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AZ CORP COMMISSION  
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5 Attorneys for Arizona-American  
6 Water Company

7 **BEFORE THE ARIZONA CORPORATION COMMISSION**

8 IN THE MATTER OF THE  
9 APPLICATION OF ARIZONA-  
AMERICAN WATER COMPANY, AN  
10 ARIZONA CORPORATION, FOR A  
DETERMINATION OF THE CURRENT  
11 FAIR VALUE OF ITS UTILITY PLANT  
AND PROPERTY AND FOR  
12 INCREASES IN ITS RATES AND  
CHARGES BASED THEREON FOR  
13 UTILITY SERVICE BY ITS SUN CITY  
WEST WATER AND WASTEWATER  
14 DISTRICTS.

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W-01303A-02-0908

(CONSOLIDATED)

15 IN THE MATTER OF THE  
APPLICATION OF ARIZONA-  
AMERICAN WATER COMPANY, INC.,  
16 AN ARIZONA CORPORATION, FOR A  
DETERMINATION OF THE CURRENT  
17 FAIR VALUE OF ITS UTILITY PLANT  
AND PROPERTY AND FOR  
18 INCREASES IN ITS RATES AND  
CHARGES BASED THEREON FOR  
19 UTILITY SERVICE BY ITS SUN CITY  
WATER AND WASTEWATER  
20 DISTRICTS.

ARIZONA-AMERICAN WATER  
COMPANY'S APPLICATION FOR  
REHEARING OF DECISION NO.  
67093

Arizona Corporation Commission  
DOCKETED

JUL - 9 2004

21 IN THE MATTER OF THE  
APPLICATION OF ARIZONA-  
AMERICAN WATER COMPANY, AN  
22 ARIZONA CORPORATION, FOR A  
DETERMINATION OF THE CURRENT  
23 FAIR VALUE OF ITS UTILITY PLANT  
AND PROPERTY AND FOR  
204 INCREASES IN ITS RATES AND  
CHARGES BASED THEREON FOR  
25 UTILITY SERVICE BY ITS MOHAVE  
WATER AND HAVASU WATER  
26 DISTRICTS.

DOCKETED BY *CAR*

1 IN THE MATTER OF THE  
2 APPLICATION OF ARIZONA-  
3 AMERICAN WATER COMPANY, AN  
4 ARIZONA CORPORATION, FOR A  
5 DETERMINATION OF THE CURRENT  
6 FAIR VALUE OF ITS UTILITY PLANT  
7 AND PROPERTY AND FOR  
8 INCREASES IN ITS RATES AND  
9 CHARGES BASED THEREON FOR  
10 UTILITY SERVICE BY ITS ANTHEM  
11 WATER, AGUA FRIA WATER AND  
12 ANTHEM/AGUA FRIA WASTEWATER  
13 DISTRICTS.

14 IN THE MATTER OF THE  
15 APPLICATION OF ARIZONA-  
16 AMERICAN WATER COMPANY, AN  
17 ARIZONA CORPORATION, FOR A  
18 DETERMINATION OF THE CURRENT  
19 FAIR VALUE OF ITS UTILITY PLANT  
20 AND PROPERTY AND FOR  
21 INCREASES IN ITS RATES AND  
22 CHARGES BASED THEREON FOR  
23 UTILITY SERVICE BY ITS TUBAC  
24 WATER DISTRICT.

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1562332.1

1 Arizona-American Water Company ("Arizona-American or "the Company")  
2 hereby applies for rehearing of Decision No. 67093 (docketed June 30, 2004) ("the  
3 Decision") pursuant to A.R.S. § 40-253 and A.A.C. R14-3-111. The specific matters on  
4 which rehearing is sought are as follows:

5 1. **Rate Base Issues.** The Decision violates the fair value standard, contained  
6 in Article 15, section 14 of the Arizona Constitution, in two different respects. First, in  
7 developing the Company's fair value rate base for each district, the Commission simply  
8 averaged the original cost rate base ("OCRB") and the reconstruction cost new ("RCND")  
9 rate base because this method is "traditional," and disregarded the Company's evidence  
10 showing that the RCND rate bases are conservative and substantially understate the  
11 current value of the Company's utility plant and property. Decision at 14-16.

12 Second, the Company's fair value rate bases were not used to determine the  
13 Company's authorized level of operating income. Instead, operating income was  
14 determined by multiplying the rate of return by the OCRB. Decision at 31-33. This  
15 "backing-in" method produces fluctuating rates of return on the fair value rate bases,  
16 which range from 6.43% to as low as 4.32%. Decision at 33-35. These rates of return are  
17 below the current cost of investment grade bonds and, in some instances, below current  
18 yields on Treasury instruments. See Schedule attached at Tab 2. This method is unlawful  
19 and violates the Arizona Constitution.

20 2. **Rate of Return.** The Commission adopted the rate of return, 6.5%,  
21 recommended by the Utilities Division ("Staff"), which is based on the Company's  
22 embedded cost of debt and a return on common equity of only 9.0%. Decision at 29-31.  
23 In adopting Staff's recommendation, the Commission arbitrarily rejected all of the cost of  
24 equity estimates of the Company's expert, Dr. Thomas M. Zepp, as well as evidence that  
25 the versions of the finance models used by Staff understate the current cost of equity.  
26 Moreover, the Commission failed to consider recent increases in interest rates, while

1 rejecting the Company's risk premium and capital asset pricing model estimates because  
2 Dr. Zepp used forecasted interest rates. The forecasted interest rates used by Dr. Zepp,  
3 however, are actually *lower* than current interest rates.<sup>1</sup> Moreover, the Commission  
4 ignored evidence of actual and authorized earnings, concluding that information regarding  
5 actual earnings has been "replaced" by "corporate finance models." Decision at 29.  
6 Based on current interest rates and actual equity returns, and taking into account the  
7 amount of debt in the Company's capital structure, Arizona-American is entitled to an  
8 authorized return on equity substantially greater than 9.0% and an overall return on its rate  
9 base in excess of 6.5%.

10 **3. Rate Case Expense.** The Commission authorized the Company to recover  
11 \$418,941 in rate case expense, despite the fact that its actual rate case expense exceeded  
12 \$1 million. Decision at 18-20. The primary basis for this determination was the  
13 Residential Utility Consumer Office's ("RUCO") contention that the Company used an  
14 inappropriate test year. The reality is that the Company's rate case expense was  
15 significant because of the size and complexity of this proceeding, which involved 10  
16 different water and wastewater districts, each of which has its own rate base, income  
17 statement and rate schedule. Only one significant issue was affected by the Company's  
18 use of a 2001 test year. Moreover, a delay in filing would have made it even more  
19 difficult to obtain plant records and other historic data from Citizens Communications  
20 Company ("Citizens"), resulting in further complications and, ultimately, more expense.  
21 Finally, as discussed below, the amount of rate case expense requested by the Company,  
22 \$715,000 (amortized over three years), is reasonable when compared to other Citizens and  
23 Arizona-American rate proceedings.

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24  
25 <sup>1</sup> As discussed below, Staff used an average of the yields on 5, 7 and 10-year Treasury notes in its  
26 capital asset pricing model ("CAPM"). Since Staff's original CAPM estimates were made, the  
average yield on those instruments has increased by over 100 basis points (1.0%).

1 Arizona-American respectfully submits that the forgoing determinations the in the  
2 Decision are arbitrary, unreasonable, unlawful and unsupported by the evidence in the  
3 record for the reasons set forth below.<sup>2</sup>

4 **I. OVERVIEW AND SUMMARY OF THE COMPANY'S APPLICATIONS.**

5 In November 2002 and December 2002 (Tubac water district), Arizona-American  
6 filed applications for a determination of the fair value of its utility plant and property and  
7 for adjustments to its rates and charges for utility service. The Company's applications  
8 covered 10 water and wastewater districts, and sought rate adjustments based on the fair  
9 value rate bases and operating results in those districts utilizing a 12-month test period  
10 ending December 31, 2001, with appropriate pro forma adjustments to annualize and  
11 normalize rate base, revenues and expenses on a going-forward basis. These districts  
12 were previously owned and operated by Citizens, and were acquired by Arizona-  
13 American on January 15, 2002.

14 None of the districts has received any recent rate increases.<sup>3</sup> Citizens' Agua Fria  
15 Water Division, Sun City Water Company, Sun City Sewer Company, Sun City West  
16 Utilities Company and Tubac Valley Water Company's last rate orders were issued in  
17 May 1997, based on test years ending March 31, 1995. Decision No. 60172 (May 7,  
18 1997).<sup>4</sup> Citizens' Mohave Water Division last received rate increases in February 1990,

---

19  
20 <sup>2</sup> In support of this application, the Company also incorporates by reference its post-hearing  
21 Closing Brief, filed in the docket on February 4, 2004, and its post-hearing Reply Brief, filed in  
the docket on February 18, 2004, which discuss each of the issues identified above.

22 <sup>3</sup> A small wastewater district located in Mohave County, formerly known as Sorenson Utility  
23 Company, was also acquired by Arizona-American. This wastewater district is not involved in  
24 the rate applications, nor is the Paradise Valley water district, which has been owned and operated  
by Arizona-American since the late 1960s. Both of those districts had recently received rate  
increases and, consequently, were not included in this rate case.

25 <sup>4</sup> In this Decision, Sun City Water Company and Sun City West Utilities' rates for water service  
were reduced.

1 fair value rate base (“FVRB”) because the RCND rate bases provide the best estimate of  
2 the current value of the Company’s utility plant and property. In addition to offering  
3 reproduction cost new (“RCN”) plant-in-service studies for each district, which were  
4 accepted by Staff (and not challenged by any other party), the Company also provided the  
5 recent purchase price paid by Arizona-American in acquiring Citizens’ water and  
6 wastewater assets as evidence that the fair value of those assets substantially exceeds their  
7 original cost. Staff, in contrast, proposed to use the average of the OCLD rate base and  
8 the RCND rate base as each district’s FVRB because this what the Commission  
9 “traditionally” has done. In the Decision, the Commission adopted Staff’s position and  
10 rejected the Company’s position on several different grounds, which are contrary to law  
11 and to the evidence presented.

12 First, the Commission equated the use of the Company’s RCND rate base as the  
13 FVRB with the recovery of an “acquisition adjustment.” Decision at 14-15. However,  
14 there was simply no evidence that the Company’s RCND rate bases actually included any  
15 acquisition adjustment.<sup>6</sup> As shown in the Company’s schedules, no adjustment was made  
16 to any of the RCND rate bases to account for the cost of acquiring Citizens’ utility plant  
17 and property. *See* Bourassa Dt. (Ex. A-24), Rejoinder Schedules B-1 (rate base summary)  
18 and B-3 (adjustments to RCRB). *See also* Stephenson Rb. (Ex. A-74) at 9-11 (discussing  
19 acquisition adjustment); Tr. at 105 (“The [RCRB] does not include an acquisition  
20

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21 <sup>6</sup> The acquisition adjustment mentioned in the Decision is an accounting entry made in  
22 connection with Arizona-American’s acquisition of the Citizens’ water and wastewater systems,  
23 the purchase price of which was approximately \$276,500,000. *See* Stephenson Dt. (Ex. A-64) at  
24 10 (discussing transaction). Under the Uniform System of Accounts, Arizona-American was  
25 required to record the difference between (1) the cost (i.e., purchase price) of Citizens’ water and  
26 wastewater systems and (2) the original cost of Citizens’ utility plant and property, less any  
amounts credited at the time of the acquisition to accumulated depreciation, accumulated  
amortization and contributions in aid of construction with respect to such property. *See* Ex. A-86  
(Uniform System of Accounts, Balance Sheet Account No. 114).

1 adjustment . . . . It is the company's estimate of the current value of its utility property.")  
2 and 123 (same).

3         Although acknowledging this evidence, the Commission nevertheless concluded  
4 that the use of the Company's RCND rate bases would have the "effect" of including an  
5 acquisition adjustment in rate base, apparently because the RCND rate bases are greater  
6 than the OCLD rate bases. Decision at 15. However, if Citizens had not sold its water  
7 and wastewater assets and, instead, had applied for rate adjustments, Citizens' RCND rate  
8 bases *would be exactly the same* as the Company's RCND rate bases, as Youngtown's  
9 witness, Mr. Burton, admitted during the hearing. Tr. at 1279-81. In other words, the  
10 RCND rate bases are larger than the OCLD rate bases because the current cost to  
11 reproduce the utility systems is greater than the historic cost to construct them, regardless  
12 of whether the systems have been sold. It was unlawful to prohibit Arizona-American  
13 from seeking a return on an RCND rate base simply because there has been a change in  
14 ownership, when the prior owner would have had the right to request the same ratemaking  
15 treatment under the Arizona Constitution.

