and raise a red flag. Something is wrong
2 with the ACC Staff approach when that approach produces cost of equity
3 estimates that do not reflect increases in interest rates and increases in ACC
4 Staff's only measure of risk, i.e., beta. It is apparent the methods chosen by
5 Mr. Ramirez are intended to depress the cost of equity. I return to this below
6 when I examine problems with Mr. Ramirez's implementation of the CAPM and
7 DCF models.

8 **D. The ACC Staff's and RUCO's Recommendations Are Less Than**
9 **the Equity Costs Produced by the FERC DCF Models.**

10
11 **Q. DID MR. RAMIREZ OR MR. RIGSBY RECONCILE THEIR VERY LOW ROE**
12 **RECOMMENDATIONS WITH EQUITY COSTS DETERMINED WITH THE FERC**
13 **DCF APPROACH?**

14 **A.** No. Rebuttal Tables 5 and 6 are the FERC 1-step and FERC 2-step equity
15 cost estimation approaches based on prices, dividends, and long-term growth
16 rates presented in Mr. Ramirez's work papers and schedules. Rebuttal Table 4
17 compares *Value Line* estimates of future EPS growth for the water utilities
18 sample, projected estimates of EPS growth reported by Mr. Ramirez in
19 Schedule AXR-3, and EPS growth from 2005 to 2008 determined from data in
20 Mr. Ramirez's work papers. To be conservative, I have used the estimate of
21 growth for 2005-2008, which has an average of 8.3%, in the 1-Step and 2-Step
22 equity cost estimates I present in Rebuttal Tables 5 and 6 rather than the average
23 growth of 14.3% Mr. Ramirez relies upon in his analyses or the average of *Value*
24 *Line* forecasts of 9.5%.

25 Rebuttal Table 5 is the FERC 1-step method based on data presented by
26 Mr. Ramirez. Column (a) presents the spot dividend yields Mr. Ramirez used in
27 his analysis. Column (b) shows the spot dividend yields increased by one-half the
28 average of growth rates. Column (c) presents estimates of sustainable (br+vs)

1 growth (which ACC Staff calls intrinsic growth) for each of the utilities.
2 Mr. Ramirez reported an average projected value of intrinsic growth of 8.5%,
3 based on data for 3 of the 6 water utilities in his sample (Schedule AXR-4, column
4 (f)). In making my estimates of sustainable growth for the utilities that do not have
5 projected br growth rates, I have used the ACC Staff approach and assumed each
6 will have growth equal to the average br reported by Mr. Ramirez in Schedule
7 AXR-4, column [c], but I have adjusted upward those br growth rate estimates
8 with the formula used by the FERC.¹ I have added Mr. Ramirez's estimates of vs
9 growth to the revised estimates of br growth to determine the growth rates in
10 column (c) of Rebuttal Table 5. Column (d) presents the conservative estimates
11 of projected EPS growth reported in Rebuttal Table 4. The growth estimates I
12 have used have an average of 8.3% and are lower than Mr. Ramirez's average
13 growth rate estimate of 14.3%.

14 Equity cost estimates presented in column (e) and (f) of Rebuttal Table 5
15 are based on the 1-step method used by the FERC, but with the spot prices ACC
16 Staff contends should be used in a DCF analysis. The FERC, in contrast,
17 believes a 6-month average of dividend yields is appropriate. The range of equity
18 costs is 10.2% to 12.8% and the overall average is 11.5%. This average equity
19 cost is 220 basis points higher than Mr. Ramirez's equity cost estimate for the
20 water utilities sample of 9.3% and 206 basis points above Mr. Rigsby's
21 recommendation.

22 **Q. PLEASE TURN TO THE FERC 2-STEP METHOD.**

23 **A.** The FERC 2-step method applied to Mr. Ramirez's data is presented in Rebuttal
24 Table 6. I discussed the way the FERC implements this multi-stage DCF analysis
25 on pages 35 to 38 of my direct testimony and thus only summarize what is done.
26 FERC determines an average of near-term growth and long-term growth that is

27
28 ¹ It is appropriate to increase Mr. Ramirez's "br" growth rates (as the FERC does) to recognize that *Value Line* reports ROEs based on year-end equity.

1 used in the analysis. The FERC and the ACC Staff both use GDP growth as the
2 long-term growth rate. I have correctly used the arithmetic average of GDP
3 growth of 6.8%, calculated from the data relied on by Mr. Ramirez, in my analysis.
4 Mr. Ramirez incorrectly uses the geometric average, which lowers the growth
5 rate. The geometric average would be correct only when future annual growth will
6 be *exactly* the same in every future year. Since that is not realistic, the arithmetic
7 average growth rate must be used. This arithmetic average growth rate assumes
8 that growth in the future will vary from year-to-year as it has in the past.

9 The FERC bases near-term growth on EPS growth, not DPS growth, and
10 assumes near-term growth will continue for more than 4 years (the assumption
11 made by Mr. Ramirez in his multi-stage DCF analysis). The FERC appropriately
12 recognizes that growth in earnings allows dividend payments to grow, and bases
13 a larger portion of the growth rate estimate on company-specific information and
14 less on the terminal GDP growth rate. Based on this FERC approach and using
15 Mr. Ramirez's data, the indicated cost of equity is 11.2% at this time.

16 **Q. HOW DOES THE INDICATED EQUITY COST RANGE DETERMINED WITH**
17 **THE FERC DCF METHODS COMPARE TO THE EQUITY COSTS PRESENTED**
18 **BY ACC STAFF AND RUCO?**

19 **A.** The indicated ROE range based on the FERC 1-Step and 2-Step methods and
20 data presented by Mr. Ramirez indicates the cost of equity for the water utilities
21 sample falls in a range of 11.2% to 11.5%. Even without recognizing the higher
22 risk of Arizona Water, this equity cost range validates the reasonableness of my
23 recommended ROE of 11.25% for Arizona Water. Conversely, this equity cost
24 range demonstrates that the benchmark cost of equity estimates presented by
25 ACC Staff and RUCO are well below the current cost of equity for their respective
26 sample water utilities.

1 Q. HAVE EITHER ACC STAFF OR RUCO PRESENTED ANY EVIDENCE THAT
2 THE FERC DOES NOT USE THE APPROACHES YOU PRESENTED IN YOUR
3 DIRECT TESTIMONY?

4 A. No.

5 Q. HAVE ACC STAFF OR RUCO PRESENTED ANY EVIDENCE THAT EITHER
6 FERC METHOD PRODUCES BIASED OR INAPPROPRIATE ESTIMATES OF
7 EQUITY COSTS?

8 A. No. Mr. Ramirez presents some testimony he inherited from former ACC Staff
9 employees that questions the use of forecasted EPS growth in the DCF model. I
10 respond to that testimony below. More importantly, Mr. Ramirez was unable to
11 explain why the methods and assumptions he uses in his testimony produce
12 equity costs so much lower than equity costs produced with the methods used by
13 the federal agency responsible for setting rates for the interstate transmission and
14 sale of gas and electricity. Mr. Rigsby does not challenge the FERC approaches,
15 either.

16 **III. RESPONSE TO ACC STAFF TESTIMONY**

17 **A. Overview.**

18 Q. PLEASE PROVIDE AN OVERVIEW OF YOUR RESPONSES TO ACC STAFF.

19 A. I respond to six specific concerns I have identified with Mr. Ramirez's testimony.
20 Initially, I put his reference to Professor Siegel's book in perspective and explain
21 why the table he relies upon in Professor Siegel's book does not support an
22 expected ROE for an average risk security of no more than 9.7%. Next, I address
23 his constant growth DCF model. I update his historical EPS and DPS growth
24 rates with data ending in 2004, replace his projected EPS and DPS growth rates
25 from 2003 to 2008 with more appropriate projections for the period 2005 to 2008,
26 and recalculate his constant growth DCF estimate. Third, I restate his multi-stage
27 DCF model by incorporating a second stage that recognizes investors would
28

1 expect higher future growth after a period in which DPS grow more slowly than
2 EPS before growth equaled GDP growth. Fourth, I address his CAPM analysis. I
3 provide an explanation why long-term Treasury securities are a more appropriate
4 measure of the risk-free rate than intermediate-term Treasury securities relied
5 upon by ACC Staff. I also point out that interest rates have increased, are
6 expected to continue increasing and are expected to be higher when Arizona
7 Water's new rates go into effect in late 2005. Given this knowledge, it is
8 inappropriate to base the cost of equity on "stale" interest rates. I also provide a
9 more realistic estimate of the current market risk premium. Fifth, I explain why a
10 negative ROE adjustment ignores known facts and should never be considered.
11 Sixth, I respond to his rebuttal of my testimony and his comments about the
12 California PUC's risk premium approach.

13 **B. Average Market Returns on Common Stock Have Historically**
14 **Exceeded 12%.**

15
16 **Q. AT PAGE 9 OF HIS TESTIMONY, MR. RAMIREZ CONTENDS THAT**
17 **HISTORICAL AVERAGE RETURNS REPORTED IN PROFESSOR SEIGEL'S**
18 **BOOK SUGGEST INVESTORS SHOULD NOT EXPECT AN AVERAGE RISK**
19 **STOCK TO PROVIDE MORE THAN A 9.7 PERCENT RETURN. PLEASE PUT**
20 **THAT CLAIM IN PERSPECTIVE.**

21 **A.** Certainly. I have two responses. First, this contention by Mr. Ramirez is
22 equivalent to a "sound bite" on the evening news that leaves out the substance of
23 the evidence in Professor Siegel's book. Table 1-1 of Professor Siegel's book
24 shows common stocks have provided an arithmetic average return for average
25 risk stocks of 12.2% for the period 1926 to 2001 and for more recent periods of
26 1946-2001 and 1982-2001 the average market returns were 12.8% and 15.0% for
27 average risk stocks, respectively. These returns are in line with Ibbotson
28 Associates, the leading producer and supplier of data for the period dating back to

1 1926. Ibbotson Associates' data shows that returns for the 1926-2004 period
2 have averaged 12.4%.

3 Professors at Yale² have also studied the long-term average returns on
4 common stocks. Based on their studies, one can make three important
5 observations that put Professor Siegel's data in perspective. First, quality
6 financial data is not available before 1926. We are fortunate that scholars have
7 done the laborious work that was required to construct the data starting in 1926
8 that is maintained by the Center for Research in Security Prices ("CRSP"). I used
9 that data to analyze risk and returns of common stocks when I was on the Staff of
10 the Oregon Public Utility Commissioner. Many others, such as Ibbotson
11 Associates, rely on the CRSP data to prepare the analyses of stock returns that
12 we see in the financial press. It will take a tremendous effort to gather comparable
13 quality data for the earlier years. Second, in the earlier years, dividends were a
14 much larger component of stock returns than were capital gains. During many of
15 the earlier years, stock prices remained relatively stable, suggesting management
16 maintained a ceiling on stock prices by paying out most of the earnings as
17 dividends. But unfortunately, collection of the dividend data for all stocks in the
18 1800's may not be possible and thus estimates of stock returns may be
19 incomplete. Even if there is a concerted effort to gather the dividend data, it may
20 not be possible and methods may have to be developed to approximate market
21 returns that occurred. Third, the types of industries and thus investment return
22 expectations were different in the 1800's than in 2005. In the earlier period,
23 generally growth was not the goal of management and earnings were paid out as
24 dividends. As a result, we should give little weight to the earlier data.

25 **Q. IS THE DATA FROM 1926 TO 2004 THAT YOU HAVE RELIED UPON TO**
26 **ESTIMATE EQUITY COSTS MORE RELEVANT TO THE DETERMINATION OF**

27
28 ² Ibbotson, Goetzmann and Ling of Yale have worked on these studies. See Ibbotson Associates, 2005
SBBi Yearbook, Chapter 11.

1 ARIZONA WATER'S EQUITY COST THAN THE 9.7 PERCENT RETURN
2 BASED ON DATA FROM 1802 TO 2001 THAT MR. RAMIREZ REPORTS?

3 A. Yes, it is. Not only were things different prior to 1926, but we should be interested
4 in what investors think potential growth and returns are in *today's* financial
5 markets when we estimate costs of equity, not what occurred in the 1800s. Given
6 that an average-risk company has historically a return on its common equity in
7 excess of 12% over the past 75 years, an ROE of 11.25% for Arizona Water is
8 hardly unreasonable.

9 C. Restatement of Staff's Constant Growth DCF Equity Cost Estimates.

10
11 Q. PLEASE DISCUSS YOUR RESTATEMENT OF MR. RAMIREZ'S CONSTANT
12 GROWTH DCF EQUITY COST ESTIMATES.

13 A. I have made four restatements of Mr. Ramirez's constant growth DCF model.
14 First, I have based projected growth rates for EPS and DPS on data Mr. Ramirez
15 reports for 2005 to 2008. This change reduces the average forecast of
16 future EPS growth to 8.3% from 14.3% that Mr. Ramirez calculated for the period
17 2003-2008. Mr. Ramirez's estimate overstates a reasonable estimate of long-
18 term future EPS growth for American States of 22.7% because it is based on
19 unusually low earnings for that company in 2003. *See Rebuttal Table 4.* My
20 revision provides a more reasonable average projection of 8.3% EPS growth for
21 the sample. I also based the DPS projections on data in Mr. Ramirez's work
22 papers for the 2005-2008 period instead of the period 2003-2008. This revision
23 increases the projected DPS growth from 3.3% to 3.7%. *See Rebuttal Table 4.*

24 Second, I updated historical growth rate estimates Mr. Ramirez presented
25 in Schedule AXR-3 for EPS and DPS with data ending in 2004 instead of 2003.
26 This update increases the estimate of past EPS growth from 1.5% to 5.6% but
27 leaves the estimate of past DPS growth unchanged at 2.6%. *See Rebuttal Table*
28 *7.*

1 Third, I have used the method advocated by the FERC to adjust estimates
2 of "br" growth to reflect the fact that the ROEs relied upon by Mr. Ramirez were
3 computed by *Value Line* using year-end equity. This adjustment increases the
4 average estimate of projected "br" growth from 5.3% to 5.5% and thus also
5 increases Mr. Ramirez's estimates of br+vs growth from 8.5% to 8.7%. See
6 *Rebuttal Table 8*.

7 **Q. WHAT IS YOUR FOURTH RESTATEMENT?**

8 A. My fourth restatement is to base the estimate of future growth used in the
9 constant growth DCF model on only the three forward-looking estimates of
10 growth.

11 I disagree with the inclusion of the forward-looking estimate of DPS growth
12 in this average because the growth rate in the constant growth DCF analysis
13 should be an estimate of long-term sustainable growth. RUCO's cost of capital
14 witness, Mr. Rigsby, also uses sustainable growth in his DCF model. When EPS
15 is growing much faster than DPS—as it is at this time—the long-term sustainable
16 growth is undeniably higher than expected near-term DPS growth. But because
17 Mr. Ramirez has included DPS growth in his analysis, I have included it in my
18 restatement of his numbers. Rebuttal Table 9 shows that average of forward-
19 looking growth rates is 6.9%.³ That growth rate is 180 basis points lower than the
20 average of forward-looking estimates of DPS, EPS and intrinsic growth
21 determined by Mr. Ramirez of 8.7% in Schedule AXR-6. I have explained at
22 length in my direct testimony why only forward-looking estimates of growth should
23 be relied upon to make DCF equity cost estimates and do not repeat that
24 testimony again.

25 **Q. WHAT IS YOUR ESTIMATE OF THE WATER UTILITIES SAMPLE COST OF**
26 **EQUITY USING RESTATED DATA PRESENTED BY MR. RAMIREZ?**

27
28 ³ That growth rate would be 8.5% if the forward-looking estimate of DPS growth were not included.

1 A. The estimate is 10.1%. It is found by adding together the dividend yield (D_1/P_0)
2 derived from Mr. Ramirez's work papers of 3.3% with the forward-looking growth
3 rate estimate of 6.9%, as shown in Rebuttal Table 11 (the 10.1% is based on the
4 numbers prior to rounding). If I had simply adopted the average of Mr. Ramirez's
5 estimates of forward-looking growth of 8.7%, the constant growth DCF equity cost
6 estimate would be 12.0% (3.3% + 8.7%).

7 **D. Restatement of ACC Staff's Multi-Period DCF Equity Cost Estimates.**
8

9 **Q. TURN TO YOUR RESTATEMENT OF MR. RAMIREZ'S MULTI-PERIOD DCF**
10 **ANALYSIS. WHERE DO YOU PRESENT THAT RESTATEMENT?**

11 A. It is presented in Rebuttal Table 10. In making this analysis I have adopted the
12 prices and dividends reported by Mr. Ramirez and assume initial growth comes
13 from DPS growth relied on by Mr. Ramirez in Schedule AXR-7. Investors relying
14 on *Value Line*, however, would expect growth after 2007 to improve. During the
15 period 2005 to 2007, earnings are expected to grow faster than dividends,
16 retention ratios would increase and potential future growth would increase.
17 Investors may expect that higher potential growth in this second stage would be
18 the br+vs growth estimated by Mr. Ramirez for the period 2007-2009. Based on
19 Mr. Ramirez's numbers (corrected for year-end equity being used to compute "br"
20 growth), on average, growth after 2007 could be sustained at 8.7%. In effect, in
21 my restatement of Mr. Ramirez's analysis in Schedule AXR-7, I assume the
22 expected potential growth in 2007-2009 would continue for a few more years after
23 2009. See Rebuttal Table 10. Mr. Ramirez, however, ignores this potential
24 growth and thus severely biases downward the estimate of average growth the
25 utilities are expected to achieve and thus the equity cost estimates. For my
26 restatement of Mr. Ramirez's analysis, I allow for a period of 10 years of this
27 higher potential sustainable growth before assuming – as does Mr. Ramirez – that
28

1 growth reverts to expected growth in GDP. With this revision of Mr. Ramirez's
2 Schedule AXR-7, the estimated equity cost increases from 9.5% to 10.3%.

3 **E. Restatement of ACC Staff's CAPM Estimates.**
4

5 **Q. HAVE YOU ALSO RESTATED MR. RAMIREZ'S CAPM ESTIMATES?**

6 **A.** Yes, I have. In making my restatements of his CAPM estimates, I have used the
7 more recent data published in Ibbotson Associates *2005 S&P Yearbook*, based
8 my restatements on long-term Treasury rates instead of intermediate-term
9 Treasury rates relied upon by ACC Staff, and rely on forecasted estimates of
10 interest rates.

11 **Q. ACC STAFF REFERS TO A BOOK WRITTEN BY REILLY AND BROWN TO
12 SUPPORT USING INTERMEDIATE-TERM TREASURY SECURITIES FOR THE
13 RISK-FREE RATE. DOES THE REILLY AND BROWN BOOK SUPPORT SUCH
14 A CHOICE?**

15 **A.** No. ACC Staff says that Reilly and Brown contend that investors have
16 approximately intermediate-term holding periods and thus it is appropriate to use
17 intermediate-term Treasury securities as the measure of the risk-free rate ("RF").
18 The holding period of the investor, however, has nothing to do with the proper
19 choice of the length of the Treasury security. Whether the investor has an
20 expected holding period of one day or an expected holding period of 10 years is
21 not the issue. Common stocks *do not* have lives of one day or 10 years. The
22 best available forecast of the life of a common stock is that it will continue to exist
23 forever. Therefore, if the investor has a holding period of 10 years, he/she must
24 take into account that the stock will continue to exist after he/she sells it at the end
25 of the ten-year period. Consequently, the expected price he/she receives for the
26 stock when it is sold (a major part of his/her holding period return) will depend on
27 the future value of cash flows generated by that stock after it has been sold.
28 Ibbotson Associates provide a very clear explanation of this issue:

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The horizon of the chosen Treasury security should match the horizon of whatever is being valued. When valuing a business that is being treated as a going concern, the appropriate Treasury security should be that of a long-term Treasury bond. **Note that the horizon is a function of the investment, not the investor.** If the investor plans to hold a stock in a company for only five years, the yield on a five-year Treasury note would not be appropriate since the company will continue to exist beyond those five years. Companies are entities that generally have no defined life span; when determining a company's value, it is important to use a long-term discount rate because the life of the company is assumed to be infinite.