16         In the discussion found on pages 14 and 15 of the Decision, the Commission also  
17 confused the concepts of "cost" and "value." For example, the Decision states that the  
18 "OCRB methodology is based on current, verifiable and reasonable adjustments to a  
19 verifiable, objective record of the *value* of assets . . . ." Decision at 14 (emphasis  
20 supplied). However, an "original cost" rate base reflects the *historic cost* to construct the  
21 assets, rather than the assets' *current value*. While the historic cost to construct an asset  
22 may well be "verifiable" and "objective," that cost may have little relation to the asset's  
23 value today, which is the crux of the fair value methodology. *E.g., Duquesne Light*, 488  
24 U.S. at 308-09; *Bluefield Waterworks*, 262 U.S. at 690; *US West*, 201 Ariz. 245-56, ¶¶ 13-  
25 18, 34 P.3d 354-55.

26         For these reasons, the Commission's conclusion that the Company failed to present

1 a “legitimate basis” for using each district’s RCND rate base as the district’s FVRB is not  
2 supported by substantial evidence. Because the principal goal of the fair value standard is  
3 to set rates on the basis of the current value of the property devoted to public service, as  
4 opposed to that property’s historic cost, arbitrarily averaging the utility’s RCND rate base  
5 with its OCLD rate base violates the Arizona Constitution.

6 It is well established that values of utility properties fluctuate,  
7 and that owners must bear the decline and are entitled to the  
8 increase. The decision of this court in *Smyth v. Ames*  
9 . . . declares that to ascertain value ‘the present as compared  
10 with the original cost of construction’ are, among other things,  
11 matters for consideration. But this does not mean that the  
12 original cost or the present cost *or some figure arbitrarily*  
13 *chosen between these two is to be taken as the measure.* The  
14 weight to be given to such cost figures and other items or  
15 classes of evidence is to be determined in the light of the facts  
16 of the case in hand.

12 *McCardle v. Indianapolis Water Co.*, 272 U.S. 400, 410 (1926) (emphasis supplied)  
13 (quoting *Smyth v. Ames*, 169 U.S. 466, 547 (1898)).

14 In this case, Arizona-American presented RCND rate bases for each district and  
15 evidence of a recent arms-length transaction involving two independent and sophisticated  
16 parties, which evidence was undisputed. That evidence showed that the current value of  
17 the Company’s utility plant exceeds its RCND rate bases and, therefore, that the use of its  
18 RCND rate bases as the FVRB for each district is conservative. Conversely, there is no  
19 evidence supporting the use of the average of the Company’s OCLD and RCND rate  
20 bases as fair value, other than it is “traditional.” Therefore, the Commission’s  
21 determination was arbitrary and not supported by substantial evidence.

22 **C. The Commission Failed to Use the Company’s Fair Value Rate Bases to**  
23 **Set Rates, in Violation of the Arizona Constitution.**

24 Putting aside the issue of how each district’s FVRB was determined, the  
25 Commission failed to apply its rate of return, 6.5%, to that rate base. Instead, the  
26 Commission used the so-called “backing in” method advocated by Staff, RUCO and

1 Youngtown. Under this method, the Company's OCLD rate base and rate of return on  
 2 rate base were first determined. Next, the OCLD rate base is multiplied by the rate of  
 3 return to determine the Company's operating income. Third, the Company's operating  
 4 income is divided by its FVRB, to compute what is euphemistically called the "fair value  
 5 rate of return." Finally, the so-called "fair value rate of return" is multiplied by the FVRB  
 6 to produce the authorized operating income. The last two steps are meaningless –  
 7 Arizona-American's operating income is actually based on the original cost of its plant  
 8 rather than its plant's fair value.

9 For example, assume that a hypothetical utility's OCLD rate base is \$1 million, its  
 10 rate of return on rate base is 9.0%, and its FVRB is \$1.5 million. The utility's operating  
 11 income would be determined, as follows:

12 **Step One – Determine Operating Income**

13	OCLD Rate Base	1,000,000
14	Rate of Return	x <u>9%</u>
15	Operating Income	\$ 90,000

16 **Step Two – Compute "Fair Value Rate of Return"**

17		
18	Operating Income	90,000
19	FVRB	÷ <u>1,500,000</u>
20	"Fair Value Rate of Return"	6%

21 **Step Three – Re-Compute Operating Income**

22		
23	FVRB	1,500,000
24	"Fair Value Rate of Return"	x <u>6%</u>
25	Operating Income	\$ 90,000

26 Thus, the utility's operating income will always be based on its OCLD rate base as

1 opposed to the fair value of its utility plant. For example, if the hypothetical utility's  
 2 FVRB were \$1.2 million instead of \$1.5 million, the required operating income, \$90,000,  
 3 would be divided by \$1.2 million to produce a "fair value return" equal to 7.5%. If the  
 4 utility's FVRB were instead \$900,000, the "fair value rate of return" would be set at 10%.  
 5 In each case, the utility's authorized operating income, \$90,000, remains unchanged.  
 6 Consequently, this method renders the fair value of the Company's utility plant  
 7 meaningless, as well as the Commission's own requirement that a utility submit an RCND  
 8 rate base. A.A.C. R14-2-103(B)(1) and Rate Base Schedules B-1, B-3 and B-4.

9 In this case, each water and wastewater district's OCLD rate base was multiplied  
 10 by 6.5%, the rate of return on rate base, to determine the district's authorized operating  
 11 income. The district's operating income was then divided by the district's FVRB to  
 12 produce the "fair value rate of return." The result is that each district has a *different* rate  
 13 of return on its FVRB, which is *less* than the authorized rate of return:

<u>District</u>	<u>Rate of Return on Rate Base</u>
Sun City Water	4.32%
Sun City Wastewater	4.37%
Tubac Water	5.12%
Havasu Water	5.44%
Mohave Water	5.46%
Sun City West Wastewater	5.48%
Sun City West Water	5.70%
Agua Fria Water	6.20%
Anthem Water	6.38%
Anthem/Agua Fria Wastewater	6.43%
Authorized Return	6.5%

1 Decision at 33-35. The use of these fluctuating rates of return ensures that the Company's  
2 authorized operating income is always based on the original cost of each district's plant.  
3 The authorized rate of return is *not* applied to the fair value of the Company's property, as  
4 required under Arizona law. *E.g., Phelps Dodge Corp. v. Ariz. Electric Power Coop.*,  
5 207 Ariz. 95, \_\_\_, ¶ 18, 83 P.3d 573, 582 (App. 2004) ("The Commission has traditionally  
6 used fair value to set a utility's rate base."), *citing Scates v. Ariz. Corp. Comm'n*, 118  
7 Ariz. 531, 534, 578 P.2d 612, 615 (App. 1978). As a result, the returns on FVRB are *less*  
8 than the current yields on investment grade bonds and, in some cases, *less* than the yields  
9 on U.S. Treasury notes. *See* Schedule attached at Tab 2.

10 In response to the Company's argument, the Commission noted various Arizona  
11 appellate decisions cited by its Staff, and concluded that "no legitimate basis [has been]  
12 presented for departing from this traditional ratemaking methodology." Decision at 32.  
13 During the course of the proceeding, however, no one identified the source of this  
14 methodology. Further, none of the court decisions discussed by the Commission actually  
15 approves this method. The only decision that actually describes the "backing in" method  
16 is *Litchfield Park Serv. Co. v. Ariz. Corp. Comm'n*, 178 Ariz. 431, 434-35, 874 P.2d 988,  
17 991-92 (App. 1994). The description in that case, however, is *dicta*, i.e., general  
18 background that has nothing to do with the actual issues presented for review, which has  
19 never been followed or subsequently cited as authoritative by an Arizona appellate court.  
20 *E.g., compare US West*, 201 Ariz. at 244-46, ¶¶ 13-19, 34 P.3d at 254-55 (decided after  
21 *Litchfield Park* and summarizing Arizona jurisprudence on fair value standard).

22 The Commission also stated that in *Sun City Water Co. v. Ariz. Corp. Comm'n*, 113  
23 Ariz. 464, 465, 556 P.2d 1126, 1127 (1976), the Arizona Supreme Court affirmed a  
24 Commission decision, stating that "cost of capital estimates must be restated if they are  
25 applied to a fair value rate base." Decision at 32. This description misstates *Sun City*  
26 *Water* in several respects. First, the Court did not discuss the underlying Commission

1 decision. Instead, the issue was the scope of the Court of Appeals' review of the trial  
2 court's decision. *Id.* at 475, 556 P.2d at 1127. Second, none of the issues on appeal  
3 related to the lawfulness of the "backing-in" method. Instead, the issues on appeal were  
4 the sufficiency of the rate of return, whether the new rates would produce that rate of  
5 return, and whether the trial court erred in remanding the Commission's decision for a  
6 new determination of rates. *Id.* Third, in reversing the Court of Appeals, the Supreme  
7 Court simply concluded that the *trial court's* judgment was supported by "reasonable  
8 evidence." *Id.* Consequently, *Sun City Water* did not address, let alone support, the  
9 lawfulness of the "backing-in" method.<sup>7</sup>

10 The remaining decisions cited on page 32 of the Decision support the Company's  
11 position. For example, in *Scates*, 118 Ariz. at 533-34, 578 P.2d at 614-15, the Court  
12 explained:

13 The general theory of utility regulation is that the total  
14 revenue, including income from rates and charges, should be  
15 sufficient to meet a utility's operating costs and to give the  
16 utility and its stockholders a reasonable rate of return on the  
17 utility's investment. . . . To achieve this, *the Commission must*  
18 *first determine the "fair value" of a utility's property and use*  
*this fair value as the utility's rate base.* . . . The Commission  
then must determine what the rate of return should be, and  
then apply that figure to the rate base in order to establish just  
and reasonable tariffs. [Emphasis supplied; citations omitted.]

19 The *Scates* court relied on *Simms*, quoted above, and *Ariz. Corp. Comm'n v. Arizona*  
20 *Public Serv. Co.*, 113 Ariz. 368, 555 P.2d 326 (1976) ("APS"). In *APS*, the Arizona

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21  
22 <sup>7</sup> Putting aside the plain language of the court's decision, which never mentions how the rate of  
23 return is applied to the utility's rate base, the Court of Appeals' subsequent decision in *Ariz.*  
24 *Corp. Comm'n v. Citizens Utilities Co.*, 120 Ariz. 184, 584 P.2d 1175 (App. 1978) (review  
25 denied), makes it clear that *Sun City Water* is irrelevant. In *Citizens Utilities*, the court explained  
26 that its decision in *Sun City Water* was vacated because "there existed reasonable evidence before  
the trial court regarding the Commission's rate of return." *Id.* at 188, 584 P.2d at 1179. The  
manner in which the rate of return is applied was never mentioned.

1 Supreme Court stated:

2 Article 15, section 14, [of the Arizona Constitution] requires  
3 the Commission to ascertain the fair value of the property  
4 within the state, of every public service doing business therein.  
5 Under the constitution as interpreted by this court, *the  
6 Commission is required to find the fair value of the company's  
7 property and use such finding as a rate base* for the purpose  
8 of determining what are just and reasonable rates.

9 113 Ariz. at 370, 555 P.2d at 328 (emphasis supplied; citing *Simms*).<sup>8</sup>

10 The requirement that the Commission apply the rate of return to the utility's FVRB  
11 was emphasized earlier this year in *Phelps Dodge*, in which the Court stated:

12 In monopolistic markets, "*fair value has been the factor by  
13 which a reasonable rate of return was multiplied to yield, with  
14 the addition of operating expenses, the total revenue that a  
15 corporation could earn.*" . . . Although *US West II* held that  
16 this rate-of-return method for rate setting may be inappropriate  
17 in a competitive environment, it affirmed the supreme court's  
18 long-standing view that *this method is properly employed in  
19 traditional, non-competitive markets.*

20 207 Ariz. at \_\_\_, ¶ 21, n.8, 83 P.3d at 583, n.8 (emphasis supplied) (quoting *US West*, 201  
21 Ariz. at 245, ¶ 19, 34 P.3d at 355). The Decision conflicts with both *Phelps Dodge* and  
22 *US West* because it failed to apply the rate of return to the Company's fair value rate  
23 bases.

24 Moreover, the Arizona Supreme Court addressed the "backing in" method  
25 employed in the Decision, and stated that it is "illegal":

26 The company contends *the commission . . . first determined  
what the company should be allowed to earn in order to  
maintain a sound financial position, attract necessary additions  
to capital and pay a fair return on common equity; and second,  
having thus established the amount the company should be  
allowed to earn for such purposes, it proceeded to adjust the*

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<sup>8</sup> Similarly, in *City of Tucson*, also cited on page 32 of the Decision, the Court followed *Simms* in holding that the Commission's FVRB was not supported by substantial evidence. 17 Ariz.App. at 480-81, 498 P.2d at 554-55. Again, this decision supports the Company.

1            *rate of return to any rate base.* If this be true, it would be an  
2            illegal method of establishing a rate base. The standard for  
3            establishing a rate base must be the fair value of the property  
            and not what the commission might believe was a fair rate of  
            return on common equity.