Ibbotson Associates, *SBBI Valuation Edition, 2005 Yearbook*, pages 57 and 73 (emphasis added).

Q. WHY IS THIS AN IMPORTANT ISSUE?

A. It is important because empirical tests of the CAPM show the tradeoff between beta risk and required returns is flatter than is indicated by using intermediate-term or short-term Treasury rates.⁴ If the more appropriate measure of the risk-free rate – RF – is adopted, all stocks will have costs of equity estimates closer to the cost of equity for an average risk stock. Utility stocks generally have betas less than 1.0, and thus estimates of the cost of equity for such less-than-average-risk stocks will be understated if intermediate-term Treasury rates (or, as in the case of RUCO, short-term Treasury rates) are used in the CAPM analysis.

Q. SHOULD FORECASTS OF INTEREST RATES BE ADOPTED TO ESTIMATE CAPM EQUITY COSTS?

⁴ The empirical evidence indicates that long-term Treasury rates also understate the correct value for the RF. But, to be conservative, I adopt long-term Treasury rates for my analysis.

1 A. Yes, for two reasons. First, available evidence presented by the ACC Staff in
 2 2003 show interest rate forecasts are not biased. At page 49 of the ACC Staff
 3 direct testimony in Docket No. WS-01303A-02-0867, Staff witness Joel Reiker
 4 presented Chart 4 that compared *Blue Chip Financial Forecasts* consensus
 5 forecasts of Aaa corporate bond rates to actual rates for the period 1999 to 2003.
 6 The data underlying the chart are provided below:

<u>Year</u>	<u>Projected Rate</u>	<u>Actual Rate</u>	<u>Difference</u>
1999	6.9%	7.05%	-0.15%
2000	6.80%	7.62%	-0.82%
2001	6.60%	7.08%	-0.48%
2002	6.60%	6.49%	0.11%
2003	6.60%	5.94%	0.66%

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11 These data show that in three years the projected *Blue Chip* interest rates were
 12 lower than actual rates and in the other two years projected rates were higher
 13 than subsequently occurred. On average the *Blue Chip* projections of future rates
 14 were slightly below the rates that actually occurred. This evidence provides
 15 strong support for the consensus forecasts being unbiased, and certainly not
 16 working against the interests of ratepayers.

17 Second, interest rates that should be relied upon to determine Arizona
 18 Water's cost of equity should be interest rates expected during the period in which
 19 new tariffs will be in effect. Relying on "actual" market interest rates for March 24,
 20 2005 does not solve the problem of uncertainty about what the interest rates will
 21 be in late 2005 or in 2006, when Arizona Water's new rates will be put in place.
 22 As a result, the quotation Mr. Ramirez offers at page 50 of his direct testimony
 23 from Jacob and Pettit cannot be a criticism of my choice to use *DRI*, *Value Line*
 24 and *Blue Chip* consensus forecasts of Treasury rates.

25 In Mr. Ramirez's CAPM testimony, he adopted actual rates instead of
 26 forecasts of those rates to make CAPM estimates. The following simplified
 27 explanation of 5-year interest rates illustrates the problem:
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	5-year					
Year	1	2	3	4	5	Average
Interest rate for one year	1%	4%	4%	4%	4%	3.4%

In my illustration, the reported 5-year interest rate (also the average of five one-year interest rates) is 3.4%, but in four out of the five years after year 1, the interest rate is 4%. The relevant rate to determine a cost of money when setting rates that will not be effective until year 2 is not 3.4%, but is 4%. Forecasts of interest rates or "forward rates" (that back out the first year rate) could be used to provide the relevant interest rate for the period in which Arizona's new tariffs will be established, but forecasts of the interest rates in future periods serve the same purpose. In effect, *DRI*, *Value Line* and *Blue Chip* forecasts reflect pure forecasts of the rates after the 2005 short-term rates are history. With interest rates currently very low, compared with interest rates over the past several decades, the chance future rates will be higher than rates today is much better than the chance they will be lower. As a result, the forecasted rates should be used.

Q. HAVE YOU RESTATED THE LONG-HORIZON AVERAGE MARKET RISK PREMIUM RELIED UPON BY MR. RAMIREZ?

A. Yes, I have. The long-horizon average market risk premium ("MRP") should be consistent with the choice of the measure for RF. Since it is more appropriate to base RF on the long-term Treasury rate than intermediate-term Treasury rates,⁵ the long-horizon MRP should also be based on the difference between common stock returns and the income from long-term Treasury bonds. This long-horizon MRP is 7.2% (Ibbotson Associates, *2005 S&P Yearbook*, Table 9-1).

Q. WHAT IS YOUR COST OF EQUITY ESTIMATE MADE WITH YOUR FIRST RESTATEMENT OF MR. RAMIREZ'S CAPM ESTIMATES?

⁵ As stated in footnote 4, empirical tests of the CAPM indicate long-term Treasury rates understate the true value required for RF, thus my equity cost estimates determined with the CAPM are conservatively low.

1 A. The cost of equity estimate is 10.7%. It is found as follows:

2 Equity cost = RF + β x MRP
3 10.7% = 5.8% + .68 x 7.2%

4 See Rebuttal Table 12.

5 Q. DO YOU HAVE ANY CONCERNS WITH THE METHOD MR. RAMIREZ HAS
6 USED TO ESTIMATE HIS "CURRENT" MARKET RISK PREMIUM?

7 A. Yes. This method is extremely unstable and should not be used to set utility rates
8 on a going-forward basis. Between the time Mr. Ramirez prepared his testimony
9 and April 29, for example, this method indicates the "current" market risk premium
10 ("MRP") increased from 6.5% to 8.4%. In fact, during the period from October 9,
11 2002 to April 29, 2005, Mr. Ramirez's method indicates the MRP has fluctuated
12 between 5.9% and 18.2%! In effect, Mr. Ramirez is claiming the current MRP is
13 almost as low as it has been during the last three years.

14 Q. IS THERE A MORE RELIABLE WAY TO ESTIMATE THE CURRENT MRP?

15 A. Yes. Table 11 reports DCF equity cost estimates and expected MRPs from
16 forward-looking data *Value Line* has presented in 25 different studies of its
17 Industrial Composite for the period 1987 to 2005. The *Value Line* Industrial
18 Composite is based on a wide cross-section of companies and thus is expected to
19 reflect required returns for an average risk company. These data show that
20 although the overall average MRP for the period 1987-2004 was 6.9% (and thus
21 below the past long-term average of 7.2%), data for the most recent five-year, ten-
22 year, and fifteen-year periods indicate the current required MRP is no less than
23 7.8%. These more recent data suggest investors currently require a higher
24 market risk premium than the long-term average MRP of 7.2%.

25 Q. WHAT IS MR. RAMIREZ'S CAPM EQUITY COST ESTIMATE BASED ON THE
26 LONG-TERM TREASURY RATE AND YOUR CONSERVATIVE ESTIMATE OF
27 THE CURRENT MRP?

28 A. It is 11.1%. It is found as follows:

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$$\begin{aligned} \text{Equity cost} &= \text{RF} + \beta \times \text{MRP} \\ 11.1\% &= 5.8\% + .68 \times 7.8\% \end{aligned}$$

See Rebuttal Table 12.

F. Summary of Restatements of Mr. Ramirez's Equity Cost Estimates.

Q. HAVE YOU PREPARED A RESTATED VERSION OF MR. RAMIREZ'S SCHEDULE AXR-8, WITH THE CORRECTIONS YOU HAVE DISCUSSED?

A. Yes, I have. It is Rebuttal Table 12. My restatements indicate his DCF equity cost estimates for the water utilities sample is 10.2%, his CAPM equity cost for the water utilities sample is 10.9% and the overall average cost of equity for the water utilities sample is 10.6%.

G. A Negative ROE Adjustment Should Never Be Considered.

Q. DO YOU HAVE ANY OTHER CONCERNS WITH HIS APPLICATION OF CAPM CONCEPTS TO DETERMINE HIS RECOMMENDED ROE FOR ARIZONA WATER?

A. Yes. At page 33, Mr. Ramirez mentions an extension of the CAPM methodology developed by Professor Hamada that might support a negative adjustment to Arizona Water's ROE of approximately 60 basis points. That would result in a cost of equity of only 8.7% -- well below actual and authorized ROEs. But, to be conservative, he recommends a reduction in Arizona Water's recommended ROE of 20 basis points.

I have reviewed the basis for this calculation in Mr. Ramirez's work papers. For this adjustment to have validity, three factors *must* be true (but are not):

(1) Arizona Water must not have issued its Series K bonds at a cost that exceeded the cost of bonds for the water utilities sample (but it did),

(2) Arizona Water's risks that I have identified must not have any impact on its beta (but they do),

1 (3) Investors care only about beta risk when they determine risk and the
2 required return for Arizona Water's equity. (but this is not true).

3 **Q. WHY ARE ARIZONA WATER'S SERIES K BONDS IMPORTANT?**

4 A. The Series K bonds provide known market information that shows a negative
5 ROE adjustment for Arizona Water should never be considered. During Arizona
6 Water's last rate case, evidence was submitted that showed Arizona Water was
7 more risky than the water utilities sample even though it had lower leverage (debt)
8 than the water utilities sample. Five of the six water utilities in the water utilities
9 sample have bond ratings by S&P or Moody's of "A" or "AA." SJW Corp does not
10 have a bond rating.⁶ After a six month search for someone to buy its Series K
11 bonds, Arizona Water issued the bonds at a cost that was 37 basis points higher
12 than the cost of A-rated bonds at the time the Series K bonds were issued and 49
13 basis points higher than the cost of AA-rated bonds at the time of issue, even
14 though the Company had a higher equity ratio. The implication of the cost of this
15 bond issue is that Arizona Water—for whatever reason—requires a higher equity
16 return than the cost of equity for a sample of A-rated and AA-rated water utilities.
17 Basic finance principles tell us that a utility's cost of equity is higher than its cost of
18 debt. Mr. Ramirez has ignored this obvious, known market information. It shows
19 there is absolutely no foundation for the negative ROE reduction adjustment he
20 makes. If anything, this known market information for the Company indicates
21 Arizona Water has a beta that is closer to 1.0 than the beta for the water utilities
22 sample (even though it is less leveraged) and corroborates the need to give
23 Arizona Water a risk premium to offset the Company being more risky than the
24 water utilities sample. This evidence alone supports a risk premium of no less
25 than 37 to 49 basis points. Undeniably, Arizona Water requires a higher ROE
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27
28 ⁶ Five of the six water utilities have bond ratings of A, A2, A+ or AA+. Only SJW Corp does not have a bond rating.

1 because it has business risk that more than offsets the reduction in financial risk
2 that occurs as leverage is reduced.

3 **Q. TURN TO YOUR SECOND POINT. DO THE RISKS YOU HAVE IDENTIFIED**
4 **INCREASE THE BETA FOR ARIZONA WATER?**

5 A. Yes. Mr. Ramirez does not have a beta estimate for Arizona Water because it is
6 not known. I expect, however, a number of the risks I identified in my direct
7 testimony increase the (unmeasured) beta risk of Arizona Water. In order to avoid
8 addressing the added risk faced by Arizona Water, at page 36-41 of his testimony,
9 Mr. Ramirez categorized the risks I identified as "unique" risk that he assumed
10 could be diversified away. I do not agree. When regulatory procedures reduce
11 expected cash flows or make cash flows more uncertain, I expect the beta
12 increases. While I do not agree that beta risk is the only risk of relevance to
13 investors, the risks I have identified are certainly expected to increase Arizona
14 Water's beta risk.

15 **Q. IS THERE MARKET INFORMATION OTHER THAN THE COST OF THE**
16 **SERIES K BOND ISSUE THAT SUPPORTS A POSITIVE RISK PREMIUM FOR**
17 **ARIZONA WATER EVEN THOUGH IT IS LESS LEVERAGED THAN THE**
18 **WATER UTILITIES SAMPLE?**

19 A. Yes. There are at least three separate pieces of information. First, Professor
20 Roll has explained that smaller, less frequently traded stocks—such as small
21 water utility stocks—have higher betas than are estimated with weekly data (as is
22 done by Value Line).⁷ In my article ("Utility Stocks and the Size Effect -
23 Revisited," *The Quarterly Review of Economics and Finance*, Vol. 43, Issue 3
24 (Autumn 2003) 578-582), I found that to be the case for small water utilities.

25
26 ⁷ Richard Roll "A Possible Explanation of the Small Firm Effect," *Journal of Finance*, Vol XXXVI, Nop. 4,
27 (September 1981). Subsequently, Marc Reinganum "A Direct Test of Roll's Conjecture on the Firm Size
28 Effect," *Journal of Finance*, Vol. XXXVII, No. 1 (March 1982) found that even after accounting for the
negative bias in beta estimates, part of the small firm effect remained.

1 Table 1 in the article reported that if an average beta estimate for smaller water
2 utilities (Connecticut Water Service, Middlesex Water and SJW Corp) were made
3 with data that had longer intervals, the average beta estimate increased from .47
4 (made with weekly data) to .78 (made with pooled annual data). Mr. Ramirez
5 reports an average *Value Line* beta of .62 for these three water utilities when the
6 beta is estimated with weekly returns. Based on my prior analysis, I expect that if
7 longer time intervals for the data were used to estimate the average beta for these
8 smaller water utilities, the average beta for Connecticut Water Service, Middlesex,
9 and SJW Corp would be no less than .78⁸. I expect Arizona Water has a beta
10 higher than .68 even though it is less leveraged than the water utilities sample.

11 Second, studies made by Ibbotson Associates have found that companies
12 in the Micro-cap category—such as Arizona Water would be if it were valued at a
13 market price lower or comparable to publicly traded water utilities—have higher
14 average betas than do companies in the Low-Cap size category—companies the
15 size of the water utilities sample.⁹ This information is readily available data and
16 shows smaller companies are expected to have higher betas than the companies
17 the size of the water utilities sample.

18 Third, a now classic study of companies in 12 different industries by Scott
19 and Martin found that “smaller equity ratios (higher leverage use) are generally
20 associated with larger companies.” (David Scott, Jr. and John Martin, “Industry
21 Influence on Financial Structure,” *Financial Management* (Spring 1975), page 70).

22
23
24 ⁸ At the time of my study, the average *Value Line* beta for the three smaller water utilities was .47. Since
the average *Value Line* beta is now .62, I expect the beta estimated with longer time interval data would
also be higher than .78.

25 ⁹ Ibbotson Associates define a Micro-Cap company as one with less than \$505 million in market
26 capitalization, a Low-Cap company is one with between \$505 million and \$1,608 million of market
capitalization. The water utilities sample has a market capitalization of approximately \$700 million and
27 thus would fall into the Low-cap category. At any reasonable market valuation of Arizona Water equity, it
would have a value below \$500 million. Ibbotson Associates estimate beta with different statistical
28 methods and data. In all cases, the average betas for the Low-cap companies are smaller than the betas
for the Micro-cap group of companies.

1 The Scott and Martin study is consistent with smaller firms offsetting the higher
2 business risk of being small with lower leverage.

3 **Q. HAS THE COMMISSION REJECTED SUCH A NEGATIVE ROE ADJUSTMENT**
4 **FOR ARIZONA WATER IN THE PAST?**

5 **A.** Yes, it has. ACC Staff proposed such a negative reduction to Arizona Water's
6 ROE in Arizona Water's last case. In Decision No. 66849, Docket W-01445A-02-
7 0619, the Commission rejected the proposed negative adjustment. This
8 unsupported negative ROE adjustment should be rejected again and a positive
9 risk premium of no less than 50 basis points should be adopted.

10 **H. Responses To Mr. Ramirez's Criticisms of the FERC DCF Methods and**
11 **the California PUC Risk Premium Methods.**

12 **Q. AT PAGES 34 TO 54, MR. RAMIREZ RESPONDS TO YOUR DIRECT**
13 **TESTIMONY. IN THAT TESTIMONY, DOES HE PROVIDE ANY EVIDENCE**
14 **THAT THE METHODS TO ESTIMATE THE COST OF EQUITY USED BY THE**
15 **FERC AND THE CALIFORNIA PUC ARE FLAWED?**

16 **A.** No. At page 35, he just dismisses them by saying I "failed to demonstrate that the
17 approaches taken by both the FERC and the CPUC staff are superior to the ones
18 used by Staff." That statement is simply not true. In my direct testimony and
19 above, I have shown that when the DCF methods used by the FERC and risk
20 premium approaches adopted by the CPUC Staff are applied to data for water
21 utilities, the equity cost estimates are *consistent with* equity cost determinations
22 made by regulators in other states and ACC decisions prior to 2001 (i.e., before
23 ACC Staff changed its methods of determining equity costs). I believe that result
24 does indeed support a conclusion that the FERC methods are superior to the
25 methods Mr. Ramirez has inherited from ACC Staff members who no longer work
26 at the Commission.

27 Mr. Ramirez goes on to say "in this section, Staff discusses concerns with
28 the methods used by Dr. Zepp." While I agree that I have testified Arizona Water

1 has higher risk than the water utilities sample and recommend that this additional
2 risk be recognized by the Commission, the methods I used to determine
3 *benchmark* equity costs are not "my" methods but methods adopted by a federal
4 agency and the California PUC. Generally, the criticisms of my testimony that are
5 presented in pages 41 to 54 are criticisms of the FERC and the California PUC.

6 Ultimately, Mr. Ramirez does not explain why the methods he inherited
7 from the former ACC Staff employees are preferred to methods used by the
8 FERC and the California PUC. He does not explain why methods advocated by
9 ACC Staff after 2001 that produce ROE estimates substantially lower than the
10 methods used by the ACC Staff before 2001 are preferred to methods used by the
11 FERC and California PUC. Finally, he does not explain why the methods he has
12 inherited from former ACC Staff members should be preferred to methods that
13 produce equity cost estimates comparable to equity costs adopted by
14 commissions in other states and actual ROEs earned by utilities in his sample
15 group.

16 **Q. DO YOU HAVE A SPECIFIC RESPONSE TO THE TESTIMONY MR. RAMIREZ**
17 **PRESENTS AT PAGES 35 TO 39 ON THE ABOVE-AVERAGE RISKS FACED**
18 **BY ARIZONA WATER?**

19 **A.** Yes. In my response to Mr. Ramirez's proposal to adopt a negative ROE
20 adjustment for Arizona Water, I have explained why a risk *premium*, not negative
21 ROE *adjustment*, is required. The question for the Commission is not whether
22 Arizona Water is more risky than the water utilities sample, but how large a risk
23 premium is appropriate. That risk premium should be no less than the 37 to 49
24 basis point risk premium indicated by the cost of Arizona Water's Series K bonds
25 compared to the costs of A-rated and AA-rated bonds when the Series K bonds
26 were priced. Arizona Water's additional risks resulting from elimination of the
27 PPAM and PWAM, its continuing risk of not recovering all of its costs to meet new
28 federal arsenic contaminant levels, and the imposition of inverted-tier rates make

1 the 37 to 49 basis point risk premium a floor for the required risk premium and
2 certainly support the 50 basis point risk premium I recommended. We do not
3 have an estimate of the beta for Arizona Water, but, for the reasons discussed
4 above, I expect it is closer to 1.0 than the average beta for the sample water
5 utilities. A higher beta would also justify a risk premium above the equity cost for
6 a water utilities sample with a lower beta.

7 **Q. AT PAGES 41-48, HE COMMENTS ABOUT THE FERC 1-STEP METHOD. DO**
8 **YOU HAVE A RESPONSE?**

9 **A.** Yes. The FERC, as the federal agency that regulates the interstate sale of gas
10 and electricity, has had the benefit of numerous highly qualified experts testifying
11 on behalf of a wide range of stakeholders in its proceedings. The FERC has
12 determined that forward-looking growth rates should be used to determine equity
13 costs. It is particularly troublesome that Mr. Ramirez has chosen to challenge the
14 FERC's wisdom in using forward-looking estimates of growth to determine equity
15 costs. His quotation from Dr. Gordon's speech (page 42), for example, does not
16 challenge FERC's choices. Dr. Gordon acknowledges that the FERC has
17 determined that when the 2-step model is used, both short-term forecasts and
18 long-term forecasts of growth will be recognized. Dr. Gordon does not say – as
19 the methods used by Mr. Ramirez say – that we should look *backward* to
20 determine *future* growth when we have forward-looking estimates of growth
21 available.