4            *Simms*, 80 Ariz. at 155, 294 P.2d at 385 (emphasis supplied). More recently, in *Citizens*  
5            *Utilities*, the Court of Appeals stated that the use of a “fluctuating” rate of return is  
6            unlawful:

7            Under our constitution, a utility is entitled to a fair rate of  
8            return on the fair value of its properties, “no more and no  
9            less.” . . . Dr. Langum [the Staff cost of capital witness]  
10            violated this principle by pegging his opinion as to rate of  
11            return to the finding of fair value. *This results in a fluctuating*  
            *rate of return. Thus, under Dr. Langum’s theory, it makes no*  
            *difference whether the Commission used original cost or*  
            *reproduction cost as the base, the amount of dollars in the*  
            *Company’s coffers is basically the same.*

12            120 Ariz. at 190, n. 5, 584 P.2d at 1181, n. 5 (emphasis supplied; quoting *Ariz. Corp.*  
13            *Comm’n v. Arizona Water Co.*, 85 Ariz. 198, 203, 335 P.2d 412, 415(1959)).

14            In short, none of the Arizona appellate decisions cited in the Decision provides that  
15            the Commission may lawfully back into the rate of return on FVRB by applying the rate  
16            of return to the OCLD rate base to determine the utility’s operating income. Instead, the  
17            decisions state that the fair value of the utility’s plant and property must be used as its rate  
18            base, and that the rate of return must be applied to that rate base. The only decision  
19            suggesting otherwise is *Litchfield Park*, which, as discussed, mentions the “backing in”  
20            approach in a background discussion that had nothing to do with the issues on appeal and  
21            is inconsistent with *US West* and *Phelps Dodge*, as well as prior Arizona Supreme Court  
22            decisions. Therefore, the Decision violates the Arizona Constitution.

23            **III. THE RECOMMENDED RATE OF RETURN, 6.5%, IS UNREASONABLY**  
24            **LOW AND FAILS TO PROVIDE ARIZONA-AMERICAN A**  
            **REASONABLE RETURN ON COMMON EQUITY CAPITAL.**

25            **A. Overview.**

26            The Commission adopted Staff’s recommended rate of return, 6.5%, based on

1 Staff's capital structure, Staff's cost of long-term debt, and Staff's cost of common equity  
2 capital. This rate of return is *less* than the current interest rate on investment grade bonds,  
3 which, as discussed below, is approximately 6.8%. Although there was some  
4 disagreement about the Company's capital structure and its cost of debt, as a practical  
5 matter, resolving each of these disagreements in favor of Staff did not have a material  
6 impact on the Company's revenue requirement. The primary reason for the  
7 Commission's extremely low rate of return was the adoption of Staff's recommended  
8 return on equity.

9 In its applications, Arizona-American requested a return on equity of 11.5%.  
10 RUCO originally recommended a 9.11% return on equity, but increased its  
11 recommendation to 9.61% in its surrebuttal filing. Rigsby Dt. (Ex. R-5) at 4; Rigsby Sb.  
12 (Ex. R-6) at 10. Staff originally recommended a 9.7% return on equity, but *reduced* its  
13 recommendation to 9.0% in its surrebuttal filing. Reiker Dt. (Ex. S-45) at 25; Reiker Sb.  
14 (Ex. S-46) at 2. All of the parties agreed that it is appropriate to increase the Company's  
15 return on equity by 50 basis points to account for the fact that Arizona-American has more  
16 debt in its capital structure than the sample group of publicly traded utilities used in the  
17 witnesses' analyses, and the Commission approved that adjustment. *See* Decision at 23.

18 The Commission adopted Staff's 9.0% recommendation and used it to determine  
19 the 6.5% return on rate base. Decision at 31.<sup>9</sup> In doing so, the Commission (1) ignored  
20 increases in interest rates and other market indicators of the current cost of capital; (2)  
21 rejected all of the equity cost estimates provided by the Company's expert, Dr. Thomas  
22 M. Zepp, and accepted Staff's estimates; and (3) ignored the evidence presented by the  
23 Company regarding the returns on equity that the comparable utilities are actually earning.

24 \_\_\_\_\_  
25 <sup>9</sup> The Commission used the weighted cost of capital approach to derive its return on rate base.  
26 *See* Decision at 31.

1 See, e.g., Zepp Rb. (Ex. A-49) at 3-4 and Rebuttal Table 1. The Commission also  
2 concluded that the comparable earnings method “has been replaced by market based  
3 corporate finance models.” Decision at 29. In fact, on every disputed point concerning  
4 Arizona-American’s rate of return, the Commission adopted its Staff’s position and  
5 rejected the positions of the other parties. See Decision at 22-31.

6 **B. The Legal Standard Applicable to Setting a Utility’s Rate of Return.**

7 Over the past 100 years, the United States Supreme Court, as well as various  
8 federal and state courts (including Arizona), have held that a regulated utility is entitled to  
9 earn a return “commensurate with returns on investments in other enterprises having  
10 corresponding risks.” *Federal Power Comm’n v. Hope Natural Gas Co.*, 320 U.S. 591,  
11 603 (1944). One of the most commonly cited statements of the applicable legal standard  
12 is found in *Bluefield Waterworks*:

13 A public utility is entitled to such rates as will permit it to earn  
14 a return on the value of the property which it employs for the  
15 convenience of the public equal to that generally being made  
16 at the same time and in the same part of the country on  
17 investments and other business undertakings which are  
18 attended by corresponding risks and uncertainties; but it has  
19 no constitutional right to profits such as are realized or  
20 anticipated in highly profitable enterprises or speculative  
21 ventures. The return should be reasonably sufficient to ensure  
22 confidence in the financial soundness of the utility and should  
23 be adequate under efficient and economical management, to  
24 maintain and support its credit and enable it to raise the money  
25 necessary for the proper discharge of its public duties.

20 262 U.S. at 692-93. The criteria set forth in *Bluefield Waterworks* remain applicable  
21 today. See, e.g., *Duquesne Light*, 488 U.S. at 314-15 (citing *Bluefield Waterworks*, 262  
22 U.S. at 692-93)); *Sun City Water*, 26 Ariz. App. 304, 306, 547 P.2d 1104, 1109 (quoting  
23 *Bluefield Waterworks*), *vacated on other grounds* 113 Ariz. 464, 556 P.2d 1126 (1976).

1 C. The Commission's Rejection of the Company's Evidence on Cost of  
2 Equity, Including Current Interest Rates and Actual Earnings of  
3 Comparable Water Utilities, was Arbitrary and Unreasonable.

4 1. The Commission Ignored Increases in Interest Rates, Which  
5 Support a Return on Rate Base in Excess of 7.0%.

6 The cost of capital witnesses for both Staff and RUCO emphasized the relationship  
7 between interest rates and the cost of equity capital. In fact, both witnesses relied on the  
8 existence of low interest rates during 2003 as justification for their respective rate of  
9 return recommendations. For example, the Staff cost of capital witness testified about the  
10 decline in intermediate-term Treasury rates from June 1998 to May 2003, stating:  
11 "Interest rates have declined significantly in the past twenty years and are currently at  
12 their lowest level since the 1950's. . . . According to the capital asset pricing model, the  
13 cost of equity moves in the same direction as interest rates. Chart 2 suggests that capital  
14 costs, including the cost of equity, are lower than they have been in decades." Reiker Dt.  
15 (Ex. S-45) at 5-6 (chart omitted). The Staff witness also testified, in critiquing Dr. Zepp's  
16 risk premium estimates of the current cost of equity, that "[i]nterest rates for Baa  
17 corporate bonds are *lower* than they were in every year since 1967. . . . Baa-rated *utility*  
18 bonds have performed in the same manner." *Id.* at 57 (emphasis in original). He  
19 concluded by asserting that "[t]hese low Baa bond yields are consistent with the currently  
20 low costs of capital." *Id.* at 58.

21 The RUCO cost of capital witness testified that "[c]onsideration of the current  
22 economic environment is necessary because trends in interest rates, present and projected  
23 levels of inflation, and the overall state of the U.S. economy determine the rates of return  
24 that investors earn on their invested funds." Rigsby Dt. (Ex. R-5) at 28. He provided a  
25 discussion of factors affecting the economy since 1990, including actions taken by the  
26 Federal Reserve to reduce interest rates since early 2001. *Id.* at 31-33. As a consequence,  
according to the RUCO witness, "[a]s of the final week of July 2003, all of the leading

1 interest rates have declined,” including “yields on all maturities of U.S. Treasury  
2 instruments.” *Id.* at 33. Based on this information, the RUCO witness testified, “I believe  
3 that my estimate of equity costs will provide Arizona-American with a reasonable rate of  
4 return on the Company’s invested capital when economic data *on lower interest rates*,  
5 continued growth in construction, and the low and stable outlook for inflation are all taken  
6 into consideration.” *Id.* at 36 (emphasis supplied).

7 After this testimony was filed by Staff and RUCO, interest rates, including yields  
8 on U.S. Treasury securities, began to increase, as shown below.

9 <u>Month</u> <sup>10</sup>	<u>5-Year Treasuries</u>	<u>10-Year Treasuries</u>	<u>20-Year Treasuries</u>
10 May 2003	2.52%	3.57%	4.52%
11 July 2003	2.87%	3.98%	4.92%
12 Oct. 2003	3.19%	4.29%	5.21%
13 Dec. 2003	3.27%	4.27%	5.11%
14 April 2004	3.39%	4.35%	5.16%
15 May 2004	3.85%	4.72%	5.46%
16 June 2004	3.93%	4.73%	5.45%

17 Federal Reserve Statistical Release H.15, available on the Federal Reserve website at  
18 <http://www.federalreserve.gov/release/h15>. The yields on investment-grade industrial  
19 bonds have exhibited a similar pattern during the past 12 months. The yields on Aaa rated  
20 bonds increased from 5.22% in May 2003 to 6.04% in May 2004, while the yields on Baa  
21 rated bonds increased from 6.35% in May 2003 to 6.75% in May 2004. *Id.*

22 In short, while interest rates were at 40-year lows in mid-2003, interest rates  
23

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24  
25 <sup>10</sup> These months were selected to coincide with key events in the rate case. For example, the  
26 Staff cost of capital witness relied on data published in May, 2003, in his direct testimony.  
Reiker Dt. (Ex. S-45) at 22-23. See Decision at 3-4 (discussing procedural history).

1 subsequently increased. Moreover, interest rates are forecasted to continue to increase  
2 through 2004 and 2005. *See* Zepp Rb. (Ex. A-49) at 19-21; Zepp Rj. (Ex. A-50) at 23-26  
3 and Rejoinder Table 6. These changes in interest rates are widely publicized and  
4 available from a variety of sources, including the Federal Reserve's official website.  
5 Arizona-American provided this updated information on interest rates to the  
6 Commissioners in its Exceptions to the recommended opinion and order, filed on May 16,  
7 2004, and discussed recent increases in interest rates again during the Commission's open  
8 meeting conducted on June 15, 16 and 18, 2004, at which time the agency voted to  
9 approve the Decision. Given the emphasis placed on interest rates and their relationship  
10 to capital costs by the parties' witnesses, the Commission should have considered this  
11 evidence in issuing the Decision. Instead, the Commission ignored it. As a consequence,  
12 the rate of return on Arizona-American's rate bases authorized by the Commission, even  
13 without the use of the "backing in" method, is actually *below* the current yield on  
14 investment-grade industrial bonds, and, as explained below, key inputs into Staff's finance  
15 models failed to reflect increased capital costs.

16                   **2. The Commission Ignored the Evidence Supporting Dr. Zepp's**  
17                   **DCF Model Estimates.**

18                   The Commission accepted Staff's discounted cash flow model ("DCF") estimates  
19 of the cost of equity, as well as Staff's criticisms of the Dr. Zepp's DCF estimates,  
20 including his restatements of Staff's models. Decision at 30. The primary difference  
21 between Dr. Zepp's DCF estimates and those of Staff is the method chosen to estimate  
22 dividend growth rates.

23                   **a. Constant Growth DCF Model Estimates.**

24                   In implementing the constant growth DCF model, Dr. Zepp relied on near-term  
25 earnings and sustainable growth, and did not consider dividend per share ("DPS") growth  
26 and historic earnings per share ("EPS") growth. As Dr. Zepp explained in his testimony,

1 these measures of dividend growth are substantially less than other recognized measures  
 2 of dividend growth. *E.g.*, Zepp Rb. (Ex. A-49) at 42-47; Zepp Rj. (Ex. A-50) at 19-21; Tr.  
 3 at 322. For the water utility sample, EPS growth is expected to be *three times faster* than  
 4 DPS growth. For the gas utility sample, EPS are expected to grow *six times faster* than  
 5 DPS. Zepp Rb. (Ex. A-49) at 43. Under these conditions, the use of DPS growth and  
 6 historic EPS growth produces unreasonable results that are inconsistent with other  
 7 measures of current capital costs.

8 The Commission rejected this evidence, accepting Staff's illogical argument that  
 9 investors might conclude the proxy water utilities lack confidence in continued earnings  
 10 growth and will cut their dividends. Decision at 30. In fact, during the past five years, the  
 11 average prices of water utility stocks have increased *faster* than their EPS, DPS, and the  
 12 book value of their stocks. Zepp Rb. (Ex. A-49) at 44 and Rebuttal Table 6. Dr. Zepp  
 13 explained that this rapid growth in stock prices would cause investors to expect more  
 14 rapid growth in the future than in the past. *Id.*; Zepp Rj. (Ex. A-50) at 19-20. In other  
 15 words, investors would not bid up the price of the stock if they expected dividend growth  
 16 to lag behind earnings.

17 The reality is that the use of historic and forecasted DPS growth and historic EPS  
 18 growth in the constant growth DCF model produces equity cost estimates in the 5.9% to  
 19 6.6% range, as Staff own exhibits illustrate:

<u>Growth Measure</u>	<u>Dividend Yield</u>	<u>Dividend Growth</u>	<u>Equity Cost</u>
10-Year DPS Growth	3.44%	2.5%	<b>5.94%</b>
Projected DPS Growth	3.44%	2.9%	<b>6.34%</b>
10-Year EPS Growth	3.44%	3.2%	<b>6.64%</b>
Projected EPS Growth	3.44%	8.7%	12.14%
10-Year Intrinsic Growth	3.44%	4.9%	8.34%
Projected Intrinsic Growth	3.44%	7.7%	11.14%

1 Reiker Sb. (Ex. S-46) at Schedule JMR-S4 (dividend growth) and Schedule JMR-S7  
2 (dividend yield). There is no evidence in the record that investors expect publicly traded  
3 water utilities to earn a return on equity of approximately 6%, particularly when the yield  
4 on Aaa industrial bonds was over 6% and the yield on Baa industrial bonds was nearly 7%  
5 when the Decision was issued. Nevertheless, on page 30 of the Decision, the Commission  
6 stated that “the omission of dividends per share growth from the DCF model moves the  
7 model’s result away from and not toward a reliable estimation, which only to inflate the  
8 estimate to the detriment of ratepayers.” Obviously, no rational investor expects the  
9 returns on equity of the publicly traded water utilities to drop below bond yields, and they  
10 certainly would not invest any money in those firms if that were the case.

11 **b. Multi-Stage DCF Estimates.**

12 The Commission also accepted Staff’s two-stage DCF model, while rejecting the  
13 more sophisticated version of the multi-stage model proposed by Dr. Zepp and supported  
14 by a communication from Dr. Myron Gordon, who is described in the testimony of the  
15 Staff cost of capital witness as having “pioneered” the use of the DCF model in setting  
16 utility rates. Reiker Dt. (Ex. S-45) at 10.<sup>11</sup> Staff’s two-stage DCF model erroneously  
17 assumes that investors would look at dividend growth for five years (“stage 1”) and then  
18 adopt a growth rate for the economy as a whole for the terminal growth rate (“stage 2”).  
19 Zepp Rb. (Ex. A-49) at 47-48. As explained by Dr. Zepp:

20 Knowledgeable investors expect the relatively slow near-term  
21 growth in DPS will be rewarded by higher future growth as  
22 the utilities gain financial strength from growing their earnings  
23 retention ratios. A multi-stage growth DCF model should  
24 incorporate this reasonable expectation of investors and not  
25 immediately go to a final stage growth rate that has nothing to  
26 do with the improved financial strength of the utilities.

<sup>11</sup> RUCO’s cost of capital witness also acknowledged that Professor Gordon is an expert on the correct implementation of the DCF model. Rigsby Dt. (Ex. R-5) at 7 and 15 (citing Gordon’s textbook).

1 *Id.* at 48.

2           Again, however, the Commission adopted Staff's version of the model, accepting  
3 Staff's argument that Dr. Zepp should not have used forecasts of intrinsic or sustainable  
4 growth to determine second-stage growth in his restatement of the model, even though  
5 Staff used such forecasts in its constant growth DCF model. Decision at 30-31. Dr. Zepp  
6 explained that Staff's two-stage version of the model is far more speculative because it (1)  
7 ignores the projected growth rates used in Staff's constant growth DCF model, which are  
8 shown above, and (2) assumes that an economy-wide growth rate will apply to the utility  
9 sample group as early as 2009. Zepp Rb. (Ex. A-49) at 48-49; Zepp Rj. (Ex. A-50) at 23.  
10 As stated, Professor Myron Gordon has agreed that an intermediate stage reflecting  
11 projected intrinsic growth is necessary to properly implement a multi-stage model. Zepp  
12 Rj. (Ex. A-50) at 21-22 and Exhibit TMZ-RJ-2 (communication from Professor  
13 Gordon).<sup>12</sup> The Commission disregarded this evidence and adopted its Staff's flawed  
14 approach.

15                           **3. Staff's CAPM Equity Cost Estimates Are Unreasonably Low and**  
16                           **Should Have Been Rejected by the Commission.**

17           In the Decision, the Commission has repeated the Staff witness' statement that the  
18 capital asset pricing model ("CAPM") that the is "the best-known model of risk and  
19 return." Decision at 26 (citing Reiker Dt. (Ex. S-45) at 21). In fact, this statement is  
20 taken out of context and is misleading. The entire statement, which is found in a well  
21 known finance textbook, is actually as follows:

22                           The capital asset pricing theory is the best-known model of  
23                           risk and return. It is plausible and widely used but far from

24 <sup>12</sup> Professor Gordon stated in his communication that "there is good reason to believe that a  
25 higher rate of growth in earnings than in dividends in the near future will lead to a higher growth  
26 rate in the dividend subsequently." Dr. Zepp's intermediate growth stage implements this  
concept, while the more simplistic, two-stage model used by Staff ignores it.

1 perfect. Actual returns are related to beta over the long run,  
2 but the relationship is not as strong as the CAPM predicts, and  
3 other factors seem to explain returns better since the mid-  
4 1960s. Stocks of small companies, and stocks with high book  
5 values relative to market prices, appear to have risks not  
6 captured by the CAPM.

7 Richard A. Brealey and Stewart C. Myers, *Principles of Corporate Finance* 212 (6<sup>th</sup> ed.  
8 2000). See also Charles F. Phillips, Jr., *The Regulation of Public Utilities*, 396-97 (3<sup>rd</sup> ed.  
9 1993) (summarizing various theoretical and practical problems with the CAPM).  
10 Although the Company pointed out several significant flaws in Staff's CAPM estimates,  
11 the Commission ignored this evidence, stating the CAPM "is a reasonable means of  
12 estimating Arizona-American's cost of equity." Decision at 30.

13 The version of the CAPM used by Staff is often called the Sharpe-Linter model  
14 after William Sharpe and John Linter who originally derived it. Zepp Rb. (Ex. A-49) at  
15 34. Since the original form of the CAPM was derived, empirical studies have shown that  
16 the cost of equity for firms with betas less than 1.0 (which would include all of the  
17 publicly traded utilities in the parties' sample groups) are closer to the cost of equity for  
18 an average risk stock (a beta of 1.0) than the original Sharpe-Lintner model predicts.  
19 Zepp Dt. (Ex. A-44) at 45, n. 13; Zepp Rb. (Ex. A-49) at 35-39. Dr. Zepp testified that  
20 Professor Sharpe<sup>13</sup> now believes that a different version of the CAPM, known as the  
21 "zero-beta" CAPM, provides a better explanation of stock prices, and the version of the  
22 CAPM used by Staff understates the expected return on the risk-free asset used in the  
23 model. Zepp Dt. (Ex. A-44) at 45 n. 14; Zepp Rb. (Ex. A-49) at 39-41. Put simply, this  
24 means that water utilities require a higher equity return than is indicated by the version of  
25 the CAPM used by Staff and approved by the Commission.

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26 <sup>13</sup> Professor Sharpe was a co-winner of the Nobel Prize for his work in developing the initial  
version of the CAPM in the mid-1960s. Brealey and Myers, *supra*, at 195.

1           Putting aside the conceptual problems inherent in the basic CAPM model used by  
2 Staff, there are problems with the way Staff's cost of capital witness implemented that  
3 model. A critical input in the CAPM model is the selection of an appropriate "beta" for  
4 the firm being evaluated. The Staff cost of capital witness explained that "[b]eta is the  
5 measurement of an investment's market risk, and it reflects both the business risk and the  
6 financial risk of a firm." Reiker Dt. (Ex. S-45) at 6. In implementing the CAPM in this  
7 case, Staff used the average of the betas published by an investment service, *Value Line*,  
8 for the six publicly traded water utilities in Staff's proxy group. *Id.* at 23. *Value Line's*  
9 betas are derived from a regression analysis between weekly percent changes in the price  
10 of a stock and weekly percent changes in the New York Stock Exchange average over a  
11 period of five years. Roger A. Morin, *Regulatory Finance: Utilities' Cost of Capital* 65  
12 (1994). In other words, beta measures a security's volatility in relation to that of the  
13 market. Morin, *supra*, at 63; Brealey and Myers, *supra*, at 174-75.

14           As Dr. Zepp explained, estimating betas for water utilities is especially problematic  
15 because they are small firms whose stock is thinly-traded, meaning that as the stock  
16 market index changes, the individual utility's stock price remains unchanged due simply  
17 to a lack of trading. Zepp Dt. (Ex. A-44) at 46-47; Zepp Rb. (Ex. A-49) at 11 and 34-35.  
18 *See also* Morin, *supra*, at 72. In this case, all of the publicly traded water utilities in  
19 Staff's sample group are small companies. Ex. A-99 and Ex. A-100 (financial data on  
20 sample group of water utilities). Philadelphia Suburban<sup>14</sup> is by far the largest water utility  
21 in the sample group, with net utility plant of nearly \$1.4 billion and operating revenue in  
22 excess of \$400 million, and utility operations in 15 states. Ex. A-100. Philadelphia

23 \_\_\_\_\_  
24 <sup>14</sup> In early 2004, Philadelphia Suburban Corporation's name was changed to Aqua America, Inc.  
25 To be consistent with the record, the Company will continue to refer to that water utility as  
26 Philadelphia Suburban.

1 Suburban is nevertheless considered a "Mid Cap" stock, while the remaining five water  
2 utilities are considered "Small Cap" stocks. Ex. A-83. In other words, the utilities in the  
3 sample group fall within the category of stocks that, according to Professors Brealey and  
4 Myers, "appear to have risks not captured by the CAPM," i.e., the results of the basic  
5 CAPM understate their equity cost.

6 Finally, putting aside the theoretical problems with the basic CAPM model and  
7 with obtaining an accurate estimate of beta for water utility stocks, there is one additional,  
8 equally serious problem: Arizona-American's stock is not publicly traded and, therefore,  
9 it has no estimated beta. As explained in the Decision, Staff "derived" its beta for  
10 Arizona-American "from the average of the *Value Line* betas for the six proxy water  
11 utilities." Decision at 27. Noticeably absent from the Decision (as well as the record  
12 generally), however, is any credible explanation of why the average beta of this group is  
13 appropriate for Arizona-American. The estimated betas in Staff's sample group range  
14 from a high of 0.7 (Philadelphia Suburban) to a low of 0.5 (SJW Corp.). Reiker Sb. (Ex.  
15 S-46), Schedule JMR-S5. There was simply no basis for the Commission to assume that  
16 Arizona-American's hypothetical beta is less than the *Value Line* beta for Philadelphia  
17 Suburban, a substantially larger, publicly traded utility with a AA- credit rating. See Ex.  
18 A-99 and Ex. A-100.

19 Given these problems with the CAPM, it is little wonder that Staff's CAPM  
20 estimates were extremely low, only 8.1%. Reiker Sb. (Ex. S-46) at 2 and Schedule JMR-  
21 S7. Moreover, the Staff's witness employed a version of the model that is extremely  
22 volatile and produced dramatically different results over a period of several months.  
23 Between the time Staff filed its direct and surrebuttal testimonies, Staff's indicated cost of  
24 equity decreased from 11.1% to only 8.1%. Compare Reiker Dt. (Ex. S-45), Schedule  
25 JMR-S8 with Reiker Sb. (Ex. S-46), Schedule JMR-S7. This dramatic decrease occurred  
26 even though the intermediate-term Treasury spot rate used in Staff's CAPM was actually

1 30 basis points *higher* when Staff's "updated" CAPM equity cost estimate was made last  
2 October in its surrebuttal filing. *Id.*

3 In sum, given the uncertainty surrounding the version of the CAPM used by Staff,  
4 the problems with estimating the betas for small water utility stocks, and the lack of any  
5 evidence demonstrating that Arizona-American would have a beta equal to the average  
6 beta of Staff's sample group, the Commission should have given Staff's CAPM cost of  
7 equity estimate little weight. Instead, the Commission relied on it in determining  
8 Arizona-American cost of equity and the appropriate return on rate base.