22 **Q. MR. RAMIREZ ALSO CRITICIZES EPS FORECASTS AS BEING TOO**
23 **OPTIMISTIC. DO YOU HAVE A RESPONSE?**

24 **A.** Yes. Mr. Ramirez's reference at page 45 to David Dreman (not "Breman") is
25 puzzling. Apparently Mr. Ramirez adopted this inherited testimony from past ACC
26 Staff witnesses without reading my response to this same testimony in the
27 Arizona-American case.
28

1 In that prior case, in response to this same testimony, I pointed out that
2 even though Mr. Dreman has criticized analysts' growth rates as being too
3 optimistic, Mr. Dreman also says investors rely on those forecasts.

4 We have also seen that in spite of high error rates being
5 recognized for decades, neither analysts nor investors who
6 religiously depend on them have altered their methods in any
7 way." (David Dreman, *Contrarian Investment Strategies: The*
8 *Next Generation*. Simon & Schuster. New York page 115-
9 116.)

10 If investors rely on such analysts' growth rate forecasts, those are the forecasts of
11 relevance to the determination of equity costs. Those growth rates influence the
12 prices investors will pay for stocks and thus impact the dividend yields. The
13 dividend yields change until the sum of the dividend yield plus those growth rates
14 equal the investors' perceived cost of equity. Had the growth forecasts been
15 lower – as Mr. Ramirez suggests they should be – the stock prices would be lower
16 and dividend yields would be higher, but there would not necessarily be any
17 difference in the ultimate estimate of the cost of equity.

18 **Q. AT PAGE 46, MR. RAMIREZ NOTES YOU DID NOT CONSIDER DPS GROWTH**
19 **IN YOUR DCF ANALYSIS. DO YOU HAVE A RESPONSE?**

20 **A.** Yes. It is inappropriate to consider DPS growth when applying the FERC 1-step
21 or the FERC 2-step models. The FERC has determined that EPS growth and
22 estimates of sustainable growth (growth Mr. Ramirez calls intrinsic growth) should
23 be used when estimating DCF equity costs. In equilibrium, the DCF model tells
24 us that DPS, EPS, book values and prices will all grow at the same rate. The
25 FERC has correctly recognized, however, that it is EPS growth (i.e., growth in
26 earnings) that permits DPS growth (i.e., growth in dividends) to occur and
27 therefore places the emphasis on EPS growth. The quotation Mr. Ramirez
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provides from Professor Siegel does not change the fact that the FERC uses forecasted EPS growth in both its models, not DPS growth.

Q. AT PAGE 47, MR. RAMIREZ ALSO PROVIDES A QUOTATION FROM SOME OF YOUR 1999 TESTIMONY THAT IMPLIES YOU USED FORECASTED DPS TO ESTIMATE EQUITY COSTS. DO YOU HAVE A RESPONSE?

A. Yes. I have two responses. First, I attempted to eliminate issues in this case by relying on the methods the FERC uses to determine DCF equity costs. As I explained at length in my direct testimony, my analysis is not based on methods I prefer, but is instead based on what the FERC actually does. The FERC does not rely on forecasts of DPS to determine equity costs in either the 1-Step or the 2-Step model and thus my 1999 testimony, whatever it was, is not at issue.

Second, that said, in the 2003 Arizona-American case I showed this testimony was taken out of context and is therefore misleading. This quotation was submitted in the 2003 Arizona-American case by John Thornton, a former employee of the ACC Staff. The quotations were very carefully selected to erroneously imply I used DPS forecasts to determine equity costs in 1999 with the constant growth DCF model. Mr. Thornton had my complete testimony and knew that the quotations he selected misrepresented my testimony. I am not sure if Mr. Ramirez has the full testimony, but relevant portions of it were submitted in my rebuttal testimony in the Arizona-American Case (Docket No. WS-01303A-02-0867). As I do not view this testimony as being relevant in this case, I do not re-submit all of the documents I submitted before.

Those documents, however, are in the files of the ACC if anyone wants to review them.

Q. AT PAGE 48, AGAIN MR. RAMIREZ SAYS HE IS COMMENTING ON "DR. ZEPP'S 2-STEP DCF MODEL." DO YOU HAVE A RESPONSE?

1 A. Yes. The 2-Step model is a FERC model not a "Dr. Zepp Model." A proper
2 implementation of the FERC model requires the exclusive use of forecasted EPS
3 growth in the first step.

4 **Q. AT PAGE 48-51, MR. RAMIREZ PROVIDES REASONS THE ACC SHOULD**
5 **NOT CONSIDER FORECASTED INTEREST RATES. DO YOU HAVE ANY**
6 **COMMENTS ON THIS SECTION OF HIS TESTIMONY?**

7 A. Yes. I have two comments. First, I addressed the appropriateness of forecasted
8 interest rates above when making my restatement of his CAPM equity cost
9 estimates and do not repeat that testimony. The other comment is his proposed
10 *current cost of equity* (see page 50, line 22) is ambiguous. On February 17, 2005,
11 when he prepared his Chaparral City Water Company testimony (Docket No. W-
12 02113A-04-0616), the *current* cost of 10-year Treasury notes was 4.16%. On
13 March 24, 2005, when he prepared testimony in this docket, the *current* cost of
14 10-year Treasury notes was 4.60% (page 27 footnote 9 of his testimony in this
15 case). Clearly Mr. Ramirez's definition of "current" is ambiguous. The only
16 unambiguous definition of the current cost of equity is the current cost of equity
17 expected when Chaparral City Water Company's and Arizona Water's new rates
18 will be in effect. That will not be until later this year. The California PUC believes
19 the best way to estimate that *current* cost is with forecasted interest rates. So do
20 I. In a period in which we expect interest rates to continue to increase, the worst
21 possible measure of the *current* cost of Treasury notes is the 4.16% or 4.60%
22 "stale" interest rates that existed when Mr. Ramirez prepared testimonies. Stale
23 interest rates will almost certainly lead to an authorized ROE below Arizona
24 Water's cost of equity.

25 **Q. TURN TO PAGE 51. THERE MR. RAMIREZ COMMENTS ON YOUR FIRST**
26 **RISK PREMIUM MODEL. DO YOU HAVE A RESPONSE?**

27 A. Yes. Again, this is not "my model." It is the risk premium model routinely used by
28 the California Office of Ratepayer Advocate ("ORA") Staff to estimate the cost of

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equity for water utilities. The important characteristics of the ORA Staff model are (1) the use of earned returns as the proxies for equity costs and (2) the use of forecasted interest rates.

Mr. Ramirez criticizes both choices. In effect he criticizes choices made by the California ORA Staff, not me. I have already indicated my preference for proxies of equity costs to be authorized ROEs, not realized ROEs, for the reasons I listed above, even though authorized ROEs may understate the cost of equity.

Q. DO YOU HAVE A RESPONSE TO THE EQUITY COST ESTIMATES PRESENTED BY MR. RAMIREZ IN SCHEDULE AXR-9?

A. Yes. Rebuttal Table 13 provides that response. Using the California ORA model and forecasted interest rates for the first full year new rates will be in place for Arizona Water, the indicated cost of equity range for the water utilities sample is 10.4% to 10.6%. Recognizing Arizona Water's added risk, the indicated cost of equity range for Arizona Water is no less than 10.9% to 11.1%. It is only when Mr. Ramirez departs from the methods commonly used by the CPUC staff that he gets an equity cost range as low as 9.6% to 9.7% (Schedule AXR-9). But, while I do not agree with the use of "spot" Treasury rates to estimate equity costs for rates that will not be in place until late 2005, if March 24, 2005, interest rates were used, Schedule AXR-9 would indicate an equity cost range that is 50 to 60 basis points above Mr. Ramirez's recommended ROE of 9.1%. This is further evidence that his recommendation is too low.

Q. DO YOU HAVE A RESPONSE TO MR. RAMIREZ'S TESTIMONY AT PAGE 52-53 ABOUT THE USE OF AUTHORIZED ROES AS MEASURES OF THE COST OF EQUITY?

A. Yes. Contrary to his testimony, authorized ROEs are the result of market information provided in litigated cases or understatements of the cost of equity that result from settlements. Regulatory commissions that do their jobs do indeed look at market information in litigated cases and determine equity costs from that

1 market information. I am not aware of authorized ROEs for any water utility being
2 set above the cost of equity to provide incentives similar to incentives provided to
3 energy and telecommunications companies.

4 **IV. RESTATEMENTS OF RUCO'S TESTIMONY**

5 **A. RUCO's DCF Estimate.**

6
7 **Q. PLEASE TURN TO YOUR COMMENTS ABOUT MR. RIGSBY'S DCF**
8 **APPROACH. WHAT ARE YOUR PRIMARY CONCERNS WITH HIS**
9 **APPROACH?**

10 **A.** I have two concerns. First, Mr. Rigsby agrees with the FERC that "vs" growth
11 (external growth) and "br" growth (internal growth) should be recognized when
12 determining sustainable growth rate estimates. He has, however, not adopted
13 estimates of "vs" growth investors would reasonably expect from water utilities.
14 Second, he has slightly underestimated "br" growth (growth from internal
15 sources). As a result, he has understated sustainable growth and, therefore, his
16 DCF equity cost estimates are also understated. If an estimate of growth used in
17 the DCF model is less than investors expect, the DCF equity cost will be too low.

18 **Q. HOW DOES THE SAMPLE OF WATER UTILITIES MR. RIGSBY USED TO**
19 **DETERMINE DCF EQUITY COSTS COMPARE TO THE ONE YOU AND MR.**
20 **RAMIREZ USED?**

21 **A.** He uses the three large water utilities out of six that we used.