9 **4. Although The Risk Premium Method Provides a Direct and**  
10 **More Objective Estimate of the Current Cost of Equity Than the**  
11 **CAPM, the Commission Rejected this Method.**

12 Because of the problems in using the CAPM to set utility rates, few regulatory  
13 commissions give the CAPM much weight when determining equity costs. Zepp Rb. (Ex.  
14 A-49) at 39-40. The preferred method to implement the CAPM is to estimate the equity  
15 cost using a risk premium approach, as Dr. Zepp did in this case. Under the risk premium  
16 approach, the risk premium is directly estimated by comparing authorized and actual  
17 returns on equity with the current yields of investment grade bonds or other debt  
18 instruments:

19 The risk premium method of determining the cost of equity,  
20 sometimes referred to as the "stock-bond-yield spread  
21 method" or the "risk positioning method," or again the "bond-  
22 yield plus risk-premium" method, recognizes that common  
23 equity capital is more risky than debt from an investor's  
24 standpoint, and that investors require higher returns on stocks  
25 than on bonds to compensate for the additional risk. The  
26 general approach is relatively straightforward: First,  
determine the historical spread between the return on debt and  
the return on equity. Second, add this spread to the current  
debt yield to derive an estimate of current equity return  
requirements.

The risk premium approach to estimating the cost of equity  
derives its usefulness from the simple fact that while equity  
return requirements cannot be readily quantified at any given  
time, the returns on bonds can be assessed precisely at every

1 instant in time. If the magnitude of the risk premium between  
2 stocks and bonds is known, then this information can be used  
3 to produce the cost of common equity. This can be  
4 accomplished retrospectively using historical risk premiums or  
5 prospectively using expected risk premiums.

6 Morin, *supra*, at 269. As Dr. Zepp explained, “there is no need to estimate betas or  
7 market risk premiums, and there is no reason to determine if ‘beta risk’ is the only risk of  
8 relevance to investors holding shares of water utilities. It is a simpler and less subjective  
9 approach.” Zepp Rb. (Ex. A-49) at 40.

10 The Commission, however, rejected Dr. Zepp’s risk premium equity cost estimates  
11 because Dr. Zepp relied on forecasts of Baa corporate bond rates. *See* Decision at 29-30.  
12 The Commission adopted Staff’s argument that “current” interest rates (i.e., interest rates  
13 as of September, 2003) provide a more accurate forecast of interest rates during 2004 and  
14 2005 – the time period during which new rates will be in effect – than the forecasted  
15 interest rates used by Dr. Zepp. The Commission ignored Dr. Zepp’s explanation of why  
16 this argument was erroneous.

17 There are basically three approaches that can be taken. One is  
18 Mr. Reiker’s approach, adopt current interest rates and assume  
19 they are the best forecast of next year’s rates. The second is to  
20 adopt published forecasts of interest rates. Third is to derive  
21 forward rates for 2004 from current short-term rates and  
22 current intermediate-term rates. Of the three, the approach  
23 Mr. Reiker has taken creates the most uncertainty and the  
24 greatest chance that the cost of equity will be understated.

25 Zepp Rj. (Ex. A-50) at 24. Dr. Zepp also provided evidence showing that interest rates  
26 increased in 2003 and were likely to be even higher in 2004. *Id.*, Rejoinder Table 6  
(comparing current and forecasted treasury rates).

The Staff cost of capital witness strongly criticized Dr. Zepp for using forecasted  
interest rates in implementing the risk premium and CAPM models, both of which rely on  
interest rates. *E.g.*, Reiker Sb. (Ex. S-46) at 17 (“the Commission should not rely on a

1 forecasted interest rate that was likely predicted with no more accuracy than that of a coin  
 2 toss"). It turned out, however, that the interest rate forecasts used by Dr. Zepp were  
 3 somewhat conservative:

	<u>Staff Direct May 6, 2003</u>	<u>Staff Surrebuttal Sept. 25, 2003</u>	<u>Forecasted Interest Rates Used by Zepp</u>	<u>Interest Rates June 18, 2004</u>
6 5-Year Treasury 7 Note	2.74%	3.05%	3.7%	3.97%
8 7-Year Treasury 9 Note	3.38%	3.59%	N/A	4.37%
10 10-Year 11 Treasury Note	3.80%	4.12%	4.6%	4.75%
12 Average	3.3%	3.6%	4.2%	4.4%

12 Reiker Dt. (Ex. S-45) at 23 n. 11; Zepp Rj. (Ex. A-50) at 24-26 and Rejoinder Table 6;  
 13 Federal Reserve Statistical Release H.15 (June 21, 2004). Thus, the interest rates used by  
 14 Staff to derive its CAPM equity cost estimates increased by 110 basis points – 1.1%.

15 The Commission ignored this evidence and instead agreed with Staff that Dr.  
 16 Zepp's use of forecasted interest rates was suspect. On this basis, the Commission  
 17 rejected Dr. Zepp's risk premium estimates in favor of Staff's CAPM estimates, which  
 18 were based on outdated "spot" interest rates that failed to reflect current capital costs.  
 19 Decision at 29-30.

20 The Commission also accepted Staff's argument that Dr. Zepp's risk premium  
 21 approach is flawed because Baa corporate bond rates include a default premium. Decision  
 22 at 30. However, Dr. Zepp testified that Staff's argument was another red herring. Under  
 23 the risk premium method, it is irrelevant whether Baa bond rates include a default  
 24 premium if the same default premium that existed in the past is expected in the future.  
 25 Zepp Rj. (Ex. A-50) at 26. Dr. Zepp also testified that the quotation from Professor  
 26 William Sharpe in the Staff witness' Surrebuttal Testimony did not apply to the analysis

1 Dr. Zepp presented because that analysis already takes into account the existence of a risk  
2 premium. *Id.* at 26-27. This is supported by Dr. Morin's view that "the choice of debt  
3 instrument in the risk premium analysis is largely immaterial, as long as it is consistently  
4 applied." Morin, *supra*, at 278. In fact, Dr. Zepp provided empirical data demonstrating  
5 that Baa corporate bond rates provide more reliable estimates of the cost of equity than  
6 Treasury rates. Zepp Rb. (Ex. A-49) at 22-23 and Rebuttal Tables 2 and 3. Once again,  
7 the Commission ignored this evidence and adopted Staff's position. Decision at 30.

8 **5. The Commission Improperly Ignored Actual and Authorized**  
9 **Equity Returns.**

10 It would seem axiomatic that in analyzing the returns on equity earned by a group  
11 of publicly traded companies under the comparable earnings standard, the starting point is  
12 what those companies are actually earning. In fact, that is what this Commission has  
13 traditionally done. For example, in *Litchfield Park*, the Commission Staff used  
14 comparable earnings, along with the DCF model and an analysis of firm-specific risks, to  
15 develop its recommended rate of return. 178 Ariz. at 436-37, 874 P.2d at 993-94. *See*  
16 *also Citizens Utilities*, 120 Ariz. at 190-91, 584 P.2d at 1181-82 (describing comparative  
17 earnings methodology used by Staff's witness); *Sun City Water Co. v. Ariz. Corp.*  
18 *Comm'n*, 26 Ariz. App. at 309-10, 547 P.2d at 1109-10 (the Commission "must appraise  
19 the equity earnings of other utilities and non-regulated companies and use this appraisal in  
20 setting the allowed rate of return on the equity component in the cost of capital").

21 In this case, in contrast, the Commission summarily rejected the Company's  
22 evidence on comparable earnings, stating that the comparable earnings method "has been  
23 replaced by market based corporate finance models." Decision at 29. At a minimum, the  
24 Commission should have considered actual and authorized returns on equity as a check on  
25 whether the results produced by the parties' finance models were reasonable. Put bluntly,  
26 the Commission ignored relevant evidence because it conflicted with its Staff's

1 recommendation.

2 Staff's proxy group of publicly traded water utilities have earned the following  
3 returns on equity:

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
4 American States	9.3%	10.1%	9.5%	5.6%
5 California Water	10.1%	7.2%	9.5%	7.9%
6 Philadelphia Suburban	11.7%	12.4%	12.7%	12.3%
7 Connecticut Water	12.1%	12.1%	10.9%	11.2%
8 Middlesex Water	7.1%	9.1%	9.6%	8.2%
9 SJW Corp.	7.4%	9.4%	9.3%	9.8%
10 Average ROE	9.6%	10.1%	10.3%	9.2%

11  
12 Ex. A-83; *C.A. Turner Utility Reports*, May 2004 (copy attached to Company's  
13 Exceptions, filed May 16, 2004). Notably, the water utilities currently reporting the  
14 lowest equity returns, American States Water and California Water Service, recently  
15 received substantial rate increases, which will result in increased earnings. *See In the*  
16 *Matter of the Application of Southern California Water Company*, Decision No. 0403039  
17 (March 16, 2004) at 62-73 (excerpts attached at Tab 3).<sup>15</sup> The California Public Utilities  
18 Commission ("CPUC") granted American States rate increases of \$8 million in the year  
19 2003 as well as additional increases of \$1.9 million in 2004 and \$2.8 million in 2005. The  
20 CPUC granted California Water Service rate increases of \$12.8 million in 2003, and  
21 additional increases of \$2.2 million in 2004 and in 2005. In approving these increases,  
22 American States was authorized a 9.9% return on equity, while California Water Service  
23 was authorized a 9.7% return on equity. In other recent rate decisions issued by the  
24

25 <sup>15</sup> Southern California Water Company is American States' primary utility subsidiary. *See Ex.*  
26 *A-83.*

1 CPUC, Suburban Water Systems was authorized a 9.84% return on equity for 2003-2005,  
2 and California-American Water Company was authorized a 10.25% return on equity for  
3 the same period. *Id.* at 73, n. 44. In each of these contemporaneous decisions, the  
4 authorized equity return was higher than in this case.

5 While initially criticizing the comparable earnings method (*see* Rigsby Sb. (Ex. R-  
6 6) at 5-6), RUCO acknowledged that recent authorized equity returns are relevant by  
7 citing in its post-hearing Reply Brief a decision issued in January 2004 by the West  
8 Virginia Public Utilities Commission, in which a 7.0% return on equity was authorized for  
9 a water utility affiliated with Arizona-American, West Virginia-American Water  
10 Company. *See* Decision at 28. That decision, which is on appeal before the state supreme  
11 court, is an outlier. As shown in the schedule attached at Tab 4, since 2002, 13 American  
12 Water Works water utility subsidiaries in other states have received rate decisions with  
13 authorized equity returns ranging from 10.6% (Pennsylvania and Hawaii) to 9.75% (New  
14 Jersey). The average authorized equity return for this water utility group is 10.17%.

15 The bottom line is that, with the exception of West Virginia, all of the recently  
16 authorized equity returns are significantly higher than the results produced by the versions  
17 of the finance models used by Staff, which averaged only 8.5%. Reiker Sb. (Ex. S-46),  
18 Schedule JMR-S7. Obviously, something is wrong with the finance models used by Staff  
19 and approved by the Commission when those models consistently produce returns *below*  
20 the returns the sample group of water utilities are actually earning and are authorized to  
21 earn. In fact, during the pendency of this rate case, Staff's recommended cost of equity  
22 dropped from 9.7% to 9.0% within a period of less than 60 days, during a period when  
23 interest rates were increasing. *Compare* Reiker Dt. (Ex. S-45) at 25 (filed Sept. 5, 2003)  
24 *with* Reiker Sb. (S-46) at 2 (filed Oct. 31, 2003).

25 In contrast, the versions of the finance models used by Arizona-American's expert,  
26 Dr. Zepp, do produce results consistent with actual and authorized returns on equity. Dr.

1 Zepp's updated estimates, presented in his Rebuttal Testimony, were:

2 Dr. Zepp Cost of Equity Estimates

3	DCF (Water Companies)	10.5%
4	Risk Premium (Past Water Utilities' ROEs)	11.0 – 11.2%
5	Risk Premium (Natural Gas Utilities' ROEs)	10.4 – 10.7%
6	Risk Premium (Moody's Gas Stock Index)	10.3 – 10.9%
7	Average	10.5 – 10.8%

8 Zepp Rb. (Ex. A-49) at 5-6 and Update Table 24. The average of Dr. Zepp's estimates,  
9 10.5% to 10.8%, are consistent with actual and authorized returns for Staff's water utility  
10 sample group, set forth above.

11 Dr. Zepp also restated the equity cost estimates made by Staff and RUCO, using  
12 the same finance models but with more reasonable assumptions. The cost of equity  
13 produced by these restatements is, again, consistent with the actual returns:

14		<u>Equity Costs For Water</u>	<u>Equity Cost for</u>
15		<u>Utility Sample</u>	<u>Arizona-American</u>
16	DCF Estimates		
17	Staff	9.8% to 10.1%	10.3% to 10.6%
18	RUCO	10.1% to 10.9%	10.6% to 11.4%
19	CAPM Estimates		
20	Staff	9.9% to 10.1%	10.4% to 10.6%
21	RUCO	9.8%	10.3%
22	Estimated Equity Cost Range		
23	for Arizona-American		10.3% to 11.4%

24 Zepp Rj. (Ex. A-50) at 10-14 and Rejoinder Table 14.

25 In short, there is no disagreement that the methods used by the cost of capital  
26 witnesses for the Company, Staff and RUCO – the DCF model, the risk premium model,

1 and the CAPM – are all recognized methods of estimating the cost of equity. *E.g.*,  
2 Morin, *supra*, 28 (“There are four generic methodologies available to measure the cost of  
3 equity: DCF, Risk Premium, and CAPM, which are market-oriented, and Comparable  
4 Earnings, which is accounting oriented.”). *See also* Phillips, *supra*, 394-99 (discussion of  
5 approaches commonly used to estimate the cost of equity). There was considerable  
6 disagreement, however, regarding how these methods should be implemented.  
7 Regardless of the methods used, however, they should produce results that are consistent  
8 with reality. Here, the Commission rejected the Company’s cost of equity estimates, and  
9 concluded that “the methodology and variables used by Staff,” such as Staff’s September  
10 25, 2003 spot interest rates, are “reliable and reasonable.” Decision at 31. At the same  
11 time, the Commission ignored increases in interest rates as well as actual and authorized  
12 returns on equity for the water utilities used as proxies for Arizona-American. This was  
13 arbitrary and unreasonable, and results in an overall rate of return on rate base that is less  
14 than the current yield on an investment grade bond.

15 **IV. THE AMOUNT OF RATE CASE EXPENSE RECOMMENDED IN THE**  
16 **DECISION IS UNREASONABLE.**

17 This rate case was a lengthy, complicated and difficult proceeding, and Arizona-  
18 American was required to devote extensive resources in its prosecution. This case  
19 involved five applications concerning 115,000 customers, 10 parties, hundreds of  
20 discovery requests, five rounds of prefiled testimony, 9 days of hearings, over 100  
21 hundred marked exhibits, over 1,800 pages of hearing transcripts, two rounds of post-  
22 hearing briefs, written exceptions and a three-day open meeting before the  
23 Commissioners. *See* Tr. at 799-802. It took nearly 20 months to obtain a final decision.  
24 As a consequence, the Company’s witnesses testified that as of November 2003 (i.e., prior  
25 to the hearing) its total rate case expense for this proceeding exceeded \$1 million, and that  
26 total rate case expense would likely be between \$1.3 million and \$1.4 million. Decision

1 at 18. Nevertheless, the Company requested recovery of only \$715,000 in rate case  
2 expense, amortized over three years. Decision at 18. As explained by Company witness  
3 David Stephenson, Arizona-American recognized that some of its rate case expense  
4 should be absorbed by the Company. Tr. at 488.

5 Staff supported the Company's requested recovery of rate case expense and  
6 included an amortized portion of the \$715,000 in its recommendations. Exs. S-15 through  
7 S-24. However, RUCO opposed the Company's request.<sup>16</sup> RUCO recommended that the  
8 Company be allowed to recover \$418,941 in rate case expense, which amount is based on  
9 the amount that Citizens was allowed to recover in its last rate proceeding in 1997  
10 covering only the Maricopa County systems, adjusted for inflation.

11 The Commission adopted RUCO's recommended rate case expense, concluding  
12 that "the Company chose the test year" and that "ratepayers should not be made to bear  
13 the burden of the Company's choices to incur unreasonable increase in expenses."  
14 Decision at 20. It is unclear what increased expenses the Decision refers to; there is no  
15 evidence that the choice of test year had a material impact on the level of rate case  
16 expense incurred or sought by the Company. Moreover, in adopting RUCO's position,  
17 the Commission again largely ignored the evidence presented by the Company.

18 First, the Commission's conclusion that the selection of 2001 as the test year  
19 supports lower rate case expense recovery is erroneous. Although RUCO made that  
20 argument, claiming that use of a 2001 test year resulted in a substantial amount of  
21 additional and unnecessary rate case expense, it failed to produce evidence to support its  
22

---

23 <sup>16</sup> The Decision states that "only the Company disputed RUCO's proposal" concerning rate case  
24 expense, which is a misstatement of the record. Decision at 19. In fact, no other party supported  
25 RUCO's punitive amount of rate case expense, and no other party used RUCO's amount of rate  
26 case expense in its recommendations. Instead, the other parties used the Company's requested  
expense amount.

1 claim. The evidence before the Commission irrefutably shows that the bulk of the  
2 activities associated with the rate case would have been precisely the same if the  
3 Company had delayed its filing. *E.g.*, Tr. at 136-38, 1532-44. The most labor-intensive  
4 aspect of this case related to the development of plant-in-service and rate base schedules,  
5 in accordance with A.A.C. R14-2-103, the Commission's rule governing applications for  
6 rate increases. *See* Ex. A-102. Nearly 80% of the data requests served on the Company  
7 pertained to plant-in-service issues. *Id.* The use of a later test year would not have  
8 simplified or eliminated issues relating to plant. Instead, those issues would have been  
9 exacerbated by further delay because, as the Decision states on page 18, plant records and  
10 other historic data were held by another company, Citizens, which no longer existed and  
11 no longer had any employees. Tr. at 1537-38, 1540-41. Obviously, it would have been  
12 more difficult to access and utilize those records if the Company had, for example, filed  
13 its rate applications in 2003, utilizing 2002 as the test year.

14 The only issue that resulted from the selection of a 2001 test year was the dispute  
15 over the Company's proposed pro forma adjustment to remove Citizens' test year  
16 overheads and salaries and bring in the Company's overheads and salaries, an adjustment  
17 supported by RUCO and approved by the Commission in the Decision. *See* Decision at  
18 16-18. However, the amount of additional expense associated with that adjustment is  
19 only a small part of the total rate case expense that the Company has incurred. *See* Ex. A-  
20 102. Ultimately, the amount of rate case expense is a product of the size and complexity  
21 of the applications, which would not have been reduced by simply choosing a different  
22 test year.

23 Second, RUCO's recommended rate case expense of \$418,941 is unreasonable  
24 when compared to other rate proceedings. Citizens' 1995 rate proceeding, the basis for  
25 RUCO's recommendation, involved fewer districts, and fewer customers. Tr. at 812. In  
26 addition, Citizens had specific employees that were assigned the task of prosecuting rate

1 applications, and those expenses were included in the overhead and management fees  
2 charged to the districts and recovered in rates. Ex. A-74 at 23-24. This was not the case  
3 for Arizona-American, something RUCO ignored in its analysis. In fact, the only factor  
4 RUCO considered in utilizing Citizens' rate case expense from its 1995 proceeding was  
5 the inflation rate. Tr. at 812.

6 In contrast, in Citizens' 1990 rate proceeding for its Mohave water and wastewater  
7 districts, the Commission authorized rate case expense of \$165,000. See Ex. S-4,  
8 Decision No. 56806 (February 1, 1990) at 10-11. Had RUCO used that prior Citizens'  
9 rate case, and made adjustments for inflation and for the greater number of districts  
10 involved in this case (10 districts versus two districts and five applications versus one  
11 application), the amount of rate case expense would be far greater than the amount the  
12 Company is now requesting. Tr. at 1598. Simply multiplying rate case expense of  
13 \$165,000, authorized for only two districts, by five results in rate expense of \$825,000 –  
14 with no adjustment for inflation.

15 The same is true if the Company's 1996 rate application for the Paradise Valley  
16 water district (formerly named Paradise Valley Water Company) is used as a comparison.  
17 In that case, the Company filed a single application involving one water system with  
18 approximately 4,400 customers. Decision No. 60226 (May 27, 1997). The issue of rate  
19 case expense was contested, with the Company seeking and the Commission approving  
20 \$62,200 in rate case expense amortized over two years. *Id.* at 12-13. Adjusting that  
21 expense amount for the larger number of districts (10 districts versus one district in that  
22 case), and taking into account inflation since 1996 when the application was filed, further  
23 illustrates that the amount of rate case expense requested by the Company was reasonable.

24 Finally, in this proceeding, the Town of Youngtown, which intervened to address a  
25 narrow range of issues affecting only the Sun City water and wastewater districts,  
26 incurred approximately \$70,000 on consultants' fees alone. If legal fees are also included,

1 Youngtown's expenses will be approximately equal to \$100,000. Tr. at 1255-57.  
2 Certainly, it should come as no surprise that Arizona-American's rate case expense would  
3 be at least seven times the amount Youngtown incurred in connection with its  
4 intervention, which related to only two districts and a limited number of issues.

5 Despite this evidence, the Commission adopted RUCO's argument with little  
6 discussion or analysis. The Commission erroneously implied that the Company failed to  
7 "mitigate the costs" associated with retaining outside counsel and consultants to present  
8 the Company's case. Decision at 20. Again, there is no evidence to support this  
9 conclusion. Moreover, to the extent it were true, it is obvious that the Company has  
10 mitigated its costs by requesting \$715,000 as opposed to its actual rate case expense,  
11 which exceeded \$1 million. In short, the Commission's decision to limit rate case  
12 expense to only \$418,941, roughly one-third of the amount the Company will actually  
13 incur, or approximately \$40,000 per district, was contrary to the overwhelming weight of  
14 evidence and unreasonable given the size and complexity of this proceeding. Therefore,  
15 the Company's requested amount of rate case expense should have been approved.

16 RESPECTFULLY SUBMITTED this 9<sup>th</sup> day of July, 2004.

17 FENNEMORE CRAIG

18  
19 By Norm D. James  
20 Norman D. James  
21 Jay L. Shapiro  
22 Attorneys for Arizona-American Water  
23 Company

24 ORIGINAL and 21 copies  
25 of the foregoing were  
26 delivered this 9<sup>th</sup> day  
of July, 2004, to:

Docket Control  
Arizona Corporation Commission  
1200 W. Washington St.  
Phoenix, AZ 85007

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COPY of the foregoing was delivered this 9<sup>th</sup> day of July, 2004 to:

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By Mary L House

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**ARIZONA-AMERICAN WATER COMPANY**  
**Comparison of Company Requested and Actual Increases**

<u>District</u>	<u>Company Requested Revenue Increase</u>	<u>Decision No. 67093 Revenue Increase</u>	<u>Company Percent Change</u>	<u>Decision No. 67093 Percent Change</u>
Sun City West Water	\$ 1,156,931	\$ 547,430	34.22%	16.19%
Sun City West Wastewater	\$ 1,565,307	\$ 934,366	44.27%	26.43%
Sun City Water	\$ 4,453,755	\$ 1,476,373	71.92%	23.84%
Sun City Wastewater	\$ 260,879	(\$ 745,794)	5.13%	-14.66%
Mohave Water	\$ 142,344	(\$ 675,701)	3.24%	-15.38%
Havasu Water	\$ 123,933	\$ 45,163	28.11%	10.24%
Anthem Water	(\$ 12,809)	(\$ 280,170)	-0.32%	-6.99%
Agua Fria Water	\$ 62,372	(\$ 269,577)	1.01%	-4.36%
Anthem/Agua Fria Wastewater	\$ 311,419	\$ 226,725	16.68%	12.15%
Tubac Water	<u>\$ 181,931</u>	<u>\$ 81,434</u>	<u>71.49%</u>	<u>32.00%</u>
Ten District Total	\$ 8,246,082	\$ 1,340,249	27.58%	3.79%

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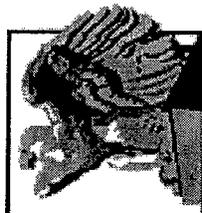
**ARIZONA-AMERICAN WATER COMPANY**

**Authorized Returns on Fair Value  
Rate Bases by District and  
Recent Interest Rates**

<b><u>District</u></b>	<b><u>Rate of Return on Rate Base</u></b>
Sun City Water	4.32%
Sun City Wastewater	4.37%
Tubac Water	5.12%
Havasu Water	5.44%
Mohave Water	5.46%
Sun City West Wastewater	5.48%
Sun City West Water	5.70%
Agua Fria Water	6.20%
Anthem Water	6.38%
Anthem/Agua Fria Wastewater	6.43%
Authorized Return on Rate Base	6.50%

<b><u>Debt Instrument</u></b>	<b><u>Rate for Week Ending June 18, 2004<sup>1</sup></u></b>
10-Year Treasury Note	4.75%
20-Year Treasury Bonds	5.46%
Moody's Aaa Industrial Bonds	6.01%
Moody's Baa Industrial Bonds	6.78%

<sup>1</sup> Data from Federal Reserve Statistical Release H.15 (release date June 21, 2004). A copy is attached to this schedule.