22 **Q. HOW DO MR. RIGSBY'S ESTIMATES OF "BR" GROWTH FOR HIS THREE**
23 **UTILITIES COMPARE TO YOUR ESTIMATES OF "BR" GROWTH AND MR.**
24 **RAMIREZ'S ESTIMATES OF "BR" GROWTH?**

25 **A.** Mr. Rigsby estimates "br" growth for American States, Aqua America and
26 California Water Service to be 6.0%, 6.0% and 4.75%, respectively. These
27 estimates are derived by Mr. Rigsby from his personal analysis of *Value Line*
28 forecasts reported on Schedule WAR-5. After adjusting those estimates of br

1 growth with the FERC formula to recognize the fact that *Value Line* computes
2 ROEs on year-end equity, those "br" growth rates are 6.2%, 6.2% and 4.9%,
3 respectively and average 5.7%. See Rebuttal Table 14. In August 2004, I
4 estimated "br" growth for this sample of three water utilities to have average "br"
5 growth of 4.9% (again after adjustment with the FERC formula). Mr. Rigsby's
6 estimates of br growth are also above the 5.4% average "br" growth rate
7 determined from Mr. Ramirez's data. See *Rebuttal Table 14*.

8 **Q. TURN TO MR. RIGSBY'S ESTIMATE OF "VS" GROWTH. EXPLAIN YOUR**
9 **CONCERNS WITH HIS ESTIMATES OF THE STOCK FINANCING RATE "S"?**

10 A. The approach Mr. Rigsby has taken underestimates the stock-financing rate that
11 rational investors would anticipate. Rebuttal Table 15 reports recent past growth
12 in shares, forecasted future growth in the number of shares and Mr. Ramirez's
13 estimates of share growth as well as Mr. Rigsby's subjective estimates of future
14 share growth. Mr. Rigsby's average estimate of the stock financing rate ("s") of
15 1.33% is less than *both* the average of past growth in shares of 4.59% and the
16 average of future estimates of share growth of 4.14% Mr. Rigsby reports in
17 Schedule WAR-5. It is also below the average estimate of "s" relied on by Mr.
18 Ramirez of 3.20%. For my restatement of Mr. Rigsby's DCF estimates, I have
19 adopted the estimates of future growth in shares he reports in Schedule WAR-5
20 column F to compute "vs" growth.

21 **Q. ARE THERE PROBLEMS WITH THE FORMULA HE USES TO COMPUTE "V"?**

22 A. Yes. In estimating the "v" in "vs" growth Mr. Rigsby has substituted his personal
23 opinion for market data. He opines that ultimately, investors would expect stock
24 prices for regulated utilities to drop to book value (Rigsby Dt. at 15).

25 Thus, instead of using the market prices to determine "v" called for in a market
26 model, Mr. Rigsby uses an average of the observed market-to-book ratio and a
27 hypothetical market-to-book ratio of 1.0 to compute his estimate of "v" in "vs"
28 growth. When the market-to-book ratio is 1.0, "v" is estimated to be zero and "vs"

1 growth is also estimated to be zero. If one adopts the concept Mr. Rigsby
2 espouses, it has the effect of assuming investors expect one-half as much "vs"
3 growth as is revealed by market data.

4 If markets are reasonably efficient, even if investors did expect movement of stock
5 prices back to book values at some future time, market prices for utility stocks
6 would already reflect potential movements back toward book values. Therefore,
7 this adjustment is unnecessary.

8 **Q. SHOULD MARKET PRICES MOVE TOWARD BOOK VALUES IF A UTILITY'S
9 AUTHORIZED RETURN IS EQUAL TO THE COST OF EQUITY?**

10 A. Not necessarily. I discuss this issue at pages 32 to 33 of my direct testimony and
11 do not repeat that testimony again. Average market-to-book ratios for water
12 utilities followed by *AUS Utilities Reports* have been above 1.0 since at least
13 1991.

14 **Q. DID YOU PREPARE A RESTATEMENT OF MR. RIGSBY'S DCF APPROACH?**

15 A. Yes. For this restatement, I relied upon the forward-looking estimates of "br"
16 growth reported by Mr. Rigsby (but adjusted with the FERC formula (from
17 Rebuttal Table 14)), my restatement of Mr. Rigsby's "vs" growth and Mr. Rigsby's
18 dividend yields. Table 16 shows that if sustainable growth is based on Mr.
19 Rigsby's yields, adjusted "br" growth and the revised estimate of "vs" growth, the
20 indicated cost of equity for his water utilities sample is 10.9%. Because Arizona
21 Water is more risky, its indicated cost of equity is at least 11.4% .

22 **B. RUCO'S CAPM Estimates.**

23 **Q. HAVE YOU RESTATED MR. RIGSBY'S CAPM ESTIMATES OF THE COST OF
24 EQUITY?**

25 A. Yes. Mr. Rigsby uses a 91-day Treasury bill rate in his CAPM approach. I
26 explained above in my response to Mr. Ramirez why it is inappropriate to use a
27 short-term Treasury security to determine the value for RF, the risk-free rate of
28

1 return, for two reasons. One is short-term Treasury rates understate the
2 appropriate RF to use when analyzing long-lived assets such as common stocks.

3 Second, short-term Treasury rates have been shown to be too low by
4 empirical estimates of CAPM. At page 22, Mr. Rigsby notes Professor Sharpe
5 was one of the scholars who developed the CAPM. In his book, *Investments*
6 (Prentice Hall, Third Edition, 1985, page 401), Professor Sharpe advises readers
7 that empirical analyses have shown the value for RF in the Sharpe-Lintner CAPM
8 is significantly higher than short-term Treasury rates. Also, Professor Morin, in his
9 text *Regulatory Finance: Utilities' Cost of Capital*, at pages 308-309, provides
10 quotations from two corporate finance texts which point out that short-term
11 Treasuries are far more susceptible to random disturbances and are heavily
12 influenced by the Federal Reserve, making them very poor proxies for RF in the
13 CAPM.

14 I have restated Mr. Rigsby's CAPM equity cost with forecasted values of
15 long-term Treasury rates as the measure of RF. The restatement indicates the
16 cost of equity for his water utilities sample is 11.0%.

$$\begin{aligned} \text{Equity cost} &= \text{RF} + \beta \times \text{MRP} \\ 11\% &= 5.8\% + .73 \times 7.2\% \end{aligned}$$

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19 The MRP is the long-horizon MRP reported by Ibbotson Associates in the 2005
20 SBBI Yearbook in Table 9-1. The beta is the beta reported by Mr. Rigsby at
21 Schedule WAR-7 page 1 of 2 and page 26 of his testimony. Arizona Water is
22 more risky than these large water utilities and thus this ROE estimate indicates
23 Arizona Water has a required ROE of at least 11.5%.

24 **Q. AT PAGE 47 TO 49, MR. RIGSBY NOTES THAT WATER UTILITY STOCK**
25 **PRICES HAVE INCREASED SINCE YOU PREPARED YOUR TESTIMONY.**
26 **DOES THAT MEAN COSTS OF EQUITY HAVE DECREASED?**

27 **A.** No. Equity cost estimates depend on estimates of growth as well as dividend
28 yields. Rebuttal Table 14 shows growth rates estimated by both Mr. Ramirez and

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Mr. Rigsby are higher than comparable growth rates were when I prepared my direct testimony. Some of the water utilities have also increased dividends.

Q. DOES THIS COMPLETE YOUR PREFILED REBUTTAL TESTIMONY?

A. Yes.

Arizona Water Company

Rebuttal Table 1

Currently Authorized ROEs for Water Utilities Sample

	Authorized ROEs	Realized ROEs
American States Water	10.0%	8.0%
Aqua America	10.1%	11.4%
California Water Service	9.7%	9.8%
Connecticut Water Service	12.7%	11.4%
Middlesex Water	10.0%	8.3%
SJW Corporation	9.8%	11.3%
Average	10.4%	10.0%

Source:
AUS Utility Reports, April 2005.

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Arizona Water Company

Rebuttal Table 2

Update of Zepp Table 14: Returns on Equity for Larger
Water, Sewer and Gas Utilities Prior to December 2001
and
Indicated Current Cost of Equity

Company	Decision Number	Decision Date	Authorized ROE	Average Annual 10-Year Treasury Rate	Risk Premium	
Citizens Utilities Company; Agua Fria Water Division; Sun City Water Company; Sun City Sewer Company and Sun City West Utilities Company	60172	May 7, 1997	10.50%	6.35%	4.15%	
Paradise Valley Water Company	60220	May 27, 1997	11.00%	6.35%	4.65%	
Far West Water Company	60437	Sept 29, 1997	11.50%	6.35%	5.15%	
Saddlebrooke Utility Company	61008	July 16, 1998	11.30%	5.26%	6.04%	
Paradise Valley Water Company	61831	July 20, 1999	11.00%	5.65%	5.35%	
Bermuda Water Company	61854	July 21, 1999	12.00%	5.65%	6.35%	
Pima Utility Company (Sewer)	62184	Jan 5, 2000	11.75%	6.03%	5.72%	
Far West Water & Sewer Co. (Water)	62649	June 13, 2000	11.50%	6.03%	5.47%	
Southwest Gas Corporation	64172	Oct. 30, 2001	11.00%	5.02%	5.98%	
		Average	11.28%	5.85%	5.43%	
Implied Current Costs of Equity						
				Equity cost indicated by forecasted 10-Year Treasury rate ^{a/}	5.29%	10.7%
				Equity cost indicated by 10-Year Treasury rate March 24, 2005 ^{b/}	4.60%	10.0%

Sources:

a/ Rebuttal Table 3.

b/ As reported by Mr. Ramirez for March 24, 2005.

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Arizona Water Company

Rebuttal Table 3

Forecasts of Treasury Securities Rates and
Baa Corporate Bond Rates for 2006^{a/}

10-Year Treasury Bonds	
DRI ^{a/}	5.26%
Blue Chip Consensus Forecasts ^{b/}	5.50%
Value Line ^{c/}	5.10%
Average	5.29%
Long-term Treasury Bonds	
DRI ^{a/}	5.70%
Blue Chip Consensus Forecasts ^{b/}	6.00%
Value Line ^{c/}	5.70%
Average	5.80%
Seasoned Baa Corporate Bonds	
DRI ^{a/}	7.31%
Blue Chip Consensus Forecasts ^{b/}	7.50%
Value Line ^{c/}	na
Average	7.41%

Sources and Notes:

a/ DRI forecast of interest rates reported in January 2005.

b/ Blue Chip long-term consensus forecasts, December 2004.

c/ Value Line Quarterly forecast, February 25, 2005.