# Federal Reserve Statistical Release

H.15

## Selected Interest Rates

Release Date: June 21, 2004

Release dates | [Daily update](#) | [Historical data](#) | [About](#)

Current release *Other formats*: [Screen reader](#) | [ASCII](#) | [PDF \(17 KB\)](#)

### FEDERAL RESERVE STATISTICAL RELEASE

H.15 (519)

#### SELECTED INTEREST RATES

Yields in percent per annum

Instruments	2004				2004				2004				2004				For immediate release		
	Jun 14	Jun 15	Jun 16	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28	Week Ending Jun 18	Week Ending Jun 11	June 21, 2004	
Federal funds (effective) 1 2 3	1.02	1.03	1.00	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	0.99	1.00	1.00	
Commercial paper 3 4 5																			
Nonfinancial																			
1-month	1.12	1.17	1.14	1.18	1.18	1.15	1.17	1.17	1.17	1.15	1.15	1.15	1.15	1.15	1.15	1.07	1.07	1.00	
2-month	1.29	1.27	1.25	1.24	1.24	1.28	1.30	1.30	1.30	1.25	1.25	1.26	1.26	1.26	1.26	1.16	1.16	1.04	
3-month	1.42	1.45	1.42	1.40	1.40	1.44	1.46	1.46	1.46	n.a.	n.a.	1.42	1.42	1.42	1.27	1.27	1.07		
Financial																			
1-month	1.16	1.18	1.16	1.15	1.15	1.28	1.29	1.29	1.29	1.17	1.17	1.16	1.16	1.16	1.08	1.08	1.02		
2-month	1.29	1.29	1.28	1.30	1.30	1.44	1.46	1.46	1.46	1.30	1.30	1.29	1.29	1.29	1.20	1.20	1.08		
3-month	1.43	1.45	1.44	1.46	1.46	1.44	1.46	1.46	1.46	1.46	1.46	1.45	1.45	1.45	1.33	1.33	1.16		
CDs (secondary market) 3 6																			
1-month	1.23	1.24	1.22	1.23	1.23	1.22	1.22	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.16	1.16	1.05		
3-month	1.51	1.52	1.48	1.50	1.50	1.48	1.48	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.41	1.41	1.20		
6-month	1.84	1.85	1.80	1.82	1.82	1.80	1.80	1.82	1.82	1.81	1.81	1.82	1.82	1.82	1.72	1.72	1.46		
Eurodollar deposits (London) 3 7																			
1-month	1.20	1.19	1.20	1.21	1.21	1.20	1.20	1.21	1.21	1.21	1.21	1.20	1.20	1.20	1.13	1.13	1.03		





www.treas.gov/offices/domestic-finance/debt-management/interest-rate/index.html.

- 13. Based on the unweighted average bid yields for all Inflation Protected Securities with remaining term to maturity of more than 10 years.
- 14. International Swaps and Derivatives Association (ISDA) mid-market par swap rates. Rates are for a Fi Rate Payer in return for receiving three month LIBOR, and are based on rates collected at 11:00 a.m. Garban InterCapital plc and published on Reuters Page ISDAFIX1. Source: Reuters Limited.
- 15. Moody's Aaa rates through December 6, 2001 are averages of Aaa utility and Aaa industrial bond rates. As of December 7, 2001, these rates are averages of Aaa industrial bonds only.
- 16. Bond Buyer Index, general obligation, 20 years to maturity, mixed quality; Thursday quotations.
- 17. Contract interest rates on commitments for fixed-rate first mortgages. Source: FHLMC.

Note: Weekly and monthly figures on this release, as well as annual figures available on the Board's historical H.15 web site (see below), are averages of business days unless otherwise noted.

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Decision 04-03-039 March 16, 2004

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

In the Matter of the Application of SOUTHERN CALIFORNIA WATER COMPANY (U 133-W), for an order authorizing it to increase rates for water service by \$19,826,100 or 29.72% in the year 2003; by \$6,327,800 or 7.31% in the year 2004; and by \$6,326,200 or 6.81% in the year 2005 in its Region III Service Area and to increase rates for the General Office Allocation in all of its Customer Service Areas in this Application including: Arden-Cordova, Bay Point, Clearlake, Los Osos, Ojai, Santa Maria, Simi Valley and Metropolitan.

Application 02-11-007  
(Filed November 4, 2002)

**OPINION RESOLVING APPLICATION**

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## OPINION RESOLVING APPLICATION

### 1. Summary

This decision grants Southern California Water Company (SCWC) authority to increase rates by \$8,097,000, or 12.06% in the year 2003; by \$1,891,600 or 2.50% in the year 2004; and by \$2,789,100 or 3.60% in the year 2005 in its Region III Service Area. Rates for Region III will continue to be determined on a regional, rather than district specific, basis. SCWC's request to also increase rates for the General Office Allocation to customer service areas (CSAs) in Regions I and II is denied. We find that SCWC violated Public Utilities Code Section 851 when it failed to seek the Commission's approval for its lease of water rights to the City of Folsom. We fine SCWC \$1,095,000 for this violation, but suspend \$915,000 of the fine amount, for a net fine of \$180,000. We require that 70% of prior revenues from the lease, plus interest, be reflected as a credit to future rates. The following table summarizes the authorized rate increases for Region III.

District	2003		2004		2005	
Region III						
Orange	\$4,647,200	17.69%	\$ 899,300	2.89%	\$ 1,198,800	3.75%
Claremont	520,800	4.83%	332,700	2.93%	438,900	3.75%
San Dimas	1,021,400	7.90%	145,500	1.04%	530,700	3.76%
San Gabriel	720,000	11.40%	332,300	4.71%	276,900	3.75%
Barstow	1,187,800	17.80%	84,300	1.07%	311,100	3.93%
Calipatria-Niland	-	0.00%	97,500	9.17%	32,700	3.93%
Desert	-	0.00%	-	0.00%	-	0.00%
Wrightwood	-	0.00%	-	0.00%	-	0.00%
Total Region III	\$8,097,000	12.06%	\$1,891,600	2.50%	\$2,789,100	3.60%

## 2. Background

### 2.1. Procedural History

SCWC filed this general rate case (GRC) application pursuant to Pub. Util. Code § 454,<sup>1</sup> which governs proposed rate changes. The company requests Commission authorization to increase rates in its Region III Customer Service Areas, which include Orange County, Claremont, San Dimas, San Gabriel Valley, Barstow, Calipatria-Niland, Desert and Wrightwood. In addition, SCWC requested authority to increase current authorized revenues for the General Office for certain other CSAs that are not in for a GRC at this time.

The Office of Ratepayer Advocates (ORA) and the Orcutt Area Advisory Group filed protests to the application. Also, the Cities of Claremont and San Dimas sent a joint letter, to the assigned administrative law judge (ALJ) for this proceeding, indicating their opposition to the rate increases. A Prehearing

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<sup>1</sup> Unless indicated otherwise, all statutory citations are to the Public Utilities Code.

## **COST OF SERVICE ISSUES**

### **14. Cost of Capital**

SCWC requests a rate of return on rate base of 10.15% for each of the years 2003, 2004 and 2005. ORA recommends the Commission adopt a rate of return on rate base of 8.54% for 2003, 8.52% for 2004 and 8.55% for 2005. In determining the proposed rates of return, both parties recommend adoption of a capital structure composed of 50% long-term debt and 50% equity. SCWC recommends a cost of debt of 7.8% and a return on equity of 12.45% for 2003, 2004 and 2005. ORA recommends a cost of debt of 7.67% for 2003, 7.63% for 2004 and 7.68% for 2005 and a return on equity of 9.41% for each of the years.

As discussed below, we adopt an average cost of debt of 7.67% in 2003, 7.63% in 2004 and 7.68% in 2005 and a return on equity of 9.90% for each of the years. This equates to a rate of return on rate base of 8.79% for test year 2003, 8.77% for 2004 and 8.79% for attrition year 2005.

#### **14.1. Cost of Debt**

SCWC derived its cost of debt by calculating the embedded cost of debt currently outstanding and the projected cost of new debt issues. SCWC derived a coupon rate of 8.00% for new debt issues by adding a spread of 150 basis points to the Blue Chip Financial Forecast of long-term treasury yields. The 150 basis point spread is an amount consistent with current spreads for an "A+" rated utility issue. To the 8.00% coupon rate for new debt issues, SCWC added 13 basis points to approximate the annual cost factor for issuing new debt, to arrive at a cost of new debt equal to 8.13%.

Once both the embedded cost of debt and the cost of new debt were calculated, SCWC adjusted the embedded cost of debt yearly to reflect reductions in debt due to sinking fund payments, maturities, and projected new debt issues.

Accordingly, SCWC derived an estimated, effective cost of long-term debt for 2003 through 2005 of 7.77%, 7.83%, and 7.84%, respectively.

ORA updated the forecast used to determine the coupon rates, using the most recent DRI forecast. Table 5-1 in ORA's testimony shows its resulting forecast of the new issue coupon rate to be 6.63% for 2003 and 8.47% for 2005. The associated effective interest rates are shown to be 6.76% for the 2003 new issue and 8.62% for the 2005 new issue. ORA's resulting forecast of the average cost of debt is 7.67% in 2003, 7.63 in 2004 and 7.68 in 2005.

We reject SCWC's contention that ORA did not account for the issuance costs of new debt. As described above, ORA increased its forecast of the 2003 new issue coupon rate of 6.63% to an effective rate of 6.76% (13 basis points) and increased its forecast of the 2005 new issue coupon rate of 8.47% to an effective rate of 8.62% (15 basis points). This methodology is similar to SCWC's where it took the forecasted coupon rate of 8.00% for 2003 and 2005 and increased it by 13 basis points to derive the effective rate of 8.13%, for both years. Since ORA's forecast incorporates more recent information, to which SCWC does not object, we will adopt ORA's forecast of average long-term debt costs for the period 2003-2005.

#### **14.2. Return on Equity**

SCWC requests a return on equity of 12.45 percent. The utility performed four common equity market cost analyses, followed by three book value return on equity analyses. SCWC derived a market cost estimate of 10.87% by averaging costs indicated by the Ibbotson CAPM Method (11.98%), the Fama-French Three Factor Model (10.80%), the Risk Premium (RP) Analysis (10.89%) and Discounted Cash Flow (DCF) Model (9.81%).

After deriving the market-required return rates on market price of SCWC's equity, SCWC then converted those rates to "book value" equivalent return rates. SCWC asserts that a return based strictly on market prices is applicable directly to book value only if the price to book value ratio is already 1.00. Since its current market to book ratio is about 1.9, SCWC used three methods to make the book value conversion. SCWC's conversion of the DCF market cost results in a book value return on equity of 11.10%. The use of the Modigliani & Miller Conversion of Market Leveraged Cost results in a return of 11.58% and the Brigham Leverage Curve-Based Conversion results in a return of 11.66%. The average of the three methods is 11.45%.

To its estimated book value return on equity of 11.45%, SCWC added 10 basis points to account for incremental business risk resulting from return variability, market capitalization, customer mix, capitalization size shortfall and other specific risks. SCWC asserts that water utilities, being the most capital intensive of the utilities as well as the smallest, are particularly susceptible to the risk phenomena of combined forms of leverage and small size. In addition, SCWC added 90 basis points to its required book value return on equity to account for the risks created by the Commission's issuance of Resolution W-4294 and D.03-06-072 in the balancing account OIR.

ORA's 9.41% return on equity is derived from a quantitative analysis using two financial models, DCF and RP, to estimate investors' expected return on equity for SCWC. ORA applied both models to a group of comparable water utilities. The DCF model projected returns on equity of 8.00% based on the 3-month dividend yield, 8.00% based on the 6-month dividend yield, and 7.99% based on the 12-month dividend yield, with an average of 8.00%. The RP model combined average equity risk premiums with average interest forecasts for the

test period (years 2003 to 2005). Based on the average 10-year risk premiums, ORA calculated an expected return on equity of 10.59% for the 10-year Treasury bond yield and 10.90% for the 30-year Treasury bond yield. Using the 5-year average risk premium produced expected returns of 10.70% for the 10-year Treasury bond yield and 11.12% for the 30-year Treasury bond yield. Averaged together, ORA calculated an average ROE of 10.83% based on the RP model. Averaging the results of the two financial models produces ORA's expected return on equity of 9.41%.

As discussed below, we have developed a return on equity range and determined that the 9.9% midpoint value of that range will provide SCWC an appropriate return on equity for the years 2003 through 2005.

#### **14.3. Return on Equity – Discussion of Models**

The differences in return on equity recommendations between SCWC and ORA are caused by (1) SCWC's adjustment to the model results to convert from a market basis to a book value basis, (2) SCWC's use of two additional financial models, (3) differences in the financial model assumptions and inputs, and (4) SCWC's adjustments to reflect additional risk. This section discusses the first three items

Regarding SCWC's position that it is inappropriate to compare book value returns with market derived returns, it is not clear that the adjustment or the magnitude of the adjustment proposed by SCWC is reasonable or necessary. SCWC's use of the market to book conversion raises its equity return recommendation from 10.87% to 11.45%, or 58 basis points. ORA argues plausibly that the current high market to book ratios for regulated water companies indicate that authorized returns should actually be lowered rather than raised. More importantly, we must recognize that comparisons and

averaging of DCF and RP results have been the basis for many of our decisions regarding equity return levels. These past Commission authorized returns have not included SCWC's proposed adjustment. SCWC has not demonstrated, based on its financing experience, or any other practical criteria why the adjustment is necessary at this time. We are reluctant to make a major change such as this without convincing evidence supporting the necessity for the change. We will therefore not include the market to book conversion in determining a reasonable equity return. This treatment and the return on equity that we are authorizing today are in line with recent authorizations for other Class A water companies.