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Arizona Water Company

Rebuttal Table 4

Forecasts of Future Earnings Growth for the Water Utilities Sample
Computed by Value Line and Mr. Ramirez

	<u>Value Line</u> ^{a/}	Mr. Ramirez's Projections for <u>2005-2008</u> ^{-b,d/}	Mr. Ramirez's Projections for <u>2003-2008</u> ^{-c,d/}
1 American States	9.5%	11.3%	22.7%
2 California Water	10.0%	5.6%	10.6%
3 Aqua America	9.0%	8.1%	9.6%
4 Connecticut Water Service	9.5%	8.3%	14.3%
5 Middlesex Water	9.5%	8.3%	14.3%
6 SJW Corporation	9.5%	8.3%	14.3%
 Average for Column	 9.5%	 8.3%	 14.3%

Source:

a/ Value Line January 28, 2005.

b/ Based on data in Mr. Ramirez's workpapers.

c/ Based on Mr. Ramirez Schedule AXR-3.

d/ ACC Staff method of adopting the average of projections for American States,
Aqua America and California Water for utilities for which there are no projections.

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Arizona Water Company

Rebuttal Table 5

FERC One-Step (Constant Growth) Discounted Cash Flow Model
Constructed with Mr. Ramirez's Data

	Spot		Adjusted		Growth Rates		Analysts'		Indicated Cost of Equity			
	Dividend Yield	a	Dividend Yield	b	br+sv	c	Forecasts	d	Low	e	High	f
1 American States Water Co.	3.6%	3.6%	3.9%	3.9%	6.7%	6.7%	11.3%	11.3%	10.7%	10.7%	-	15.2%
2 California Water Service Group	3.4%	3.4%	3.6%	3.6%	6.2%	6.2%	5.6%	5.6%	9.2%	9.2%	-	9.8%
3 Aqua America Inc.	2.2%	2.2%	2.4%	2.4%	13.1%	13.1%	8.1%	8.1%	10.5%	10.5%	-	15.5%
4 Connecticut Water Service	3.4%	3.4%	3.6%	3.6%	6.1%	6.1%	8.3%	8.3%	9.7%	9.7%	-	11.9%
5 Middlesex Water Company	3.8%	3.8%	4.1%	4.1%	8.8%	8.8%	8.3%	8.3%	12.4%	12.4%	-	12.9%
6 SJW Corp.	3.0%	3.0%	3.2%	3.2%	5.5%	5.5%	8.3%	8.3%	8.7%	8.7%	-	11.5%
Average		3.2%		3.5%		7.7%		8.3%		10.2%		12.8%
Midpoint of range												11.5%

Notes and Sources

- a/ Current annual dividend yield derived from data in Mr. Ramirez work papers. Dividend for SJW Corp was updated.
- b/ Dividend yield adjusted for one-half years' growth per FERC method.
- c/ Based on br and vs growth rates computed by Mr. Ramirez. If no br growth estimated, per ACC Staff method, the average br growth rate is assumed for the utility. The br growth rates adjusted with FERC method to account for ROE being computed with end of year equity.
- d/ Average of forecasts of growth for 2005-2008. See Rebuttal Table 4. Mr. Ramirez's comparable growth rate was 14.3%.
- e/ Sum of lowest growth rate and adjusted dividend yield.
- f/ Sum of highest growth rate and adjusted dividend yield.

Arizona Water Company

Rebuttal Table 6

FERC Two-Step (Multi-Stage Growth) Discounted Cash Flow Model
Constructed with Mr. Ramirez's Data

	Spot Price ^{a/}	Current D ₀ ^{b/}	FERC Yield		Growth Rates		Indicated Cost of Equity (c+ f)	
			D ₁ /P ₀ ^{c/}	c	Near Term ^{d/}	d		Long Term ^{e/}
1	American States Water Co.	\$25.11	\$0.90	3.8%	11.3%	6.8%	9.8%	13.6%
2	California Water Service Group	\$33.10	\$1.14	3.5%	5.6%	6.8%	6.0%	9.5%
3	Aqua America Inc.	\$23.96	\$0.52	2.3%	8.1%	6.8%	7.7%	9.9%
4	Connecticut Water Service	\$24.95	\$0.84	3.5%	8.3%	6.8%	7.8%	11.3%
5	Middlesex Water Company	\$17.80	\$0.67	3.9%	8.3%	6.8%	7.8%	11.7%
6	SJW Corp.	\$36.01	\$1.07	3.1%	8.3%	6.8%	7.8%	10.9%
	Average			3.3%	8.3%	6.8%	7.8%	11.2%

Notes and Sources:

- a/ Prices reported by Mr. Ramirez.
- b/ Current indicated annual dividend.
- c/ Current dividend grown by one-half the growth rate per FERC method.
- d/ Near-term growth for 2005-2008 based on data in Mr. Ramirez's work papers.
- e/ Arithmetic average GDP growth computed from data reported by ACC Staff.
- f/ Weight given to short-term growth rate is 67%. Source: FERC Opinion 445, note 19, Attachment 3.

Arizona Water Company

Rebuttal Table 7: Restatement of Schedule AXR-3

Growth in Earnings and Dividends
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]
<u>Company</u>	Dividends Per Share 1994 to 2004 <u>DPS^{a/}</u>	Dividends Per Share Projected <u>DPS^{b/}</u>	Earnings Per Share 1994 to 2004 <u>EPS^{a/}</u>	Earnings Per Share Projected <u>EPS^{b/}</u>
American States Water	1.1%	2.2%	4.6%	11.3%
California Water	1.3%	1.2%	3.9%	5.6%
Aqua America	5.8%	7.7%	9.5%	8.1%
Connecticut Water	1.4%	No Projection	2.4%	No Projection
Middlesex Water	2.3%	No Projection	2.7%	No Projection
SJW Corp	3.9%	No Projection	10.7%	No Projection
Average Sample Water Utilities	2.6%	3.7%	5.6%	8.3%
Average Reported by Mr. Ramirez	2.6%	3.3%	1.5%	14.3%

Sources:

a/ Updated with data through 2004.

b/ Expected growth from 2005 to 2008 based on data in Mr. Ramirez's work papers.

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Arizona Water Company

Rebuttal Table 8: Restatement of Schedule AXR-4

Intrinsic Growth Estimates for Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]
Company	Retention Growth 1994 to 2003 <u>br</u>	Corrected ^{b/} Retention Growth Projected <u>br</u>	Stock Financing Growth <u>vs</u>	Intrinsic Growth 1994 to 2003 <u>br + vs</u>	Intrinsic Growth Projected <u>br + vs</u>
American States Water	2.5%	5.6%	1.1%	3.6%	6.7%
California Water	2.5%	4.6%	1.6%	4.1%	6.2%
Aqua America	4.0%	6.2%	6.9%	10.9%	13.1%
Connecticut Water	3.0%	No Projection	0.6%	3.5%	No Projection
Middlesex Water	1.7%	No Projection	3.3%	5.0%	No Projection
SJW Corp	<u>4.8%</u>	No Projection	<u>0.0%</u>	<u>4.8%</u>	<u>No Projection</u>
Average Sample Water Utilities	3.1%	5.5%	2.2%	5.3%	8.7%
Average Reported by Mr. Ramirez ^{a/}	3.1%	5.3%	2.2%	5.3%	8.5%

Sources and Notes:

a/ Mr. Ramirez Schedule AXR-4

b/ br growth corrected using FERC formula that corrects for Value Line reporting ROE based on year-end equity.

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Arizona Water Company

Rebuttal Table 9: Restatement of Schedule AXR-6

Calculation of Expected Infinite Annual Growth in Dividends
Sample Water Utilities

[A]	[B]	[C]	[D]
<u>Description</u>	g	<u>Projected</u>	<u>Historical</u>
DPS Growth - Historical	2.6%		2.6%
DPS Growth - Projected	3.7%	3.7%	
EPS Growth - Historical	5.6%		5.6%
EPS Growth - Projected	8.3%	8.3%	
Intrinsic Growth - Historical	5.3%		5.3%
Intrinsic Growth - Projected	<u>8.7%</u>	8.7%	
Average Sample Water Utilities	5.7%	6.9%	4.5%
Average Reported by Mr. Ramirez ^{al}	5.9%	8.7%	3.1%

Sources: Mr. Ramirez Schedules and Rebuttal Tables 7 and 8.

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Arizona Water Company

Rebuttal Table 10: Restatement of Schedule AXR-7

Multi-Stage DCF Estimates
Sample Water Companies

[A]	[B] Current Mkt. Price (P ₀) ^{a/}	[C] d ₂₀₀₅ ^{a/}	[D] Stage 1 growth (2005-2007)		[E] d ₂₀₀₇	[F] Stage 2 growth (2008-2017)		[G] d ₂₀₁₇	[H] Stage 1 Initial growth ^{b/} (2005-2007)	[I] Stage 2 Projected Intrinsic growth ^{c/} (next 10 years)	[J] Stage 3 Terminal growth ^{d/} (future years)	[K] Equity Cost Estimate (K)
			d ₂₀₀₆	d ₂₀₀₇		d ₂₀₀₈	d ₂₀₁₇					
1	American States Water	\$25.10	\$0.90	\$0.92	\$0.94	\$1.00	\$1.80	\$1.80	2.2%	6.7%	6.8%	10.1%
2	California Water	\$33.10	\$1.14	\$1.15	\$1.17	\$1.24	\$2.13	\$2.13	1.2%	6.2%	6.8%	9.7%
3	Aqua America	\$24.00	\$0.52	\$0.56	\$0.60	\$0.68	\$2.05	\$2.05	7.7%	13.1%	6.8%	10.3%
4	Connecticut Water	\$25.00	\$0.86	\$0.89	\$0.92	\$1.00	\$2.12	\$2.12	3.7%	8.7%	6.8%	10.5%
5	Middlesex Water	\$17.80	\$0.68	\$0.71	\$0.73	\$0.79	\$1.68	\$1.68	3.7%	8.7%	6.8%	10.9%
6	SJW Corp	\$36.00	\$1.08	\$1.12	\$1.16	\$1.26	\$2.66	\$2.66	3.7%	8.7%	6.8%	10.0%
											Average	10.3%

Sources:

- a/ Prices and dividend for next year reported by Mr. Ramirez.
- b/ Initial dividend growth based on data reported by Mr. Ramirez.
- c/ Mr. Ramirez sustainable growth estimates with BR growth adjusted for Value Line reporting ROE based on year-end equity.
- d/ Mr. Ramirez GDP data but the arithmetic average growth, not geometric average growth.

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Arizona Water Company

Rebuttal Table 11

Analysis of Equity Costs and Risk Premiums Based on DCF Analyses
for the Value Line Industrial Composite: 1987-2005

	<u>Study Date</u>	<u>Dividend Yield</u>	<u>Sustainable growth</u>	<u>DCF Equity Cost</u>	<u>Long-term Treasury Lag 1 Mnth</u>	<u>Risk Premium</u>
1	2/87	3.00%	9.39%	12.39%	7.39%	5.00%
2	2/88	3.10%	9.93%	13.03%	8.83%	4.20%
3	7/88	3.50%	7.77%	11.27%	9.00%	2.27%
4	2/89	3.50%	7.77%	11.27%	8.93%	2.34%
5	2/90	3.20%	7.77%	10.97%	8.26%	2.71%
6	1/91	3.70%	9.93%	13.63%	8.24%	5.39%
7	2/92	2.80%	9.39%	12.19%	7.58%	4.61%
8	2/93	2.90%	8.31%	11.21%	7.34%	3.87%
9	2/94	3.00%	8.31%	11.31%	6.39%	4.92%
10	2/95	2.70%	9.93%	12.63%	7.97%	4.66%
11	3/96	2.70%	10.48%	13.18%	6.03%	7.15%
12	2/97	2.40%	12.13%	14.53%	6.91%	7.62%
13	1/98	1.50%	14.92%	16.42%	6.07%	10.35%
14	1/99	1.30%	16.05%	17.35%	5.36%	11.99%
15	2/00	0.80%	16.05%	16.85%	6.86%	9.99%
16	7/00	1.00%	14.92%	15.92%	6.28%	9.64%
17	2/01	1.20%	13.79%	14.99%	5.65%	9.34%
18	7/01	1.20%	12.13%	13.33%	5.82%	7.51%
19	1/02	1.20%	12.13%	13.33%	5.76%	7.57%
20	8/02	1.60%	12.68%	14.28%	5.51%	8.77%
21	1/03	1.60%	12.13%	13.73%	5.01%	8.72%
22	7/03	1.50%	11.57%	13.07%	4.34%	8.73%
23	3/04	1.60%	12.13%	13.73%	4.94%	8.79%
24	10/04	1.80%	11.57%	13.37%	4.89%	8.48%
25	4/05	1.90%	11.57%	13.47%	4.89%	8.58%
Averages for:						
		All years (1987-2005)				6.9%
		Last 15 years (1991-2005)				7.8%
		Last 10 years (1996-2005)				8.9%
		Last 5 years (2001-2005)				8.7%

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Rebuttal Table 12: Restatement of Schedule AXR-8

Restatement of Mr. Ramirez's Final Cost of Equity Estimates
for Sample Water Utilities

[A]	[B]	[C]	[D]	[E]
DCF Method				
Constant Growth DCF Estimate ^{a/}		$\frac{D_1}{P_0}$	+	g
Multi-Stage DCF Estimate ^{b/}		3.3%	+	6.9%
Average of DCF Estimates				k
				10.1%
				<u>10.3%</u>
				<u>10.2%</u>
CAPM Method				
Historical Market Risk Premium ^{c/}	R_f	β	x	k
Current Market Risk Premium ^{d/}	5.8%	0.68	x	10.7%
Average of CAPM Estimates	5.8%	0.68	x	<u>11.1%</u>
				<u>10.9%</u>
			Average	10.6%

Sources and notes:

- a/ Constant growth "g" is projected growth from Rebuttal Table 9.
- b/ Rebuttal Table 10.
- c/ Rf is long-term Treasury rate from Rebuttal Table 3. Rp is from Ibbotson Associates 2005 SBB I Yearbook.
- d/ Current market risk premium is average for last 15 years from Rebuttal Table 11.

Arizona Water Company

Rebuttal Table 13: Response to Schedule AXR-9

Risk Premium Equity Cost Analysis
Realized ROEs Adopted as Equity Cost Proxies

	Return on Equity ^{-a/}	<u>Annual Averages</u>		<u>Risk Premiums</u>	
		Long-term Treasury ^{-a/}	10-Year Treasury ^{-a/}	Long-term Treasury	10-Year Treasury
1993	11.57%	6.60%	5.87%	4.97%	5.70%
1994	10.87%	7.35%	7.09%	3.52%	3.78%
1995	11.20%	6.88%	6.57%	4.32%	4.63%
1996	12.02%	6.70%	6.44%	5.32%	5.58%
1997	11.82%	6.60%	6.35%	5.22%	5.47%
1998	10.90%	5.58%	5.26%	5.32%	5.64%
1999	10.59%	5.87%	5.65%	4.72%	4.94%
2000	9.75%	5.94%	6.03%	3.81%	3.72%
2001	10.27%	5.49%	5.02%	4.78%	5.25%
2002	10.58%	5.41%	4.61%	5.17%	5.97%
	10-Year Average Premium ^{-a/}			4.71%	5.07%
	5-year Average Premium ^{-a/}			4.76%	5.10%
	Forecasted Interest Rates for 2006 ^{-b/}			5.80%	5.29%
	Projected Returns on Equity				
	10-Year Average			10.5%	10.4%
	5-Year Average			10.6%	10.4%

Notes and Sources:

a/ CPUC Staff Cost of Capital Report, Table 2-7, A.03-07-036, January 2004.

b/ Source is Rebuttal Table 3.

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Rebuttal Table 14

Changes in Estimates of $br^{-a/}$ Growth and $br+vs^{-a/}$ Growth
Between August 2004 and April 2005

<u>br growth</u>	<u>Zepp 2004</u>	<u>Staff 2005</u>	<u>RUCO 2005</u>
1 American States	6.2%	5.6%	6.2%
2 California Water	3.1%	4.6%	4.9%
3 Aqua America	5.4%	6.1%	6.2%
Average	4.9%	5.4%	5.7%
<u>br + vs growth</u>	<u>Zepp 2004</u>	<u>Staff 2005</u>	<u>RUCO 2005</u>
1 American States	7.6%	6.8%	6.7%
2 California Water	4.2%	6.2%	5.9%
3 Aqua America	7.7%	13.0%	7.4%
Average	6.5%	8.7%	6.7%

Note:

a/ For consistency, all estimates of br growth are corrected with the FERC formula to reflect *Value Line* computes ROEs with year-end equity.

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Arizona Water Company

Rebuttal Table 15

Analysis of Mr. Rigsby's Estimates of Share
Growth and Restatement of VS Growth

	Growth in Number of Shares ("s")			Assumed by Mr. Rigsby ^{d/} (D)
	Past ^{a/} (A)	Forecast ^{b/} (B)	Mr. Ramirez ^{c/} (C)	
1 American States	3.14%	4.55%	1.10%	1.25%
2 California Water	6.95%	6.32%	1.60%	1.75%
3 Aqua America	3.69%	1.55%	6.90%	1.00%
Average	4.59%	4.14%	3.20%	1.33%

	Restatement of VS Growth		
	v ^{d/}	s	VS
1 American States	0.44	4.55%	2.02%
2 California Water	0.55	6.32%	3.46%
3 Aqua America	0.70	1.55%	1.09%
Average			2.19%

Notes and Sources:

a/ For the period 1999 to 2003 (Schedule WAR-5)

b/ For the period 2003 to 2008 (Schedule WAR-5).

c/ Schedule AXR-4, Column D.

d/ Derived from market-to-book ratios reported on Schedule WAR-4 page 2 of 2.

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Arizona Water Company

Rebuttal Table 16

Restatement of Mr. Rigsby's DCF Estimates

	Internal Growth (BR)	External Growth (VS)	Dividend Growth (g)	Dividend Yield	DCF Cost of Equity Capital
1 American States	6.17%	2.02%	8.20%	3.42%	11.62%
2 California Water	4.86%	3.46%	8.32%	3.29%	11.61%
3 Aqua America	6.17%	1.09%	7.27%	2.11%	9.38%
Average					10.9%

Notes and Sources:

a/ "br" growth reported by Mr. Rigsby in Schedule WAR-2, page 1 of 2, corrected with the FERC formula.

b/ "vs" growth computed in Rebuttal Table 15.

c/ Dividend yield determined by Mr. Rigsby in Schedule WAR-3.

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Arizona Water Company

Rebuttal Table 17

Summary of Rebuttal Equity Cost Estimates for Water
Utilities Sample and Arizona Water Company

	<u>Water Utilites Sample</u>	<u>Arizona Water</u>
Average of Currently Authorized ROEs for the Staff Water Utilites Sample	10.4%	10.9%
Average of ROEs Earned in 2004 for the Staff Water Utilites Sample	10.0%	10.5%
Equity Cost based on Average Risk Premium Determined by ACC Prior to 2001		
Based on Forecasted Rates	10.7%	11.2%
Based on Rates in March 2005	10.0%	10.5%
FERC 1-Step Method based on Data Relied Upon by Mr. Ramirez	11.5%	12.0%
FERC 2-Step Method based on Data Relied Upon by Mr. Ramirez	11.2%	11.7%
Restatement of Mr. Ramirez's Equity Cost Estimates		
Constant Growth DCF	10.1%	10.6%
Multi-stage DCF	10.3%	10.8%
CAPM-long-horizon MRP	10.7%	11.2%
CAPM-current MRP	11.1%	11.6%
Average of Staff Estimates	10.6%	11.1%
Average of Equity Costs in Mr. Ramirez's Schedule AXR-9 with CPUC ORA Method Being Used	10.5%	11.0%
Restatement of Mr. Rigsby's Equity Cost Estimates		
DCF	10.9%	11.4%
CAPM	11.0%	11.5%
Average ROE for Mr. Rigsby's Water Utilities Sample Projected by Value Line for 2008-2010	12.0%	12.5%

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