SCWC argues that an additional premium is necessary in factoring risk, because small companies are at greater risk than large companies. Specifically, in its CAPM analysis, SCWC uses a small company premium, which is calculated using data from the 2001 Ibbotson Associates SBBI yearbook. The data include all stocks listed on the New York Stock Exchange, American Stock Exchange, and the NASDAQ. The vast majority of the companies on these exchanges are non-regulated and non-water. The Commission has stated that water utilities should not be compared to companies in other industries (D.01-04-034, *mimeo.* at p.13-14; D.90-02-042, *mimeo.* at p. 38.) As stated in D.92-01-025, "[d]ue to the revenue recovery mechanisms in place for water utilities, we find that water utilities do not face the same overall risks as energy and telecommunications utilities." Therefore, for the determination of a reasonable range for equity returns we will not rely on the CAPM, nor will we use the Fama-French Three Factor Model, which appears to be similar in many respects to the CAPM.

The financial models we will consider are the DCF and RP models, both of which have been used in the past by the Commission in determining equity

returns for Class A water utilities. Also, both models were run by ORA and SCWC, although there were significant differences in the results.

In its prepared testimony analysis, ORA did not include Artesian Resources as one of the comparable companies. In response to SCWC's criticism for the omission, ORA reran the DCF and RP models the same way they were run for its report, with the inclusion of Artesian Resources. Based on numbers provided during evidentiary hearing,<sup>42</sup> if Artesian Resources were included in the comparable group, ORA's DCF analysis would yield a return of 8.35% and the RP analysis would yield a return of 10.52%. The average of the methods would be 9.43%, two basis points higher than ORA's recommended value of 9.41%.

In many of our decisions we have defined a reasonable range for equity returns. The authorized return would fall somewhere within that range. Model results for both ORA and SCWC show a wide range of equity returns. ORA's original analysis resulted in an 8.00% result from its DCF model, and a 10.83% result from its RP model - 283 basis points apart, or a recommended average that is 17.6% higher than the DCF result, and 13.1% lower than the RP result. SCWC asserts that this large disparity of 283 basis points between the DCF and RP results makes the ORA analysis unreliable. With the inclusion of Artesian Resources in the comparable group, ORA's spread between the DCF and RP model results would be reduced to 217 basis points. In its market cost of equity analysis, SCWC shows a range from 9.81% to 11.98%, or 217 basis points. The spread between SCWC's DCF (9.81%) and RP (10.89%) results, which amounts to

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<sup>42</sup> ORA/Wilson, RT 571, 573.

108 basis points, is somewhat less than the comparable ORA spread. However, it is clear that a fairly large spread in model results is common and not counter to our objective to determine a reasonable range. Once such a range is determined, we will exercise our judgment in determining the authorized return for SCWC.

Regarding the differences in the results, SCWC and ORA criticize each other's models. For instance, for the DCF, ORA criticizes SCWC's adjustment of the dividend yields to account for market pressure and issuance costs. ORA states that, in D.92-11-047, the Commission rejected the use of issuance costs and sinking fund effects in determination of rate of return. SCWC criticizes ORA's DCF formula on the grounds that ORA uses data from the most recent six and twelve-month periods, and not just the most recent three-month period, which SCWC characterizes as the only "current" data. ORA asserts that its approach takes advantage of a longer time period to average out any short-term aberrations, though in this case the results for the three, six and twelve months were all within one one-hundredth of a percent.

Regarding the RP analysis, SCWC criticizes ORA's model on the ground that it uses "too much history," which is wrong because "history does not repeat itself." ORA argues that using just the 5-year period, which SCWC proposes, would ignore the longer-term trends in the model. ORA asserts that its RP model is superior to SCWC's proposal because it balances historical trends in the risk premium with forecast interest rates to arrive at return on equity.

Based on the record, we do not see either SCWC's or ORA's analyses as clearly superior, and we will consider the determinations of both ORA and SCWC. We adopt an equity return range of 9.08% to 10.70% for SCWC. We

derive the floor rate by taking the simple average of the parties' DCF results and the ceiling by taking the simple average of the RP results.<sup>43</sup>

In order to determine where SCWC should fall in that ROE range, we next assess the risk factors.

#### **14.4. Return on Equity – Discussion of Risk**

We see no indication of high financial, business or regulatory risk for SCWC. After considering that along with evidence on the financial models, adjustments to the models, interest rate trends, the current economy and our informed judgment, we have determined that the midpoint of our range (9.90%) reflects an appropriate equity return for SCWC. We therefore authorize this return for SCWC's Region III for the years 2003, 2004, and 2005. This return along with our adopted capital structure and costs of debt, equates to a rate of return on rate base of 8.79% for test year 2003, 8.77% for test year 2004 and 8.79% for attrition year 2005.

Risk factors consist of financial, business and regulatory risk. Financial risk is tied to the utility's capital structure. The proportion of its debt to permanent capital determines the level of financial risk that a utility faces. As a utility's debt ratio increases, a higher return on equity may be needed to compensate for that increased risk. Both SCWC and ORA utilize a capital structure consisting of 50% debt and 50% equity, and neither party asserts increased or decreased financial risks associated with that structure.

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<sup>43</sup> For the DCF, SCWC shows a return of 9.81% while ORA shows 8.35% (including Artesian). The average is 9.08%. For the RP, SCWC shows a return of 10.89% while ORA shows 10.52% (including Artesian). The average is 10.70%.

Business risks pertain to uncertainties resulting from competition and the economy. A utility that has the most variability in operating results has the most business risk. Regulatory risk pertains to new risks that investors face from future regulatory actions that we, and other regulatory agencies, might take. Assessments of these risks are conducted to determine whether there is a need to increase return to compensate investors for added risk.

In its application, SCWC identifies and quantifies two elements of risk. First, it asserts business risk associated with the capital intensive nature of water utilities and operating leverage concerns caused by California water utilities having higher than average quantities of purchased water (fixed costs). However, the Commission has provided various regulatory mechanisms that deal with this risk – balancing accounts for purchased water, purchased power and pump taxes; memorandum accounts for catastrophic events; memorandum accounts for SDWA compliance; 50% fixed cost recovery and construction work in progress in rate base. Also, in this decision, we have approved memorandum account treatment for the Calipatria treatment plant. All of these factors tend to reduce risk associated with the capital intensive and high fixed cost nature of SCWC's operations. We see no reason to add a premium to the ROE to compensate for these risks.

The second risk specifically identified by SCWC concerns potential adjustments to balancing account procedures raised in Resolution No. W-4294. At the time of the application filing, related issues were being considered in R.01-12-009 where, on June 19, 2003, the Commission issued a final decision. In summary, D.03-06-072 revised the existing procedures for recovery of under collections and over collections in balancing-type memorandum accounts (accounts) existing on or after November 29, 2001 as follows: (1) If a utility is

within its rate case cycle and is not over earning, the utility shall recover its account subject to reasonableness review; and (2) If a utility is either within or outside of its rate case cycle and is over earning, the utility's recovery of expenses from the accounts will be reduced by the amount of the over earning, again subject to reasonableness review. The utility shall remove the amount of the over earning from the account and shall amortize it below the line. Utilities shall use the recorded rate of return means test to evaluate earnings for all years.

Conclusion of Law 7, states in relevant part:

"[T]he readjustment of a utility's specific rate of return is not within the scope of this industry-wide proceeding. The appropriate forum for such a utility-specific inquiry is a utility's general rate case or other appropriate proceeding the Commission may designate in the future."

The affect of D.03-06-072 is to limit recovery of costs subject to balancing accounts when the utility is over earning its authorized rate of return. The issue is whether this imposes additional risk on the utility to the extent that a premium should be added to the equity return. In the policy discussion of D.03-06-072, we state:

"Like the Edison case, we believe that a revision to our existing procedures is necessary here in order to effectively correct distorted results. The existing procedures for recovery of under and over collections in balancing accounts, which we suspended as of November 29, 2001, were originally established for the utilities to recover unanticipated increases in electricity costs between general rate cases, without the need to file an additional rate case application. The procedures also served the purpose of protecting shareholders from having to finance large unanticipated expenses until the next general rate case.

"These procedures served, in effect, as insurance to protect a utility against its failure to earn its authorized earnings due to unanticipated expenses beyond the utility's control. When a

person obtains insurance, the insurance is paid or invoked when the event insured against occurs. Similarly, offset balancing account recovery should only occur when the utility fails to earn up to its authorized rate of return due to unanticipated expenses beyond its control and that are the subject of the balancing account. To the extent a utility is earning above its authorized rate of return, recovery of the balancing account should be reduced by the amount of over earning since the event insured against (i.e., the failure to earn its authorized earnings) has not occurred.

"Thus, the existing procedures become problematic when they have the effect of enhancing utilities' earnings above the Commission-authorized rates of return. It is unreasonable and unnecessary to permit the utilities to pass through to ratepayers the dollar-for-dollar costs accumulated in their balancing accounts when these same utilities are earning more than their authorized rate of return, particularly when their ratepayers are also experiencing the same increased electrical costs in their own homes. To permit such recovery would be to grant the utilities an unanticipated windfall at ratepayer expense." (D.03-062-072, *mimeo.* at pp. 15-16.)

As described above, D.03-06-072 corrects an imbalance in the risks associated with previous balancing account procedures. The opportunity for unanticipated windfalls caused by balancing account protection should not have existed from the beginning. It would be illogical for us to increase the ROE by 90 basis points, as requested by SCWC, to compensate for the loss of what has been determined to be an illegitimate opportunity.

Additional information in the record indicates that SCWC is financially healthy. In evaluating SCWC's risk, ORA considered the Standard & Poor's (S&P) credit rating of SCWC, since this rating factors in a company's total risk. S&P rates SCWC A+/Stable, Business Profile 3. ORA Table 3-1, contained in Exhibit 9, shows S&P benchmark financial ratios as compared to SCWC for the

years 1997-2001. According to ORA, based on those ratios, SCWC's overall rating would be "A," a strong indication that it is a financially healthy company. Placing SCWC in the middle of our ROE range appears fair and puts the authorized return in line with that recently authorized for other large water utilities under our jurisdiction.<sup>44</sup>

## **15. Sales**

SCWC and ORA do not agree on forecasts of the annual sales per commercial customer, as summarized in Paragraph 3.02 of the Stipulation. In estimating sales for the commercial class, SCWC used a monthly regression model, while ORA used the Modified Bean method, which incorporates annual data. As discussed below, we will adopt SCWC's estimates for commercial sales per customer.

### **15.1. Discussion**

The monthly regression model used by SCWC produces results which are statistically more significant than that produced by ORA's model, which failed the F-statistic and Durbin - Watson tests. Additionally, the Water Division<sup>45</sup> and

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<sup>44</sup> For example, in D.03-05-078, Suburban Water Systems was authorized a 9.84% ROE for 2003 - 2005; in D.03-02-030 California-American Water Company was authorized a 10.25% ROE for 2003 - 2005; and in D.03-09-021 California Water Service Company, based on a joint recommendation, was authorized a 9.70% ROE for 2002-2005.

<sup>45</sup> See Exhibit 54, which quotes the Commission's Water Division document, "Water Regulatory Policy," prepared in August 1997, where it is noted that sales forecasting is an important part of GRC proceedings and that, "[i]n 1992, the Modified Bean method was replaced with an Econometric Model which expanded the statistical data information and calculations to include additional variables."

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**ARIZONA-AMERICAN WATER COMPANY**

**Requested and Approved Returns on Equity  
In Recent Rate Cases of Affiliates**

<u>Name of Affiliate</u>	<u>Effective Date of Order</u>	<u>Requested ROE</u>	<u>Approved ROE</u>
Hawaii-American Water Company	Apr. 22, 2004	10.90%	10.60%
Pennsylvania-American Water	Jan. 16, 2004	12.00%	10.60%
Indiana-American Water Company	Nov. 6, 2002	11.50%	10.50%
Iowa-American Water Company	Feb. 21, 2002	11.33%	10.45%
Ohio-American Water Company	Feb. 7, 2002	11.75%	10.30%
Illinois-American Water Company	Aug. 12, 2003	11.02%	10.27%
California-American (Monterey)	Feb. 23, 2003	10.68%	10.26%
New Mexico-American Water Company	Dec. 12, 2003	11.15%	10.08%
Missouri-American Water Company	April 16, 2004	11.00%	10.00%
Tennessee-American Water Company	Aug. 7, 2003	11.00%	9.90%
Virginia-American Water Company	Nov. 23, 2003	10.75%	9.80%
New Jersey-American Water Company	Feb. 18, 2004	11.25%	9.75%
E'Town Water Company (N.J.)	Feb. 18, 2004	11.25%	<u>9.75%</u>
<b>Average ROE Approved</b>			<b>10.17%</b>
Arizona-American Water Company	June 30, 2004	11.50%	9.00%
West Virginia-American Water Company (Review Granted by West Va. Sup. Ct.)	Jan. 2, 2004	11.00%	7.00%